

**Elektrotechnický ústav Slovenskej akadémie vied,  
verejná výskumná inštitúcia**

**Výročná správa o činnosti a hospodárení verejnej výskumnej  
inštitúcie za rok 2022**

Bratislava  
30 apríl 2023

## **Zmeny zakladacej listiny**

Elektrotechnický ústav Slovenskej akadémie vied vznikol v roku 1956 z elektrotechnického oddelenia laboratória pre výskum a konštrukciu meracích a fyzikálnych prístrojov. Uznesením Predsedníctva Slovenskej akadémie vied č. 510 zo dňa 25.2.1980 bol Elektrotechnický ústav Slovenskej akadémie vied s účinnosťou od 1.1.1981 združený do Centra elektro-fyzikálneho výskumu Slovenskej akadémie vied, z ktorého sa s účinnosťou od 1.1.1990 na základe uznesenia Predsedníctva Slovenskej akadémie vied č. 287 zo dňa 14.12.1989 osamostatnil. Uznesením Predsedníctva Slovenskej akadémie vied č. 172 zo dňa 17.12.1992 s účinnosťou od 1.1.1993 bola schválená zmena formy financovania Elektrotechnického ústavu Slovenskej akadémie vied z rozpočtovej na príspevkovú.

Na základe § 21a ods. 1 zákona o akadémii a zakladacej listiny verejnej výskumnej inštitúcie vydané Slovenskou akadémiou vied podľa § 21a ods. 2 písm. a) zákona o akadémii sa Elektrotechnický ústav Slovenskej akadémie vied dňom 1.7.2018 stal verejnou výskumnou inštitúciou. Dňa 10.9.2018 Ministerstvo školstva, vedy, výskumu a športu Slovenskej republiky vydalo rozhodnutie číslo 2018/11372:4-01CC, ktorým zastavilo konanie o zápis organizácií Slovenskej akadémie vied do registra verejných výskumných inštitúcií. Dňa 26.9.2018 nadobudol účinnosť zákon č. 270/2018 Z. z., ktorým sa menil a dopĺňal o. i. aj zákon o akadémii; podľa § 21b ods. 1 a 2 zákona o akadémii v znení zákona č. 270/2018 Z. z. sa organizácie Slovenskej akadémie vied odo dňa 26. 9.2018 opätovne stali rozpočtovými alebo príspevkovými organizáciami.

Dňa 5.10.2021 nadobudol účinnosť zákon č. 347/2021 Z. z., ktorým sa menil a dopĺňal zákon o akadémii a geologický zákon; podľa § 21aa ods. 1 zákona o akadémii v znení zákona č. 347/2021 Z. z. organizácie Slovenskej akadémie vied menia 1.1.2022 právnu formu na verejné výskumné inštitúcie. Na základe § 21aa ods. 1 zákona o akadémii a na základe zakladacej listiny číslo: 00384/2022 sa právna forma Elektrotechnického ústavu Slovenskej akadémie vied zmenila zo štátnej príspevkovej organizácie na verejnú výskumnú inštitúciu (ďalej len v.v.i.).

## **Zmeny vnútorných predpisov:**

V.v.i. vydala vnútorné predpisy pri vzniku, účinné od 1.1.2022. V priebehu roka sa nemenili.

Vnútorné predpisy inštitúcie sú nasledovné:

- a) Organizačný poriadok Elektrotechnického ústavu SAV, v.v.i.,
- b) Volebný poriadok na funkciu člena Správnej rady Elektrotechnického ústavu SAV, v.v.i.,
- c) Volebný poriadok na funkciu člena Vedeckej rady Elektrotechnického ústavu SAV, v.v.i.
- d) Pracovný poriadok pre zamestnancov Elektrotechnického ústavu SAV, v.v.i.,
- e) Zásady hodnotenia výskumných pracovníkov Elektrotechnického ústavu SAV, v.v.i.,
- f) Pravidlá tvorby rozpočtu Elektrotechnického ústavu SAV, v.v.i.

Všetky tieto dokumenty je možné nájsť na webovej stránke ústavu:

<http://www.elu.sav.sk/o-nas/zakladne-dokumenty/dokumenty-ustavu/>

b) informácia o zložení orgánov, o zmenách v ich zložení a o ich činnosti,

## **Orgánmi inštitúcie sú :**

### **1. Riaditeľ**

- RNDr. Vladimír Cambel, DrSc.

### **2. Správna rada (SR) má 5 členov**

- RNDr. Vladimír Cambel, DrSc., predseda
- Ing. Jozef Fabian, CSc.
- Ing. Milan Ťapajna, PhD.
- RNDr. Marianna Španková, PhD.
- Ing. Ján Fedor, PhD.

### 3. Vedecká rada (VR)

V roku 2022 pôsobila na ústave Vedecká rada, ktorá ukončila svoje volebné obdobie a to v októbri 2022. Mala 8 interných členov a 3 externých členov. Jej zloženie bolo nasledovné:

Predseda:

- RNDr. Dagmar Gregušová, DrSc.

Interní členovia

- RNDr. Marianna Španková, PhD. (do 3.2.2022)
- RNDr. Edmund Dobročka, CSc.
- Doc. Ing. Fedor Gömöry, DrSc.
- Mgr. Enric Pardo, PhD.
- Ing. Pavol Kováč, DrSc.
- Ing. Gabriel Vanko, PhD.
- RNDr. Bohumír Zatlík, PhD.

Externí členovia

- Prof. Ing. Július Cirák, PhD
- Prof. RNDr. Miroslav Grajcar, DrSc.
- Doc. RNDr. Tomáš Pleceník, PhD.

Nová Vedecká rada pôsobí od októbra 2022 a má 7 interných a 4 externých členov, z toho je jeden z priemyslu. Zloženie je nasledovné:

Predseda:

- RNDr. Dagmar Gregušová, DrSc.

Interní členovia:

- Ing. Filip Gučmann, PhD.
- Ing. Boris Hudec, PhD.
- Doc. Ing. Fedor Gömöry, DrSc.
- Dr. rer. nat. Martin Hulman
- Mgr. Enric Pardo, PhD.
- Mgr. Michaela Sojková, PhD.

Externí členovia:

- Doc. Ing. Peter Bokes, PhD.
- Ing. Roman Lupták, PhD.
- Doc. Ing. Miroslav Mikolášek, PhD.
- Doc. RNDr. Tomáš Pleceník, PhD.

### 4. Dozorná rada (DR) má 3 členov

- Prof. RNDr. Peter Samuely, DrSc.
- Prof. Ing. Viera Stopjaková, PhD.
- Ing. Romana Jurkiewiczová

Zloženie jednotlivých orgánov a ich obsadenie je uvedené na webovej stránke ústavu <http://www.elu.sav.sk/o-nas/organizacna-struktura/>. Taktiež informácie o členoch orgánov uvádzame aj v Poznámkach k účtovnej závierke.

Činnosť SR a VR EIÚ SAV v.v.i. je zdokumentovaná v jednotlivých zápisniciach z ich zasadnutí.

#### **Činnosť Správnej rady EIÚ SAV, v.v.i.**

Správna rada EIÚ SAV, v.v.i. v roku 2022 zasadala 5 krát, zápisnice zo zasadnutí sú v Prílohe č. 1 (zápisnice SR)

#### **Činnosť Vedeckej rady EIÚ SAV, v.v.i.**

Vedecká rada EIÚ SAV, v.v.i v roku 2022 zasadala 10 krát, zápisnice zo zasadnutí prikladáme v Prílohe č. 2 (zápisnice VR).

c) prehľad výsledkov dosiahnutých v predchádzajúcom kalendárnom roku,

Opis činnosti, na účel ktorej bola inštitúcia zriadená:

Prevažujúcou hlavnou činnosťou inštitúcie je uskutočňovanie výskumu v odboroch vedy a techniky (ďalej tiež ,odborné): Fyzika kondenzovaných látok a akustika (010304), Teoretická elektrotechnika (020201), Elektrické stroje a prístroje (020204), Elektrotechnológie a materiály (020205), Elektroenergetika (020210), Mikroelektronika (020211), Optoelektronika (020212), Senzorika (020216), Fyzikálne inžinierstvo (020404), Nanomateriály (021 1 01) a Nanoelektronika (021 1 03).

Ďalšími hlavnými činnosťami inštitúcie sú:

- a) zabezpečovanie a správa infraštruktúry výskumu a vývoja,
- b) získavanie, spracúvanie a šírenie informácií z oblasti vedy a techniky a poznatkov z vlastného výskumu a vývoja organizácie,
- c) podieľanie sa v spolupráci s vysokou školou na uskutočňovaní študijných programov tretieho stupňa vysokoškolského štúdia,
- d) spolupráca v oblasti vedy a techniky s vysokými školami, ostatnými právnickými osobami uskutočňujúcimi výskum a vývoj.

### **Odborné výsledky činnosti Elektrotechnického ústavu SAV, v.v.i.**

Dosiahnuté výsledky sú spracované v Správe o činnosti za rok 2022 v Prílohe č. 3

d) hodnotenie výsledkov výskumnej činnosti verejnej výskumnej inštitúcie a jej spôsobilosti vykonávať výskumnú činnosť vedeckou radou, ak je zriadená,

Hodnotenie výsledkov dosiahnutých EIÚ SAV v.v.i.: medzinárodný poradný výbor (IAB), medzinárodný panel (IP), výsledky hodnotení

Všetky ústavy SAV (vrátane EIÚ) sa od začiatku roku 2022 stali verejnými výskumnými inštitúciami (VVI). To znamená, že ústavy majú odteraz vlastný hmotný a nehmotný majetok (budova, prístroje, technológie, práva duševného vlastníctva atď.) a môžu s ním nakladať podľa vlastného uváženia v zákonom rámci (predať, kúpiť, požičať atď.). Inštitúciám sa tak otvárajú nové možnosti najmä v oblasti práv duševného vlastníctva. EIÚ SAV v.v.i. už využil túto príležitosť a koncom roka 2022 predal svoj patentový podiel dánskej spoločnosti Atlant 3D. Rok 2022 bol pre všetky ústavy SAV dôležitý z dôvodu medzinárodného hodnotenia ich vedeckého výkonu v období 2016 – 2021. Iný proces hodnotenia aplikovalo na všetky vedecké inštitúcie na Slovensku ministerstvo školstva (hodnotenie VER, obdoba hodnotenia REF UK). V oboch hodnoteniach patrí ústav k najlepším inštitúciám v SAV a na Slovensku. Panel zistil, že náš IAB zohral dôležitú pozitívnu úlohu pri zlepšovaní kvality inštitútu, ako sa uvádza v hodnotiacej správe.

Veríme, že takéto vynikajúce výsledky sme dosiahli vďaka našim vedeckým tímom a manažérskym krokom, ktoré zaviedli vedenie a vedecká rada ústavu. Zhrňme si ich.

Kroky manažmentu zavedené v hodnotenom období odzrkadľujú odporúčania IAB. Sú v súlade so Strategickým plánom ústavu. Uskutočnené kroky manažmentu zohľadnili lokálne podmienky ústavu (výmena generácií, investície do novej a starej infraštruktúry, špeciálne pravidlá v čase pandémie Covid, rodové otázky atď.) a globálne výzvy (zmeny klímy, umelá inteligencia a kvantové technológie, čipová kríza a zavádzanie automatizácie Industry 4.0, rozvoj elektromobility, šetrenie energií a pod.). Riadiace kroky tímu riaditeľa a riešené výskumné témy (periodicky vyhodnocované vedeckou radou) v ústave reflektovali tieto výzvy. Témy sú vysoko aktuálne: Supravodivosť možno využiť na efektívnu výrobu, prenos a transformáciu energie, ale aj vo veterných turbínach a leteckých motoroch. Výkonové súčiastky na báze GaN sľubujú úsporu energie v systémoch konverzie energie (AC/DC, DC/DC) a vysokofrekvenčných komunikačných komponentoch. Detektory žiarenia GaAs sú perspektívne v medicíne, 2D materiály predstavujú nádejného nástupcu kremíka a mikromagnetizmus a spintronika sľubujú výrazné zníženie energetickej náročnosti pamäťových médií. Kvantová technológia je perspektívna pre šifrovanie komunikácie v EÚ a na Slovensku.



V hodnotenom období sme zlepšili nielen vedecké výsledky (najmä kvalitu publikovaných prác), ale naštartovali aj nové témy – kvantové technológie, memristory pre neuromorfne výpočty, rast a charakterizáciu polovodičových filmov Ga<sub>2</sub>O<sub>3</sub>. Začali sme spoluprácu so slovenskými a európskymi spoločnosťami, ktoré sľubujú efektívnu aplikáciu našich výstupov výskumu (GaAs detektory, SiC detektory, memristory, ALD 3D plotre). Prijali sme viac ako desať postdoktorandských zamestnancov a zvýšili počet doktorandov na 20. EIÚ SAV v.v.i. poskytuje vzdelávanie v oblasti tenkovrstvových technológií, nanotechnológií a kvantových technológií a dokáže vychovať odborníkov pre nastávajúcu éru. Zlepšili sme mäkké zručnosti doktorandov a vyškolili sme ich v oblasti štruktúrnej analýzy a elektrickej charakterizácie, technológií tenkých vrstiev a akademického písania. V hodnotiacom období sme pristúpili k zásadným zmenám v personálnej štruktúre, pretože mnohí vedci odišli do dôchodku. Skvelou správou je, že sa nám darí prilákať kvalitných mladých vedcov – mnohí sa na Slovensko vrátili po dlhodobých pobytoch mimo Slovenska. Veľmi oceňujeme, že si za svojho budúceho zamestnávateľa vybrali EIÚ SAV, v.v.i. V ústave tým pádom totiž začala hrať dominantnú úlohu nová generácia – úspešne sa uchádzala o národné a medzinárodné projekty, takže väčšinu projektov ústavu v súčasnosti vedú mladí výskumníci. Preto sa o našu vedeckú budúcnosť nebojíme. Prijatím týchto krokov sa ústav stal vedúcim inštitútom v I. oddelení SAV. Nižšie uvedená tabuľka ukazuje niekoľko parametrov zlepšených oproti predchádzajúcemu hodnotenému obdobiu. Rok 2022 bol aj pre nás mimoriadne úspešný, keďže sme sa úspešne uchádzali o päť nových projektov EÚ. V pokusoch o ERC granty sme v jednom pokuse boli hodnotení ako B.

| <b>Obdobie</b>                                                  | <b>2012-15</b> | <b>2016-21</b> |
|-----------------------------------------------------------------|----------------|----------------|
| Projekty EÚ – medzinárodná pozícia                              | 5              | 7              |
| Nové projekty APVV                                              | 34             | 43             |
| Doktorandi a postdoktorandi<br>(abs. počet / počet na hlavu VP) | 20 / 0,5       | 30 / 1         |
| Reintegrovaní vedci                                             | 2              | 7              |
| Počet PCT/EU patentových prihlášok                              | 0              | 4              |
| Počet SK patentových prihlášok                                  | 4              | 9              |
| Priemerný IF publikovaných prác                                 | 2              | 4              |
| Citácie / FTE                                                   | 13             | 22             |
| Projektové pokusy ERC                                           | 0              | 1(C)           |

EIÚ SAV, v.v.i. v sledovanom období zlepšila aj spoluprácu s univerzitami, ústavmi SAV, priemyslom a vládou SR. Je dôležité pochopiť dôvody úspechu, ktoré považujeme za založené na nasledujúcich pilieroch:

1. Výskum je orientovaný na aktuálne úlohy/výzvy
2. Dobré interné pravidlá, ktoré sú otvorené, transparentné a nediskriminačné:
  - a. Akademická sloboda a zodpovednosť lídrov
  - b. Podpora aktívnych, úspešných a mladých vedcov
3. Proaktívna aktivita v úlohách dôležitých pre EIÚ SAV, v.v.i.
  - a. Rozvoj infraštruktúry
  - b. Aplikácia projektov všeobecného záujmu
  - c. Manažment výmeny generácií
4. Seriózna implementácia odporúčaní IP a IAB
  - a. Zlepšiť kvalitu článkov
  - b. Zaviesť mäkké zručnosti do prípravy doktorandov
  - c. Rozšíriť spoluprácu s inými inštitútmi, univerzitami, priemyslom, vládou. Zamerať sa na medzinárodnú viditeľnosť
  - e. Zlepšiť počet a kvalitu patentov
  - f. Dbáť na rozmanitosť zamestnancov.

V budúcnosti sa ústav bude riadiť odporúčaniami IP. Jeho návrhy súhlasia s našimi cieľmi zo Strategického plánu.

e) ročná účtovná závierka s uvedením informácie, či bola alebo nebola schválená dozornou radou,

Ročná účtovná závierka je uložená v Registri účtovných závierok.

Dozorná rada dňa 3.5.2023 v Bratislave schválila jednomyseľne ročnú účtovnú závierku za rok 2022

f) výrok štatutárneho audítora k ročnej účtovnej závierke, ak sa k ročnej účtovnej závierke za príslušný rok vyhotovuje správa audítora,  
Na základe zákona 346/21, § 26 ods. 6 Verejná výskumná inštitúcia je povinná zabezpečiť najmenej raz za štyri roky overenie ročnej účtovnej závierky štatutárnym audítorom. Ročná účtovná závierka za rok 2022 nebola overená štatutárnym audítorom.

g) Prehľad príjmov a výdavkov z hlavnej činnosti

| Zdroj                                                                | Program     | Príjmy              | Výdavky             |
|----------------------------------------------------------------------|-------------|---------------------|---------------------|
| 111 Rozpočtové prostriedky kapitoly                                  | NEALOKOVANÉ | 2 472 844,17        | 2 458 430,81        |
| 131L Rozpočtové prostriedky kapitoly z predchádzajúcich rokov        | NEALOKOVANÉ |                     | 365,89              |
| 111 Rozpočtové prostriedky kapitoly - APVV                           | 06K0G       | 720 091,00          | 707 563,55          |
| 131L Rozpočtové prostriedky kapitoly - APVV z predchádzajúcich rokov | 06K0G       |                     | 2 009,11            |
| 111 Rozpočtové prostriedky kapitoly - od iných subjektov Ver. Správy | 087010H     | 102 872,00          | 101 872,00          |
| 131L Rozpočtové prostriedky kap. - od iných subj. VS z predch. rokov | 087010H     |                     | 16 338,85           |
| 1AA1 Európsky fond regionálneho rozvoja                              | NEALOKOVANÉ | 562 665,07          | 462 832,07          |
| 1AA2 Spoluфинancovanie EFRR                                          | NEALOKOVANÉ | 19 209,01           | 7 464,30            |
| 3AA1 Európsky fond regionálneho rozvoja z predchádzajúcich rokov     | NEALOKOVANÉ | 28 854,70           | 25 032,64           |
| 3AA2 Spoluфинancovanie EFRR z predchádzajúcich rokov                 | NEALOKOVANÉ | 25 969,23           | 22 528,98           |
| 1103 Výskum, vývoj a inovácie – zahraničné granty                    | NEALOKOVANÉ | 259 660,45          | 169 014,89          |
| 46 Iné zdroje vyššie neuvedené                                       | NEALOKOVANÉ | 121 781,64          | 155 116,12          |
| <b>SPOLU:</b>                                                        |             | <b>4 313 947,27</b> | <b>4 128 569,21</b> |

h) Pohyby a konečný stav majetku.

| Majetok:                  | Prírastky           | Úbytky              | Konečný stav NETTO  |
|---------------------------|---------------------|---------------------|---------------------|
| <b>Neobežný majetok:</b>  | <b>5 641 154,32</b> | <b>5 585 478,55</b> | <b>1 652 076,93</b> |
| dlhodobý nehmotný majetok | 13 788,00           | 2 454,04            | 11 963,80           |
| dlhodobý hmotný majetok   | 5 627 366,32        | 5 583 024,51        | 1 640 113,13        |
| <b>Obežný majetok:</b>    | <b>8 943 023,53</b> | <b>6 854 522,89</b> | <b>2 542 971,86</b> |
| Zásoby                    | 137,23              | 380,99              | 23 069,63           |
| krátkodobé pohľadávky     | 3 805 421,43        | 1 917 681,57        | 1 970 679, 71       |
| finančné účty             | 5 137 464,87        | 4 936 460,33        | 549 222 52          |
| <b>Časové rozlíšenie:</b> | <b>1 311,02</b>     |                     | <b>1 311,02</b>     |
| príjmy budúcich období    | 1 311,02            |                     | 1 311,02            |
| <b>MAJETOK SPOLU:</b>     |                     |                     | <b>4 196 359,81</b> |

i) informáciu o opatreniach prijatých na odstránenie nedostatkov v hospodárení a správu o plnení opatrení prijatých na odstránenie nedostatkov,

Ročná účtovná závierka za rok 2022 nebola overená štatutárnym audítorom.

j) ďalšie údaje podľa § 2 ods. 3 písm. a), osobitných predpisov alebo rozhodnutia zakladateľa.

Na základe rozhodnutia zriaďovateľa je súčasťou Výročnej správy aj Správa o činnosti organizácie SAV za rok 2022, ktorú každoročne zverejňuje EIÚ SAV na svojej www stránke. Príloha č. 3

#### Prílohy:

1. Zápisnice SR
2. Zápisnice VR
3. Správa o činnosti organizácie SAV za rok 2022

# Zápis zo zasadnutia Správnej rady EIÚ SAV, v.v.i. (SR 1/2022)

zo dňa 7.2. 2022

Dňa 7.2. 2022 sa uskutočnilo prvé zasadanie Správnej rady EIÚ SAV, v.v.i. Na začiatku riaditeľ ústavu zablahoželal všetkým novozvoleným členom SR k zvoleniu a odovzdal im *Doklady o zvolení za člena SR EIÚ SAV, v.v.i.* Následne SR prebrala najbližšie povinnosti, ktoré je potrebné splniť do konca marca.

- a) **Schváliť rozpočet EIÚ SAV, v.v.i.** na r. 2022. Schválenie bude nasledovať až po predložení návrhu rozpočtu zo strany P SAV, čo očakávame koncom marca.
- b) **Pripraviť a vydať vnútorné predpisy** EIÚ SAV, v.v.i. Medzi hlavné schvaľované predpisy patria Organizačný poriadok, Pracovný poriadok, Volebný poriadok do Vedeckej rady a Volebný poriadok do Správnej rady EIÚ SAV, v.v.i. Pri vydávaní týchto predpisov podľa Zákona o v. v. i. je potrebné dodržať nasledovný postup:
  - Riaditeľ predpisy pripraví návrhy vnútorných predpisov pre Správnu radu
  - Správna rada ich predloží Vedeckej rade a Dozornej rade na vyjadrenie
  - Vedecká rada a Dozorná rada sa k nim do 30 dní od doručenia písomne vyjadria
  - Správna rada ich následne schváli
  - Riaditeľ potom predpisy vydá a bezodkladne (teda v lehote pár dní) po vydaní ich doručí zakladateľovi.
  - EIÚ SAV, v.v.i. doručí svoje vnútorné predpisy bezodkladne po ich vydaní zakladateľovi, ktorý posúdi ich súlad s predpismi zakladateľa a . Zakladateľ sa môže sa vyjadriť aj k súladu vnútorného predpisu verejnej výskumnej inštitúcie so týmto zákonom o v.v.i.. Ak zakladateľ zistí vo vnútornom predpise verejnej výskumnej inštitúcie nesúlad, vráti ho verejnej výskumnej inštitúcii na dopracovanie.
- c) V zmysle uvedeného riaditeľ pripraví predpisy do 21.2. 2022 a predloží ich na zasadanie Správnej rady EIÚ SAV, v.v.i.

V Bratislave 8.2.2022

Zapísal: Ing. M. Ťapajna, PhD

---

RNDr. V. Cambel, DrSc.  
Predseda SR EIÚ SAV, v.v.i.

# Zápis zo zasadnutia Správnej rady EIÚ SAV, v. v. i. (SR 2/2022)

zo dňa 21.2. 2022.

**Prítomní:** V. Cambel, J. Fabian, J. Fedor, M. Španková, M. Ľapajna

## **Program:**

1. Voľba podpredsedu Správnej rady EIÚ SAV, v. v. i.,
2. Diskusia o predložených návrhoch vnútorných predpisov EIÚ SAV, v. v. i.

K bodu 1: Správna rada EIÚ SAV, v. v. i. volila svojho podpredsedu. Tajným hlasovaním bol zvolený M. Ľapajna.

K bodu 2: Riaditeľ EIÚ SAV, v. v. i. predložil Správnej rade vypracované návrhy vnútorných predpisov. SR vypracované návrhy prediskutovala a po miernych úpravách sa dohodla na ich konečnom znení, ktoré predloží na vyjadrenie sa Vedeckej rade EIÚ SAV, v. v. i. a Dozornej rade EIÚ SAV, v. v. i.

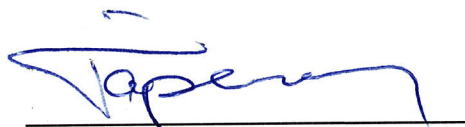
Medzi uvedené predpisy patria Organizačný poriadok, Pracovný poriadok, Volebný poriadok Vedeckej rady a Volebný poriadok Správnej rady EIÚ SAV, v. v. i., ako aj ďalšie predpisy, menovite Zásady hodnotenia pracovníkov a Pravidlá tvorby rozpočtu EIÚ SAV, v. v. i.

Správna rada konečné znenie odsúhlasila a **uložila riaditeľovi predložiť ich na vyjadrenie sa Vedeckej rade EIÚ SAV, v. v. i. a Dozornej rade EIÚ SAV, v. v. i. do troch pracovných dní odo dňa rokovania.**

V Bratislave 22.2.2022



Zapísal: RNDr. V. Cambel, DrSc.



Overil: Ing. M. Ľapajna, PhD.

## **Zápis zo zasadnutia Správnej rady EIÚ SAV, v.v.i. (SR 3/2022)**

zo dňa 21.3. 2022.

**Prítomní:** V. Cambel, J. Fabian, J. Fedor, M. Španková  
**Ospravedlnený:** M. Ťapajna

### **Program:**

1. Schvaľovanie rozpočtu EIÚ SAV, v.v.i. na rok 2022.
2. Schvaľovanie vnútorných predpisov EIÚ SAV, v.v.i.

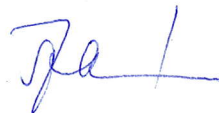
K bodu 1: Správna rada EIÚ SAV, v.v.i. schválila rozpočet na r. 2022.

K bodu 2: Správna rada EIÚ SAV, v.v.i. schválila so zapracovanými pripomienkami Vedeckej rady a Dozornej rady EIÚ SAV, v.v.i. vnútorné predpisy ústavu – Organizačný poriadok, Pracovný poriadok, Volebný poriadok Správnej rady a Volebný poriadok Vedeckej rady EIÚ SAV, v.v.i. ako aj ďalšie predpisy, menovite, Zásady hodnotenia pracovníkov a Pravidlá tvorby rozpočtu EIÚ SAV, v.v.i.

V Bratislave 22.3.2022



Zapísal: RNDr. V. Cambel, DrSc.



Overil: RNDr. M. Španková, PhD.

# Zápis zo zasadnutia Správnej rady EIÚ SAV, v.v.i. (SR 4/2022)

zo dňa 29.6. 2022.

**Prítomní:** V. Cambel, J. Fabian, J. Fedor, M. Španková, M. Ľapajna

## **Program:**

1. Prejednanie možnosti predaja podielu na patente (96202 ATOMIC LAYER NANOPRINT – ZACCO REF.: P81802482EP00) firme ATLANT 3D Nanosystems ApS.

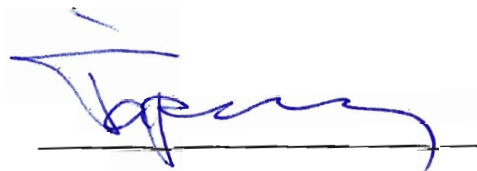
Dňa 29.6. 2022 sa uskutočnilo zasadanie Správnej rady (SR) EIÚ SAV, v.v.i. V zmysle programu SR prejednála možnosti predaja podielu na patente (96202 ATOMIC LAYER NANOPRINT – ZACCO REF.: P81802482EP00) firme ATLANT 3D Nanosystems ApS.

Správna rada sa uzniesla, že súhlasí s predajom svojho podielu na uvedenom patente a uskutoční všetky potrebné kroky k realizácii tohto predaja.

V Bratislave 29.6.2022



Zapísal: RNDr. V. Cambel, DrSc.



Overil: Ing. M. Ľapajna, PhD.



# Zápis zo zasadnutia Správnej rady EIÚ SAV, v. v. i. (SR 5/2022)

zo dňa 12.9. 2022.

**Prítomní:** V. Cambel, J. Fabian, J. Fedor, M. Španková, M. Ľapajna

## **Program:**

1. Príprava volieb do Vedeckej rady EIÚ SAV, v.v.i.
2. Rôzne

### **K bodu 1:**

Správna rada EIÚ SAV, v. v. i. sa uzniesla, že voľby do Vedeckej rady Elektrotechnického ústavu SAV, v.v.i. budú dňa 17.10. 2022. Organizáciou volieb poveruje Správna rada M. Špankovú.

Voľbou sa bude obsadzovať 11 miest. Z toho 3 miesta budú obsadené externistami/externistkami, ktorí/é nie sú zamestnancom / zamestnankyňou v žiadnej v.v.i., 1 miesto bude obsadené externistom/externistkou, ktorý/á nie je zamestnancom / zamestnankyňou žiadnej v.v.i. ani žiadnej vysokej školy.

Kandidát/ka na člena/ku Vedeckej rady musí spĺňať podmienky v zmysle Volebného poriadku Elektrotechnického ústavu SAV, v.v.i., článok I ods. 1.

Kandidát na člena/členku Vedeckej rady je povinný v lehote do 12.10. 2022 predložiť na sekretariát riaditeľa Elektrotechnického ústavu SAV, v.v.i., kancelária č. 110, nasledovné doklady:

- a) profesijný životopis so scientometrickými parametrami,
- b) výpis z registra trestov nie starší ako 3 mesiace.

Voľba do Vedeckej rady sa uskutoční prezenčne 17.10. 2022, v čase 10.00 v zasadačke ústavu (miestnosť č. 101), a to podľa ustanovení Volebného poriadku Vedeckej rady, zverejneného na internetovej stránke Elektrotechnického ústavu SAV, v.v.i. ([http://www.elu.sav.sk/wp-content/uploads/2022/04/VR\\_volpor.pdf](http://www.elu.sav.sk/wp-content/uploads/2022/04/VR_volpor.pdf)).

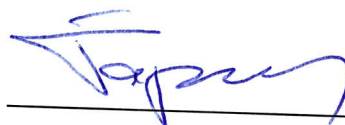
### **K bodu 2:**

- a) SR schvaľuje úpravu rozpočtu č. 22 (Príloha 1), týkajúcu sa nasadenia rozpočtu APVV v celkovej výške 577 546 €.
- b) SR schvaľuje úpravu rozpočtu č. 23 (Príloha 2), týkajúcu sa podpoložky 632001 – Energie na základe požiadavky ETO Ú SAV pre rok 2022 v celkovej výške 66000 € na všetkých zdrojoch.

V Bratislave 12.9.2022



Zapísal: RNDr. V. Cambel, DrSc.



Overil: Ing. M. Ľapajna, PhD

Evidenčný list úprav rozpočtu

Organizácia: 00598429 Elektrotechnický ústav SAV, v. v. i.  
Etapa: MUR 2022

|                |                          |             |
|----------------|--------------------------|-------------|
| Číslo ELÚRu    | UR0069117/2022           | Vývorený    |
| Názov          | Nasadenie rozpočtu APV V | Platnosť    |
| Číslo RO       |                          | Účinnosť od |
| Slav           | Aktivovaný               | Účinnosť do |
| Spisová značka |                          | Typ ELÚRu   |

|           |          |
|-----------|----------|
| 12.9.2022 | P.Č.     |
| 12.9.2022 | Dévod    |
| 12.9.2022 | Vlastník |
| 30.9.2022 | Účel     |

|                                                 |
|-------------------------------------------------|
| 22                                              |
| 00598429 – Elektrotechnický ústav SAV, v. v. i. |

| Úpravy výdavkov |     |             |       |       |       |        |     |     |           |           |             |             |            |            |
|-----------------|-----|-------------|-------|-------|-------|--------|-----|-----|-----------|-----------|-------------|-------------|------------|------------|
| Druh            | Org | Organizácia | Zdroj | Prog  | Fin   | Eko    | Inv | Uct | Schválený | Rozpísaný | Zostatok    | Úprava      | Po úprave  |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 611    |     |     | 0,00      | 0,00      | -59 563,40  | 89 345,10   | 89 345,10  |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 612001 |     |     | 0,00      | 0,00      | -65 044,50  | 97 566,75   | 97 566,75  |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 614    |     |     | 0,00      | 0,00      | -4 300,00   | 6 450,00    | 6 450,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 621    |     |     | 0,00      | 0,00      | -12 890,79  | 19 336,24   | 19 336,24  |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 625001 |     |     | 0,00      | 0,00      | -1 804,70   | 2 707,05    | 2 707,05   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 625002 |     |     | 0,00      | 0,00      | -18 047,11  | 27 070,67   | 27 070,67  |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 625003 |     |     | 0,00      | 0,00      | -1 031,29   | 1 546,94    | 1 546,94   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 625004 |     |     | 0,00      | 0,00      | -3 867,25   | 5 800,87    | 5 800,87   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 625005 |     |     | 0,00      | 0,00      | -1 289,10   | 1 933,65    | 1 933,65   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 625006 |     |     | 0,00      | 0,00      | -322,30     | 483,45      | 483,45     |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 625007 |     |     | 0,00      | 0,00      | -6 123,11   | 9 184,66    | 9 184,66   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 631001 |     |     | 0,00      | 0,00      | -6 818,82   | 7 800,00    | 7 800,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 631002 |     |     | 0,00      | 0,00      | -17 812,34  | 18 200,00   | 18 200,00  |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 632001 |     |     | 0,00      | 0,00      | -9 065,51   | 10 500,00   | 10 500,00  |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 632002 |     |     | 0,00      | 0,00      | -472,88     | 600,00      | 600,00     |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 632003 |     |     | 0,00      | 0,00      | -1 046,11   | 1 250,00    | 1 250,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 633002 |     |     | 0,00      | 0,00      | -5 995,46   | 7 500,00    | 7 500,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 633004 |     |     | 0,00      | 0,00      | -3 789,66   | 4 500,00    | 4 500,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 633006 |     |     | 0,00      | 0,00      | -42 089,20  | 96 173,62   | 96 173,62  |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 633010 |     |     | 0,00      | 0,00      | -590,84     | 850,00      | 850,00     |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 633011 |     |     | 0,00      | 0,00      | -47,81      | 100,00      | 100,00     |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 633013 |     |     | 0,00      | 0,00      | -966,25     | 1 500,00    | 1 500,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 634004 |     |     | 0,00      | 0,00      | -68,88      | 250,00      | 250,00     |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 635004 |     |     | 0,00      | 0,00      | -1 471,08   | 2 000,00    | 2 000,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 635005 |     |     | 0,00      | 0,00      | -1 664,40   | 2 000,00    | 2 000,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 635006 |     |     | 0,00      | 0,00      | -845,82     | 1 500,00    | 1 500,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 636002 |     |     | 0,00      | 0,00      | -684,34     | 1 000,00    | 1 000,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 637004 |     |     | 0,00      | 0,00      | -10 616,35  | 15 000,00   | 15 000,00  |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 637005 |     |     | 0,00      | 0,00      | -1 102,28   | 1 500,00    | 1 500,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 637006 |     |     | 0,00      | 0,00      | -262,21     | 500,00      | 500,00     |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 637012 |     |     | 0,00      | 0,00      | -67,50      | 100,00      | 100,00     |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 637027 |     |     | 0,00      | 0,00      | -3 090,00   | 4 500,00    | 4 500,00   |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 641008 |     |     | 0,00      | 0,00      | -113 797,00 | 113 797,00  | 113 797,00 |            |
| 13              | 130 | 00598429    | 111   | 06KOG | 01401 | 641020 |     |     | 0,00      | 0,00      | -20 748,00  | 25 000,00   | 25 000,00  |            |
|                 |     |             |       |       |       |        |     |     |           | 0,00      | 0,00        | -417 396,29 | 677 646,00 | 677 646,00 |

| Druh                                                                                      | Org | Organizácia | Zdroj | Eko    | Uct | Schválený | Rozpísaný    | Zostatok     | Úprava     | Po úprave    |
|-------------------------------------------------------------------------------------------|-----|-------------|-------|--------|-----|-----------|--------------|--------------|------------|--------------|
| 13                                                                                        | 130 | 00598429    | 111   | 312001 |     | 0,00      | 2 264 499,75 | 2 264 499,75 | 677 646,00 | 2 942 045,75 |
| Tlačová zostava ( RO1.006 ) vytvorená 12.09.2022, 10:58:54, používateľom [ Jozef Fabian ] |     |             |       |        |     | 0,00      | 2 264 499,75 | 2 264 499,75 | 677 646,00 | 2 942 045,75 |

PRÍLOHA 1



Evidenčný list úprav rozpočtu

Organizácia: 00598429 Elektrotechnický ústav SAV, v. v. i.  
Etapa: MUR 2022

|                |                       |             |
|----------------|-----------------------|-------------|
| Číslo ELÚRu    | UR/0069130/2022       | Vytvorený   |
| Názov          | Úprava položky 632001 | Platnosť    |
| Číslo RO       |                       | Účinnosť od |
| Stav           | Aktivovaný            | Účinnosť do |
| Spisová značka |                       | Typ ELÚRu   |

|           |          |
|-----------|----------|
| 12.9.2022 | P.Č.     |
| 12.9.2022 | Dôvod    |
| 12.9.2022 | Vlastník |
| 30.9.2022 | Účel     |

|                                                 |
|-------------------------------------------------|
| 23                                              |
| požiadavka ETO U SAV mail z 9.9.2022            |
| 00598429 – Elektrotechnický ústav SAV, v. v. i. |

| Úpravy výdavkov                                                                           |     |             |       |        |       |        |     |     |           |            |            |            |            |
|-------------------------------------------------------------------------------------------|-----|-------------|-------|--------|-------|--------|-----|-----|-----------|------------|------------|------------|------------|
| Druh                                                                                      | Org | Organizácia | Zdroj | Prog   | Fnc   | Eko    | Inv | Uct | Schválený | Rozpísaný  | Zostatok   | Úprava     | Po úprave  |
| 13                                                                                        | 130 | 00598429    | 111   | NEALOK | 01401 | 632001 |     |     | 0,00      | 16 000,00  | -11 800,40 | 49 000,00  | 65 000,00  |
| 13                                                                                        | 130 | 00598429    | 111   | NEALOK | 01401 | 633002 |     |     | 0,00      | 28 000,00  | 19 223,37  | -18 000,00 | 10 000,00  |
| 13                                                                                        | 130 | 00598429    | 111   | NEALOK | 01401 | 633004 |     |     | 0,00      | 30 730,00  | 27 988,10  | -27 800,40 | 2 929,60   |
| 13                                                                                        | 130 | 00598429    | 111   | NEALOK | 01401 | 633006 |     |     | 0,00      | 66 674,00  | 39 137,00  | -3 199,60  | 63 474,40  |
| 13                                                                                        | 130 | 00598429    | 46    | NEALOK | 01401 | 632001 |     |     | 0,00      | 860,00     | 232,57     | 7 000,00   | 7 860,00   |
| 13                                                                                        | 130 | 00598429    | 46    | NEALOK | 01401 | 633009 |     |     | 0,00      | 1 090,00   | 1 090,00   | -1 010,00  | 80,00      |
| 13                                                                                        | 130 | 00598429    | 46    | NEALOK | 01401 | 637010 |     |     | 0,00      | 1 000,00   | 1 000,00   | -1 000,00  | 0,00       |
| 13                                                                                        | 130 | 00598429    | 46    | NEALOK | 01401 | 637014 |     |     | 0,00      | 3 210,00   | 3 210,00   | -3 200,00  | 10,00      |
| 13                                                                                        | 130 | 00598429    | 46    | NEALOK | 01401 | 637027 |     |     | 0,00      | 1 790,00   | 1 790,00   | -1 790,00  | 0,00       |
| Tlačová zostáva ( R01,006 ) vytvorená 12.09.2022, 11:12:09, používateľom [ Jozef Fabian ] |     |             |       |        |       |        |     |     | 0,00      | 149 354,00 | 81 870,64  | 0,00       | 149 354,00 |

PRÍLOHA 2

## ZÁPISNICA

zo zasadnutia Vedeckej rady EIÚ SAV konaného dňa 20. januára 2022

**Prítomní:** D. Gregušová, E. Dobročka, F. Gömöry, P. Kováč, E. Pardo, M. Španková, B. Zaťko, M. Grajcar, T. Plecenik, J. Cirák.

**Ospravedlnení:** G. Vanko

**Prizvaní:** V. Cambel, riaditeľ EIÚ SAV, M. Ťapajna, zástupca riaditeľa.

**Program:**

1. Výber najlepších výsledkov ústavu za rok 2021 pre výročnú správu
2. Prerokovanie výročnej správy ústavu za rok 2021
3. Informácia o transformácii ústavu na verejnú výskumnú inštitúciu
4. Organizácia voľby Správnej rady Elektrotechnického ústavu SAV, v.v.i.
5. Informácia o aktuálnych výzvach na podávanie projektov a o podaných projektoch
6. Rôzne

1. Zasadnutie otvorila Dr. Gregušová, predsedníčka vedeckej rady EIÚ SAV. K navrhnutému programu neboli pripomienky, prišlo k prerokovaniu prvého bodu – výber najlepších výsledkov ústavu v kategóriách: základný výskum, výskum aplikačného typu a výskum v rámci medzinárodnej spolupráce. Pri prvej kategórii sa rozprúdila diskusia okolo návrhu Oddelenia fyziky a technológie nanoštruktúr. Viacerí členovia VR mali pripomienky k priloženej publikácii, podľa ktorých poradie autorov a participujúcich pracovísk nevyjadruje dostatočne presvedčivo vklad EIÚ SAV do prezentovaného výsledku. Keďže práca sa objaví v tlači až v r. 2022 (avizovaná bola na rok 2021), VR sa rozhodla odporučiť autorom presunúť tento hodnotný výsledok do roku 2022. V kategórii „výskum aplikačného typu“ bol prihlásený len jeden výsledok, VR ho bez pripomienok schválila. V tretej kategórii sa dospelo k zhode bez väčších názorových rozdielov. Po ukončení diskusie boli pre rok 2021 vybrané výsledky:

- a) základný výskum – **Výroba a príprava veľmi tenkých PtSe<sub>2</sub> vrstiev**, OMS.
- b) aplikovaný výskum – **HTS Energy Application Study**, OS.
- c) Aktivity v rámci medzinárodnej spolupráce – **Magnetické skyrmióny v nanodiskoch**, OFTN.

2. Členovia VR vyjadrili súhlas s predloženou verziou Výročnej správy. Nemali k nej zásadné pripomienky a dosiahla sa zhoda v tom, aby kritické pripomienky v kapitole „Podnety pre Ú SAV“ boli ponechané v texte správy.

3. Riaditeľ ústavu Dr. Cambel stručne informoval prítomných o transformácii EIÚ SAV na verejnú výskumnú inštitúciu a o niektorých zmenách, ktoré z tohto prechodu vyplývajú pre chod ústavu.

4. Predsedníčka VR Dr. Gregušová informovala prítomných o voľbách Správnej rady Elektrotechnického ústavu, ktoré sa uskutočnia 3. februára 2022. Dr. Grajcar upozornil na dôležitosť dostatočného zastúpenia EIÚ SAV v Správnej rade, aby sa zachoval vplyv na chod ústavu. Je preto dôležité, aby sa z radov pracovníkov ústavu uchádzal dostatočný počet kandidátov na členstvo v Správnej rade.

5. V rámci tohto bodu odzneli informácie o nových výzvach na podávanie projektov. O troch návrhoch projektov, na ktorých riešení by sa v budúcnosti mal podieľať EIÚ, podali informáciu Dr. Ťapajna, Dr. Cambel a Dr. Grajcar.

6. V bode rôzne sa otvorila otázka vekového obmedzenia pre školiteľov doktorandov. Podľa v súčasnosti platných interných pravidiel môžu vedeckí pracovníci viesť doktorandov len do 65 rokov veku. V diskusii odznali argumenty pre aj proti tomuto obmedzeniu. Keďže sa jedná o pomerne závažné kritérium pre vedeckých pracovníkov, členovia VR sa dohodli, že tento problém bude zaradený ako samostatný bod na prerokovanie na niektorom z ďalších zasadnutí VR.

Na záver predsedníčka VR Dr. Gregušová poďakovala prítomným za účasť a zasadnutie ukončila.

Zapísal:

E. Dobročka

D. Gregušová  
predsedníčka VR EIÚ SAV

## ZÁPISNICA

*Z per-rollam hlasovania Vedeckej rady EIÚ SAV, v.v.i konaného dňa 25. januára 2022 a 11. februára 2022*

*Schvaľovanie školiteľov pre študijné programy PhD štúdia pre ktoré je EIÚ SAV, v.v.i. externou vzdelávacou inštitúciou*

VR EIÚ SAV, v.v.i prekovala a schválila per-rollam žiadosť Ing. Borisa Hudeca, PhD o zaradenie do zoznamu školiteľov pre študijný odbor Elektrotechnika a Fyzika kondenzovaných látok a akustika dňa 25. januára 2022.

V dňoch 7. až 9. februára 2022 prebehlo tajné hlasovanie o umožnenie výnimky z akceptovanej vnútroústavnej zásady týkajúcej sa školiteľov PhD študentov pre doc. Ing. Vieru Skákalovú, DrSc, ktorá sa obrátila s touto žiadosťou na garanta EIÚ SAV, v.v.i . VR EIÚ SAV, v.v.i ako kolektívny orgán s udelením výnimky súhlasila a doc. Ing. Viera Skákalová, DrSc sa môže uchádzať o to, aby sa stala školiteľkou v študijnom odbore, v ktorom je náš ústav externou vzdelávacou inštitúciou.

VR EIÚ SAV, v.v.i. per- rollam posúdila dňa 11. februára 2022 odbornú spôsobilosť dvoch adeptov na školiteľstvo v študijných odboroch Elektrotechnika - Fyzikálne inžinierstvo a Elektronika a fotonika a Fyzika – Fyzika kondenzovaných látok a akustika a so súhlasným stanoviskom odporúča zaradiť doc. Ing. Vieru Skákalovú, DrSc. a Mgr. Juraja Feilhaiera, PhD. do zoznamu školiteľov pre tieto študijné programy.

Zapísala:

D Gregušová,

predsedníčka VR EIŠAV, v.v.i.

## ZÁPISNICA

zo zasadnutia Vedeckej rady EIÚ SAV, v. v. i. konaného dňa 9. marca 2022

**Prítomní:** D. Gregušová, E. Dobročka, F. Gömöry, P. Kováč, E. Pardo, B. Zaťko, M. Grajcar, T. Plecenik,.

**Ospravedlnení:** G. Vanko, J. Cirák

**Prizvaní:** V. Cambel, riaditeľ EIÚ SAV, v. v. i., M. Ťapajna, zástupca riaditeľa.

**Program:**

1. Diskusia a schválenie tém doktorandského štúdia
2. Prerokovanie materiálov v súvislosti s prechodom ústavu na v. v. i.
3. Prerokovanie návrhu na zvýšenie vedeckého kvalifikačného stupňa  
Dr. E. Parda
4. Rôzne

Zasadnutie otvorila Dr. Gregušová, predsedníčka Vedeckej rady EIÚ SAV, v. v. i. Na úvod vysvetlila neprítomnosť Dr. M. Špankovej na zasadnutí. Ako je známe, Dr. Španková bola tretieho februára 2022 zvolená za členku Správnej rady Elektrotechnického ústavu SAV, v. v. i., čím jej automaticky zaniklo členstvo vo Vedeckej rade ústavu. Vzhľadom na blížiacu sa voľbu do VR ústavu kooptácia nového člena VR na tak krátke obdobie nie je nevyhnutná, a preto VR EIÚ SAV v. v. i. bude do volieb pôsobiť s desiatimi členmi. Keďže k navrhnutému programu neboli pripomienky, prišlo sa k prerokovaniu prvého bodu.

1. Diskusia sa orientovala predovšetkým na mechanizmy, ktoré by zabránili vypísaniu nekvalitnej témy pre doktorandské štúdium, resp. aby nebola odobrená téma, ktorej navrhovateľ nevykazuje dostatočné vedecké výstupy. Diskusia sa uzavrela konštatovaním, že všetky témy pre doktorandské štúdium prechádzajú viacúrovňovým schvaľovacím procesom, a preto netreba prijímať dodatočné opatrenia, resp. obmedzenia pre zvýšenie kvality doktorandského štúdia.
2. Dr. Gregušová vysvetlila, že v súlade so zákonom o verejnej výskumnej inštitúcii sa vedecká rada vyjadruje k vnútorným predpisom ústavu. Predpisy, menovite Organizačný poriadok, Pracovný poriadok, Pravidlá tvorby rozpočtu, Volebný poriadok Správnej rady, Volebný poriadok Vedeckej rady a Zásady hodnotenia pracovníkov s prílohou boli pripravené Správnu radou ústavu a rozoslané členom VR s dostatočným predstihom. V rámci diskusie boli niektoré návrhy a odporúčenia členov VR zapracované do pripravených textov. Niektoré návrhy boli odmietnuté, keďže sa týkali pasáží, ktorých znenie bolo dané nadriadeným orgánom a je záväzné pre všetky pracoviská SAV.
3. Dr. Gregušová predložila návrh na zvýšenie vedeckého kvalifikačného stupňa Mgr. Enrica Parda, PhD. Oboznámila prítomných s požiadavkami kladenými na uchádzača v prípade, že menovaný pracovník nemá vedeckú hodnotu doktora vied, a konštatovala, že Dr. Pardo uvedené kritériá vysoko prekračuje. Vedecká rada predložený návrh jednohlasne schválila.
4. V bode rôzne nebola prediskutovaná žiadna téma.

Na záver predsedníčka VR Dr. Gregušová poďakovala prítomným za účasť a zasadnutie ukončila.

Zapísal:  
E. Dobročka

D. Gregušová  
predsedníčka VR EIÚ SAV

## ZÁPISNICA

zo zasadnutia Vedeckej rady EIÚ SAV, v.v.i. konaného dňa 5.mája 2022

**Prítomní:** D. Gregušová, P. Kováč, E. Pardo, G. Vanko, M. Grajcar, J. Cirák, T. Plecenik

**Ospravedlnení:** E. Dobročka, F. Gömöry, B. Zaťko

**Prizvaní:** V. Cambel, riaditeľ EIÚ SAV, v.v.i., M. Ťapajna, zástupca riaditeľa.

**Program:** 1. Udeľovanie Medailí EIÚ SAV Ivana Hlásnika

Zasadnutie otvorila D. Gregušová, predsedníčka vedeckej rady EIÚ SAV, v.v.i.

Hlavným bodom zasadnutia VR bolo rozhodnutie o výbere laureátov na udelenie Medailí EIÚ SAV Ivana Hlásnika.

Podľa Štatútu Medaily EIÚ SAV Ivana Hlásnika medailu udeľuje vedenie ústavu a vedecká rada.

Rozhodnutiu o laureátoch predchádzalo predstavenie nominácií a diskusia o kandidátoch. Do diskusie sa zapojili aj členovia vedenia ústavu. V diskusii zazneli nominácie a aj rozprava o tom, ako sa daní kandidáti zaslúžili o rozvoj ústavu.

Pri diskusii zazneli tiež názory na určitú zmenu Štatútu udeľovania medailí EIÚ SAV Ivana Hlásnika. Modifikácia štatútu bude predmetom spoločného rokovania vedeckej rady a vedenia ústavu v budúcnosti.

Vedecká rada následne rozhodla, že:

**za mimoriadny vedecký a organizačný prínos k rozvoju EIÚ SAV** bude v tomto roku udelená medaila *doc. Ing. Fedorovi Gömörymu, DrSc a Ing. Karolovi Fröhlichovi, DrSc.*

**za celoživotné dielo, ktoré významne prispelo k rozvoju vedy a výskumu na Slovensku a v zahraničí** bude udelená medaila: *Lubomírovi Koperovi a Jánovi Dérerovi*.

**Za mimoriadne výsledky a zásluhy dosiahnuté v medzinárodnej spolupráci s EIÚ SAV - mimoriadny vedecký a organizačný prínos** medailu dostane *Dr. Goran Karapetrov (Professor, Department of Physics, Drexel University, USA)*

Na záver predsedníčka VR D. Gregušová poďakovala prítomným za účasť a zasadnutie ukončila.

Zapísala: D. Gregušová



## ZÁPISNICA

*zo zasadnutia Vedeckej rady EIÚ SAV konaného dňa 24. mája 2022*

**Prítomní:** D. Gregušová, E. Dobročka, F. Gömöry, P. Kováč, G. Vanko, B. Zaťko, M. Grajcar, T. Plecenik.

**Ospravedlnení:** E. Pardo, J. Círák.

**Prizvaní:** V. Cambel, riaditeľ EIÚ SAV, M. Ťapajna, zástupca riaditeľa, M. Španková, vedecká tajomníčka ústavu.

**Program:** 1. Hodnotenie činnosti doktorandov

Zasadnutie vedeckej rady sa konalo v Kongresovom centre SAV v Smoleniciach. Zasadnutie otvorila Dr. Gregušová, predsedníčka vedeckej rady EIÚ SAV.

Jediným bodom zasadnutia VR bolo hodnotenie činnosti doktorandov ústavu na základe ich prezentácie, ktorá prebehla v popoludňajších hodinách. VR hodnotila doktorandov tiež aj na základe dodaných študijných podkladov vypracovaných školiteľmi. Členovia VR sa vyjadrili k úrovni prezentácie doterajších výsledkov a navrhli odporúčania pre jednotlivých doktorandov a ich školiteľov. Viacero pripomienok bolo k spôsobu prezentácie. V niektorých prípadoch VR konštatovala, že by bolo vhodné pri prezentácii znížiť množstvo prezentovaných výsledkov a sústrediť sa len na tie najvýznamnejšie.

So závermi hodnotenia budú doktorandi oboznámení formou pohovoru s členmi VR za prítomnosti ich školiteľa. Táto forma sa osvedčila už v minulosti a bola priaznivo prijatá samotnými doktorandmi.

Na záver predsedníčka VR Dr. Gregušová poďakovala prítomným za účasť a zasadnutie ukončila.

Zapísal:  
E. Dobročka

D. Gregušová  
predsedníčka VR EIÚ SAV

## ZÁPISNICA

*zo zasadnutia Vedeckej rady EIÚ SAV konaného dňa 24. júna 2022*

**Prítomní:** D. Gregušová, E. Dobročka, P. Kováč, E. Pardo, M. Grajcar, T. Plecenik.

**Ospravedlnení:** F. Gömöry, G. Vanko, B. Zaťko, J. Cirák.

**Prizvaní:** V. Cambel, riaditeľ EIÚ SAV, M. Ťapajna, zástupca riaditeľa.

- Program:**
1. Schválenie rokovacieho poriadku VR EIÚ SAV, v. v. i.
  2. Hodnotenie jednotlivcov v roku 2022
  3. Akreditácia ústavu (medzinárodný panel, dotazník a iné relevantné materiály)
  4. Rôzne – informácie riaditeľa o aktuálnych záležitostiach ústavu.

Zasadnutie otvorila Dr. Gregušová, predsedníčka vedeckej rady EIÚ SAV. Navrhla, aby sa z praktických dôvodov prerokoval najprv bod č. 3. S návrhom členovia VR súhlasili, tak požiadala Dr. Cambela, riaditeľa ústavu, aby predstavil materiál pripravený pre akreditáciu Elektrotechnického ústavu SAV, v. v. i.

3. Dr. Cambel v krátkosti okomentoval pripravený materiál, ktorý komplexným spôsobom charakterizuje činnosť ústavu, ako aj jeho zámary pre budúce obdobie. Materiál je rozsiahly (s prílohami 63 strán) a jeho štruktúra musela byť v súlade s pokynmi nadriadených orgánov. Po krátkej diskusii, v rámci ktorej sa vyjasnili niektoré sporné otázky, Vedecká rada pripravený materiál jednohlasne odsúhlasila.
1. Dr. Gregušová informovala členov VR, že v súvislosti s prechodom ústavu na formu v. v. i. musí byť vypracovaný a schválený Rokovací poriadok VR EIÚ SAV, v. v. i., ktorým sa nahradí doterajší Štatút VR. V rámci diskusie boli doplnené niektoré pasáže, ktorých uvedenie v Rokovacom poriadku vyplýva zo zákona o v. v. i. Po diskusii Vedecká rada Rokovací poriadok jednohlasne odsúhlasila.
2. Hodnotenie jednotlivcov v roku 2022 predstavil Dr. Ťapajna. Pripomenul niektoré úpravy, ktoré boli v procese hodnotenia aplikované prvýkrát. Konštatoval, že pri tohtoročnom hodnotení komisia nemusela riešiť ani jeden sporný prípad. V diskusii Dr. Gregušová uviedla niekoľko námetov, ktoré by sa po dôkladnom zvážení mohli v budúcnosti implementovať do procesu hodnotenia. K pripomienkam odznali názory pre aj proti, diskusia sa uzavrela s tým, že Vedecká rada zaujme k predloženým námetom definitívne stanovisko na niektorom z budúcich zasadnutí, ktoré sa uskutoční pravdepodobne už s novým zložením VR.
4. V bode rôzne sa konštatovalo, že členovia VR boli s aktuálnymi otázkami týkajúcimi sa ústavu oboznámení cez svojich vedúcich oddelení.

Na záver predsedníčka VR Dr. Gregušová poďakovala prítomným za účasť a zasadnutie ukončila.

Zapísal:  
E. Dobročka

D. Gregušová  
predsedníčka VR EIÚ SAV

## ZÁPISNICA

*zo zasadnutia Vedeckej rady EIÚ SAV konaného dňa 10. augusta 2022*

**Prítomní:** D. Gregušová, E. Dobročka, F. Gömöry, P. Kováč, E. Pardo, G. Vanko, B. Zaťko, J. Cirák, M. Grajcar, T. Plecenik.

**Ospravedlnení:** –

**Prizvaní:** V. Cambel, riaditeľ EIÚ SAV, M. Ťapajna, zástupca riaditeľa.

**Program:**

1. Schválenie nových zástupcov ústavu do programových komisií doktorandského štúdia
2. Prerokovanie príspevku do knižnej publikácie „Dejiny SAV“.
3. Rôzne

Zasadnutie otvorila Dr. Gregušová, predsedníčka vedeckej rady EIÚ SAV.

1. Dr. Gregušová informovala členov VR, že v súlade s pokynmi prodekanke FEI STU a predsedníčky programovej komisie Elektronika a fotonika prof. V. Stopjakovej je potrebné navrhnúť členov z radov pracovníkov EIÚ SAV, v. v. i. do odborových komisií študijných programov na ďalšie obdobie. Taktiež oboznámila prítomných s kritériami, ktoré by mali členovia komisií spĺňať a predostrela návrhy na členov, ku ktorým dospela po konzultácii s vedením ústavu. Diskusia sa rozprúdila okolo niektorých kritérií (požiadavka plného úväzku na pracovisku, zaťaženie najproduktívnejších pracovníkov novou funkciou). Po diskusii boli za členov odborových komisií navrhnutí pracovníci:

Pre študijný program Elektronika a fotonika študijného odboru Elektrotechnika

RNDr. Vladimír Cambel, DrSc.  
Ing. Ján Kuzmík, DrSc.  
Ing. Milan Ťapajna, PhD.  
Ing. Gabriel Vanko, PhD.  
RNDr. Dagmar Gregušová, DrSc.

Pre študijný program Fyzikálne inžinierstvo študijného odboru Elektrotechnika

doc. RNDr. Edmund Dobročka, CSc.  
Mgr. Enric Pardo, PhD.  
RNDr. Marianna Španková, PhD.

Vedecká rada všetkých navrhovaných uchádzačov v tajnom hlasovaní schválila.

2. Dr. Gregušová informovala členov VR o pripravovanom novom vydaní knižnej publikácie „Dejiny SAV“, do ktorej prispievajú všetky ústavy SAV. Na základe najlepších výsledkov ústavu uvedených každoročne vo výročnej správe EIÚ členovia VR vybrali dve témy z oblasti supravodivosti (kolektívy Dr. Kováča a Dr. Gömöryho), výsledok z oblasti detektorov žiarenia (kolektívy Dr. Zaťka a Dr. Chromika) a problematiku GaN a príbuzných zlúčenín (kolektív Dr. Kuzmíka), ktorými ústav prispeje do aktualizovanej publikácie. Konečná verzia textu bude pripravená v súčinnosti s vedením ústavu a s vyššie uvedenými vedúcimi kolektívov.

3. V bode rôzne riaditeľ ústavu Dr. Cambel informoval členov VR o niektorých aktuálnych problémoch, ktoré čiastočne súvisia s prechodom ústavu na formu v. v. i. (napr. patenty a obchodovanie s nimi). Vyzdvihol úspešnosť ústavu v získavaní nových projektov, s čím však súvisí aktuálny nedostatok kvalifikovaných odborníkov potrebných na úspešné zvládnutie projektov. Spomenul tiež problematiku šetrenia elektrickej energie, ktorej dôležitosť bude v budúcnosti len narastať.

Na záver predsedníčka VR Dr. Gregušová poďakovala prítomným za účasť a zasadnutie ukončila.

Zapísal:  
E. Dobročka

D. Gregušová  
predsedníčka VR EIÚ SAV

## ZÁPISNICA

zo zhromaždenia akademickej obce EIÚ SAV, v.v.i.  
konaného dňa 17. októbra 2022

### Program:

1. Otvorenie
2. Schválenie volebnej komisie, zapisovateľa a overovateľa zápisnice
3. Voľba členov Vedeckej rady EIÚ SAV, v.v.i.
4. Záver

1. Marianna Španková, člen Správnej rady EIÚ SAV, v.v.i., privítala členov akademickej obce (AO) ústavu a oboznámila ich s programom zhromaždenia AO. Pripomenula, že v zmysle Volebného poriadku vedeckej rady (VR) voľby vyhlasuje a organizuje správna rada organizácie. Správna rada vyhlásila voľby zverejnením oznámenia o konaní voľby na webovom sídle organizácie a zverejnila aktuálny menoslov oprávnených voličov. Správna rada ďalej skonštatovala, že uchádzači predložili riadne svoje kandidatúry – 11 kandidátov za interného člena VR a 4 kandidáti za externého člena VR.
2. AO zvolila za členov volebnej komisie - Alicu Rosovú, Janu Hrdú a Jána Šoltýsa. Za zapisovateľa bol zvolený Milan Ťapajna, za overovateľa zápisnice Marián Precner.
3. A. Rosová oboznámila prítomných so spôsobom voľby členov VR. V zmysle volebného poriadku bolo treba zvoliť 7 interných a 4 externých členov VR. Skonštatovala, že je prítomná nadpolovičná väčšina členov AO, t.j. zhromaždenie je uznášaniaschopné. Podľa prezenčnej listiny bolo prítomných 52 z celkového počtu 73 oprávnených voličov. Na zvolenie člena VR bolo potrebných aspoň 27 platných hlasov.

Na zvolenie všetkých interných členov VR boli potrebné 2 kolá

V prvom kole boli zvolení:

D. Gregušová (40 platných hlasov), F. Gucmann (40 platných hlasov), E. Pardo (36 platných hlasov), F. Gömöry (31 platných hlasov), M. Hulman (27 platných hlasov), M. Sojková (27 platných hlasov).  
Bolo odovzdaných 52 hlasovacích lístkov, 1 bol neplatný.

Do druhého kola postúpili dvaja kandidáti – B. Hudec a B. Zaťko.

Bolo odovzdaných 52 platných hlasovacích lístkov.

V druhom kole bol zvolený B. Hudec (27 platných hlasov).

O externých členoch VR sa hlasovalo zvlášť. V prvom kole boli zvolení všetci štyria kandidáti – P. Bokes (50 platných hlasov), R. Lupták (48 platných hlasov), T. Pleceník (46 platných hlasov) a M. Mikolášek (45 platných hlasov).

Bolo odovzdaných 52 hlasovacích lístkov, 1 bol neplatný.

4. Na záver predsedníčka volebnej komisie A. Rosová zhrnula výsledky volieb. V nasledujúcom päťročnom období bude VR EIÚ SAV, v.v.i. pracovať v zložení:

RNDr. Dagmar Gregušová, DrSc.  
Doc. Ing. Fedor Gömöry, DrSc.  
Ing. Filip Gucmann, PhD.  
Ing. Boris Hudec, PhD.  
Dr.rer.nat. Martin Hulman  
Mgr. Enric Pardo, PhD.  
Mgr. Michaela Sojková, PhD.

Doc. Ing. Peter Bokes, PhD. (FEI STU)  
Ing. Roman Lupták, PhD. (Semikron-Danfoss, Vrbové)  
Doc. Ing. Miroslav Mikolášek, PhD. (FEI STU)  
Doc. RNDr. Tomáš Pleceník, PhD. (FMFI UK)

M. Španková poďakovala prítomným za účasť a zhromaždenie ukončila.



Zapísal: M. Ľapajna



Overil: M. Precner

Prítomní členovia Správnej rady EIÚ SAV, v.v.i.:



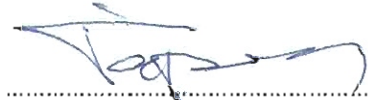
RNDr. Vladimír Cambel, DrSc.

.....

Ing. Ján Fedor, PhD.

  
.....

Ing. Milan Ľapajna, PhD.

  
.....

RNDr. Marianna Španková, PhD.

  
.....

## ZÁPISNICA

zo zasadnutia Vedeckej rady EIÚ SAV, v.v.i., konaného dňa 19. októbra 2022

**Prítomní:** D. Gregušová, F. Gömöry, F. Gučmann, B. Hudec, M. Hulman, E. Pardo, M. Sojková, T. Plecenik, P. Bokes, M. Mikolášek

**Ospravedlnení:** Roman Lupták

**Správna rada EIÚ SAV. v.v.i.:** M. Španková, V. Cambel

**Program:**

1. Voľba predsedu/predsedníčky, podpredsedu/podpredsedníčky a tajomníka/tajomníčky VR
2. Prerokovanie návrhu na člena/členku do odborovej komisie pre štud. program doktorandského štúdia Fyzika kondenzovaných látok a akustika (FMFI UK). Vedenie ústavu navrhlo ako člena do tejto komisie Dr.rer.nat. Martina Hulmana.

Zasadnutie otvorila M. Španková, vedecká tajomníčka a členka Správnej rady EIÚ SAV, v.v.i.

1. V prvom bode si novozvolení členovia VR pod vedením M. Špankovej zvolili v tajnej voľbe **predsedníčku VR**, ktorou sa stala doterajšia predsedníčka **Dagmar Gregušová**, zvolená počtom hlasov 7. Správnosť voľby za správnu radu dohliadali aj V. Cambel a M. Španková. Znovuzvolená predsedníčka D. Gregušová potom vyzvala členov VR na voľbu **podpredsedu/podpredsedníčky VR**, ktorým sa v tajnej voľbe stal **Filip Gučmann**, počtom hlasov 8. **Tajomníkom VR** bol následne zvolený **Boris Hudec**.
2. Prerokovanie návrhu na člena/členku do odborovej komisie pre štud. program doktorandského štúdia Fyzika kondenzovaných látok a akustika (FMFI UK). Vedenie ústavu navrhlo ako člena do tejto komisie Dr.rer.nat. Martina Hulmana. Predsedníčka VR vyzvala členov na podanie prípadných ďalších návrhov na členov do tejto komisie, no nikto iný navrhnutý nebol. V tajnej voľbe **VR zvolila Martina Hulmana za člena** odborovej komisie pre štud. program doktorandského štúdia Fyzika kondenzovaných látok a akustika (FMFI UK).

Na záver predsedníčka VR D. Gregušová poďakovala prítomným za účasť a zasadnutie ukončila.

Zapísal:  
B. Hudec

D. Gregušová  
predsedníčka VR EIÚ SAV



## ZÁPISNICA

zo zasadnutia Vedeckej rady Elektrotechnického Ústavu SAV, v.v.i. (EIÚ),  
konaného dňa 15. novembra 2022

### Prítomní:

**Vedecká rada EIÚ:** D. Gregušová, F. Gömöry, F. Gucmann, B. Hudec, M. Hulman, E. Pardo,  
M. Sojková, T. Plecenik, P. Bokes, M. Mikolášek, R. Lupták.

**Správna rada EIÚ:** V. Cambel

- Program:**
1. Prezentácie k návrhom projektov v rámci všeobecnej výzvy APVV, kde má byť EIÚ SAV žiadateľ alebo spoluriešiteľ
  2. Diskusia k prezentáciám
  3. Informácia riaditeľa Dr. V. Cambela o aktuálnych aktivitách EIÚ SAV
  4. Rôzne

### 1. Prezentované boli nasledovné projekty, o ktoré sa plánuje uchádzať vedecký personál EIÚ SAV:

- **Perspektívne detektory na báze karbidu kremíka a polykryštalického diamantu pre nepokryté energetické okno neutrónov.**
  - o Žiadateľ: EIÚ, zodpovedný riešiteľ B. Zaťko.
  - o Spoluriešiteľ: ÚJFI FEI STU
- **Odolné polovodičové detektory a ich limity pri vysokej radiačnej záťaži**
  - o Žiadateľ: ÚJFI FEI STU, zodpovedná riešiteľka A. Šagátová
  - o Spoluriešiteľ: EIÚ, zodpovedný riešiteľ B. Zaťko
- **Piezoelektrické akumulátory energie pre autonómne senzorové systémy pracujúce v extrémnych podmienkach**
  - o Žiadateľ: EIÚ zodpovedný riešiteľ G. Vanko
  - o Spoluriešiteľ: FEI STU
- **Evolution of colour centres in diamond and their properties towards quantum detection**
  - o Žiadateľ: CEMEA, zodpovedná riešiteľka V. Skákalová
  - o Spoluriešiteľ: EIÚ, zodpovedný riešiteľ M. Varga
- **Pokročilé nízkotrecie povlaky na báze 2D materiálov pre vákuové aplikácie, Advanced low-friction coatings based on 2D materials for vacuum applications**
  - o Žiadateľ: CEMEA, zodpovedný riešiteľ A. Kozak
  - o Spoluriešiteľ: EIÚ, zodpovedný riešiteľ M. Ťapajna
- **Transportné a optické vlastnosti niektorých TMD materiálov**
  - o Žiadateľ: EIÚ, zodpovedný riešiteľ M. Hulman
  - o Spoluriešitelia: FÚ SAV, ÚEF SAV Košice, Katedra experimentálnej fyziky FMFI UK,

### 2. Diskusia k prezentáciám

- VR sa zhodla, že všetky návrhy projektov sú kvalitné, riešia aktuálne vedecké výzvy, sú v súlade s dlhodobou vedeckou stratégiou EIÚ

- VR odporúča pri podávaní zaradiť projekt „Pokročilé nízkotrecie povlaky na báze 2D materiálov pre vákuové aplikácie, Advanced low-friction coatings based on 2D materials for vacuum applications“ medzi Technické vedy.
- VR sa zhodla, že dĺžka prezentácii návrhov nových APVV projektov bude v budúcnosti obmedzená na vopred stanovenú dobu.

### 3. Informácia riaditeľa Dr. V. Cambela o aktuálnych aktivitách EIÚ

Riaditeľ EIÚ, v. v. i. stručne informoval o nasledovných bodoch:

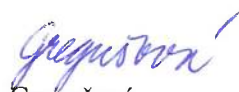
- Príležitosti do budúcnosti, črtajúca sa spolupráca s Taiwanom
- Diskusia k stratégii posilnenia ľudského potenciálu na stredných a vysokých školách aj EIÚ
- Rezonovala požiadavka na posilnenie ľudského potenciálu EIÚ, diskutovalo sa o potrebe vhodného rámca na obsadzovanie, vypisovanie a financovanie postdoktorandských pozícií
- Riaditeľ otvoril tému inkubátora pre startupy na EIÚ, na voľnú diskusiu
- Diskutovalo sa o propagácii našich unikátnych laboratórií pre slovenské firmy, mimo našej komunity
- K tomu je potrebná cielená propagácia online (LinkedIn atď...), účasť na veľtrhoch ELOSYS, resp. obnovenie účasti Ústavu na Profesia days.
- VR sa zhodla, že na pokrytie všetkých takýchto aktivít treba vytvoriť pracovnú pozíciu s primárnym zameraním na túto tému, čo i len na čiastočný úväzok.
- Roman Lupták poznamenal, že ich materská firma má tiež oddelenie na takéto PR aktivity
- V rámci rozšírenia portfólia študentov zaznel nápad nadviazať spoluprácu s českými technickými univerzitami, kde študuje veľa Slovákov, ktorí často nevedia o EIÚ a aktivitách, ktoré tu prebiehajú. Takúto spoluprácu je možné realizovať prostredníctvom účasti na študentských kariérnych veľtrhoch organizovaných na univerzitách, podobne ako tomu býva na veľtrhu Dni príležitostí na FIIT STU.

### 4. Rôzne

- Záverečný seminár sa uskutoční 13. 12. 2022 od 9:00, vzhľadom na množstvo hodnotení, ktoré absolvoval EIÚ tento rok, bude tentokrát mať seminár voľnejšiu formu. Taktiež sa plánuje uskutočniť bez prítomnosti Advisory boardu.
- Cieľom je, aby na seminári prezentovali najmä kolegovia, ktorým sa tento rok podarilo dosiahnuť významné/zaujímavé výsledky.
- VR sa zúčastní záverečného seminára.
- Počas seminára bude priestor na neformálne diskusie, hodnotenie neprebehne.
- Po preskúmaní výstupov našich doktorandov VR spolu s tajomníčkou M. Špankovou nominovala do súťaže študentská osobnosť Slovenska Ing. Mareka Búrana

Na záver predsedníčka VR D. Gregušová poďakovala prítomným za účasť a zasadnutie ukončila.

Zapísal:  
B. Hudec

  
D. Gregušová  
predsedníčka VR EIÚ, v. v. i.

**Elektrotechnický ústav SAV, v. v. i.**



**Správa o činnosti organizácie SAV  
za rok 2022**

Bratislava  
január 2023

## **Obsah**

1. Základné údaje o organizácii
2. Vedecká činnosť
3. Doktorandské štúdium, iná pedagogická činnosť a budovanie ľudských zdrojov pre vedu a techniku
4. Medzinárodná vedecká spolupráca
5. Koncepcia dlhodobého rozvoja organizácie
6. Spolupráca s VŠ a inými subjektmi v oblasti vedy a techniky
7. Aplikácia výsledkov výskumu v spoločenskej a hospodárskej praxi
8. Aktivity pre Národnú radu SR, vládu SR, ústredné orgány štátnej správy SR a iné org.
9. Vedecko-organizačné a popularizačné aktivity
10. Činnosť knižnično-informačného pracoviska
11. Aktivity v orgánoch SAV
12. Hospodárenie organizácie
13. Nadácie a fondy pri organizácii SAV
14. Informácie o aktivitách súvisiacich s uplatňovaním princípov rodovej rovnosti
15. Iné významné činnosti organizácie SAV
16. Vyznamenania, ocenenia a ceny udelené organizácii a pracovníkom organizácie SAV
17. Poskytovanie informácií v súlade so zákonom o slobodnom prístupe k informáciám
18. Problémy a podnety pre činnosť SAV

## ***PRÍLOHY***

- A Zoznam zamestnancov a doktorandov organizácie k 31.12.2022*
- B Projekty riešené v organizácii*
- C Publikáčná činnosť organizácie*
- D Údaje o pedagogickej činnosti organizácie*
- E Medzinárodná mobilita organizácie*
- F Vedecko-popularizačná činnosť pracovníkov organizácie SAV*

## 1. Základné údaje o organizácii

### 1.1. Kontaktné údaje

**Názov:** Elektrotechnický ústav SAV, v. v. i.

**Riaditeľ:** RNDr. Vladimír Cambel, DrSc.

**1. zástupca riaditeľa:** Ing. Milan Ťapajna, PhD.

**2. zástupca riaditeľa:** Ing. Ján Fedor, PhD

**Vedecký tajomník:** RNDr. Marianna Španková, PhD

**Predseda vedeckej rady:** RNDr. Dagmar Gregušová, DrSc.

**Člen Snemu SAV:** Ing. Milan Ťapajna, PhD.

**Adresa:** Dúbravská cesta 9, 841 04 Bratislava

<http://www.elu.sav.sk>

**Tel.:** 02/ 5922 2555

**E-mail:** [elusav@savba.sk](mailto:elusav@savba.sk)

**Názvy a adresy organizačných zložiek a detašovaných pracovísk:**

Organizačné zložky: nie sú

Detašované pracoviská:

- **Oddelenie mikroelektroniky a senzoriky**  
Vrbovská cesta 110, 921 01 Piešťany

**Vedúci organizačných zložiek a detašovaných pracovísk:**

Organizačné zložky: nie sú

Detašované pracoviská:

- **Oddelenie mikroelektroniky a senzoriky**  
Mgr. Bohumír Zaťko, PhD

**Členovia Snemu SAV za organizačné zložky:**

nie sú

**Typ organizácie:** Verejná výskumná inštitúcia od roku 2022

### 1.2. Údaje o zamestnancoch

Tabuľka 1a Počet a štruktúra zamestnancov

| Štruktúra zamestnancov     | K   | K  |    | K<br>do 35<br>rokov |   | F   | P     | T     | O   |
|----------------------------|-----|----|----|---------------------|---|-----|-------|-------|-----|
|                            |     | M  | Ž  | M                   | Ž |     |       |       |     |
| Celkový počet zamestnancov | 113 | 81 | 32 | 21                  | 6 | 112 | 87.21 | 68.02 | 7.4 |

|                                                                                 |    |    |    |    |   |    |       |       |     |
|---------------------------------------------------------------------------------|----|----|----|----|---|----|-------|-------|-----|
| <b>Vedeckí pracovníci</b>                                                       | 61 | 51 | 10 | 9  | 2 | 60 | 49.31 | 48.31 | 0   |
| <b>Odborní pracovníci VŠ</b><br>(výskumní a vývojoví zamestnanci <sup>1</sup> ) | 25 | 18 | 7  | 11 | 4 | 25 | 13.11 | 13.11 | 0.3 |
| <b>Odborní pracovníci VŠ</b><br>(ostatní zamestnanci <sup>2</sup> )             | 6  | 2  | 4  | 0  | 0 | 6  | 5.15  | 0.5   | 1   |
| <b>Odborní pracovníci ÚS</b>                                                    | 16 | 8  | 8  | 1  | 0 | 16 | 14.59 | 6.1   | 6.1 |
| <b>Ostatní pracovníci</b>                                                       | 5  | 2  | 3  | 0  | 0 | 5  | 5.05  | 0     | 0   |

<sup>1</sup> odmeňovaní podľa 553/2003 Z.z., príloha č. 5<sup>2</sup> odmeňovaní podľa 553/2003 Z.z., príloha č. 3 a č. 4

K – kmeňový stav zamestnancov v pracovnom pomere k 31.12.2022 (uvádzať zamestnancov v pracovnom pomere, vrátane riadnej materskej dovolenky, zamestnancov pôsobiacich v zahraničí, v štátnych funkciách, členov Predsedníctva SAV, zamestnancov pôsobiacich v zastupiteľských zboroch)

F – fyzický stav zamestnancov k 31.12.2022 (bez riadnej materskej dovolenky, zamestnancov pôsobiacich v zahraničí v štátnych funkciách, členov Predsedníctva SAV, zamestnancov pôsobiacich v zastupiteľských zboroch)

P – celoročný priemerný prepočítaný počet zamestnancov

T – celoročný priemerný prepočítaný počet riešiteľov projektov

O – celoročný priemerný prepočítaný počet obslužného personálu podieľajúceho sa na riešení projektov (technikov, laborantov, projektových manažérov a pod.) mimo zamestnancov v administratíve, správe a údržbe budov, upratovačiek, vodičov a pod.

M, Ž – muži, ženy

Tabuľka 1b Štruktúra vedeckých pracovníkov (kmeňový stav k 31.12.2022)

| Rodová skladba | Pracovníci s hodnosťou |           |       |      | Vedeckí pracovníci v stupňoch |       |       |
|----------------|------------------------|-----------|-------|------|-------------------------------|-------|-------|
|                | DrSc.                  | CSc./PhD. | prof. | doc. | I.                            | II.a. | II.b. |
| <b>Muži</b>    | 8                      | 40        | 0     | 4    | 8                             | 30    | 13    |
| <b>Ženy</b>    | 2                      | 8         | 0     | 1    | 2                             | 5     | 3     |

Tabuľka 1c Štruktúra pracovníkov podľa veku a rodu, ktorí sú riešiteľmi projektov

| Veková štruktúra (roky) | < 31 |     | 31-35 |     | 36-40 |     | 41-45 |     | 46-50 |     | 51-55 |     | 56-60 |     | 61-65 |     | > 65 |      |
|-------------------------|------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|------|------|
|                         | A    | B   | A     | B   | A     | B   | A     | B   | A     | B   | A     | B   | A     | B   | A     | B   | A    | B    |
| <b>Muži</b>             | 13   | 7.6 | 10    | 8.6 | 9     | 7.3 | 9     | 8.8 | 4     | 3.8 | 2     | 2.0 | 3     | 3.0 | 4     | 3.4 | 19   | 12.1 |
| <b>Ženy</b>             | 4    | 1.3 | 2     | 1.8 | 2     | 2.0 | 2     | 2.0 | 0     | 0.0 | 1     | 1.0 | 2     | 2.0 | 4     | 4.0 | 2    | 1.2  |

A - Prepočet bez zohľadnenia úväzkov zamestnancov

B - Prepočet so zohľadnením úväzkov zamestnancov

Tabuľka 1d Priemerný vek zamestnancov organizácie k 31.12.2022

|              | Kmeňoví zamestnanci | Vedeckí pracovníci | Riešitelia projektov |
|--------------|---------------------|--------------------|----------------------|
| <b>Muži</b>  | 48.2                | 49.2               | 47.3                 |
| <b>Ženy</b>  | 52.3                | 49.5               | 47.2                 |
| <b>Spolu</b> | 49.4                | 49.2               | 47.3                 |

### **1.3. Iné dôležité informácie k základným údajom o organizácii a zmeny za posledné obdobie (v zameraní, v organizačnej štruktúre a pod.)**

Národná rada SR schválila dňa 21. 9. 2021 zákon č. 347/2021 Z. z., podľa ktorých odo dňa 1. 1. 2022 sa právna forma organizácií akadémie zmenila na verejné výskumné inštitúcie.

Na základe tohto zákona si Elektrotechnický ústav, vedecko-výskumná inštitúcia (skrátene v.v.i.) zvolila svoju Správnu radu v zložení:

RNDr. Vladimír Cambel, DrSc. – predseda SR

Ing. Jozef Fabian, CSc.

Ing. Ján Fedor, PhD

RNDr. Marianna Španková, PhD.

Ing. Milan Ťapajna, PhD.

a PSAV zvolilo Dozornú radu EIÚ SAV, v.v.i.:

prof. RNDr. Peter Samuely, DrSc. – Predseda DR

prof. Ing. Viera Stopjaková, PhD.

Ing. Romana Jurkiewiczová

Na jeseň prebehli voľby do Vedeckej rady podľa nových pravidiel, organizovala ich Správna rada. Členmi VR sa stali:

Interní členovia:

RNDr. Dagmar Gregušová, DrSc. –predsedníčka

Ing. Filip Gucmann, PhD. – podpredseda

Ing. Boris Hudec, PhD. – tajomník

doc. Ing. Fedor Gömöry, DrSc.

Dr. rer. nat. Martin Hulman

Mgr. Enric Pardo, PhD.

Mgr. Michaela Sojková, PhD.

Externí členovia:

doc. Ing. Peter Bokes, PhD.

Ing. Roman Lupták, PhD.

doc. Ing. Miroslav Mikolášek, PhD.

doc. RNDr. Tomáš Plecenik, PhD.

## 2. Vedecká činnosť

### 2.1. Domáce projekty

Tabuľka 2a Domáce projekty riešené v roku 2022

| ŠTRUKTÚRA PROJEKTOV                                                                        | Počet |    | Čerpané financie (€) |                 |                 |                 |                |                 |
|--------------------------------------------------------------------------------------------|-------|----|----------------------|-----------------|-----------------|-----------------|----------------|-----------------|
|                                                                                            | A     | B  | A                    |                 |                 |                 | B              |                 |
|                                                                                            |       |    | Zo zdrojov SAV       |                 | Z iných zdrojov |                 | Zo zdrojov SAV | Z iných zdrojov |
|                                                                                            |       |    | Spolu                | Pre organizáciu | Spolu           | Pre organizáciu |                |                 |
| <b>1. Projekty VEGA</b>                                                                    | 13    | 1  | -                    | -               | 144498          | 144498          | -              | 3801            |
| <b>2. Projekty APVV</b>                                                                    | 14    | 11 | -                    | -               | 523256          | 380711          | -              | 185086          |
| <b>3. Projekty EŠIF/OP ŠF</b>                                                              | 1     | 1  | -                    | -               | 35645           | 35645           | 47612          | -               |
| <b>4. Projekty SASPRO, MoRePro, IMPULZ</b>                                                 | 1     | 0  | 44448                | 44448           | -               | -               | -              | -               |
| <b>5. Iné projekty (FM EHP, Vedecko-technické projekty, na objednávku rezortov a pod.)</b> | 2     | 0  | 2000                 | 2000            | -               | -               | -              | -               |

A - organizácia je nositeľom projektu

B - organizácia sa zmluvne podieľa na riešení projektu

Tabuľka 2b Domáce projekty podané v roku 2022

| Štruktúra projektov                            | Miesto podania | Organizácia je nositeľom projektu | Organizácia sa zmluvne podieľa na riešení projektu |
|------------------------------------------------|----------------|-----------------------------------|----------------------------------------------------|
| <b>1. Účasť na nových výzvach APVV r. 2022</b> | -              | 3                                 | 3                                                  |
| <b>2. Projekty výziev EŠIF podané r. 2022</b>  | Bratislava     |                                   |                                                    |
|                                                | Regióny        |                                   |                                                    |



## 2.2. Medzinárodné projekty

### 2.2.1. Medzinárodné projekty riešené v roku 2022

Tabuľka 2c Medzinárodné projekty riešené v roku 2022

| ŠTRUKTÚRA PROJEKTOV                                           | Počet |   | Čerpané financie (€) |                 |                 |                 |                |                 |
|---------------------------------------------------------------|-------|---|----------------------|-----------------|-----------------|-----------------|----------------|-----------------|
|                                                               | A     | B | A                    |                 |                 |                 | B              |                 |
|                                                               |       |   | Zo zdrojov SAV       |                 | Z iných zdrojov |                 | Zo zdrojov SAV | Z iných zdrojov |
|                                                               |       |   | Spolu                | Pre organizáciu | Spolu           | Pre organizáciu |                |                 |
| 1. Projekty Horizont 2020 a Horizont Európa                   | 0     | 6 | -                    | -               | -               | -               | 7000           | 13889           |
| 2. Projekty ERA.NET, ESA, JRP                                 | 0     | 1 | -                    | -               | -               | -               | 25000          | -               |
| 3. Projekty COST                                              | 0     | 3 | -                    | -               | -               | -               | 5833           | -               |
| 4. Projekty EUREKA, NATO, UNESCO, CERN, IAEA, IVF, ERDF a iné | 0     | 3 | -                    | -               | -               | -               | -              | 102872          |
| 5. Projekty v rámci medzivládnych dohôd                       | 0     | 0 | -                    | -               | -               | -               | -              | -               |
| 6. Bilaterálne projekty MAD, Mobility, Open Mobility          | 0     | 0 | -                    | -               | -               | -               | -              | -               |
| 7. Bilaterálne projekty ostatné                               | 5     | 0 | 9567                 | 9567            | -               | -               | -              | -               |
| 8. Podpora MVTS z národných zdrojov okrem SAV (APVV a iné)    | 0     | 0 | -                    | -               | -               | -               | -              | -               |
| 9. SAS-UPJŠ ERC Visiting Fellowship Grants                    | 0     | 0 | -                    | -               | -               | -               | -              | -               |
| 10. Iné projekty                                              | 0     | 0 | -                    | -               | -               | -               | -              | -               |

A - organizácia je nositeľom projektu

B - organizácia sa zmluvne podieľa na riešení projektu

### 2.2.2. Medzinárodné projekty Horizont Európa podané v roku 2022

Tabuľka 2d Počet projektov Horizont Európa v roku 2022

|                                          | A | B |
|------------------------------------------|---|---|
| Počet podaných projektov Horizont Európa | 1 |   |

*A - organizácia je nositeľom projektu*

*B - organizácia sa zmluvne podieľa na riešení projektu*

*Údaje k domácim a medzinárodným projektom sú uvedené v Prílohe B.*

### **2.2.3. Zámery na čerpanie Európskych štrukturálnych a investičných fondov v ďalších výzvach**

### **2.3. Výber najvýznamnejších výsledkov vedeckej práce organizácie v roku 2022**

*Slúži aj na výber výsledkov do výročnej správy SAV. Každý výsledok má byť charakterizovaný stručným, všeobecne zrozumiteľným popisom – maximálne 1000 znakov + 1 obrázok; bibliografický údaj uvádzajte rovnako ako v zozname publikačnej činnosti, vrátane IF. Nadpis by mal vystihnúť prínos a význam výsledku – podľa možnosti by nemal byť zredukovaný na názov/nadpis publikačného výstupu.*

#### **2.3.1. Výsledky na báze základného výskumu**

**Názov:** Nový dvojrozmerný materiál: CuI

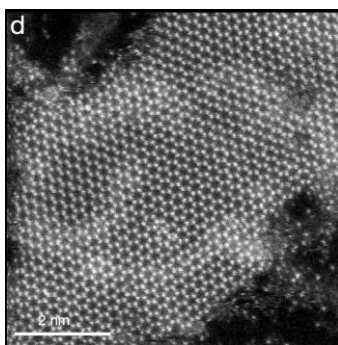
**Riešitelia:** V. Skákalová, M. Hulman a P. Kotrusz

**Projekt:** APVV-19-0365 (zodp. riešiteľ M. Hulman)

Súčasný 2D materiál primárne pochádzajú z van der Waalových (vdW) vrstvených objemových štruktúr. Za normálnych laboratórnych podmienok však existuje len obmedzený počet takýchto štruktúr a celkovo bolo úspešne syntetizovaných alebo exfoliovaných iba niekoľko desiatok 2D kryštálov. Jedným z potenciálnych 2D materiálov, z množstva predpovedaných, je beta-fáza jodidu meďnatého (CuI), ktorá je však stabilná len v úzkom teplotnom rozmedzí od 645 K do 675 K.

Naša práca predstavuje novú metódu na stabilizáciu jednej vrstvy beta-CuI pomocou enkapsulácie medzi dve grafénové vrstvy za izbovej teploty a bežných laboratórnych podmienok. Tento nový 2D materiál sa syntetizuje priamo medzi vrstvami grafénu jednostupňovou mokrou chemickou metódou. Pomocou pokročilých experimentálnych techník sme komplexne charakterizovali jeho atómovú konfiguráciu a potvrdili stabilitu získanej heteroštruktúry pomocou výpočtov metódou funkcionálu hustoty.

Vzorky boli syntetizované v našom laboratóriu a charakterizované technikami elektrónovej mikroskopie na univerzitách vo Viedni, Tübingene a Antverpách. Medzitým sme už použili rovnaký proces na výrobu 2D kryštálov jodidu striebra (AgI) a niklu ( $\text{NiI}_2$ ). Zovšeobecnenie tohto experimentálneho prístupu by mohlo viesť k syntéze ďalších exotických vrstvených štruktúr, čím sa výrazne rozšíri v súčasnosti dostupná knižnica 2D materiálov.



Obr. Snímok dvojrozmerného kryštálu CuI zo skenovacieho transmisného elektrónového mikroskopu.

**Publikácia:**

MUSTONEN, K.\*\* - HOFER, C. - KOTRUSZ, P. - MARKEVICH, A. - HULMAN, Martin - MANGLER, C. - SUSI, T. - PENNYCOOK, T.J. - HRICOVÍNI, K. - RICHTER, C. - MEYER, J.C. - KOTAKOSKI, J.\*\* - SKÁKALOVÁ, V.\*\*. Towards exotic layered materials: 2D cuprous iodide. In Advanced Materials, 2022, vol. 34, no. 2106922. (2021: 32.086 - IF, Q1 - JCR, 8.663 - SJR, Q1 - SJR). ISSN 0935-9648. Dostupné na: <https://doi.org/10.1002/adma.202106922> Typ: ADCA

**Názov:** Supravodivé elektromotory pre lietadlá poháňané vodíkom

**Riešitelia:** E. Pardo, J. Kováč, A. Dadhich, M. Mošat', R. Ries, M. Solovyov, J. Šouc, L. Kopera, T. Melišek

**Projekt:** APVV-19-0536, Horizon2020, No. 723119 (ASuMED)

Komerčná letecká doprava je významným zdrojom narastajúcich emisií skleníkových plynov (CO<sub>2</sub>, NO<sub>x</sub>, H<sub>2</sub>O vo vysokých nadmorských výškach). Medzinárodná asociácia leteckej dopravy (IATA) si dala za cieľ bezemisnú leteckú dopravu v západných krajinách do roku 2050. Supravodivé elektrické motory umožňujú pohon elektrických lietadiel a lietadiel na báze vodíka s nulovými emisiami. Obzvlášť sľubným konceptom je práve druhý menovaný, keďže kvapalný vodík s teplotou 20K je možné súčasne použiť ako chladiace médium pre supravodivé časti motora. Na našom ústave sme vybudovali unikátny experimentálny systém na meranie striedavých strát v supravodivých REBCO vinutiach v satoroch motorov až do teploty 20 K. Keďže produktom akýchkoľvek strát je teplo, je nevyhnutná ich minimalizácia pre udržanie supravodivých vinutí v motore na nízkych teplotách (medzi 20 a 40 K). V rozpore s očakávaniami, merania ukázali, že pre straty cievky je dominantný zvyškový magnetizmus substrátu [1], čím sme na tento problém upozornili výrobcov supravodivých pásov.

Taktiež sme pracovali na konceptoch znižovania efektov demagnetizácie priečného poľa v rotoroch vyrobených zo supravodivých zväzkov pásov REBCO [2], ktoré pôsobia ako silné permanentné magnety.

**Publikácie:**

[1] KOVÁČ, Ján - KOPERA, Ľubomír - PARDO, Enric\*\* - MELIŠEK, Tibor - RIES, Rastislav - BERBERICH, E. - WOLFSTÄDLER, S. - RIES, T. Measurement of AC loss down to 25 K in a REBCO racetrack coil for electrical aircraft motor. In Scientific Reports, 2022, vol. 12, no. 16454. (2021: 4.997 - IF, Q2 - JCR, 1.005 - SJR, Q1 - SJR). ISSN 2045-2322. Dostupné na: <https://doi.org/10.1038/s41598-022-20625-6> (APVV 19-0536. VEGA 2/0036/21) Typ: ADCA

[2] DADHICH, Anang - LI, S. - SOLOVYOV, Mykola - ŠOUC, Ján - MOŠAT', Marek - PARDO, Enric\*\*. Reducing cross-field demagnetization of superconducting stacks by soldering in pairs. In Superconductor Science and Technology, 2022, vol. 35, no. 115001. (2021: 3.482 - IF, Q2 - JCR, 0.826 - SJR, Q1 - SJR). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac908f> (APVV 19-0536. VEGA 2/0036/21) Typ: ADCA

### 2.3.2. Výsledky aplikačného typu

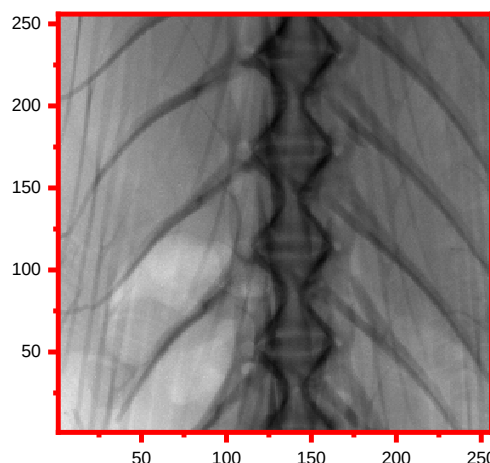
**Názov:** Timepix3 radiačná kamera s využitím pixelového senzora na báze karbidu kremíka

**Riešitelia:** B. Zaťko, N. Gál, J. Osvald, P. Boháček, E. Kováčová  
(Realizátor ADVACAM Praha)

**Projekt:** APVV-18-0273

V rámci APVV projektu sme vyvinuli a pripravili pixelové senzory na báze 4H-SiC vysokokvalitnej epitaxnej vrstvy. SiC je perspektívny polovodičový materiál, ktorý má viacero výhod. Je to širokopásmový polovodič, ktorý je schopný pracovať až pri teplotách niekoľko sto stupňov Celzia. Okrem toho je aj vysoko radiačne odolný a tým vhodný ako senzor ionizujúceho

žiarenia, najmä neutrónov a ťažkých nabitých častíc. Pripravili sme pixelové senzory optimalizované pre vyčítavací čip typu Timepix vyvinutý v CERNe. Detekčná časť sa skladá z  $256 \times 256$  pixelov celkovej plochy  $14,1 \times 14,1 \text{ mm}^2$ . Pre vyčítavaciu elektroniku typu Timepix sme sa rozhodli, pretože umožňuje viacero typov spracovania signálov z pixelového senzora. Okrem bežného zobrazovacieho módu je k dispozícii aj spektrometrický mód, v ktorom vieme identifikovať energetické spektrum dopadajúceho ionizujúceho žiarenia a tiež časový mód, kde môžeme jednotlivé pixelové udalosti rozlišovať s časovou presnosťou až 1.2 ns. V spolupráci s firmou ADVACAM (Praha) boli po prvýkrát na svete pripravené 2 prototypy plne funkčných radiačných kamier na báze 4H-SiC senzora (obrázok vľavo). Obrázok vpravo ukazuje rtg obraz kostry sardinky, ktorý je kvalitatívne porovnateľný s obdobnými dostupnými kamerami na báze Si senzora. Využitie SiC kamery sa predpokladá hlavne pri detekcii neutrónov alebo pri zobrazovaní pomocou neutrónov, čo je doplnková aplikácia k rtg zobrazovaniu.



Vľavo: prototyp Timepix3 radiačnej kamery s SiC senzorom

Vpravo: rtg obraz kostry sardinky zosnímaný vyvinutou novou radiačnou kamerou.

Publikácia:

ZAŤKO, Bohumír\*\* - ŠAGÁTOVÁ, A. - GÁL, Norbert - NOVÁK, A. - OSVALD, Jozef - BOHÁČEK, Pavol - POLANSKY, Š. - JAKUBEK, J. - KOVÁČOVÁ, Eva. From a single silicon carbide detector to pixelated structure for radiation imaging camera. In Journal of Instrumentation, 2022, vol. 17, no. C12005. (2021: 1.121 - IF, Q4 - JCR, 0.428 - SJR, Q2 - SJR, karentované - CCC). (2022 - Current Contents, WOS, SCOPUS). ISSN 1748-0221. Dostupné na: <https://doi.org/10.1088/1748-0221/17/12/C12005> Typ: ADCA

### 2.3.3. Výsledky na báze medzinárodnej spolupráce

**Názov:** 3D ploter na báze nanášania po atómových vrstvách

**Riešitelia:** I. Kundrata, K. Fröhlich, B. Hudec

**Partneri:** Univerzita Erlangen, Sempa Systems (Nemecko), Atlant 3D Nanosystems (Dánsko), Femtika (Litva)

**Projekt:** ATOPLOT – 3D ploter na báze nanášania po atómových vrstvách, uviesť zahraničného partnera alebo medzinárodný program (Horizon2020)

Cieľom projektu bolo uvedenie do praxe konceptu 3D plotera atómových vrstiev, čo je kombinácia technológií nanášania po atómových vrstvách (ALD) a 3D tlače. Túto technológiu rozvíja partner Atlant 3D Nanosystems, dánsky startup, ktorého zakladateľom a CTO je Ivan Kundrata, doktorand EIÚ SAV. Srdcom technológie je unikátna tryska, ktorá slúži ako mini priestorové ALD (spatial ALD) systém, pričom jej presným pohybom nad substrátom je možné kresliť vrstvy po atómových vrstvách, ako pri ALD. Technológia bola patentovaná, pričom EIÚ SAV bol jedným z troch držiteľov tohto patentu.

Úlohou EIÚ SAV v projekte Atoplot bol návrh, dizajn a charakterizácia tzv. demonštrátorov, teda jednoduchých mikroelektronických súčiastok na ktorých bolo možné demonštrovať schopnosti plottera. EIÚ SAV tieto súčiastky vyrobil konvenčnými metódami používanými v mikroelektronike (litografia, depozícia PVD a ALD, tvarovanie) a tieto boli potom porovnávané so súčiastkami priamo "vytlačenými" pomocou plottera. Jednalo sa o senzor teploty na báze tenkej vrstvy platiny, kapacitný senzor vzdialenosti na báze tenko-vrstvových kruhových platinových elektród a senzor tlaku na báze piezoelektrickej ALD ZnO vrstvy.

Publikácia:

KUNDRATA, Ivan - BARR, M.K.S. - TYMEK, S. - DÖHLER, D. - HUDEC, Boris - BRÜNER, P. - VANKO, Gabriel - PRECNER, Marián - YOKOSAWA, T. - SPIECKER, E. - PLAKHOTNYUK, M. - FRÖHLICH, Karol - BACHMANN, J. Additive manufacturing in atomic layer processing mode. In Small methods, 2022, no. 2101546. (2021: 15.367 - IF, Q1 - JCR, 3.668 - SJR, Q1 - SJR). ISSN 2366-9608. Dostupné na: <https://doi.org/10.1002/smtd.202101546> Typ: ADCA

**2.4. Publikačná činnosť** (zoznam je uvedený v prílohe C)

Tabuľka 2e Štatistika vybraných kategórií publikácií

| <b>PUBLIKAČNÁ A EDIČNÁ ČINNOSŤ</b>                                                                                                             | <b>Počet v r. 2022/<br/>doplňky z r. 2021</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>1. Vedecké monografie a monografické štúdie vydané v domácich vydavateľstvách (AAB, ABB)</b>                                                | <b>0 / 0</b>                                  |
| <b>2. Vedecké monografie a monografické štúdie vydané v zahraničných vydavateľstvách (AAA, ABA)</b>                                            | <b>0 / 0</b>                                  |
| <b>3. Odborné monografie, vysokoškolské učebnice a učebné texty vydané v domácich vydavateľstvách (BAB, ACB, CAB)</b>                          | <b>0 / 0</b>                                  |
| <b>4. Odborné monografie a vysokoškolské učebnice a učebné texty vydané v zahraničných vydavateľstvách (BAA, ACA, CAA)</b>                     | <b>0 / 0</b>                                  |
| <b>5. Kapitoly vo vedeckých monografiách vydaných v domácich vydavateľstvách (ABD)</b>                                                         | <b>0 / 0</b>                                  |
| <b>6. Kapitoly vo vedeckých monografiách vydaných v zahraničných vydavateľstvách (ABC)</b>                                                     | <b>0 / 0</b>                                  |
| <b>7. Kapitoly v odborných monografiách, vysokoškolských učebniciach a učebných textoch vydaných v domácich vydavateľstvách (BBB, ACD)</b>     | <b>0 / 0</b>                                  |
| <b>8. Kapitoly v odborných monografiách, vysokoškolských učebniciach a učebných textoch vydaných v zahraničných vydavateľstvách (BBA, ACC)</b> | <b>0 / 0</b>                                  |
| <b>9. Vedecké práce registrované v Current Contents Connect (ADCA, ADCB, ADDA, ADDB)</b>                                                       | <b>48 / 0</b>                                 |
| <b>10. Vedecké práce registrované vo Web of Science Core Collection alebo Scopus (ADMA, ADMB, ADNA, ADN B)</b>                                 | <b>7 / 0</b>                                  |
| <b>11. Vedecké práce v ostatných domácich časopisoch (ADFA, ADFB)</b>                                                                          | <b>1 / 0</b>                                  |
| <b>12. Vedecké práce v ostatných zahraničných časopisoch (ADEA, ADEB)</b>                                                                      | <b>0 / 0</b>                                  |
| <b>13. Vedecké práce v domácich recenzovaných zborníkoch (AEDA)</b>                                                                            | <b>0 / 0</b>                                  |
| <b>14. Vedecké práce v zahraničných recenzovaných zborníkoch (AECA)</b>                                                                        | <b>0 / 0</b>                                  |
| <b>15. Publikované príspevky na domácich vedeckých konferenciách (AFB, AFD)</b>                                                                | <b>24 / 0</b>                                 |
| <b>16. Publikované príspevky na zahraničných vedeckých konferenciách (AFA, AFC)</b>                                                            | <b>0 / 0</b>                                  |
| <b>17. Vydané periodiká evidované v CCC, WoS Core Collection, SCOPUS</b>                                                                       | <b>1</b>                                      |
| <b>18. Ostatné vydané periodiká</b>                                                                                                            | <b>0</b>                                      |
| <b>19. Zostavovateľské práce knižného charakteru (FAI)</b>                                                                                     | <b>0 / 0</b>                                  |
| <b>20. Preklady vedeckých a odborných textov (EAJ)</b>                                                                                         | <b>0 / 0</b>                                  |
| <b>21. Heslá v odborných terminologických slovníkoch a encyklopédiách (BDA, BDB)</b>                                                           | <b>0 / 0</b>                                  |
| <b>22. Recenzie v časopisoch a zborníkoch (EDI)</b>                                                                                            | <b>0 / 0</b>                                  |

*Evidujú sa len tie práce zamestnancov a doktorandov, v ktorých je uvedená afiliácia k organizácii*

Tabuľka 2f Štatistika vedeckých prác podľa kvartilu vedeckého časopisu

| Kvartil vedeckého časopisu                                                   | Q1     | Q2     | Q3     | Q4    | Spolu  |
|------------------------------------------------------------------------------|--------|--------|--------|-------|--------|
| <b>Podľa IF z r. 2021 (zdroj JCR)</b><br><i>Počet článkov / doplnky</i>      | 17 / 0 | 19 / 0 | 11 / 0 | 2 / 0 | 49 / 0 |
| <b>Podľa SJR z r. 2021 (zdroj Scimago)</b><br><i>Počet článkov / doplnky</i> | 28 / 0 | 20 / 0 | 3 / 0  | 4 / 0 | 55 / 0 |

Tabuľka 2g Ohlasy

| OHLASY                                                                               | Počet v r. 2021/<br>doplnky z r. 2020 |
|--------------------------------------------------------------------------------------|---------------------------------------|
| <b>Citácie vo WOS (1.1, 2.1)</b>                                                     | 1571 / 38                             |
| <b>Citácie v SCOPUS (1.2, 2.2)</b>                                                   | 115 / 0                               |
| <b>Citácie v iných citačných indexoch a databázach (9, 10, 3.2, 4.2)</b>             | 0 / 0                                 |
| <b>Citácie v publikáciách neregistrovaných v citačných indexoch (3, 4, 3.1, 4.1)</b> | 8 / 0                                 |
| <b>Recenzie na práce autorov z organizácie (5, 6, 7, 8)</b>                          | 0 / 0                                 |

## 2.5. Aktívna účasť na vedeckých podujatiach

Tabuľka 2h Vedecké podujatia

|                                                                    |    |
|--------------------------------------------------------------------|----|
| <b>Prednášky a vývesky na medzinárodných vedeckých podujatiach</b> | 49 |
| <b>Prednášky a vývesky na národných vedeckých podujatiach</b>      | 44 |

## 2.6. Vyžiadané prednášky

Ak boli príspevky publikované, sú súčasťou prílohy C, kategória (AFC, AFD, AFE, AFF, AFG, AFH)

### 2.6.1. Vyžiadané prednášky na medzinárodných vedeckých podujatiach

1. **Feilhauer**, J., Mruczkiewicz, M., Šoltýs, J., Zelent, M., Vetrova, Iu.V., Krylov, S., Tóbiš, J., Bublikov, K., Ščepka, T., Fedor, J., Dérier, J., and Cambel, V.: Noncollinear magnetic nanostructures as building blocks of topological magnonic crystals and magnetic force microscopy probes. In IEEE 12<sup>th</sup> Inter. Conf. Nanomater.: Applications & Properties. Krakow 2022.
2. **Gömöry**, F. and Solovyov, M.: Use of electromagnetic potentials for the modeling of critical state and AC losses in superconducting wires and cables. In: CIMTEC 2022 - 15<sup>th</sup> Inter. Conf. on Modern Mater. Technol. Perugia 2022.
3. **Gucmann**, F., Hušeková, K., Dobročka, E., Nádaždy, P., Rosová, A., Egyenes, F., Hrubíšák, F., Keshtkar, J., Kubranská, A., and Ľapajna, M.: Ga<sub>2</sub>O<sub>3</sub> vs heat: anisotropy, thermal stability, and heat removal. In: E-MRS 2022 Fall meeting, Warsaw 2022.
4. **Skákalová**, V.: Toward exotic layered materials: 2d metal iodide. In 16<sup>th</sup> Inter. Conf. on Nanostruct. Mater. NANO 2022. Seville 2022.

## 2.6.2. Vyžiadané prednášky na národných vedeckých podujatiach

1. **Chromik, Š.**, Španková, M., Rosová, A., Dobročka, E., Gregor, M., Vojteková, T., Cordier, Y., Pécz, B., and Giannazzo, F.: Structural properties of MoS<sub>2</sub> and WS<sub>2</sub> two-dimensional systems prepared by PLD method on some specific substrates. In: 12<sup>th</sup> Inter. Conf. Solid State Surfaces Interfaces Conf. - SSSI 2022. Smolenice 2022.
2. **Gömöry, F.**: Silnoprúdové aplikácie supravodičov. In 1. letná škola fyziky kond. látok. Liptovský Ján 2022.
3. **Gucmann, F.**: Mať nanoprsty v materiálovej vede. In: Vedecký seminár víťazov súťaže mladých vedeckých pracovníkov SAV do 35 rokov. Košice 2022.
4. **Moško, M.**, Koscelanská, M., Plecenik, T., Volko, S., Gregor, M., Mošková, A., Vidiš, M., Durina, P., Roch, T., Grančič, B., Satrapinsky, L., Kúš, P., and Plecenik, A.: Point contact spectroscopy of superconductors using nanofilament in a titanium-oxide based memristor In: 12<sup>th</sup> Inter. Conf. Solid State Surfaces Interfaces Conf. - SSSI 2022. Smolenice 2022.
5. Pinčík, E., Kobayashi, H., Brunner, R., Mikula, M., **Kučera, M.**, Vojtek, P., Zábudlá, Z., Greguš, J., and Bačová, S.: Porous silicon and solar cell application. In: 12<sup>th</sup> Inter. Conf. Solid State Surfaces Interfaces Conf. - SSSI 2022. Smolenice 2022.
6. **Tóbiš, J.**: Umelé spinové kryštály, ich magnónové spektrum a možnosť manipulácie s ich základným stavom. In 26. konf. slov. fyzikov. Košice 2022.
7. Zehetner, J., **Vanko, G.**, Dohnal, F., **Izsák, T.**, Držík, M., and Kromka, A.: Recent challenges in micromachining of wide-bandgap materials and fabrication of MEMS for harsh environments. In 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. - ADEPT. Tatranská Lomnica 2022.

## 2.6.3. Vyžiadané prednášky na významných vedeckých inštitúciách

1. **Gucmann, F.**: Ga<sub>2</sub>O<sub>3</sub> vs heat: anisotropy, thermal stability, and heat removal. In Wuhan University, China 2022.
2. **Hutár, P.**, Hulman, M., Hofer, Ch., Kotrusz, P., and Skákalová, V.: Advances in graphene preparation through chemical routes: Characterization and application. In Norwegian Inst. for Air Research 2022.

## 2.7. Patentová a licenčná činnosť na Slovensku a v zahraničí v roku 2022

### 2.7.1. Vynálezy, na ktoré bol v roku 2022 udelený patent

#### a) na Slovensku

Názov vynálezu: Vertikálny GaN tranzistor s izolačným kanálom a spôsob jeho prípravy

Číslo patentu: SK289027

Dátum priority: 2017

Majiteľ / spolumajiteľ: Elektrotechnický ústav SAV

Pôvodcovia vynálezu: Kuzmík Ján



**b) v zahraničí**

**2.7.2. Vynálezy prihlásené v roku 2022**

**a) na Slovensku**

**b) v iných krajinách ako prioritná prihláška**

**c) PCT**

Názov vynálezu: Veľkoplošný detector jadrových častíc a žiarenia s podložkou, spôsob jeho výroby a zapojenie obsahujúce veľkoplošný detektor

Krajina: Slovensko

Číslo prihlášky: PCT/SK2022/050004

Dátum priority: 21.3.2022

Majiteľ / spolumajiteľ: Elektrotechnický ústav SAV

Pôvodcovia vynálezu: Zaľko Bohumír, Dubecký František

**d) EP**

**e) v iných krajinách v rámci tzv. národnej fázy po PCT, resp. po validácii EP**

**2.7.3. Úžitkové vzory na Slovensku**

**a) prihlásené v roku 2022**

**b) udelené v roku 2022**

Názov UV: Veľkoplošný detector jadrových častíc a žiarenia s podložkou, spôsob jeho výroby a zapojenie obsahujúce veľkoplošný detektor

Číslo UV: PUV50028-2021

Dátum udelenia: 19.2.2022

Majiteľ / spolumajiteľ UV: Elektrotechnický ústav SAV

Pôvodcovia UV: Zaľko Bohumír, Dubecký František

**2.7.4. Realizované vynálezy**

**a) predané patenty resp. prihlášky vynálezov (v prípade úplnej zmeny majiteľa patentu)**

**b) predané licencie (v prípade že majiteľom ostáva organizácia SAV)**

*Finančný prínos pre organizáciu SAV v roku 2022 a súčet za predošlé roky sa neuvádzajú, ak je zverejnenie v rozpore so zmluvou súvisiacou s realizáciou patentu.*

**2.8. Účasť expertov na hodnotení národných projektov (APVV, VEGA a iných)**

Tabuľka 2i Experti hodnotiaci národné projekty

| Meno pracovníka   | Typ programu/projektu/výzvy | Počet hodnotených projektov |
|-------------------|-----------------------------|-----------------------------|
| Hulman Martin     | SAS-HAS Mobility Project    | 1                           |
|                   | VEGA                        | 2                           |
| Chromik Štefan    | VEGA                        | 3                           |
| Rosová Alica      | APVV                        | 1                           |
| Sojková Michaela  | VEGA                        | 1                           |
| Španková Marianna | VEGA                        | 1                           |
| Vanko Gabriel     | VEGA                        | 1                           |

**2.9. Účasť na spracovaní hesiel do encyklopédie Beliana**

Počet autorov hesiel: 0

**2.10. Recenzovanie knižných publikácií a príspevkov vo vedeckých časopisoch**

Tabuľka 2j Počet vypracovaných recenzií na vedecké monografie, vedecké štúdie a zborníky

| Meno pracovníka   | Ved. monografie |             | Príspevky v časopisoch |              |         | Zborníky |             |
|-------------------|-----------------|-------------|------------------------|--------------|---------|----------|-------------|
|                   | Domáce          | Zahra-ničné | WoS, SCOPUS            | Iné databázy | Ostatné | Domáce   | Zahra-ničné |
| Gömöry Fedor      | 0               | 0           | 28                     | 0            | 0       | 0        | 0           |
| Gregušová Dagmar  | 0               | 0           | 10                     | 0            | 0       | 0        | 0           |
| Gucmann Filip     | 0               | 0           | 11                     | 0            | 0       | 0        | 0           |
| Hudec Boris       | 0               | 0           | 6                      | 0            | 0       | 0        | 0           |
| Hulman Martin     | 0               | 0           | 2                      | 0            | 0       | 0        | 0           |
| Chromik Štefan    | 0               | 0           | 2                      | 0            | 0       | 0        | 0           |
| Kováč Pavol       | 0               | 0           | 19                     | 0            | 0       | 0        | 0           |
| Kuzmík Ján        | 0               | 0           | 7                      | 0            | 0       | 0        | 0           |
| Mošat' Marek      | 0               | 0           | 3                      | 0            | 0       | 0        | 0           |
| Osvald Jozef      | 0               | 0           | 5                      | 0            | 0       | 0        | 0           |
| Pardo Enric       | 0               | 0           | 8                      | 0            | 0       | 0        | 0           |
| Rosová Alica      | 0               | 0           | 1                      | 0            | 0       | 0        | 0           |
| Skákalová Viera   | 0               | 0           | 4                      | 0            | 0       | 0        | 0           |
| Sojková Michaela  | 0               | 0           | 4                      | 0            | 0       | 0        | 0           |
| Soloviov Mykola   | 0               | 0           | 18                     | 0            | 0       | 0        | 0           |
| Španková Marianna | 0               | 0           | 2                      | 0            | 0       | 0        | 0           |
| Ťapajna Milan     | 0               | 0           | 33                     | 0            | 0       | 0        | 2           |
| Vanko Gabriel     | 0               | 0           | 1                      | 0            | 0       | 0        | 0           |

|               |          |          |            |          |          |          |          |
|---------------|----------|----------|------------|----------|----------|----------|----------|
| Varga Marian  | 0        | 0        | 3          | 0        | 0        | 0        | 0        |
| Zaťko Bohumír | 0        | 0        | 3          | 0        | 0        | 0        | 0        |
| <b>Spolu</b>  | <b>0</b> | <b>0</b> | <b>170</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> |

## 2.11. Iné informácie k vedeckej činnosti.

## 3. Doktorandské štúdium, iná pedagogická činnosť a budovanie ľudských zdrojov pre vedu a techniku

### 3.1. Údaje o doktorandskom štúdiu

Tabuľka 3a Počet doktorandov v roku 2022

| Forma                 | Počet k 31.12.2022 |   |                    |   | Počet doktorandov po doktorandskej skúške |   | Počet ukončených doktorantúr v r. 2022 |   |                     |   |                     |   |
|-----------------------|--------------------|---|--------------------|---|-------------------------------------------|---|----------------------------------------|---|---------------------|---|---------------------|---|
|                       |                    |   |                    |   |                                           |   | Ukončenie z dôvodov                    |   |                     |   |                     |   |
|                       | celkový počet      |   | z toho novoprijatí |   |                                           |   | ukončenie úspešnou obhajobou           |   | predčasné ukončenie |   | neúspešné ukončenie |   |
| M                     | Ž                  | M | Ž                  | M | Ž                                         | M | Ž                                      | M | Ž                   | M | Ž                   |   |
| Denná zo zdrojov SAV  | 9                  | 3 | 3                  | 1 | 4                                         | 2 | 1                                      | 1 | 0                   | 0 | 0                   | 0 |
| Denná z iných zdrojov | 4                  | 1 | 0                  | 0 | 4                                         | 1 | 0                                      | 0 | 0                   | 0 | 0                   | 0 |
| Externá               | 1                  | 0 | 0                  | 0 | 1                                         | 2 | 0                                      | 0 | 0                   | 2 | 0                   | 0 |
| Spolu                 | 14                 | 4 | 3                  | 1 | 9                                         | 5 | 1                                      | 1 | 0                   | 2 | 0                   | 0 |
| Z toho zahraničných   | 5                  | 2 | 1                  | 1 | 2                                         | 1 | 0                                      | 0 | 0                   | 0 | 0                   | 0 |
| Súhrn                 | 18                 |   | 4                  |   | 14                                        |   | 2                                      |   | 2                   |   | 0                   |   |

Uvádajte len doktorandov organizácie ako externej vzdelávacej inštitúcie.

Riadok „Spolu“ je súčtom troch riadkov nad ním. Každá bunka v riadku „Súhrn“ vyjadruje celkový počet doktorandov (mužov a žien spolu), čiže je súčtom príslušných dvoch buniek z riadku „Spolu“. V stĺpci „Počet doktorandov po doktorandskej skúške“ sa uvádza počet doktorandov, ktorí počas roku 2022 boli aspoň 1 deň doktorandami po doktorandskej skúške. Sú číselne zahrnutí aj v predchádzajúcich stĺpcoch.

Pod predčasným ukončením rozumieme ukončenie bez obhajoby dizertačnej práce pričom doktorand neabsolvoval celú štandardnú dĺžku štúdia. Pod neúspešným ukončením rozumieme ukončenie bez úspešnej obhajoby dizertačnej práce, pričom študent absolvoval celú štandardnú dĺžku štúdia.

### 3.2. Zmena formy doktorandského štúdia

Tabuľka 3b Počty preradení z dennej formy na externú a z externej na dennú

| Pôvodná forma | Denná z prostriedkov SAV | Denná z prostriedkov SAV | Denná z iných zdrojov    | Denná z iných zdrojov | Externá                  | Externá               |
|---------------|--------------------------|--------------------------|--------------------------|-----------------------|--------------------------|-----------------------|
| Nová forma    | Denná z iných zdrojov    | Externá                  | Denná z prostriedkov SAV | Externá               | Denná z prostriedkov SAV | Denná z iných zdrojov |
| Počet         | 3                        | 0                        | 0                        | 0                     | 0                        | 0                     |

**3.3. Zoznam doktorandov, ktorí ukončili doktorandské štúdium úspešnou obhajobou**

Tabuľka 3c Menný zoznam ukončených doktorandov v roku 2022 úspešnou obhajobou

| Meno doktoranda          | Forma DŠ                                   | Mesiac, rok nástupu na DŠ | Mesiac, rok obhajoby | Číslo a názov študijného odboru              | Meno a organizácia školiteľa                                 | Fakulta udeľujúca vedeckú hodnotu           |
|--------------------------|--------------------------------------------|---------------------------|----------------------|----------------------------------------------|--------------------------------------------------------------|---------------------------------------------|
| RNDr. Katarína Neilinger | interné štúdium hrazené z prostriedkov SAV | 9 / 2014                  | 8 / 2022             | 4.1.3 fyzika kondenzovaných látok a akustika | Ing. Ján Šoltýs PhD,<br>Elektrotechnický ústav SAV, v. v. i. | Fakulta matematiky, fyziky a informatiky UK |

**3.4. Zoznam doktorandov, ktorí ukončili doktorandské štúdium úspešnou obhajobou v nadštandardnej dĺžke štúdia**

Tabuľka 3d Menný zoznam ukončených doktorandov v roku 2022 úspešnou obhajobou v nadštandardnej dĺžke štúdia

| Meno doktoranda     | Forma DŠ                                   | Mesiac, rok nástupu na DŠ | Mesiac, rok obhajoby | Číslo a názov študijného odboru | Meno a organizácia školiteľa                                         | Fakulta udeľujúca vedeckú hodnotu         |
|---------------------|--------------------------------------------|---------------------------|----------------------|---------------------------------|----------------------------------------------------------------------|-------------------------------------------|
| Ing. Marcel Talacko | interné štúdium hrazené z prostriedkov SAV | 9 / 2016                  | 8 / 2022             | 5.2.48 fyzikálne inžinierstvo   | RNDr. Marianna Španková PhD,<br>Elektrotechnický ústav SAV, v. v. i. | Fakulta elektrotechniky a informatiky STU |

**3.5. Uplatnenie absolventov doktorandského štúdia**

Tabuľka 3e Prehľad uplatnenia absolventov doktorandského štúdia

| Počet absolventov PhD. štúdia v roku 2022 (obhajoba leto 2022) | z toho koľkí sa zamestnali vo výskume (SAV, univerzity, rezortné výskumné ústavy) | z toho koľkí sa zamestnali v praxi mimo výskum, kde využívajú svoju kvalifikáciu | z toho koľkí sa zamestnali v praxi, kde nevyužívajú svoju kvalifikáciu | z toho koľkí boli nejaký čas nezamestnaní |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------|
| 2                                                              | 2                                                                                 | 0                                                                                | 0                                                                      | 0                                         |

Zoznam interných a externých doktorandov je uvedený v prílohe A.

### 3.6. Medzinárodné doktorandské štúdium

Tabuľka 3f Počet študentov v medzinárodných programoch doktorandského štúdia

| Cotutelle | Co-direction | Iné | Zahraniční doktorandi štátne občianstvo/počet |
|-----------|--------------|-----|-----------------------------------------------|
| 0         | 0            | 0   | IRN/3, RUS/3, PAK/1                           |

*Zahraniční doktorandi sú doktorandi v dennej alebo externej forme štúdia, ktorí sú občanmi iných krajín.*

*Doktorandi školení v rámci Cotutelle alebo Co-direction sa do posledného stĺpca nezapočítavajú.*

### 3.7. Zoznam študijných odborov, na ktoré má ústav uzatvorenú rámcovú dohodu, s uvedením VŠ

Tabuľka 3g Zoznam študijných odborov, na ktoré má ústav uzatvorenú rámcovú dohodu, s uvedením univerzity/vysokej školy a fakulty, kde sa doktorandský študijný program uskutočňuje

| Názov študijného odboru (ŠO)           | Číslo ŠO | Názov doktorandského študijného programu | Doktorandské štúdium uskutočňované na (univerzita/vysoká škola a fakulta) |
|----------------------------------------|----------|------------------------------------------|---------------------------------------------------------------------------|
| fyzika                                 | 4.1.1    | Fyzika kondenzovaných látok a akustika   | Fakulta matematiky, fyziky a informatiky UK                               |
| fyzika kondenzovaných látok a akustika | 4.1.3    | Fyzika kondenzovaných látok a akustika   | Fakulta matematiky, fyziky a informatiky UK                               |
| elektronika                            | 5.2.13   | Elektronika a fotonika                   | Fakulta elektrotechniky a informatiky STU                                 |
| fyzikálne inžinierstvo                 | 5.2.48   | Fyzikálne inžinierstvo                   | Fakulta elektrotechniky a informatiky STU                                 |
| elektrotechnika                        | 5.2.9    | Fyzikálne inžinierstvo                   | Fakulta elektrotechniky a informatiky STU                                 |

*Názov a číslo študijného odboru vyplňte/vyberte podľa aktuálne platného zoznamu študijných odborov*

*<https://www.portalvs.sk/sk/studijne-odbory?from=menu1>. Názov doktorandského študijného programu v stĺpci 3 je potrebné vložiť ako voľný text.*

*Do 31. 8. 2023 študujú študenti doktorandského štúdia zaradení do študijných programov podľa zoznamu MŠVVaŠ, platného do 1. 9. 2019. Pre týchto študentov je potrebné napísať názov programu ako voľný text do stĺpca 3 a nevyplňovať stĺpce 1 a 2.*

Tabuľka 3h Účasť na pedagogickom procese

| Menný prehľad pracovníkov, ktorí boli menovaní do odborových komisií pre doktorandské štúdium | Menný prehľad pracovníkov, ktorí pôsobili ako členovia vedeckých rád univerzít, správnych rád univerzít a fakúlt | Menný prehľad pracovníkov, ktorí získali vyššiu vedeckú, pedagogickú hodnotu alebo vyšší kvalifikačný stupeň |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| RNDr. Vladimír Cambel, DrSc. (elektronika)                                                    | doc. Ing. Fedor Gömöry, DrSc. (Elektrotechnická fakulta ŽU)                                                      | RNDr. Katarína Neilinger, PhD. (IIB)                                                                         |
| doc. RNDr. Edmund Dobročka, CSc. (fyzikálne inžinierstvo)                                     | doc. Ing. Fedor Gömöry, DrSc. (Fakulta matematiky, fyziky a informatiky UK)                                      | Mgr. Enric Pardo, PhD. (I)                                                                                   |
| doc. Ing. Fedor Gömöry, DrSc. (fyzikálne inžinierstvo)                                        | doc. Ing. Jozef Novák, DrSc. (Fakulta elektrotechniky a informatiky STU)                                         | Ing. Marcel Talacko, PhD. (IIB)                                                                              |
| RNDr. Dagmar Gregušová, DrSc. (elektrotechnika)                                               |                                                                                                                  | RNDr. Katarína Neilinger, PhD. (PhD., Fakulta matematiky,                                                    |

|                                                                               |  |                                                                                   |
|-------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|
|                                                                               |  | fyziky a informatiky UK)                                                          |
| RNDr. Dagmar Gregušová,<br>DrSc. (elektronika)                                |  | Ing. Marcel Talacko, PhD.<br>(PhD., Fakulta elektrotechniky a<br>informatiky STU) |
| Dr. rer. nat. Martin Hulman<br>(fyzika)                                       |  |                                                                                   |
| Ing. Ján Kuzmík, DrSc.<br>(teoretická elektrotechnika)                        |  |                                                                                   |
| Ing. Ján Kuzmík, DrSc.<br>(elektronika)                                       |  |                                                                                   |
| doc. RNDr. Martin Moško,<br>DrSc. (fyzika kondenzovaných<br>látok a akustika) |  |                                                                                   |
| doc. RNDr. Martin Moško,<br>DrSc. (chemická fyzika)                           |  |                                                                                   |
| doc. RNDr. Martin Moško,<br>DrSc. (teoretická<br>elektrotechnika)             |  |                                                                                   |
| doc. RNDr. Martin Moško,<br>DrSc. (fyzikálne inžinierstvo)                    |  |                                                                                   |
| doc. Ing. Jozef Novák, DrSc.<br>(elektronika)                                 |  |                                                                                   |
| RNDr. Marianna Španková,<br>PhD (elektrotechnika)                             |  |                                                                                   |
| Ing. Milan Ťapajna, PhD.<br>(elektronika)                                     |  |                                                                                   |
| Ing. Gabriel Vanko, PhD.<br>(elektronika)                                     |  |                                                                                   |

### 3.8. Údaje o pedagogickej činnosti

Tabuľka 3i Prednášky a cvičenia vedené v roku 2022

| PEDAGOGICKÁ ČINNOSŤ                        | Prednášky |             | Cvičenia a semináre |             |
|--------------------------------------------|-----------|-------------|---------------------|-------------|
|                                            | doma      | v zahraničí | doma                | v zahraničí |
| Počet prednášateľov alebo vedúcich cvičení | 2         | 0           | 6                   | 0           |
| Celkový počet hodín v r. 2022              | 8         | 0           | 40                  | 0           |

Prehľad prednášateľov predmetov a vedúcich cvičení, s uvedením názvu predmetu, úväzku, katedry, fakulty, univerzity/vysokej školy je uvedený v prílohe D.

Tabuľka 3j Aktivity pracovníkov na VŠ

|    |                                                                                                                                     |    |
|----|-------------------------------------------------------------------------------------------------------------------------------------|----|
| 1. | Počet pracovníkov, ktorí pôsobili ako vedúci alebo konzultanti diplomových a bakalárskych prác                                      | 9  |
| 2. | Počet vedených alebo konzultovaných diplomových a bakalárskych prác                                                                 | 9  |
| 3. | Počet pracovníkov, ktorí pôsobili ako školitelia doktorandov (PhD.)                                                                 | 15 |
| 4. | Počet školených doktorandov (aj pre iné inštitúcie)                                                                                 | 19 |
| 5. | Počet oponovaných dizertačných a habilitačných prác                                                                                 | 1  |
| 6. | Počet pracovníkov, ktorí oponovali dizertačné a habilitačné práce                                                                   | 1  |
| 7. | Počet pracovníkov, ktorí pôsobili ako členovia komisií pre obhajoby DrSc. prác                                                      | 2  |
| 8. | Počet pracovníkov, ktorí pôsobili ako členovia komisií pre obhajoby PhD. prác                                                       | 1  |
| 9. | Počet pracovníkov, ktorí pôsobili ako členovia komisií, resp. oponenti v inauguračnom alebo habilitačnom konaní na vysokých školách | 1  |

### 3.9. Iné dôležité informácie k pedagogickej činnosti

Ústav pozýva zahraničných odborníkov, aby predstavili výsledky v rôznych oblastiach výskumu. V tomto roku odznali prednášky:

- Dr. Chao Yuan (The Institute of Technological Sciences, Wuhan University, China): Pump-probe thermoreflectance techniques for non-contact and non-invasively characterizing the thermal properties of wide bandgap semiconductors
- prof. Pierra Ruterana, (Centre de Recherche sur les Ions, les Matériaux et la Photonique (CIMAP), Univ. Caen, Normandie): Dislocations and inversion domains in the wurtzite structure: a case study by HRTEM in GaN and ZnO
- Dr. Tetiany Kalmykovej (O.Ya. Usikov Institute for Radiophys. and Electron. (IRE) of NAS of Ukraine, Kharkov, v súčasnosti EIÚ SAV): Magnetoresonance Properties Of Complexly Structured Nanostructures
- Christoph Hofer (Univ. Antwerpen EMAT): Fast efficient imaging in scanning transmission electron microscopy via event driven ptychography
- F. Bondino (IOM-CNR, Laboratorio TASC, Trieste): BACH beamline: a multi-spectroscopy surface science approach for the investigation of advanced functional materials

- prof. Dr. Jani Kotakoski (Phys. Nanostructured Mater., Univ. Vienna): Atomic-scale tailoring of 2D materials
- Dr. Sarah M. Bayer-Skoff (Atominstitut, TU Wien): Enhancing light-matter interactions for quantum technologies

Ústav spolupracuje na výučbe predmetov Elektromagnetické prvky a systémy a Nanotechnológie na FEI STU a Praktikum Fyziky tuhých látok na FMFI UK.

Tradične Ústav zamestnáva VŠ študentov formou VPS. Ich práca často vyústi do prípravy semestrálnych, bakalárskych a diplomových prác. V r. 2022 ich bolo 8.

F. Gömory (Godár FEI STU)

Š. Chromik (Bennár diplomant FEI STU)

J. Šoltýs (Vajda diplomant FEI STU)

M. Sojková (V. Tašková diplomantka FEI STU)

Zápražný / Ferkodič (diplomant MTF STU)

R. Ries (Hlaváč bakalár FEI STU)

J. Šouc (Haško bakalár FEI STU)

A. Rosová (A. Kubranská diplomantka FEI STU)

B. Hudec (M. Horský, študent FEI STU)

## 4. Medzinárodná vedecká spolupráca

### 4.1. Medzinárodné vedecké podujatia

**4.1.1. Medzinárodné vedecké podujatia, ktoré organizácia SAV organizovala v roku 2022 alebo sa na ich organizácii podieľala, s vyhodnotením vedeckého a spoločenského prínosu podujatia**

**4.1.2. Medzinárodné vedecké podujatia, ktoré usporiada organizácia SAV v roku 2023 (anglický a slovenský názov podujatia, miesto a termín konania, meno, telefónne číslo a e-mail zodpovedného pracovníka)**

**4.1.3. Počet pracovníkov v programových a organizačných výboroch medzinárodných konferencií**

Tabuľka 4a Programové a organizačné výbory medzinárodných konferencií

| Meno pracovníka   | Programový | Organizačný | Programový i organizačný |
|-------------------|------------|-------------|--------------------------|
| Gömory Fedor      | 1          | 0           | 1                        |
| Španková Marianna | 1          | 0           | 0                        |
| <b>Spolu</b>      | 2          | 0           | 1                        |

### 4.2. Členstvo a funkcie v medzinárodných orgánoch

**4.2.1. Členstvo a funkcie v medzinárodných vedeckých spoločnostiach, úniách a národných komitétach SR**

doc. Ing. Fedor Gömory, DrSc.

Applied Superconductivity Educational Foundation (ASEF) (funkcia: člen výboru)  
European Society for Applied Superconductivity (funkcia: člen výboru)



Ing. Pavol Kováč, DrSc.

Academic Committee for International Congress on Advanced Materials (funkcia: člen)

#### 4.3. Účasť expertov na hodnotení medzinárodných projektov (EÚ RP, ESF a iných)

Tabuľka 4b Experti hodnotiaci medzinárodné projekty

| Meno pracovníka | Typ programu/projektu/výzvy                         | Počet hodnotených projektov |
|-----------------|-----------------------------------------------------|-----------------------------|
| Gömöry Fedor    | Deutsche Forschungsgemeinschaft (DFG)<br>Nemecko    | 1                           |
|                 | Fund for Scientific Research, Belgicko              | 1                           |
|                 | Times Higher Education World University<br>Rankings | 1                           |
| Ťapajna Milan   | EIG Concert-Japan                                   | 4                           |

#### 4.4. Najvýznamnejšie prínosy MVTS ústavu vyplývajúce z mobility a riešenia medzinárodných projektov a iné informácie k medzinárodnej vedeckej spolupráci

*Prehľad údajov o medzinárodnej mobilite pracovníkov organizácie je uvedený v Prílohe E.*

*Prehľad a údaje o medzinárodných projektoch sú uvedené v kapitole 2 a Prílohe B.*

### 5. Koncepcia dlhodobého rozvoja organizácie

#### 5.1. Odporúčania z posledného pravidelného hodnotenia organizácií SAV (akreditácie)

Odporúčané nám boli aktivity, do ktorých sme aj tak chceli investovať

1. Venovať sa novým témam, potláčať menej úspešné
2. Investovať do obnovy prístrojov ústavu
3. Naďalej zlepšovať stratégiu v spolupráci s medzinárodným poradným zborom (IAB)
4. Investovať do obnovy vedcov, doktorandov, postdoktorandov
5. Investovať viac do transferu technológií (IPR, patentovanie, licencie, spin-off a pod.)

#### 5.2. Hlavné body Akčného plánu organizácie a stav ich plnenia

Náš ústav aj pomocou IAB kontroluje plnenie Strategického plánu vzmysle Organizačného poriadku EIÚ SAV, v.v.i.

#### 5.3. Aktualizácia Akčného plánu organizácie v roku 2022

Podľa odporúčaní IAB budeme aktualizovať Strategický plán na jar 2023.

## **6. Spolupráca s univerzitami/vysokými školami a inými subjektmi v oblasti vedy a techniky, okrem aktivít uvedených v kap. 2, 3, 4**

### **6.1. Spoločné pracoviská organizácie**

#### **6.1.1. Spolupráca s univerzitami/VŠ (fakultami)**

**Názov univerzity/vysokej školy a fakulty:** Fakulta elektrotechniky a informatiky STU

**Oblasť spolupráce:** Výchova študentov, spoločná príprava a riešenie projektov a aplikačných riešení

**Sídlo spoločného pracoviska (ak je vytvorené):**

**Začiatok spolupráce:** 1969

**Zhodnotenie:** Výsledkom spolupráce sú spoločné projekty, publikácie a PhD študenti.

**Názov univerzity/vysokej školy a fakulty:** Fakulta matematiky, fyziky a informatiky UK

**Oblasť spolupráce:** Výchova študentov, spoločná príprava a riešenie projektov a aplikačných riešení

**Sídlo spoločného pracoviska (ak je vytvorené):**

**Začiatok spolupráce:** 1992

**Zhodnotenie:** Výsledkom spolupráce sú spoločné projekty, publikácie a PhD študenti.

*Pozn.: uvádzajte len tie spolupráce, na ktoré má organizácia zmluvu resp. memorandum o zriadení spoločného pracoviska, resp. o vzájomnej spolupráci v konkrétnej oblasti výskumu*

#### **6.1.2. Spoločné pracoviská s inými organizáciami SAV**

*Pozn.: uvádzajte len tie spolupráce, na ktoré má organizácia zmluvu resp. memorandum o zriadení spoločného pracoviska, resp. o vzájomnej spolupráci v konkrétnej oblasti výskumu*

### **6.2. Spoločné pracoviská organizácie s inými inštitúciami mimo SAV a VŠ**

*Pozn.: uvádzajte len tie spolupráce, na ktoré má organizácia zmluvu resp. memorandum o zriadení spoločného pracoviska, resp. o vzájomnej spolupráci v konkrétnej oblasti výskumu*

### **6.3. Spoločné projekty s univerzitami a ostatnými inštitúciami mimo SAV**

**Názov projektu:** Dlhodosahový jav blízkosti v supravodič/feromagnet heteroštruktúrach

**Agentúra:** APVV

**číslo projektu:** 19-0303

**Spolupracujúce inštitúcie:** FMFI UK

**Koordinátor projektu:** FMFI UK

**Začiatok spolupráce:** 2020

**Koniec spolupráce:** 2023

**Zhodnotenie:**

**Názov projektu:** Metalické 2D dichalkogenidy prechodných kovov: príprava, štúdium vlastností a korelované stavy

**Agentúra:** APVV

**číslo projektu:** 19-0365

**Spolupracujúce inštitúcie:** FMFI UK

**Koordinátor projektu:** EIÚ SAV

**Začiatok spolupráce:** 2020

**Koniec spolupráce: 2023**

**Zhodnotenie:**

**Názov projektu:** Robustné spinové vlny pre budúce magnonické aplikácie

**Agentúra:** APVV

**číslo projektu:** 19-0311

**Spolupracujúce inštitúcie:** FMFI UK

**Koordinátor projektu:** EIÚ SAV

**Začiatok spolupráce:** 2020

**Koniec spolupráce:** 2023

**Zhodnotenie:**

**Názov projektu:** Optimalizácia okrúhleho kábla z vysokoteplotného supravodiča pre pulzné magnetické polia

**Agentúra:** APVV

**číslo projektu:** 20-0056

**Spolupracujúce inštitúcie:** Materiálovotechnologická fakulta STU

**Koordinátor projektu:** Materiálovotechnologická fakulta STU

**Začiatok spolupráce:** 2021

**Koniec spolupráce:** 2025

**Zhodnotenie:**

**Názov projektu:** Topologicky netriviálne magnetické a supravodivé nanoštruktúry

**Agentúra:** APVV

**číslo projektu:** 20-0425

**Spolupracujúce inštitúcie:** Prírodovedecká fakulta, UPJŠ

**Koordinátor projektu:** Prírodovedecká fakulta, UPJŠ

**Začiatok spolupráce:** 2021

**Koniec spolupráce:** 2024

**Zhodnotenie:**

**Názov projektu:** Nanoelsen – Nanoštrukturované tenkovrstvové materiály vyznačujúce sa slabými väzbovými interakciami pre elektronické a senzorické aplikácie

**Agentúra:** APVV

**číslo projektu:** 21-0278

**Spolupracujúce inštitúcie:** Ústav elektroniky a fotoniky FEI STU

**Koordinátor projektu:** Ústav elektroniky a fotoniky FEI STU

**Začiatok spolupráce:** 2022

**Koniec spolupráce:** 2026

**Zhodnotenie:**

**Názov projektu:** NanoMemb-RF – Moderné nanomembránové heteroštruktúry na báze GaAs pre vysoko produktívne vysokofrekvenčné prvky

**Agentúra:** APVV

**číslo projektu:** 21-0365

**Spolupracujúce inštitúcie:** Ústav elektroniky a fotoniky FEI STU

**Koordinátor projektu:** Ústav elektroniky a fotoniky FEI STU

**Začiatok spolupráce:** 2022

**Koniec spolupráce:** 2025

**Zhodnotenie:**

**Názov projektu:** PEGANEL – p-GaN elektronika pre úsporu energie a post-CMOS obvody

**Agentúra:** APVV

**číslo projektu:** 21-0008

**Spolupracujúce inštitúcie:** Ústav elektroniky a fotoniky FEI STU

**Koordinátor projektu:** EIÚ SAV

**Začiatok spolupráce:** 2022

**Koniec spolupráce:** 2025

**Zhodnotenie:**

**Názov projektu:** Fotonické labortorium na čipe: výskum a vývoj platformy plazmonického senzora pre okamžitú detekciu zložiek v roztokoch

**Agentúra:** APVV

**číslo projektu:** 20-0437

**Spolupracujúce inštitúcie:** Ústav elektroniky a fotoniky FEI STU

**Koordinátor projektu:** Ústav elektroniky a fotoniky FEI STU

**Začiatok spolupráce:** 2021

**Koniec spolupráce:** 2024

**Zhodnotenie:**

**Názov projektu:** Transit2D – Tranzistory na báze 2D kovových chalkogenidov pripravených teplom podporovanou konverziou

**Agentúra:** APVV

**číslo projektu:** 21-0231

**Spolupracujúce inštitúcie:** Ústav elektroniky a fotoniky FEI STU

**Koordinátor projektu:** EIÚ SAV

**Začiatok spolupráce:** 2022

**Koniec spolupráce:** 2026

**Zhodnotenie:**

**Názov projektu:** Moderné elektronické súčiastky na báze ultraširokopásmového polovodiča Ga<sub>2</sub>O<sub>3</sub> pre budúce vysokonapäťové aplikácie

**Agentúra:** APVV

**číslo projektu:** 20-0220

**Spolupracujúce inštitúcie:** Ústav elektroniky a fotoniky FEI STU, Materiálovotechnologická fakulta STU

**Koordinátor projektu:** EIÚ SAV

**Začiatok spolupráce:** 2021

**Koniec spolupráce:** 2025

**Zhodnotenie:**

**Názov projektu:** Radiačne odolnejší senzor pre RTG zobrazovanie vyššej kvality

**Agentúra:** APVV

**číslo projektu:** 18-0273

**Spolupracujúce inštitúcie:** Ústav jadrového a fyzikálneho inžinierstva FEI STU

**Koordinátor projektu:** Ústav jadrového a fyzikálneho inžinierstva FEI STU

**Začiatok spolupráce:** 2019

**Koniec spolupráce:** 2023

**Zhodnotenie:**

**Názov projektu:** Výskum radiačne odolných polovodičových detektorov pre jadrovú energetiku

**Agentúra:** APVV

**číslo projektu:** 18-0243

**Spolupracujúce inštitúcie:** Ústav jadrového a fyzikálneho inžinierstva FEI STU

**Koordinátor projektu:** EIÚ SAV

**Začiatok spolupráce:** 2019

**Koniec spolupráce:** 2022

**Zhodnotenie:**

**Názov projektu:** Vysokoodolné polovodičové senzory ionizujúceho žiarenia pre využitie v radiačnom prostredí

**Agentúra:** VEGA

**číslo projektu:** 2/0084/20

**Spolupracujúce inštitúcie:** Ústav jadrového a fyzikálneho inžinierstva FEI STU

**Koordinátor projektu:** EIÚ SAV

**Začiatok spolupráce:** 2020

**Koniec spolupráce:** 2023

**Zhodnotenie:**

**Názov projektu:** Nanooptické sondy a senzory integrované na optickom vlákne

**Agentúra:** APVV

**číslo projektu:** 20-0264

**Spolupracujúce inštitúcie:** Žilinská univerzita v Žiline

**Koordinátor projektu:** Žilinská univerzita v Žiline

**Začiatok spolupráce:** 2021

**Koniec spolupráce:** 2024

**Zhodnotenie:**

*Pozn.: uviesť konkrétne spoločné aj bilaterálne projekty na základe platnej zmluvy o spolupráci*

#### 6.4. Iné typy spoločných aktivít s inštitúciami mimo SAV

Príprava spoločného projektu IPCEI s firmou Bizzcom s.r.o.

### 7. Aplikácia výsledkov výskumu v spoločenskej a hospodárskej praxi

#### 7.1. Výsledky výskumu organizácie aplikované v spoločenskej a hospodárskej praxi

#### 7.2. Kontraktový – zmluvný výskum (vrátane zahraničných kontraktov)

#### 7.3. Iné formy aplikácie výsledkov výskumu v spoločenskej a hospodárskej praxi

### 8. Aktivity pre Národnú radu SR, vládu SR, ústredné orgány štátnej správy SR a iné organizácie

#### 8.1. Členstvo v poradných zboroch vlády SR, Národnej rady SR, ministerstiev SR, orgánoch EÚ, EP, NATO a pod.

Tabuľka 8a Členstvo v poradných zboroch Národnej rady SR, vlády SR, ministerstiev SR, orgánoch EÚ, EP, NATO a pod.

| Meno pracovníka              | Názov orgánu                           | Funkcia                      |
|------------------------------|----------------------------------------|------------------------------|
| RNDr. Vladimír Cambel, DrSc. | Rozvoj spolupráce s Taiwanom           | Ministerstvo hospodárstva SR |
|                              | Práca na Koncepcii mikroelektroniky SR | Ministerstvo hospodárstva SR |

|                               |                                     |                                            |
|-------------------------------|-------------------------------------|--------------------------------------------|
| doc. Ing. Fedor Gömöry, DrSc. | Akreditačná komisia                 | člen Pracovnej skupiny pre elektrotechniku |
|                               | SKVH                                | člen                                       |
| Ing. Pavol Kováč, DrSc.       | SKVH                                | člen                                       |
| Ing. Ján Kuzmík, DrSc.        | SKVH                                | člen                                       |
| Mgr. Bohumír Zaťko, PhD       | Komisia pre SUJV Dubna pri vláde SR | člen                                       |

**8.2. Expertízna činnosť a iné služby pre štátnu správu a samosprávy****8.3. Členstvo v radách štátnych programov a podprogramov ŠPVV a ŠO**

Tabuľka 8b Členstvo v radách štátnych programov a podprogramov ŠPVV a ŠO

| Meno pracovníka               | Názov orgánu                | Funkcia                                                                                        |
|-------------------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| doc. Ing. Fedor Gömöry, DrSc. | Grantová agentúra MŠ - APVV | Člen Rady pre technické vedy                                                                   |
|                               | Grantová agentúra MŠ - APVV | Člen Rady pre periodické hodnotenie výskumnej, vývojovej, umeleckej a ďalšej tvorivej činnosti |
| Ing. Milan Ťapajna, PhD.      | Grantová agentúra MŠ - APVV | Člen Rady pre technické vedy                                                                   |

**8.4. Prehľad aktuálnych spoločenských problémov, ktoré riešilo pracovisko v spolupráci s Kanceláriou prezidenta SR, s vládnyimi a parlamentnými orgánmi alebo pre ich potrebu****9. Vedecko-organizačné a popularizačné aktivity****9.1. Vedecko-popularizačná činnosť**

Tabuľka 9a Súhrnné počty vedecko-popularizačných činností organizácie SAV

| Typ              | Počet | Typ                  | Počet | Typ                | Počet |
|------------------|-------|----------------------|-------|--------------------|-------|
| prednášky/besedy | 1     | tlač                 | 3     | TV                 | 1     |
| rozhlas          | 0     | internet             | 2     | exkurzie           | 0     |
| publikácie       | 0     | multimediálne nosiče | 0     | dokumentárne filmy | 0     |
| iné              | 2     |                      |       |                    |       |

**9.2. Vedecko-organizačná činnosť**

Tabuľka 9b Vedecko-organizačná činnosť

| Názov podujatia | Domáca/<br>medzinárodná | Miesto | Dátum konania | Počet<br>účastníkov |
|-----------------|-------------------------|--------|---------------|---------------------|
|-----------------|-------------------------|--------|---------------|---------------------|

**9.3. Účasť na výstavách****9.4. Účasť v programových a organizačných výboroch národných konferencií**

Tabuľka 9c Programové a organizačné výbory národných konferencií

| Meno pracovníka | Programový | Organizačný | Programový i organizačný |
|-----------------|------------|-------------|--------------------------|
| Osvald Jozef    | 0          | 0           | 1                        |
| Vanko Gabriel   | 0          | 0           | 1                        |
| <b>Spolu</b>    | 0          | 0           | 2                        |

## 9.5. Členstvo v redakčných radách časopisov

doc. Ing. Fedor Gömöry, DrSc.

IEEE Transactions on Applied Superconductivity (funkcia: člen)

RNDr. Dagmar Gregušová, DrSc.

Electronic Materials - mdpi (funkcia: člen)

Ing. Filip Gucmann, PhD.

MDPI Materials, special issue Wide and Ultra-Wide Bandgap Semiconductor Materials for Power Devices (funkcia: guest editor)

Ing. Štefan Chromik, DrSc.

ICRN Condensed Matter Physics (funkcia: člen)

Ing. Pavol Kováč, DrSc.

Superconductor Science and Technology (funkcia: člen)

doc. Ing. Jozef Novák, DrSc.

Journal of Electrical Engineering (funkcia: člen)

Material Science in Semiconductor Processing (funkcia: člen)

Ing. Jozef Osvald, DrSc.

Materials Science in Semiconductor Processing (funkcia: člen)

Mgr. Enric Pardo, PhD.

Scientific Reports (funkcia: člen)

Superconductor Science and Technology (funkcia: člen)

Ing. Milan Ťapajna, PhD.

MDPI Materials, special issue Wide and Ultra-Wide Bandgap Semiconductor Materials for Power Devices (funkcia: guest editor)

Semiconductor Science and Technology (funkcia: člen)

Ing. Jaroslav Tóbk, PhD.

Scientific Reports (funkcia: člen)

## 9.6. Činnosť v domácich vedeckých spoločnostiach

## 9.7. Iné dôležité informácie o vedecko-organizačných a popularizačných aktivitách

Na slávnostnom bankete Elektrotechnického ústavu SAV, v. v. i., ktorý sa uskutočnil 24. mája 2022 v Kongresovom centre v Smoleniciach, vedenie a vedecká rada ústavu po druhý raz ocenila svojich významných pracovníkov udelením Medaily EIÚ SAV Ivana Hlásnika. Na slávnostnom podujatí sa okrem zamestnancov EIÚ SAV zúčastnili aj predseda SAV prof. RNDr. Pavol Šajgalík, DrSc., podpredseda SAV pre vedu, výskum a inovácie prof. RNDr. Peter Samuely, DrSc., a podpredseda SAV pre 1. oddelenie vied Mgr. Martin Venhart, PhD.

Medaila EIÚ SAV, ktorú sa ústav rozhodol udeľovať ako ocenenie svojim pracovníkom, ako aj vedcom mimo SAV, bola nazvaná podľa významnej osobnosti EIÚ SAV Ing. Ivana Hlásnika, DrSc., bývalého riaditeľa ústavu. Medaila sa udeľuje osobnostiam, ktoré sa výrazným spôsobom zaslúžili o rozvoj EIÚ SAV, zvýšenie kreditu ústavu v zahraničí, ako aj rozvoj vedy a výskumu na Slovensku i v zahraničí. Historicky prvá Medaila EIÚ SAV Ivana Hlásnika bola venovaná jeho pozostalej rodine. V tomto roku sa medaily odovzdávali po dlhšej prestávke spôsobenej covidom a ocenenia udelili vo viacerých kategóriách.

Za mimoriadny vedecký a organizačný prínos k rozvoju EIÚ SAV boli ocenení doc. Ing. Fedor Gömöry, DrSc., a Ing. Karol Fröhlich, DrSc. Cenu za celoživotné dielo, ktoré významne prispelo k rozvoju vedy a výskumu na Slovensku a v zahraničí, získali Ján Déer a Ľubomír Kopera. Prof. Goran Karapetrov z Drexel University vo Filadelfii, USA, získal vyznamenanie za mimoriadne zásluhy o rozvoj medzinárodnej spolupráce EIÚ SAV a za výsledky získané v rámci tejto spolupráce.

Na záver sa prítomným prihovril predseda SAV, ktorý vyzdvihol význam EIÚ SAV, v. v. i., a zablahoželel laureátom Medaily EIÚ SAV Ivana Hlásnika.

## 10. Činnosť knižnično-informačného pracoviska

### 10.1. Knižničný fond

Tabuľka 10a Knižničný fond

|                                       |                                                       |      |
|---------------------------------------|-------------------------------------------------------|------|
| <b>Knižničné jednotky spolu</b>       |                                                       | 2183 |
| z toho                                | knihy a zviazané periodiká                            | 1217 |
|                                       | audiovizuálne dokumenty                               |      |
|                                       | elektronické dokumenty (vrátane digitálnych)          | 146  |
|                                       | mikroformy                                            |      |
|                                       | iné špeciálne dokumenty - dizertácie, výskumné správy | 819  |
|                                       | Rukopisy, vzácne tlače                                |      |
| Počet titulov dochádzajúcich periodík |                                                       | 3    |
| z toho zahraničné periodiká           |                                                       | 1    |
| Ročný prírastok knižničných jednotiek |                                                       | 4    |
| v tom                                 | kúpou                                                 | 1    |
|                                       | darom                                                 | 3    |
|                                       | výmenou                                               |      |
|                                       | bezodplatným prevodom                                 |      |
|                                       | náhradou                                              |      |



|                                              |      |
|----------------------------------------------|------|
| Úbytky knižničných jednotiek                 | 0    |
| Knižničné jednotky spracované automatizovane | 2183 |

Výraz „**v tom**“ označuje úplné (vyčerpávajúce) údaje, ktorých súčet sa musí rovnať údaju v riadku „spolu“, čiže nadradenému riadku.

Výraz „**z toho**“ označuje neúplné (výberové) údaje, ktorých súčet sa nemusí rovnať údaju v riadku „spolu“.

## 10.2. Výpožičky a služby

Tabuľka 10b Výpožičky a služby

| Výpožičky spolu (riadok 1)       |                                  |     |
|----------------------------------|----------------------------------|-----|
| v tom z<br>r. 1                  | prezenčné výpožičky              |     |
|                                  | absenčné výpožičky               |     |
| v tom z<br>r. 1                  | odborná literatúra pre dospelých |     |
|                                  | výpožičky periodík               |     |
| MVS iným knižniciam              |                                  |     |
| MVS z iných knižníc              |                                  |     |
| MMVS iným knižniciam             |                                  |     |
| MMVS z iných knižníc             |                                  |     |
| Počet vypracovaných bibliografií |                                  |     |
| Počet vypracovaných rešerší      |                                  | 254 |

## 10.3. Používatelia

Tabuľka 10c Používatelia

|                                                        |     |
|--------------------------------------------------------|-----|
| Registrovaní používatelia                              | 118 |
| Návštevníci knižnice spolu (bez návštevníkov podujatí) | 0   |

## 10.4. Iné údaje

Tabuľka 10d Iné údaje

|                                                       |   |
|-------------------------------------------------------|---|
| On-line katalóg knižnice na internete ( 1=áno, 0=nie) | 1 |
| Náklady na nákup knižničného fondu v €                |   |

## 10.5. Iné informácie o knižničnej činnosti

## 11. Aktivity v orgánoch SAV

### 11.1. Členstvo vo Výbore Snemu SAV

### 11.2. Členstvo v Predsedníctve SAV a vo Vedeckej rade SAV

### 11.3. Členstvo v komisiách SAV

RNDr. Vladimír Cambel, DrSc.

- Etická komisia SAV (člen)

Ing. Ján Fedor, PhD

- Kontrolná rada areálu SAV (člen)

doc. Ing. Fedor Gömöry, DrSc.

- Akreditačná komisia SAV (člen )
- Komisia pre stratégiu rozvoja SAV (člen)
- Porota pre udeľovanie Medzinárodnej ceny SAV (člen)
- Rada SAV pre vzdelávanie a doktorandské štúdium (člen)

RNDr. Dagmar Gregušová, DrSc.

- Komisia pre posudzovanie vedeckej kvalifikácie (predsedníčka)

### 11.4. Členstvo v orgánoch VEGA

RNDr. Dagmar Gregušová, DrSc.

- Komisia 5 pre elektrotechniku, automatizáciu a riadiace systémy a príbuzné odbory informačných a komunikačných technológií (podpredsedníčka)
- Rozšírené Predsedníctvo VEGA (člen)

Dr. rer. nat. Martin Hulman

- Komisia VEGA č.1 pre matematické vedy, počítačové a informatické vedy fyzikálne vedy (člen )

Ing. Ján Kuzmík, DrSc.

- Komisia 5 pre elektrotechniku, automatizáciu a riadiace systémy a príbuzné odbory informačných a komunikačných technológií (člen)

Ing. Alica Rosová, CSc.

- Komisia pre strojárstvo a príbuzné odbory informačných a komunikačných technológií a materiálové inžinierstvo (člen)

Ing. Milan Ťapajna, PhD.

- Komisia pre elektrotechniku, automatizáciu a riadiace systémy a príbuzné odbory informačných a komunikačných technológií (člen)

Mgr. Bohumír Zat'ko, PhD

- Komisia č. 5 pre elektrotechniku, automatizáciu a riadiace systémy a príbuzné odbory informačných a komunikačných technológií (člen)

## 12. Hospodárenie organizácie

### 12.1. Výdavky organizácie

Tabuľka 12a Výdavky organizácie (skutočnosť k 31. 12. 2022 v €)

| Typ organizácie (v. v. i.)                 |              | Zdroje, z ktorých sa kryli jednotlivé výdavky |                             |                |                         |
|--------------------------------------------|--------------|-----------------------------------------------|-----------------------------|----------------|-------------------------|
| Výdavky                                    | Spolu        | kapitola SAV (111)                            | iné štátne a verejné zdroje | ostatné zdroje | % krytia z kapitoly SAV |
| <b>1. Bežné výdavky</b>                    | 4 054 736,70 | 2 438 538,30                                  | 1 346 007,39                | 270 191,01     | 60,14                   |
| z toho: mzdy (610)                         | 1 948 937,12 | 1 511 886,00                                  | 337 537,19                  | 99 513,93      | 77,57                   |
| vedecká výchova<br>štipendiá (640)         | 127 481,60   | 118 942,25                                    | 300,00                      | 8 239,35       | 93,30                   |
| poistné a príspevok do<br>poisťovní (620)  | 672 485,31   | 514 595,67                                    | 118 805,99                  | 39 083,65      | 76,52                   |
| tovary a služby (630)                      | 696 407,23   | 267 914,38                                    | 330 021,42                  | 98 471,43      | 38,47                   |
| transfery partnerom<br>projektov (640)     | 609 425,44   | 25 200,00                                     | 559 342,79                  | 24 882,65      | 4,14                    |
| <b>2. Kapitálové výdavky</b>               | 73 832,51    | 19 892,51                                     |                             | 53 940,00      | 26,94                   |
| z toho: obstarávanie<br>kapitálových aktív | 73 832,51    | 19 892,51                                     |                             | 53 940,00      | 26,94                   |
| kapitálové transfery                       | 0,00         | 0,00                                          | 0,00                        | 0,00           | 0,00                    |

**12.2. Zdroje financovania organizácie**

Tabuľka 12b Zdroje financovania organizácie (skutočnosť k 31. 12. 2022 v €)

| Typ organizácie (v. v. i.)                    |              | Z toho kategórie  |                      |                                     |                                         |
|-----------------------------------------------|--------------|-------------------|----------------------|-------------------------------------|-----------------------------------------|
| Zdroje                                        | Spolu        | Kapitálové zdroje | zdroje na mzdy (610) | zdroje na odvody do poisťovní (620) | zdroje na transfery partnerom projektov |
| <b>1. kapitola SAV (111)</b>                  | 2 438 538,30 | 30 530,00         | 1 511 886,00         | 514 595,67                          | 0,00                                    |
| z toho: VEGA                                  | 126 750,00   | 23 430,00         |                      |                                     | 0,00                                    |
| MVTS výskumné projekty                        | 50 479,00    | 7 100,00          |                      |                                     | 0,00                                    |
| MVTS podpora                                  | 9 000,00     |                   |                      |                                     | 0,00                                    |
| SASPRO/MOREPRO                                | 12 000,00    |                   |                      |                                     | 0,00                                    |
| Vydávanie časopisov                           | 0,00         |                   |                      |                                     | 0,00                                    |
| Vedecká výchova (štipendiá)                   | 125 214,25   |                   |                      |                                     | 0,00                                    |
| OTAS (630)                                    | 88 613,38    |                   |                      |                                     | 0,00                                    |
| <b>2. ŠF EÚ vr. fin. zo ŠR</b>                | 636 698,01   |                   | 74 453,39            | 26 306,09                           | 398 388,50                              |
| <b>3. medzinárodné grantové projekty</b>      | 259 660,45   |                   | 63 345,29            | 22 843,99                           | 0,00                                    |
| z toho: H2020                                 | 259 660,45   |                   | 63 345,29            | 22 843,99                           | 0,00                                    |
| <b>4. iné štátne a verejné zdroje (spolu)</b> | 822 963,00   |                   | 262 783,80           | 92 499,90                           | 142 845,00                              |
| z toho: APVV                                  | 720 091,00   |                   | 209 308,80           | 73 676,70                           | 142 845,00                              |
| podpora z kapitoly MŠVVaŠ SR (stimuly)        | 102 872,00   |                   | 53 475,00            | 18 823,20                           | 0,00                                    |
| <b>5. ostatné zdroje</b>                      | 121 757,53   |                   |                      |                                     | 0,00                                    |
| z toho: príjmy z prenájmu                     | 0,00         |                   |                      |                                     | 0,00                                    |
| príjmy z podnikateľskej činnosti              | 0,00         |                   |                      |                                     | 0,00                                    |
| príjmy z expertnej činnosti a služieb         | 121 757,53   |                   |                      |                                     | 0,00                                    |

### 13. Nadácie a fondy pri organizácii SAV

### 14. Informácie o aktivitách súvisiacich s uplatňovaním princípov rodovej rovnosti

#### 14.1. Stručné hodnotenie stavu uplatňovania princípov rodovej rovnosti v organizácii, súvisiace aktivity a opatrenia, návrhy na aktualizáciu Plánu rodovej rovnosti SAV

V EIÚ SAV, v.v.i. sú princípy rodovej rovnosti (RR) dôsledne dodržiavané, náš ústav bol v tomto zmysle označený hlavným riešiteľom projektu Athena (G. Bianchim) ako „ostrov pozitívnej deviácie v rámci SAV“. Je to najmä kvôli ústretovosti voči pracovníckam na a po materskej/rodičovskej dovolenke a vďaka Komisii pre rodovú rovnosť a etické problémy, ktorá má na ústave dohľad nad dodržiavaním princípov RR.

O našich skúsenostiach s dodržiavaním RR sme podali informácie na dvoch podujatiach. Prvou bola Akadémia 21.storočia – cestou inklúzií vo výskume a inováciách (CVTI, 3.október 2021), na ktorej prezentovala Mgr. Miroslava Blázyová príspevok „Rodová rovnosť na Elektrotechnickom ústave SAV, v.v.i.“.

Druhým podujatím bol seminár usporiadaný riešiteľmi projektu Athena, kde riaditeľ ústavu V. Cambel podal pre riaditeľov ostatných ústavov informáciu na rovnakú tému „Rodová rovnosť na Elektrotechnickom ústave SAV, v.v.i.“.

#### 14.2. Rodová skladba hlavných riešiteľov (vedúcich) projektov

Tabuľka 14a Rodová skladba hlavných riešiteľov domácich projektov

| ŠTRUKTÚRA PROJEKTOV                                                                        | Organizácia SAV je nositeľom projektu |                 |      | Organizácia SAV je zmluvným partnerom |                                |      |
|--------------------------------------------------------------------------------------------|---------------------------------------|-----------------|------|---------------------------------------|--------------------------------|------|
|                                                                                            | Počet                                 | Hlavný riešiteľ |      | Počet                                 | Hlavný riešiteľ za organizáciu |      |
|                                                                                            |                                       | Muž             | Žena |                                       | Muž                            | Žena |
| <b>1. Projekty VEGA</b>                                                                    | 13                                    | 10              | 3    | 1                                     | 1                              | 0    |
| <b>2. Projekty APVV</b>                                                                    | 14                                    | 14              | 0    | 11                                    | 9                              | 2    |
| <b>3. Projekty EŠIF/OP ŠF</b>                                                              | 1                                     | 1               | 0    | 1                                     | 1                              | 0    |
| <b>4. Projekty SASPRO, MoRePro, IMPULZ</b>                                                 | 1                                     | 1               | 0    | 0                                     | 0                              | 0    |
| <b>5. Iné projekty (FM EHP, Vedecko-technické projekty, na objednávku rezortov a pod.)</b> | 2                                     | 0               | 2    | 0                                     | 0                              | 0    |

Tabuľka 14b Rodová skladba hlavných riešiteľov medzinárodných projektov

| ŠTRUKTÚRA PROJEKTOV                                                  | Organizácia SAV je nositeľom projektu |                 |      | Organizácia SAV je zmluvným partnerom |                                |      |
|----------------------------------------------------------------------|---------------------------------------|-----------------|------|---------------------------------------|--------------------------------|------|
|                                                                      | Počet                                 | Hlavný riešiteľ |      | Počet                                 | Hlavný riešiteľ za organizáciu |      |
|                                                                      |                                       | Muž             | Žena |                                       | Muž                            | Žena |
| <b>1. Projekty Horizont 2020 a Horizont Európa</b>                   | 0                                     | 0               | 0    | 6                                     | 6                              | 0    |
| <b>2. Projekty ERA.NET, ESA, JRP</b>                                 | 0                                     | 0               | 0    | 1                                     | 1                              | 0    |
| <b>3. Projekty COST</b>                                              | 0                                     | 0               | 0    | 3                                     | 3                              | 0    |
| <b>4. Projekty EUREKA, NATO, UNESCO, CERN, IAEA, IVF, ERDF a iné</b> | 0                                     | 0               | 0    | 3                                     | 2                              | 1    |
| <b>5. Projekty v rámci medzivládnych dohôd</b>                       | 0                                     | 0               | 0    | 0                                     | 0                              | 0    |
| <b>6. Bilaterálne projekty MAD, Mobility, Open Mobility</b>          | 0                                     | 0               | 0    | 0                                     | 0                              | 0    |
| <b>7. Bilaterálne projekty ostatné</b>                               | 5                                     | 3               | 2    | 0                                     | 0                              | 0    |
| <b>8. Podpora MVTS z národných zdrojov okrem SAV (APVV a iné)</b>    | 0                                     | 0               | 0    | 0                                     | 0                              | 0    |
| <b>9. SAS-UPJŠ ERC Visiting Fellowship Grants</b>                    | 0                                     | 0               | 0    | 0                                     | 0                              | 0    |
| <b>10. Iné projekty</b>                                              | 0                                     | 0               | 0    | 0                                     | 0                              | 0    |

### 14.3. Výskum zameraný na rodovú problematiku

*Uveďte stručné, základné informácie o projektoch orientovaných na rodovú problematiku, ak organizácia takýto výskum realizuje. Informácie o financovaní a výsledkoch takýchto projektov sa nachádzajú v kapitole 2 a v prílohe C.*

### 15. Iné významné činnosti organizácie SAV

## **16. Vyznamenania, ocenenia a ceny udelené pracovníkom organizácie v roku 2022**

### **16.1. Domáce ocenenia**

#### **16.1.1. Ocenenia SAV**

**Búran Marek**

Súťaž doktorandov a mladých vedeckých pracovníkov do 35 rokov

*Oceňovateľ: SAV*

*Opis: 2. miesto*

**Gömöry Fedor**

Zlatá medaila SAV

*Oceňovateľ: SAV*

**Gucmann Filip**

Ocenenie špičkových publikácií SAV

*Oceňovateľ: SAV*

*Opis: V kategórii Špičkové časopisecké publikácie*

**Gucmann Filip**

Súťaž doktorandov a mladých vedeckých pracovníkov do 35 rokov

*Oceňovateľ: SAV*

*Opis: 2. miesto*

**Mruczkiewicz Michal**

Špičková publikácia SAV

*Oceňovateľ: SAV*

*Opis: kategória Nature Index*

**Sojková Michaela**

Špičková publikácia SAV

*Oceňovateľ: SAV*

*Opis: kategória Nature Index*

**Vetrova Iuliia**

Špičková publikácia SAV

*Oceňovateľ: SAV*

*Opis: kategória Nature Index*

#### **16.1.2. Iné domáce ocenenia**

**Búran Marek**

Študentská osobnosť Slovenska akad. r. 2021/2022

*Oceňovateľ: Junior Chamber International-Slovakia*

*Opis: 1. miesto v kategórii Elektrotechnika, priemyselné technológie za mimoriadne výsledky v študijnej ako aj vedecko-výskumnej oblasti*

**Hrdá Jana**

Študent roka 2022

Oceňovateľ: *Rektor STU*

## **16.2. Medzinárodné ocenenia**

**Varga Marian**

The Best Poster Contest NANOCON 2022

Oceňovateľ: *TANGER Ltd.*

Opis: <https://www.nanocon.eu/en/contests/>

## **17. Poskytovanie informácií v súlade so zákonom č. 211/2000 Z. z. o slobodnom prístupe k informáciám v znení neskorších predpisov (Zákon o slobode informácií)**

## **18. Problémy a podnety pre činnosť SAV**

### **Správu o činnosti organizácie SAV spracoval(i):**

RNDr. Vladimír Cambel, DrSc., 02/ 5922 2552, 2555

Ing. Jozef Fabian, CSc, 02/ 5922 2658

PhDr. Anna Gömöryová, 0903 919 384

Schválila vedecká rada organizácie SAV dňa 17. 1. 2023

**Riaditeľ organizácie SAV**

**Predseda vedeckej rady**



.....  
RNDr. Vladimír Cambel, DrSc.

.....  
RNDr. Dagmar Gregušová, DrSc.



## Prílohy

### Príloha A

#### Zoznam zamestnancov a doktorandov organizácie k 31.12.2022

##### Zoznam zamestnancov podľa štruktúry

|                                        | Meno s titulmi                   | Úväzok<br>(v %) | Ročný prepočítaný<br>úväzok |
|----------------------------------------|----------------------------------|-----------------|-----------------------------|
| <b>Vedúci vedeckí pracovníci DrSc.</b> |                                  |                 |                             |
| 1.                                     | RNDr. Vladimír Cambel, DrSc.     | 100             | 1.00                        |
| 2.                                     | doc. Ing. Fedor Gömöry, DrSc.    | 100             | 1.00                        |
| 3.                                     | RNDr. Dagmar Gregušová, DrSc.    | 100             | 1.00                        |
| 4.                                     | Ing. Štefan Chromík, DrSc.       | 40              | 0.40                        |
| 5.                                     | Ing. Pavol Kováč, DrSc.          | 100             | 1.00                        |
| 6.                                     | Ing. Ján Kuzmík, DrSc.           | 100             | 1.00                        |
| 7.                                     | doc. RNDr. Martin Moško, DrSc.   | 40              | 0.18                        |
| 8.                                     | doc. Ing. Jozef Novák, DrSc.     | 60              | 0.60                        |
| 9.                                     | Ing. Jozef Osvald, DrSc.         | 40              | 0.40                        |
| 10.                                    | doc. Ing. Viera Skákalová, DrSc. | 60              | 0.60                        |
| <b>Samostatní vedeckí pracovníci</b>   |                                  |                 |                             |
| 1.                                     | Ing. Michal Blaho, PhD.          | 100             | 1.00                        |
| 2.                                     | RNDr. Pavol Boháček, CSc.        | 40              | 0.40                        |
| 3.                                     | doc. RNDr. Edmund Dobročka, CSc. | 80              | 0.80                        |
| 4.                                     | Ing. Ján Fedor, PhD              | 100             | 1.00                        |
| 5.                                     | Mgr. Juraj Feilhauer, PhD.       | 100             | 1.00                        |
| 6.                                     | Ing. Filip Gucmann, PhD.         | 100             | 1.00                        |
| 7.                                     | RNDr. Štefan Haščík, PhD.        | 60              | 0.60                        |
| 8.                                     | Ing. Boris Hudec, PhD.           | 100             | 1.00                        |
| 9.                                     | Dr. rer. nat. Martin Hulman      | 100             | 1.00                        |
| 10.                                    | Ing. Tibor Izsák, PhD.           | 100             | 1.00                        |
| 11.                                    | RNDr. Dušan Korytár, CSc.        | 25              | 0.25                        |
| 12.                                    | Mgr. Peter Kotrusz, PhD.         | 100             | 0.40                        |
| 13.                                    | Mgr. Ján Kováč, PhD.             | 100             | 1.00                        |
| 14.                                    | RNDr. Michal Kučera, PhD         | 50              | 0.50                        |
| 15.                                    | Ing. Róbert Kúdela, CSc.         | 40              | 0.40                        |
| 16.                                    | Mgr. Agáta Laurenčíková, PhD.    | 100             | 0.50                        |
| 17.                                    | Ing. Peter Lobotka, CSc.         | 20              | 0.20                        |

|                           |                                    |     |      |
|---------------------------|------------------------------------|-----|------|
| 18.                       | RNDr. Antónia Mošková, CSc.        | 100 | 1.00 |
| 19.                       | Dr. Michal Mruczkiewicz            | 25  | 0.38 |
| 20.                       | Mgr. Enric Pardo, PhD.             | 100 | 1.00 |
| 21.                       | Ing. Marián Precner, PhD.          | 100 | 1.00 |
| 22.                       | Ing. Alica Rosová, CSc.            | 100 | 1.00 |
| 23.                       | Mgr. Eugen Seiler, PhD             | 100 | 1.00 |
| 24.                       | Mgr. Michaela Sojková, PhD.        | 100 | 1.00 |
| 25.                       | Mgr. Mykola Soloviov, PhD.         | 100 | 1.00 |
| 26.                       | Ing. Roman Stoklas, PhD.           | 100 | 1.00 |
| 27.                       | Ing. Ján Šoltýs, PhD               | 100 | 1.00 |
| 28.                       | Ing. Ján Šouc, CSc.                | 80  | 0.80 |
| 29.                       | RNDr. Marianna Španková, PhD       | 100 | 1.00 |
| 30.                       | Ing. Milan Ťapajna, PhD.           | 75  | 0.75 |
| 31.                       | Ing. Jaroslav Tóvik, PhD.          | 80  | 0.80 |
| 32.                       | Ing. Gabriel Vanko, PhD.           | 100 | 1.00 |
| 33.                       | Ing. Marian Varga, PhD.            | 100 | 1.00 |
| 34.                       | Ing. Zdenko Zápražný, PhD.         | 100 | 1.00 |
| 35.                       | Mgr. Bohumír Zaťko, PhD            | 100 | 1.00 |
| <b>Vedeckí pracovníci</b> |                                    |     |      |
| 1.                        | Mgr. Konstantin Bublikov, PhD.     | 100 | 0.53 |
| 2.                        | MSc. Anang Dadhich, PhD.           | 100 | 1.00 |
| 3.                        | Ing. Jozef Fabian, CSc             | 100 | 1.00 |
| 4.                        | Ing. Norbert Gál, PhD.             | 100 | 0.83 |
| 5.                        | Ing. Ladislav Hrubčín, CSc.        | 20  | 0.15 |
| 6.                        | Mgr. Peter Hutár, PhD.             | 100 | 1.00 |
| 7.                        | RNDr. Tetiana Kalmykova, PhD.      | 100 | 0.75 |
| 8.                        | Ing. Tomáš Kujovič, PhD.           | 100 | 1.00 |
| 9.                        | Ing. Marek Mošat', PhD.            | 100 | 1.00 |
| 10.                       | Mgr. Peter Nádaždy, PhD.           | 50  | 0.50 |
| 11.                       | RNDr. Katarína Neilinger, PhD.     | 80  | 0.67 |
| 12.                       | RNDr. Lenka Pribusová Slušná, PhD. | 100 | 1.00 |
| 13.                       | Ing. Rastislav Ries, PhD.          | 100 | 1.00 |
| 14.                       | Dr. Arpit Kumar Srivastava         | 100 | 1.00 |
| 15.                       | Ing. Tomáš Ščepka, PhD.            | 100 | 1.00 |
| 16.                       | Ing. Marcel Talacko, PhD.          | 100 | 0.67 |

| <b>Odborní pracovníci s VŠ vzdelaním (výskumní a vývojoví zamestnanci)</b> |                                |     |      |
|----------------------------------------------------------------------------|--------------------------------|-----|------|
| 1.                                                                         | Ing. Michal Bennár             | 10  | 0.03 |
| 2.                                                                         | Ing. Dušan Berek               | 100 | 1.00 |
| 3.                                                                         | Ing. Marek Búran               | 100 | 0.40 |
| 4.                                                                         | Mgr. Fridrich Egyenes          | 100 | 0.40 |
| 5.                                                                         | Ing. Peter Eliáš               | 100 | 1.00 |
| 6.                                                                         | MSc. Ghazaleh Esmaeili Dehaghi | 10  | 0.28 |
| 7.                                                                         | Ing. Lubomír Frolek            | 100 | 1.00 |
| 8.                                                                         | Ing. Stanislav Hasenöhrl       | 100 | 1.00 |
| 9.                                                                         | Mgr. Jana Hrdá                 | 10  | 0.10 |
| 10.                                                                        | Ing. Fedor Hrubíšák            | 10  | 0.10 |
| 11.                                                                        | MSc. Arif Hussain              | 10  | 0.10 |
| 12.                                                                        | Ing. Imrich Hušek              | 100 | 1.00 |
| 13.                                                                        | RNDr. Kristína Hušeková        | 100 | 1.00 |
| 14.                                                                        | MSc. Javad Keshtar             | 10  | 0.10 |
| 15.                                                                        | Ing. Eva Kováčová              | 100 | 1.00 |
| 16.                                                                        | Sergei Krylov                  | 10  | 0.10 |
| 17.                                                                        | Ing. Martin Kucharovič         | 10  | 0.10 |
| 18.                                                                        | Ing. Tibor Melíšek             | 60  | 0.63 |
| 19.                                                                        | MSc. Saviz Parsa Saeb          | 10  | 0.10 |
| 20.                                                                        | Mgr. Michal Pecz               | 10  | 0.37 |
| 21.                                                                        | Ing. Ondrej Pohorelec          | 100 | 1.00 |
| 22.                                                                        | Mgr. Mária Sekáčová            | 60  | 0.60 |
| 23.                                                                        | Mgr. Peter Šichman             | 100 | 1.00 |
| 24.                                                                        | Mgr. Iuliia Vetrova            | 100 | 0.60 |
| 25.                                                                        | Mgr. Tatiana Vojteková         | 10  | 0.10 |
| <b>Odborní pracovníci s VŠ vzdelaním (ostatní zamestnanci)</b>             |                                |     |      |
| 1.                                                                         | Mgr. Miroslava Blázyová        | 100 | 1.00 |
| 2.                                                                         | PhDr. Anna Gömöryová           | 100 | 1.00 |
| 3.                                                                         | Ing. Pavol Mozola              | 100 | 1.00 |
| 4.                                                                         | Mgr. Vojtech Ogrodník          | 40  | 0.40 |
| 5.                                                                         | Ing. Marta Zofcsáková          | 100 | 1.00 |
| 6.                                                                         | Mgr. Eva Žiačiková             | 100 | 0.75 |
| <b>Odborní pracovníci ÚSV</b>                                              |                                |     |      |
| 1.                                                                         | Juraj Arbet                    | 100 | 1.00 |

|                           |                       |     |      |
|---------------------------|-----------------------|-----|------|
| 2.                        | Ján Dérer             | 60  | 0.60 |
| 3.                        | Michal Gerboc         | 100 | 1.00 |
| 4.                        | Iveta Grófova         | 100 | 1.00 |
| 5.                        | Martin Grujbár        | 100 | 1.00 |
| 6.                        | Ľubomír Kopera        | 100 | 1.00 |
| 7.                        | Magdaléna Krajčírová  | 100 | 1.00 |
| 8.                        | Peter Martiš          | 100 | 1.00 |
| 9.                        | Darina Ružičková      | 100 | 0.08 |
| 10.                       | Jana Ryzá             | 100 | 1.00 |
| 11.                       | Alena Seifertová      | 100 | 1.00 |
| 12.                       | Edita Sýkorová        | 50  | 0.50 |
| 13.                       | Edita Šimeková        | 100 | 1.00 |
| 14.                       | Stanislav Štefánik    | 100 | 1.00 |
| 15.                       | Juraj Tančár          | 50  | 0.50 |
| 16.                       | Iveta Tóthová         | 100 | 1.00 |
| <b>Ostatní pracovníci</b> |                       |     |      |
| 1.                        | Jolana Častková       | 100 | 1.00 |
| 2.                        | Kvetoslava Hamburgová | 100 | 1.00 |
| 3.                        | Iveta Putiková        | 100 | 1.00 |
| 4.                        | Ivo Šimek             | 50  | 0.55 |
| 5.                        | Róbert Vanek          | 100 | 1.00 |

**Zoznam zamestnancov, ktorí odišli v priebehu roka**

|                                        | Meno s titulmi             | Dátum odchodu | Ročný prepočítaný úväzok |
|----------------------------------------|----------------------------|---------------|--------------------------|
| <b>Vedúci vedeckí pracovníci DrSc.</b> |                            |               |                          |
| 1.                                     | Ing. Karol Fröhlich, DrSc. | 30.6.2022     | 0.25                     |
| <b>Samostatní vedeckí pracovníci</b>   |                            |               |                          |
| 1.                                     | Ing. Jozef Huran, CSc.     | 30.6.2022     | 0.00                     |
| 2.                                     | Ing. Peter Lobotka, CSc.   | 31.12.2022    | 0.20                     |
| <b>Odborní pracovníci ÚSV</b>          |                            |               |                          |
| 1.                                     | Karol Schwarz              | 30.11.2022    | 0.46                     |
| 2.                                     | Margita Valentínová        | 30.6.2022     | 0.45                     |
| <b>Ostatní pracovníci</b>              |                            |               |                          |
| 1.                                     | Milan Kantner              | 30.6.2022     | 0.50                     |

**Zoznam doktorandov**

|                                                      | Meno s titulmi                 | Škola/fakulta                               | Študijný odbor                               |
|------------------------------------------------------|--------------------------------|---------------------------------------------|----------------------------------------------|
| <b>Interní doktorandi hradení z prostriedkov SAV</b> |                                |                                             |                                              |
| 1.                                                   | Ing. Michal Bennár             | Fakulta elektrotechniky a informatiky STU   | 5.2.48 fyzikálne inžinierstvo                |
| 2.                                                   | Mgr. Konstantin Bublikov       | Fakulta matematiky, fyziky a informatiky UK | 4.1.3 fyzika kondenzovaných látok a akustika |
| 3.                                                   | MSc. Ghazaleh Esmaeili Dehaghi | Fakulta elektrotechniky a informatiky STU   | 5.2.48 fyzikálne inžinierstvo                |
| 4.                                                   | Mgr. Jana Hrdá                 | Fakulta elektrotechniky a informatiky STU   | 5.2.9 elektrotechnika                        |
| 5.                                                   | Ing. Fedor Hrubíšák            | Fakulta elektrotechniky a informatiky STU   | 5.2.9 elektrotechnika                        |
| 6.                                                   | MSc. Arif Hussain              | Fakulta elektrotechniky a informatiky STU   | 5.2.48 fyzikálne inžinierstvo                |
| 7.                                                   | MSc. Javad Keshtar             | Fakulta elektrotechniky a informatiky STU   | 5.2.9 elektrotechnika                        |
| 8.                                                   | Sergei Krylov                  | Fakulta matematiky, fyziky a informatiky UK | 4.1.3 fyzika kondenzovaných látok a akustika |
| 9.                                                   | Ing. Martin Kucharovič         | Fakulta elektrotechniky a informatiky STU   | 5.2.9 elektrotechnika                        |
| 10.                                                  | MSc. Saviz Parsa Saeb          | Fakulta elektrotechniky a informatiky STU   | 5.2.9 elektrotechnika                        |
| 11.                                                  | Mgr. Michal Pecz               | Fakulta matematiky, fyziky a informatiky UK | 4.1.3 fyzika kondenzovaných látok a akustika |
| 12.                                                  | Mgr. Tatiana Vojteková         | Fakulta matematiky, fyziky a informatiky UK | 4.1.1 fyzika                                 |
| <b>Interní doktorandi hradení z iných zdrojov</b>    |                                |                                             |                                              |
| 1.                                                   | Ing. Marek Búran               | Fakulta elektrotechniky a informatiky STU   | 5.2.48 fyzikálne inžinierstvo                |
| 2.                                                   | Mgr. Fridrich Egyenes          | Fakulta matematiky, fyziky a informatiky UK | 4.1.3 fyzika kondenzovaných látok a akustika |
| 3.                                                   | Ing. Ondrej Pohorelec          | Fakulta elektrotechniky a informatiky STU   | 5.2.13 elektronika                           |
| 4.                                                   | Mgr. Peter Šichman             | Fakulta matematiky, fyziky a informatiky UK | 4.1.3 fyzika kondenzovaných látok a akustika |
| 5.                                                   | Mgr. Iuliia Vetrova            | Fakulta matematiky, fyziky a informatiky UK | 4.1.3 fyzika kondenzovaných látok a akustika |
| <b>Externí doktorandi</b>                            |                                |                                             |                                              |
| 1.                                                   | Ing. Ivan Kundrata             | Fakulta matematiky, fyziky a informatiky UK | 4.1.3 fyzika kondenzovaných látok a akustika |

**Zoznam zamestnancov prijatých do jedného roka od získania PhD.**

|  | Meno s titulmi | Dátum obhajoby | Dátum prijatia | Úväzok (v %) |
|--|----------------|----------------|----------------|--------------|
|--|----------------|----------------|----------------|--------------|

**Zoznam emeritných vedeckých zamestnancov**

|    | Meno s titulmi               |
|----|------------------------------|
| 1. | Ing. František Dubecký, CSc. |

## **Príloha B**

### **Projekty riešené v organizácii**

#### **Medzinárodné projekty**

#### **Programy: COST**

##### **1.) Európska sieť pre inovatívnu a pokročilú epitaxiu (*European Network for Innovative and Advanced Epitaxy*)**

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Zodpovedný riešiteľ:</b>                   | Ján Kuzmík                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Trvanie projektu:</b>                      | 1.11.2021 / 30.10.2025                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Evidenčné číslo projektu:</b>              | CA20116                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Organizácia je koordinátorom projektu:</b> | nie                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Koordinátor:</b>                           | Centre des Nanosciences et des Nanotechnologies, C2N-CNRS-UMR9001, Université Paris-Saclay, France                                                                                                                                                                                                                                                                                                                          |
| <b>Počet spoluriešiteľských inštitúcií:</b>   | 31 - Rakúsko: 1, Belgicko: 1, Bulharsko: 1, Bosna a Hercegovina: 1, Cyprus: 1, Česko: 1, Nemecko: 1, Dánsko: 1, Španielsko: 1, Estónsko: 1, Fínsko: 1, Veľká Británia: 1, Grécko: 1, Chorvátsko: 1, Maďarsko: 1, Švajčiarsko: 1, Írsko: 1, Izrael: 1, Taliansko: 1, Litva: 1, Luxembursko: 1, Lotyšsko: 1, Moldavsko: 1, Holandsko: 1, Nórsko: 1, Poľsko: 1, Portugalsko: 1, Rumunsko: 1, Srbsko: 1, Švédsko: 1, Turecko: 1 |
| <b>Čerpané financie:</b>                      | -<br>Podpora medzinárodnej spolupráce z národných zdrojov: 3333 €                                                                                                                                                                                                                                                                                                                                                           |

##### **2.) Ultrarýchla magneto-optoelektronika pre nedisipatívnu informačnú technológiu (*Ultrafast opto-magneto-electronics for non-dissipative information technology*)**

|                                               |                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Zodpovedný riešiteľ:</b>                   | Michał Mruczkiewicz                                                                                                                                                                                                                                                                                                           |
| <b>Trvanie projektu:</b>                      | 3.10.2018 / 2.10.2022                                                                                                                                                                                                                                                                                                         |
| <b>Evidenčné číslo projektu:</b>              | CA17123                                                                                                                                                                                                                                                                                                                       |
| <b>Organizácia je koordinátorom projektu:</b> | nie                                                                                                                                                                                                                                                                                                                           |
| <b>Koordinátor:</b>                           | Radboud University, Nijmegen                                                                                                                                                                                                                                                                                                  |
| <b>Počet spoluriešiteľských inštitúcií:</b>   | 33 - Belgicko: 1, Bulharsko: 2, Česko: 3, Nemecko: 1, Dánsko: 2, Španielsko: 1, Fínsko: 1, Francúzsko: 2, Veľká Británia: 1, Grécko: 2, Chorvátsko: 1, Maďarsko: 1, Švajčiarsko: 1, Island: 2, Taliansko: 2, Holandsko: 1, Nórsko: 1, Poľsko: 1, Portugalsko: 1, Rumunsko: 1, Srbsko: 2, Slovinsko: 1, Švédsko: 1, Turecko: 1 |
| <b>Čerpané financie:</b>                      | -                                                                                                                                                                                                                                                                                                                             |

##### **3.) Vysokoteplotná supravodivosť pre zrýchlenie prechodu k čistejšej energii (*High-T<sub>e</sub>High-Temperature SuperConductivity for AcceLerating the Energy Transition*)**

|                                               |                       |
|-----------------------------------------------|-----------------------|
| <b>Zodpovedný riešiteľ:</b>                   | Enric Pardo           |
| <b>Trvanie projektu:</b>                      | 8.10.2020 / 7.10.2024 |
| <b>Evidenčné číslo projektu:</b>              | CA19108               |
| <b>Organizácia je koordinátorom projektu:</b> | nie                   |

**Koordinátor:** NOVA.ID.FCT , Caparica  
**Počet spoluriešiteľských inštitúcií:** 27 - Rakúsko: 1, Belgicko: 1, Bulharsko: 1, Bosna a Hercegovina: 1, Brazília: 1, Nemecko: 1, Dánsko: 1, Španielsko: 3, Fínsko: 1, Francúzsko: 1, Veľká Británia: 1, Grécko: 1, Izrael: 1, Taliansko: 1, Luxembursko: 1, Poľsko: 1, Portugalsko: 2, Rumunsko: 1, Srbsko: 2, Slovinsko: 1, Turecko: 2, Ukrajina: 1  
**Čerpané financie:** -  
Podpora medzinárodnej spolupráce z národných zdrojov: 2500 €

## Programy: EUREKA

### 4.) Filamentované pásky z vysokoteplotného supravodiča pre použitie vo fúzii (*Filamentized high temperature superconductor tapes for fusion*)

**Zodpovedný riešiteľ:** Fedor Gömöry  
**Trvanie projektu:** 1.10.2021 / 31.5.2024  
**Evidenčné číslo projektu:** Eurostars 2 - E115264  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** SUBRA A/S  
**Počet spoluriešiteľských inštitúcií:** 2 - Nemecko: 1, Dánsko: 1  
**Čerpané financie:** MŠ: 102872 €

#### Dosiahnuté výsledky:

Gömöry, F.: Probability of premature quenching of HTS coil due to local reduction of critical current, IEEE Trans. Applied Supercond. 32 (2022) 4604005.

## Programy: International Visegrad Fund (IVF)

### 5.) Projektovanie šírky zakázaného pásu v nekonvenčných polovodičoch (*Band-gap engineering in unconventional semiconductors*)

**Zodpovedný riešiteľ:** Viera Skákalová  
**Trvanie projektu:** 1.1.2022 / 31.12.2024  
**Evidenčné číslo projektu:**  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Dr. Ryo Kitaura  
**Počet spoluriešiteľských inštitúcií:** 4 - Česko: 1, Maďarsko: 1, Japonsko: 1, Poľsko: 1  
**Čerpané financie:** -

## Programy: Bilaterálne - iné

### 6.) Dichalkogenidy prechodových kovov s topologickými fázami: predikcie, syntéza a vlastnosti (*Topological transition-metal dichalcogenides: prediction, synthesis and properties*)

**Zodpovedný riešiteľ:** Martin Hulman  
**Trvanie projektu:** 1.4.2021 / 31.12.2022  
**Evidenčné číslo projektu:** SASA-SAS 21-02  
**Organizácia je** áno

**koordinátorom projektu:**

**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** SAV: 567 €

**7.) Príprava a charakterizácia veľmi tenkých vrstiev TMD materiálov na atomárnej škále**  
*(The preparation and atomic-scale characterization of ultrathin films of TMD materials)*

**Zodpovedný riešiteľ:** Martin Hulman  
**Trvanie projektu:** 1.4.2021 / 31.12.2022  
**Evidenčné číslo projektu:** SK-AT-20-0020  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** -

**8.) Optimalizácia škálovateľného rastu tenkých vrstiev dichalkogenidov prechodných kovov a nové heteroštruktúry na použitie v elektronike a pokročilé senzory**  
*(Optimization of the scalable growth of transition metal dichalcogenide thin films and novel heterostructures for application in electronics and advanced sensors)*

**Zodpovedný riešiteľ:** Michaela Sojková  
**Trvanie projektu:** 1.1.2021 / 31.12.2022  
**Evidenčné číslo projektu:** SAV-CNR  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** SAV: 3000 €  
Podpora medzinárodnej spolupráce z národných zdrojov: 3000 €

*Dosiahnuté výsledky:*

Vegso, K., Shaji, A., Sojková, M., Pribusová Slušná, L., Vojteková, T., Hrdá, J., Halahovets, Y., Hulman, M., Jergel, M., Majková, E., Wiesmann, J., and Šiffalovič, P.: A wide-angle X-ray scattering laboratory setup for tracking phase changes of thin films in a chemical vapor deposition chamber, Rev. Sci Instrum. 93 (2022) 113909.

Shaji, A., Vegso, K., Sojková, M., Hulman, M., Nádaždy, P., Halahovets, Y., Pribusová Slušná, L., Vojteková, T., Hrdá, J., Jergel, M., Majková, E., Wiesmann, J., and Šiffalovič, P.: Stepwise sulfurization of MoO<sub>3</sub> to MoS<sub>2</sub> thin films studied by real-time X-ray scattering, Applied Surface Sci 606 (2022) 154772.

**9.) Pulzná laserová depozícia 2D polovodičov na nitridy pre pokročilú elektroniku**  
*(PULSED laser deposition of 2D semiconductors on nitrides for advanced electronics)*

**Zodpovedný riešiteľ:** Marianna Španková  
**Trvanie projektu:** 1.1.2021 / 31.12.2022  
**Evidenčné číslo projektu:** SAV-CNR



**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** -  
Podpora medzinárodnej spolupráce z národných zdrojov: 3000 €

Dosiahnuté výsledky:

Giannazzo, F., Panasci, S.E., Schiliró, E., Fiorenza, P., Greco, G., Roccaforte, F., Cannas, M., Agnello, S., Koos, A., Pécz, B., Španková, M., and Chromik, Š.: Highly homogeneous 2D/3D heterojunction diodes by pulsed laser deposition of MoS<sub>2</sub> on ion implantation doped 4H-SiC, Adv. Mater. Interfaces (2023) 2201502.

**10.) Syntéza a charakterizácia funkčných heteroštruktúr 2D TMD-diamant pre senzorové prvky** (*Synthesis and characterization of 2D TMD-diamond functional heterostructures for sensing elements*)

**Zodpovedný riešiteľ:** Gabriel Vanko  
**Trvanie projektu:** 1.1.2021 / 31.12.2022  
**Evidenčné číslo projektu:**  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** -

Dosiahnuté výsledky:

Vanko, G., Andok, R., Tomáška, M., Wu, S.-R., Vojs, M., Hudec, B., Marton, M., Řeháček, V., Kromka, A., Izsák, T., Chen, Y.-H., and Tsai, H.-Y.: Diamond-based RF MEMS microheaters for insects behavior monitoring. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 145-148.

**Programy: ERANET**

**11.) Epitaxné vrstvy tranzitných kovov dichalkogenidov pripravených na polovodičoch so širokým zakázaným pásmom pre modernú elektroniku** (*Epitaxial transition metal dichalcogenides onto wide bandgap hexagonal superconductors for advanced electronics*)

**Zodpovedný riešiteľ:** Štefan Chromik  
**Trvanie projektu:** 1.4.2020 / 31.3.2023  
**Evidenčné číslo projektu:** FLAG-ERA III/2019/884/ETMOS  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Consiglio Nazionale delle Ricerche – Istituto per la Microelettronica e Microsistemi  
**Počet spoluriešiteľských inštitúcií:** 4 - Francúzsko: 1, Maďarsko: 1, Taliansko: 2  
**Čerpané financie:** -  
Podpora medzinárodnej spolupráce z národných zdrojov: 25000 €

Dosiahnuté výsledky:

Giannazzo, F., Panasci, S.E., Schiliró, E., Fiorenza, P., Greco, G., Roccaforte, F., Cannas, M., Agnello, S., Koos, A., Pécz, B., Španková, M., and Chromik, Š.: Highly homogeneous 2D/3D heterojunction diodes by pulsed laser deposition of MoS<sub>2</sub> on ion implantation doped 4H-SiC, Adv. Mater. Interfaces (2023) 2201502.

**Programy: Horizont 2020**

**12.) 3D ploter na báze nanášania po atómových vrstvách** (*The atomic-layer 3D plotter*)

**Zodpovedný riešiteľ:** Karol Fröhlich  
**Trvanie projektu:** 1.5.2020 / 30.4.2022  
**Evidenčné číslo projektu:** ID: 950785  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Friedrich-Alexander-Universitaet Erlangen-Nuernberg  
**Počet spoluriešiteľských inštitúcií:** 3 - Nemecko: 1, Dánsko: 1, Litva: 1  
**Čerpané financie:** -

Dosiahnuté výsledky:

Kundrata, I., Barr, M.K.S., Tymek, S., Döhler, D., Hudec, B., Brünner, P., Vanko, G., Precner, M., Yokosawa, T., Spiecker, E., Plakhotnyuk, M., Fröhlich, K., and Bachmann, J.: Additive manufacturing in atomic layer processing mode, Small Methods (2022) 2101546.

**13.) Uskutočňovanie aktivít popísaných v Ceste k fúzii počas Horizon2020 cestou spoločného programu členov konzorcia EUROfusion** (*Implementation of activities described in the Roadmap to Fusion during Horizon2020 through a Joint programme of the members of the EUROfusion consortium*)

**Zodpovedný riešiteľ:** Fedor Gömöry  
**Trvanie projektu:** 1.1.2014 / 31.12.2022  
**Evidenčné číslo projektu:** H2020-633053  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Max-Planck Gesellschaft zur Forderung der Wissenschaften E.V.  
**Počet spoluriešiteľských inštitúcií:** 31 - Rakúsko: 1, Belgicko: 0, Bulharsko: 0, Cyprus: 0, Česko: 2, Nemecko: 3, Dánsko: 1, Španielsko: 2, Estónsko: 2, Fínsko: 1, Francúzsko: 1, Veľká Británia: 1, Grécko: 3, Chorvátsko: 1, Maďarsko: 1, Švajčiarsko: 1, Írsko: 1, Taliansko: 1, Litva: 1, Lotyšsko: 1, Holandsko: 1, Poľsko: 1, Portugalsko: 1, Rumunsko: 1, Slovensko: 1, Slovinsko: 1, Švédsko: 1  
**Čerpané financie:** -

**14.) Supravodivé magnety pre European Magnet Field Laboratory** (*Superconducting magnets for the European Magnet Field Laboratory*)

**Zodpovedný riešiteľ:** Enric Pardo  
**Trvanie projektu:** 1.1.2021 / 31.12.2024  
**Evidenčné číslo projektu:** H2020-951714  
**Organizácia je koordinátorom projektu:** nie

**Koordinátor:** Centre National De La Recherche Scientifique CNRS  
**Počet spoluriešiteľských inštitúcií:** 9 - Belgicko: 1, Nemecko: 3, Francúzsko: 1, Veľká Británia: 1, Švajčiarsko: 1, Holandsko: 2  
**Čerpané financie:** -  
Podpora medzinárodnej spolupráce z národných zdrojov: 3500 €

**15.) Podpora inovácií v urýchľovačovom výskume a technológií** (*Innovation Fostering in Accelerator Science and Technology*)

**Zodpovedný riešiteľ:** Eugen Seiler  
**Trvanie projektu:** 1.5.2021 / 30.4.2025  
**Evidenčné číslo projektu:** H2020-101004730  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** European Organization For Nuclear Research - CERN  
**Počet spoluriešiteľských inštitúcií:** 20 - Rakúsko: 1, Nemecko: 2, Španielsko: 2, Estónsko: 1, Francúzsko: 4, Veľká Británia: 1, Maďarsko: 1, Švajčiarsko: 2, Taliansko: 1, Lotyšsko: 1, Holandsko: 1, Poľsko: 1, Slovensko: 1, Švédsko: 1  
**Čerpané financie:** EÚ: 13889 €  
Podpora medzinárodnej spolupráce z národných zdrojov: 3500 €

Dosiahnuté výsledky:

Ries, R., Seiler, E., Gömöry, F., Medvids, A., Onufrijevs, P., Pira, C., Chyhyrynets, E., Malyshev, O.B., and Valizadeh, R.: Surface quality characterization of thin Nb films for superconducting radiofrequency cavities, Supercond. Sci Technol. 35 (2022) 075010.

**Programy: Horizont Európa**

**16.) Supravodivé káble podporujúce prechod na udržateľnú energetiku** (*Superconducting cables for sustainable energy transition*)

**Zodpovedný riešiteľ:** Fedor Gömöry  
**Trvanie projektu:** 1.9.2022 / 28.2.2027  
**Evidenčné číslo projektu:** H EU-101075602  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** SINTEF ENERGI AS, Trondheim  
**Počet spoluriešiteľských inštitúcií:** 13 - Nemecko: 3, Francúzsko: 4, Írsko: 1, Taliansko: 4, Portugalsko: 1  
**Čerpané financie:** -

**17.) Heterogenná materiálová a technologická platforma pre novú doménu výkonovej nanoelektroniky** (*Heterogeneous Material and Technological Platform for a New Domain of Power Nanoelectronics*)

**Zodpovedný riešiteľ:** Ján Kuzmík  
**Trvanie projektu:** 1.12.2022 / 30.11.2025  
**Evidenčné číslo projektu:** 101091433  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** THALES

**Počet spoluriešiteľských inštitúcií:** 10 - Nemecko: 2, Španielsko: 1, Veľká Británia: 1, Grécko: 3, Taliansko: 1, Rumunsko: 1, Švédsko: 1  
**Čerpané financie:** -

### **Programy: EDF**

#### **18.) Európska inovatívna pokročilá GaN mikrovlnná integrácia** (*European Innovative GaN Advanced Microwave Integration*)

**Zodpovedný riešiteľ:** Ján Kuzmík  
**Trvanie projektu:** 15.12.2022 / 14.12.2026  
**Evidenčné číslo projektu:** 101102983  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** United Monolithic Semiconductors GmbH  
**Počet spoluriešiteľských inštitúcií:** 15 - Belgicko: 1, Nemecko: 2, Španielsko: 3, Fínsko: 1, Francúzsko: 1, Grécko: 1, Chorvátsko: 1, Taliansko: 2, Litva: 1, Holandsko: 1, Švédsko: 1  
**Čerpané financie:** -

### **Domáce projekty**

### **Programy: VEGA**

#### **1.) Transport magnetických skyrmiónov v antidot mriežkach: Efekt teploty a kombinácie rôznych transportných mechanizmov** (*Transport of magnetic skyrmions in antidot lattices: Effect of temperature and combination of transport mechanisms*)

**Zodpovedný riešiteľ:** Juraj Feilhauer  
**Trvanie projektu:** 1.1.2021 / 31.12.2023  
**Evidenčné číslo projektu:** 2/0177/21  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 3391 €

#### **2.) Tepelná stabilizácia vysokoteplotných supravodivých pások pre použitie v obmedzovačoch skratových prúdov** (*Thermal stabilization of high-temperature superconducting tapes for fault current limiters*)

**Zodpovedný riešiteľ:** Fedor Gömöry  
**Trvanie projektu:** 1.1.2021 / 31.12.2024  
**Evidenčné číslo projektu:** 1/0205/21  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Materiálovotechnologická fakulta STU  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 3801 €

Dosiahnuté výsledky:

Cuninková, E., Pekarčíková, M., Mošat', M., and Skarba, M.: Numerical simulation of thermal stabilization used in HTS tapes for SCFCL application, IEEE Trans. Applied Supercond. 32 (2022) 5600805.

Gömöry, F.: Probability of premature quenching of HTS coil due to local reduction of critical current, IEEE Trans. Applied Supercond. 32 (2022) 4604005.

Gömöry, F., Šouc, J., and Mošat', M.: Formation of hot spots in coated conductors during static and dynamic DC loading, IEEE Trans. Applied Supercond. 32 (2022) 5400207.

**3.) Výskum a vývoj kontaktov pre nové materiály a súčiastky** (*Contact engineering for advanced materials and devices*)

**Zodpovedný riešiteľ:** Dagmar Gregušová  
**Trvanie projektu:** 1.1.2021 / 31.12.2024  
**Evidenčné číslo projektu:** 2/0068/21  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 10729 €

Dosiahnuté výsledky:

Pohorelec, O., Hasenöhrl, S., Blaho, M., Stoklas, R., Dobročka, E., Nádaždy, P., Vincze, A., Eliáš, P., Kučera, M., Gucmann, F., Gregušová, D., and Kuzmík, J.: Mg doping in In-rich InAlN layers. In: Inter. Workshop on Nitride Semicond. (IWN 2022) Berlin 2022. Výveska.

**4.) Ultratenké homogénne povrchové vrstvy na štruktúrach komplexnej morfológie pre vylepšenie výkonu batérii využitím depoziácie po atómových vrstvách** (*Ultra-thin conformal surface coatings of complex-morphology structures for improving battery performance using atomic layer deposition*)

**Zodpovedný riešiteľ:** Boris Hudec  
**Trvanie projektu:** 1.1.2022 / 31.12.2025  
**Evidenčné číslo projektu:** 2/0162/22  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 9565 €

**5.) Supravodivé spoje pre MgB<sub>2</sub> vinutia v perzistentnom móde** (*Superconducting joints of MgB<sub>2</sub> wires for windings in persistent mode*)

**Zodpovedný riešiteľ:** Pavol Kováč  
**Trvanie projektu:** 1.1.2022 / 31.12.2025  
**Evidenčné číslo projektu:** 2/0017/22  
**Organizácia je** áno

**koordinátorom projektu:**

**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 14805 €

Dosiahnuté výsledky:

Búran, M., Kopera, L., and Kováč, P.: Transport measurement of  $\text{MgB}_2$  wire under the sub-cooled water ice compared to other cooling conditions, Supercond. Sci Technol. 35 (2022) 105004.

**6.) Kritické aspekty rastu polovodičových štruktúr pre novú generáciu III-N súčiastok**  
(Critical aspects of the growth for a new generation of III-N devices)

**Zodpovedný riešiteľ:** Ján Kuzmík  
**Trvanie projektu:** 1.1.2022 / 31.12.2025  
**Evidenčné číslo projektu:** 2/0005/22  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 17409 €

Dosiahnuté výsledky:

Stoklas, R., Hasenöhrl, S., Dobročka, E., Gucmann, , and Kuzmík, J.: Electron transport properties in thin InN layers grown on InAlN, Mater. Sci Semicond. Process. 155 (2023) 107250.

Rosová, A., Dobročka, E., Eliáš, P., Hasenöhrl, S., Kučera, M., Gucmann, F., and Kuzmík, J.: In(Ga)N 3D growth on GaN-buffered on-axis and off-axis (0001) sapphire substrates by MOCVD, Nanomater. 12 (2022) 3496. IF 5.72, Q 1

Hasenöhrl, S., Blaho, M., Dobročka, E., Gucmann, F., Kučera, M., Nádaždy, P., Stoklas, R., and Kuzmík, J.: Growth of N-polar In-rich InAlN by MOCVD. In: Inter. Workshop on Nitride Semicond. (IWN 2022) Berlin 2022. VÝveska.

Šichman, P., Stoklas, R., Hasenöhrl, S., Gregušová, D., Ťapajna, M., Hudec, B., Haščík, Š., Hashizume, T., Chvála, A., Šatka, A., and Kuzmík, J.: Vertical GaN transistor with semi-insulating channel. In: Inter. Workshop on Nitride Semicond. (IWN 2022) Berlin 2022.

Hasenöhrl, S., Blaho, M., Dobročka, E., Gucmann, F., Kučera, M., Nádaždy, P., Stoklas, R., and Kuzmík, J.: Growth of N-polar In-rich InAlN by MOCVD. In 14<sup>th</sup> Topical Workshop on Heterostruct. Microel. Hiroshima 2022.

**7.) Nízkostratový supravodivý kábel typu CORC z REBCO vodičov** (Low-loss superconducting CORC-like cable from REBCO conductors)

**Zodpovedný riešiteľ:** Eugen Seiler  
**Trvanie projektu:** 1.1.2021 / 31.12.2023  
**Evidenčné číslo projektu:** 2/0036/21  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.

**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 19463 €

Dosiahnuté výsledky:

Dadhich, A., Li, S., Solovyov, M., Šouc, J., Mošať, M., and Pardo, E.: Reducing cross-field demagnetization of superconducting stacks by soldering in pairs, *Supercond. Sci Technol.* 35 (2022) 115001.

Kováč, J., Kopera, L., Pardo, E., Melišek, T., Ries, R., Berberich, E., Wolfstädler S., and Reis, T.: Measurement of AC loss down to 25 K in a REBCO racetrack coil for electrical aircraft motor, *Sci Reports* 12 (2022) 16454.

Ries, R., Seiler, E., Gömöry, F., Medvids, A., Onufrijevs, P., Pira, C., Chyhyrynets, E., Malyshev, O.B., and Valizadeh, R.: Surface quality characterization of thin Nb films for superconducting radiofrequency cavities, *Supercond. Sci Technol.* 35 (2022) 075010.

**8.) Príprava, charakterizácia a dopovanie ultratenkých vrstiev dichalkogenidov prechodných kovov** (*Fabrication, characterization, and doping of ultra-thin layers of transition metal dichalcogenides*)

**Zodpovedný riešiteľ:** Michaela Sojková  
**Trvanie projektu:** 1.1.2021 / 31.12.2024  
**Evidenčné číslo projektu:** 2/0059/21  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 15892 €

Dosiahnuté výsledky:

Shaji, A., Vegso, K., Sojková, M., Hulman, M., Nádaždy, P., Halahovets, Y., Pribusová Slušná, L., Vojteková, T., Hrdá, J., Jergel, M., Majková, E., Wiesmann, J., and Šiffalovič, P.: Stepwise sulfurization of MoO<sub>3</sub> to MoS<sub>2</sub> thin films studied by real-time X-ray scattering, *Applied Surface Sci* 606 (2022) 154772.

Kozak, A., Sojková, M., Gucmann, F., Bodík, M., Vegso, K., Dobročka, E., Píš, I., Bondino, F., Hulman, M., Šiffalovič, P., and Ľapajna, M.: Effect of the crystallographic c-axis orientation on the tribological properties of the few-layer PtSe<sub>2</sub>, *Applied Surface Sci* 605 (2022) 154883.

Dvurečenskij, A., Cigán, A., Lobotka, P., Radnóczy, G., Škrátek, M., Benyó, J., Kováčová, E., Majerová, M., and Maňka, J.: Colloids of HEA nanoparticles in an imidazolium-based ionic liquid prepared by magnetron sputtering: Structural and magnetic properties, *Alloys Compounds* 896 (2022) 163089.

Hrdá, J., Vojteková, T., Pribusová-Slušná, L., Dobročka, E., Hulman, M., Píš, I., and Sojková, M.: Influence of Li-doping on the structural properties of thin-layer MOS<sub>2</sub> films. In *Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT*. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 85-88.

**9.) Vývoj UV senzora na báze GaN pre vesmírne aplikácie (GaN-based heterostructure as a promising UV sensor for space application )**

**Zodpovedný riešiteľ:** Roman Stoklas  
**Trvanie projektu:** 1.1.2019 / 31.12.2022  
**Evidenčné číslo projektu:** 2/0114/19  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 4989 €

Dosiahnuté výsledky:

Stoklas, R., Šichman, P., Hasenöhrl, S., Gregušová, D., Ľapajna, M., Hudec, B., Haščík, Š., and Kuzmík, J.: Interface states analysis of Al<sub>2</sub>O<sub>3</sub>/GaN MOS capacitors with semi-insulating C-doped GaN. In: ASDAM 2022. Eds. J. Marek et al. IEEE 2022. ISBN 978-1-6654-6977-7. P. 15-16.

**10.) Štúdium dynamiky magnetického víru pre využitie v súčiastkach (Study of magnetic vortex dynamics for device applications)**

**Zodpovedný riešiteľ:** Ján Šoltýs  
**Trvanie projektu:** 1.1.2022 / 31.12.2024  
**Evidenčné číslo projektu:** 2/0168/22  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 20296 €

Dosiahnuté výsledky:

Krylov, S., Vetrova, I., Feilhauer, J., Fedor, J., Dérier, J., Šoltýs, J., and Cambel, V.: Improved durable vortex core MFM tip, J. Magnet. Magn. Mater. 555 (2022) 169357.

**11.) Modifikácia vlastností supravodivých, feromagnetických oxidových vrstiev a štruktúr pre modernú elektroniku (Modification of properties of superconducting, ferromagnetic, oxide films and structures for advanced electronics)**

**Zodpovedný riešiteľ:** Marianna Španková  
**Trvanie projektu:** 1.1.2022 / 31.12.2025  
**Evidenčné číslo projektu:** 2/0140/22  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 3951 €



**12.) Elektronické a optoelektronické súčiastky na báze ultra-širokopásmového Ga<sub>2</sub>O<sub>3</sub> polovodiča** (*Electronic and optoelectronic devices based on ultra-wide bandgap Ga<sub>2</sub>O<sub>3</sub> semiconductor*)

**Zodpovedný riešiteľ:** Milan Ťapajna  
**Trvanie projektu:** 1.1.2021 / 31.12.2024  
**Evidenčné číslo projektu:** 2/0100/21  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 11643 €

Dosiahnuté výsledky:

Egyenes, F., Gucmann, F., Rosová, A., Dobročka, E., Hušeková, K., Hrubíšák, F., Keshtkar, J., and Ťapajna, M.: Conductance anisotropy of MOCVD-grown  $\alpha$ -Ga<sub>2</sub>O<sub>3</sub> films caused by (010)  $\beta$ -Ga<sub>2</sub>O<sub>3</sub> filament-shaped inclusions, J. Phys. D: Appl. Phys. 56 (2023) 045102.

Hrubíšák, F., Egyenes, F., Dobročka, E., Gucmann, F., Hušeková, K., Keshtkar, J., and Ťapajna, M.: Growth and properties of Ga<sub>2</sub>O<sub>3</sub> on 4H-SiC using liquid-injection MOCVD. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. - ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 47-50.

Keshtkar, J., Hotovy, I., Gucmann, F., Hušeková, K., Dobročka, E., Nádaždy, P., Egyenes, F., Mikolášek, M., and Ťapajna, M.: NiO thin films for solar-blind photodetectors: structure and electrical properties. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. - ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 113-116.

Hrubíšák, F., Hušeková, K., Egyenes, F., Gucmann, F., Dobročka, E., Keshtkar, J., and Ťapajna, M.: Effects of repeated annealing in different atmospheres on surface morphology of  $\varepsilon$ - $\kappa$ -Ga<sub>2</sub>O<sub>3</sub> grown on c-plane sapphire using LI-MOCVD method. In: ELITECH'22: 24<sup>th</sup> Conf. Doctoral Students Ed. A. Kozáková. Bratislava: Spektrum STU, 2022. ISBN 978-80-227-5192-6.

Keshtkar, J., Gucmann, F., Hotový, I., Dobročka, E., Egyenes, F., and Ťapajna, M.: NiO thin films for solar-blind photodetectors: structure and electrical properties. In: ELITECH'22: 24<sup>th</sup> Conf. Doctoral Students Ed. A. Kozáková. Bratislava: Spektrum STU, 2022. ISBN 978-80-227-5192-6.

Hrubíšák, F., Hušeková, K., Egyenes, F., Rosová, A., Kubranská, A., Dobročka, E., Nádaždy, P., Keshtkar, J., Gucmann, F., and Ťapajna, M.: Structural and electrical properties of Ga<sub>2</sub>O<sub>3</sub> transistors grown on 4H-SiC substrates. In: ASDAM 2022. Eds. J. Marek et al. IEEE 2022. ISBN 978-1-6654-6977-7. P. 115-118.

Egyenes, F., Gucmann, F., Dobročka, E., Mikolášek, M., Hušeková, K., and Ťapajna, M.: Transport properties of Si-doped  $\beta$ -Ga<sub>2</sub>O<sub>3</sub> grown by liquid-injection MOCVD. In: ASDAM 2022. Eds. J. Marek et al. IEEE 2022. ISBN 978-1-6654-6977-7. P. 119-122.

Dobročka, E., Rosová, A., Hušeková, K., Kubranská, A., Egyenes, F., Gucmann, F., and Ťapajna, M.: Crystal structure of  $\varepsilon$ / $\kappa$ -Ga<sub>2</sub>O<sub>3</sub> epitaxial films grown by liquidinjection MOCVD on sapphire substrates. In E-MRS 2022 - Fall Meeting. Warsaw 2022. Výveska.

Gucmann, F., Hušeková, K., Dobročka, E., Nádaždy, P., Keshtar, J., Egyenes, F., Mikolášek, M., Fröhlich, K., and Ľapajna, M.: Growth of gallium oxide on 4H-SiC using liquid-injection MOCVD. In WOCSDICW 2022. Ponta Delgada 2022.

Gucmann, F., Hušeková, K., Dobročka, E., and Nádaždy, P.: Ga<sub>2</sub>O<sub>3</sub> vs heat: anisotropy, thermal stability, and heat removal. In E-MRS 2022 - Fall Meeting. Warsaw 2022. Vyžiadaná prednáška.

**13.) Vysokovýkonná zakrivená röntgenová optika pripravená pokročilou technológiou nanoobrábania** (*High-performance curved X-ray optics prepared by advanced nanomachining technology*)

**Zodpovedný riešiteľ:** Zdenko Zápražný  
**Trvanie projektu:** 1.1.2021 / 31.12.2023  
**Evidenčné číslo projektu:** 2/0041/21  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 3631 €

Dosiahnuté výsledky:

Vegso, K., Shaji, A., Sojková, M., Pribusová Slušná, L., Vojteková, T., Hrdá, J., Halahovets, Y., Hulman, M., Jergel, M., Majková, E., Wiesmann, J., and Šiffalovič, P.: A wide-angle X-ray scattering laboratory setup for tracking phase changes of thin films in a chemical vapor deposition chamber, Rev. Sci Instrum. 93 (2022) 113909.

Shaji, A., Vegso, K., Sojková, M., Hulman, M., Nádaždy, P., Halahovets, Y., Pribusová Slušná, L., Vojteková, T., Hrdá, J., Jergel, M., Majková, E., Wiesmann, J., and Šiffalovič, P.: Stepwise sulfurization of MoO<sub>3</sub> to MoS<sub>2</sub> thin films studied by real-time X-ray scattering, Applied Surface Sci 606 (2022) 154772.

**14.) Vysokoodolné polovodičové senzory ionizujúceho žiarenia pre využitie v radiačnom prostredí** (*Radiation resistant semiconductor sensors for utilization in harsh environment*)

**Zodpovedný riešiteľ:** Bohumír Zaťko  
**Trvanie projektu:** 1.1.2020 / 31.12.2023  
**Evidenčné číslo projektu:** 2/0084/20  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 1 - Slovensko: 1  
**Čerpané financie:** VEGA: 8734 €

Dosiahnuté výsledky:

Sedláčková, K., Zaťko, B., Šagátová, A., and Nečas, V.: Polarization effect of Schottky-barrier CdTe semiconductor detectors after electron irradiation, Nuclear Instr. Methods Phys. Res. A 1027 (2022) 166282.

Osvald, J., Hrubčín, L., and Zaťko, B.: Temperature dependence of electrical behaviour of inhomogeneous Ni/Au/4H-SiC Schottky diodes, Mater. Sci Semicond. Process. 140 (2022) 106413.

Osvald, J. and Zaťko, B.: Anomalous intersection point of Schottky diodes I-V curves measured at different temperatures. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 133-136.

Huran, J., Boháček, P., Sasinková, V., Kleinová, A., Mikolášek, M., and Kobzev, A.P.: Amorphous silicon carbide thin films doped with P or B for the photoelectrochemical water splitting devices, Current Applied Phys. 34 (2022) 101-106.

Huran, J., Sasinková, V., Nozdrin, M.A., Kováčová, E., Kobzev, A.P., and Kleinová, A.: Photo-induced electron emission of nanostructured carbon thin film based transmission photocathodes at different electric field, Adv. Electr. Electron. Engn. 20 (2022) 108-114.

Huran, J., Skrypnik, A.P., Sasinková, V., Doroshkevich, A.S., Nozdrin, M.A., Kováčová, E., and Shirkov, G.D.: Effect of electric field on the photoelectron emission properties of very thin carbon films prepared by electron beam-plasma vacuum deposition. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 129-132.

## **Programy: APVV**

### **15.) Optimalizácia okrúhleho kábla z vysokoteplotného supravodiča pre pulzné magnetické polia** (*Optimization of round high-temperature superconducting cable for pulse magnetic field*)

|                                               |                                      |
|-----------------------------------------------|--------------------------------------|
| <b>Zodpovedný riešiteľ:</b>                   | Fedor Gömöry                         |
| <b>Trvanie projektu:</b>                      | 1.7.2021 / 30.6.2025                 |
| <b>Evidenčné číslo projektu:</b>              | 20-0056                              |
| <b>Organizácia je koordinátorom projektu:</b> | nie                                  |
| <b>Koordinátor:</b>                           | Materiálovotechnologická fakulta STU |
| <b>Počet spoluriešiteľských inštitúcií:</b>   | 0                                    |
| <b>Čerpané financie:</b>                      | APVV: 24604 €                        |

#### Dosiahnuté výsledky:

Gömöry, F., Šouc, J., and Mošať, M.: Formation of hot spots in coated conductors during static and dynamic DC loading, IEEE Trans. Applied Supercond. 32 (2022) 5400207.

### **16.) Moderné nanomembránové heteroštruktúry na báze GaAs pre vysoko produktívne vysokofrekvenčné prvky** (*Advanced GaAs-based nanomembrane heterostructures for highperformance RF devices*)

|                                               |                      |
|-----------------------------------------------|----------------------|
| <b>Zodpovedný riešiteľ:</b>                   | Dagmar Gregušová     |
| <b>Trvanie projektu:</b>                      | 1.7.2022 / 30.6.2025 |
| <b>Evidenčné číslo projektu:</b>              | APVV-21-0365         |
| <b>Organizácia je koordinátorom projektu:</b> | nie                  |
| <b>Koordinátor:</b>                           | STU Bratislava       |
| <b>Počet spoluriešiteľských inštitúcií:</b>   | 0                    |
| <b>Čerpané financie:</b>                      | APVV: 16043 €        |

**17.) Nanoštrukturované tenkovrstvové materiály vyznačujúce sa slabými väzbovými interakciami pre elektronické a senzorické aplikácie** (*Nanostructured thin-film materials characterized by weak binding interactions for electronic and sensoric applications*)

**Zodpovedný riešiteľ:** Dagmar Gregušová  
**Trvanie projektu:** 1.7.2022 / 30.6.2026  
**Evidenčné číslo projektu:** APVV-21-0278  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** STU Bratislava  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 11935 €

**18.) Moderné elektronické súčiastky na báze ultraširokopásmového polovodiča Ga<sub>2</sub>O<sub>3</sub> pre budúce vysokonapäťové aplikácie** (*Modern electronic devices based on ultrawide bandgap semiconducting Ga<sub>2</sub>O<sub>3</sub> for future high-voltage applications*)

**Zodpovedný riešiteľ:** Filip Gučmann  
**Trvanie projektu:** 1.7.2021 / 30.6.2025  
**Evidenčné číslo projektu:** 20-0220  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 2 - Slovensko: 2  
**Čerpané financie:** APVV: 29900 €

Dosiahnuté výsledky:

Egyenes, F., Gučmann, F., Rosová, A., Dobročka, E., Hušeková, K., Hrubíšák, F., Keshtkar, J., and Ľapajna, M.: Conductance anisotropy of MOCVD-grown  $\alpha$ -Ga<sub>2</sub>O<sub>3</sub> films caused by (010)  $\beta$ -Ga<sub>2</sub>O<sub>3</sub> filament-shaped inclusions, J. Phys. D: Appl. Phys. 56 (2023) 045102.

Hrubíšák, F., Egyenes, F., Dobročka, E., Gučmann, F., Hušeková, K., Keshtkar, J., and Ľapajna, M.: Growth and properties of Ga<sub>2</sub>O<sub>3</sub> on 4H-SiC using liquid-injection MOCVD. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. - ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 47-50.

Keshtkar, J., Hotový, I., Gučmann, F., Hušeková, K., Dobročka, E., Nádaždy, P., Egyenes, F., Mikolášek, M., and Ľapajna, M.: NiO thin films for solar-blind photodetectors: structure and electrical properties. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. - ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 113-116.

Hrubíšák, F., Hušeková, K., Egyenes, F., Gučmann, F., Dobročka, E., Keshtkar, J., and Ľapajna, M.: Effects of repeated annealing in different atmospheres on surface morphology of  $\varepsilon$ -/ $\kappa$ -Ga<sub>2</sub>O<sub>3</sub> grown on c-plane sapphire using LI-MOCVD method. In: ELITECH'22: 24<sup>th</sup> Conf. Doctoral Students Ed. A. Kozáková. Bratislava: Spektrum STU, 2022. ISBN 978-80-227-5192-6.

Keshtkar, J., Gučmann, F., Hotový, I., Dobročka, E., Egyenes, F., and Ľapajna, M.: NiO thin films for solar-blind photodetectors: structure and electrical properties. In: ELITECH'22: 24<sup>th</sup> Conf. Doctoral Students Ed. A. Kozáková. Bratislava: Spektrum STU, 2022. ISBN 978-80-227-5192-6.

Hrubíšák, F., Hušeková, K., Egyenes, F., Rosová, A., Kubranská, A., Dobročka, E., Nádaždy, P., Keshtar, J., Gucmann, F., and Ľapajna, M.: Structural and electrical properties of Ga<sub>2</sub>O<sub>3</sub> transistors grown on 4H-SiC substrates. In: ASDAM 2022. Eds. J. Marek et al. IEEE 2022. ISBN 978-1-6654-6977-7. P. 115-118.

Egyenes, F., Gucmann, F., Dobročka, E., Mikolášek, M., Hušeková, K., and Ľapajna, M.: Transport properties of Si-doped  $\beta$ -Ga<sub>2</sub>O<sub>3</sub> grown by liquid-injection MOCVD. In: ASDAM 2022. Eds. J. Marek et al. IEEE 2022. ISBN 978-1-6654-6977-7. P. 119-122.

Gucmann, F., Hušeková, K., Dobročka, E., and Nádaždy, P.: Ga<sub>2</sub>O<sub>3</sub> vs heat: anisotropy, thermal stability, and heat removal. In E-MRS 2022 - Fall Meeting. Warsaw 2022. Vyžiadaná prednáška.

Gucmann, F., Hušeková, K., Dobročka, E., Nádaždy, P., Keshtar, J., Egyenes, F., Mikolášek, M., Fröhlich, K., and Ľapajna, M.: Growth of gallium oxide on 4H-SiC using liquid-injection MOCVD. In WOCSIDICW 2022. Ponta Delgada 2022.

Dobročka, E., Rosová, A., Hušeková, K., Kubranská, A., Egyenes, F., Gucmann, F., and Ľapajna, M.: Crystal structure of  $\epsilon/\kappa$ -Ga<sub>2</sub>O<sub>3</sub> epitaxial films grown by liquidinjection MOCVD on sapphire substrates. In E-MRS 2022 - Fall Meeting. Warsaw 2022. Výveska.

**19.) Vlastnosti tepelného transportu v budúcich perspektívnych polovodičových materiáloch a rozhraniach** (*Thermal transport properties of perspective future semiconductor materials and interfaces*)

|                                               |                                      |
|-----------------------------------------------|--------------------------------------|
| <b>Zodpovedný riešiteľ:</b>                   | Filip Gucmann                        |
| <b>Trvanie projektu:</b>                      | 1.1.2022 / 31.12.2023                |
| <b>Evidenčné číslo projektu:</b>              | SK-CN-21-0013                        |
| <b>Organizácia je koordinátorom projektu:</b> | áno                                  |
| <b>Koordinátor:</b>                           | Elektrotechnický ústav SAV, v. v. i. |
| <b>Počet spoluriešiteľských inštitúcií:</b>   | 0                                    |
| <b>Čerpané financie:</b>                      | APVV: 6000 €                         |

**20.) Metalické 2D dichalkogenidy prechodných kovov: príprava, štúdium vlastností a korelované stavy** (*Fabrication, physics and correlated states in metallic 2D transition metal dichalcogenides*)

|                                               |                                      |
|-----------------------------------------------|--------------------------------------|
| <b>Zodpovedný riešiteľ:</b>                   | Martin Hulman                        |
| <b>Trvanie projektu:</b>                      | 1.7.2020 / 30.6.2023                 |
| <b>Evidenčné číslo projektu:</b>              | 19-0365                              |
| <b>Organizácia je koordinátorom projektu:</b> | áno                                  |
| <b>Koordinátor:</b>                           | Elektrotechnický ústav SAV, v. v. i. |
| <b>Počet spoluriešiteľských inštitúcií:</b>   | 2 - Slovensko: 2                     |
| <b>Čerpané financie:</b>                      | APVV: 42710 €                        |

Dosiahnuté výsledky:

Gabinet, U., Lee, C., Kim, N.K., Hulman, M., Thompson, S.M., Kagan, C.R., and Osuji, C.O.: Magnetic field alignment and optical anisotropy of MoS<sub>2</sub> nanosheets dispersed in a liquid crystal polymer, J. Phys. Chem. Lett. 13 (2022) 7994–8001.

Vegso, K., Shaji, A., Sojková, M., Pribusová Slušná, L., Vojteková, T., Hrdá, J., Halahovets, Y., Hulman, M., Jergel, M., Majková, E., Wiesmann, J., and Šiffalovič, P.: A wide-angle X-ray scattering laboratory setup for tracking phase changes of thin films in a chemical vapor deposition chamber, *Rev. Sci Instrum.* 93 (2022) 113909.

Shaji, A., Vegso, K., Sojková, M., Hulman, M., Nádaždy, P., Halahovets, Y., Pribusová Slušná, L., Vojteková, T., Hrdá, J., Jergel, M., Majková, E., Wiesmann, J., and Šiffalovič, P.: Stepwise sulfurization of  $\text{MoO}_3$  to  $\text{MoS}_2$  thin films studied by real-time X-ray scattering, *Applied Surface Sci* 606 (2022) 154772.

Kozak, A., Sojková, M., Gucmann, F., Bodík, M., Vegso, K., Dobročka, E., Píš, I., Bondino, F., Hulman, M., Šiffalovič, P., and Ľapajna, M.: Effect of the crystallographic c-axis orientation on the tribological properties of the few-layer  $\text{PtSe}_2$ , *Applied Surface Sci* 605 (2022) 154883.

**21.) Dlhodosahový jav blízkosti v supravodič/feromagnet heteroštruktúrach** (*Long-range proximity effect in superconductor / ferromagnet heterostructures*)

**Zodpovedný riešiteľ:** Štefan Chromik  
**Trvanie projektu:** 1.7.2020 / 31.12.2023  
**Evidenčné číslo projektu:** 19-0303  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** FMFI UK  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 24000 €

**22.) Supravodivé vinutia z homogénnych  $\text{MgB}_2$  drôtov s trubičkovými vláknami** (*Superconducting coils made of uniform  $\text{MgB}_2$  wires with tubular filaments*)

**Zodpovedný riešiteľ:** Pavol Kováč  
**Trvanie projektu:** 1.7.2019 / 30.11.2022  
**Evidenčné číslo projektu:** 18-0271  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 53511 €

Dosiahnuté výsledky:

Búran, M., Kopera, L., and Kováč, P.: Transport measurement of  $\text{MgB}_2$  wire under the sub-cooled water ice compared to other cooling conditions, *Supercond. Sci Technol.* 35 (2022) 105004.

Kováč, P., Kopera, L., Berek, D., Hain, M., Melišek, T., Hušek, I., Kováč, J., and Búran, M.: High-current-density Rutherford  $\text{MgB}_2$  cable sheathed by  $\text{CuNi}_{30}$  alloy, *Supercond. Sci Technol.* 35 (2022) 115003.

**23.) p-GaN elektronika pre úsporu energie a post-CMOS obvody** (*p-GaN electronics for energy savings and beyond-CMOS circuits*)

**Zodpovedný riešiteľ:** Ján Kuzmík  
**Trvanie projektu:** 1.7.2022 / 30.6.2025  
**Evidenčné číslo projektu:** APVV-21-0008  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 1 - Slovensko: 1  
**Čerpané financie:** APVV: 33500 €

**24.) Vertikálny GaN MOSFET pre výkonové spínacie aplikácie** (*Vertical GaN MOSFET for power switching applications*)

**Zodpovedný riešiteľ:** Ján Kuzmík  
**Trvanie projektu:** 1.7.2019 / 30.6.2022  
**Evidenčné číslo projektu:** 18-0054  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 1 - Slovensko: 1  
**Čerpané financie:** APVV: 29340 €

Dosiahnuté výsledky:

Kuzmík, J.: Vertikálny GaN tranzistor s izolačným kanálom a spôsob jeho prípravy. SK patent č. 289027.

Šichman, P., Stoklas, R., Hasenöhrl, S., Gregušová, D., Ťapajna, M., Hudec, B., Haščík, Š., Hashizume, T., Chvála, A., Šatka, A., and Kuzmík, J.: Vertical GaN transistor with semi-insulating channel. In: Inter. Workshop on Nitride Semicond. (IWN 2022) Berlin 2022.

Priesol, J., Šatka, A., Chvála, A., Šichman, P., Hasenöhrl, S., Kuzmík, J., and Uherek, F.: EBIC analysis of semi-insulating GaN/Si-doped GaN-on-GaN test structures for vertical GaN transistors. In WOCSDICW 2022. Ponta Delgada 2022. Výveska.

**25.) Časovo-rozlišené štúdium rastu hybridných van der Waalových heteroštruktúr** (*Real-time grow studies of hybrid van der Waals heterostructures*)

**Zodpovedný riešiteľ:** Nad'a Mrk'vková  
**Zodpovedný riešiteľ v organizácii SAV:** Martin Hulman  
**Trvanie projektu:** 1.8.2018 / 30.6.2022  
**Evidenčné číslo projektu:** 17-0352  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Centrum pre využitie pokročilých materiálov SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 6686 €

Dosiahnuté výsledky:

Shaji, A., Vegso, K., Sojková, M., Hulman, M., Nádaždy, P., Halahovets, Y., Pribusová Slušná, L., Vojteková, T., Hrdá, J., Jergel, M., Majková, E., Wiesmann, J., and Šiffalovič, P.: Stepwise sulfurization of MoO<sub>3</sub> to MoS<sub>2</sub> thin films studied by real-time X-ray scattering, Applied Surface Sci 606 (2022) 154772.

**26.) Robustné spinové vlny pre budúce magnonické aplikácie** (*Robust spin waves for future magnonic applications*)

**Zodpovedný riešiteľ:** Michal Mruczkiewicz  
**Trvanie projektu:** 1.7.2020 / 30.6.2023  
**Evidenčné číslo projektu:** 19-0311  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 1 - Slovensko: 1  
**Čerpané financie:** APVV: 35562 €

Dosiahnuté výsledky:

Krylov, S., Vetrova, I., Feilhauer, J., Fedor, J., Dérier, J., Šoltýs, J., and Cambel, V.: Improved durable vortex core MFM tip, J. Magnet. Magn. Mater. 555 (2022) 169357.

**27.) Fotonické laboratórium na čipe: výskum a vývoj platformy plazmonického senzora pre okamžitú detekciu zložiek v roztokoch** (*Photonic Lab-on-a-Chip: investigation and development of plasmonic sensor platform for immediate detection of composites in solutions*)

**Zodpovedný riešiteľ:** Jozef Novák  
**Trvanie projektu:** 1.7.2021 / 31.12.2024  
**Evidenčné číslo projektu:** 20-0437  
**Organizácia je** nie  
**koordinátorom projektu:**  
**Koordinátor:** FEI STU Bratislava  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 27330 €

Dosiahnuté výsledky:

Novák, J., Laurenčíková, A., Eliáš, P., Hasenöhrl, S., Sojková, M., Kováč, J.jr., and Kováč, J.: Investigation of a nanostructured GaP/MoS<sub>2</sub> p-n heterojunction photodiode, AIP Adv. 12 (2022) 065004.

Novák, J., Laurenčíková, A., Eliáš, P., Hasenöhrl, S., Sojková, M., Kováč, J.jr., and Kováč, J.: MOVPE growth of edge rich GaP surfaces for preparation of molybdenum disulphide. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 21-24.

**28.) Nanooptické sondy a senzory integrované na optickom vlákne** (*Nano-optical probes and sensors integrated on optical fiber*)

**Zodpovedný riešiteľ:** Jozef Novák



**Trvanie projektu:** 1.8.2021 / 31.12.2024  
**Evidenčné číslo projektu:** 20-0264  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Žilinská univerzita v Žiline  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 26830 €

Dosiahnuté výsledky:

Novák, J., Laurenčíková, A., Eliáš, P., Hasenöhrl, S., Sojková, M., Kováč, J.jr., and Kováč, J.: Investigation of a nanostructured GaP/MoS<sub>2</sub> p-n heterojunction photodiode, AIP Adv. 12 (2022) 065004.

Novák, J., Laurenčíková, A., Eliáš, P., Hasenöhrl, S., Sojková, M., Kováč, J.jr., and Kováč, J.: MOVPE growth of edge rich GaP surfaces for preparation of molybdenum disulphide. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 21-24.

**29.) Vysokoteplotná supravodivá cievka pre motory elektrických a hybridných lietadiel (*High temperature superconducting coils in motors for electric and hybrid aircrafts*)**

**Zodpovedný riešiteľ:** Enric Pardo  
**Trvanie projektu:** 1.7.2020 / 30.6.2023  
**Evidenčné číslo projektu:** 19-0536  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 84896 €

Dosiahnuté výsledky:

Kováč, J., Kopera, L., Pardo, E., Melišek, T., Ries, R., Berberich, E., Wolfstädler S., and Reis, T.: Measurement of AC loss down to 25 K in a REBCO racetrack coil for electrical aircraft motor, Sci Reports 12 (2022) 16454.

Dadhich, A., Li, S., Solovyov, M., Šouc, J., Mošat', M., and Pardo, E.: Reducing cross-field demagnetization of superconducting stacks by soldering in pairs, Supercond. Sci Technol. 35 (2022) 115001.

**30.) Formovanie farebných centier v diamante a ich vlastností smerom ku kvantovej detekcii (*Evolution of colour centres in diamond and their properties towards quantum detection*)**

**Zodpovedný riešiteľ:** Viera Skákalová  
**Zodpovedný riešiteľ v organizácii SAV:** Marian Varga  
**Trvanie projektu:** 1.7.2021 / 31.12.2024  
**Evidenčné číslo projektu:** 20-0398  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Centrum pre využitie pokročilých materiálov SAV, v. v. i.

**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** -

**31.) Topologicky netriviálne magnetické a supravodivé nanoštruktúry** (*Topologically nontrivial magnetic and superconducting nanostructures*)

**Zodpovedný riešiteľ:** Ján Šoltýs  
**Trvanie projektu:** 1.7.2021 / 31.12.2024  
**Evidenčné číslo projektu:** 20-0425  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Prírodovedecká fakulta, UPJŠ Košice  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 15040 €

**32.) Tranzistory na báze 2D kovových chalkogenidov pripravených teplom podporovanou konverziou** (*Transistors based on 2D Metal Chalcogenides Grown via Thermally Assisted Conversion*)

**Zodpovedný riešiteľ:** Milan Ľapajna  
**Trvanie projektu:** 1.7.2022 / 30.6.2026  
**Evidenčné číslo projektu:** APVV-21-0231  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 1 - Slovensko: 1  
**Čerpané financie:** APVV: 18612 €

**33.) Tribologické vlastnosti 2D materiálov a príbuzných nanokompozitov** (*Tribological properties of 2D materials and related nanocomposites*)

**Zodpovedný riešiteľ:** Milan Ľapajna  
**Zodpovedný riešiteľ v organizácii SAV:** Martin Hulman  
**Trvanie projektu:** 1.8.2018 / 30.6.2022  
**Evidenčné číslo projektu:** 17-0560  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Centrum pre využitie pokročilých materiálov SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 6686 €

*Dosiahnuté výsledky:*

Shaji, A., Vegso, K., Sojková, M., Hulman, M., Nádaždy, P., Halahovets, Y., Pribusová Slušná, L., Vojteková, T., Hrdá, J., Jergel, M., Majková, E., Wiesmann, J., and Šiffalovič, P.: Stepwise sulfurization of MoO<sub>3</sub> to MoS<sub>2</sub> thin films studied by real-time X-ray scattering, *Applied Surface Sci* 606 (2022) 154772.

Kozak, A., Sojková, M., Gucmann, F., Bodík, M., Vegso, K., Dobročka, E., Píš, I., Bondino, F., Hulman, M., Šiffalovič, P., and Ľapajna, M.: Effect of the crystallographic c-axis orientation on the tribological properties of the few-layer PtSe<sub>2</sub>, Applied Surface Sci 605 (2022) 154883.

**34.) Pokročilé mikromechanické nosníky zo širokopásmových polovodičových materiálov**  
(*Advanced Microcantilevers from Wide Bandgap Materials*)

**Zodpovedný riešiteľ:** Gabriel Vanko  
**Trvanie projektu:** 1.3.2020 / 31.12.2022  
**Evidenčné číslo projektu:** DS-FR-19-0051  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 2 - Rakúsko: 1, Česko: 1, Francúzsko: 0  
**Čerpané financie:** APVV: 5000 €

*Dosiahnuté výsledky:*

Vanko, G., Andok, R., Tomáška, M., Wu, S.-R., Vojs, M., Hudec, B., Marton, M., Řeháček, V., Kromka, A., Izsák, T., Chen, Y.-H., and Tsai, H.-Y.: Diamond-based RF MEMS microheaters for insects behavior monitoring. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 145-148.

**35.) Zberač energie na báze mikrostĺpikovitých štruktúr** (*Energy Harvesting Device Based on Micropillar Structures*)

**Zodpovedný riešiteľ:** Gabriel Vanko  
**Trvanie projektu:** 1.1.2022 / 31.12.2023  
**Evidenčné číslo projektu:** SK-TW-21-0006  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 1 - Taiwan: 1  
**Čerpané financie:** APVV: 5000 €

**36.) Modifikácia vlastností supravodivých, feromagnetických oxidových vrstiev a štruktúr pre modernú elektroniku** (*Growth and Radiation Mechanisms in Diamond Hybrid Detectorsd Radiation Mechanisms in Diamond Hybrid Detectors*)

**Zodpovedný riešiteľ:** Bohumír Zaťko  
**Trvanie projektu:** 1.7.2022 / 30.6.2025  
**Evidenčné číslo projektu:** SK-CZ-RD\_21/0016  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 1 - Česko: 1  
**Čerpané financie:** -

**37.) Perspektívne polovodičové detektory pre využitie v jadrovej fyzike** (*Perspective semiconductor detector for nuclear physics*)

**Zodpovedný riešiteľ:** Bohumír Zaťko  
**Trvanie projektu:** 1.3.2022 / 31.12.2024  
**Evidenčné číslo projektu:** SK-RU-21-0002  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 1 - Slovensko: 1  
**Čerpané financie:** -

**38.) Radiačne odolnejší senzor pre RTG zobrazovanie vyššej kvality** (*Radiation harder sensor for X-ray imaging of higher quality*)

**Zodpovedný riešiteľ:** Bohumír Zaťko  
**Trvanie projektu:** 1.7.2019 / 30.6.2023  
**Evidenčné číslo projektu:** 18-0273  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Ústav jadrového a fyzikálneho inžinierstva FEI STU  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 25932 €

Dosiahnuté výsledky:

Sedláčková, K., Zaťko, B., Šagátová, A., and Nečas, V.: Polarization effect of Schottky-barrier CdTe semiconductor detectors after electron irradiation, Nuclear Instr. Methods Phys. Res. A 1027 (2022) 166282.

Huran, J., Sasinková, V., Nozdrin, M.A., Kováčová, E., Kobzev, A.P., and Kleinová, A.: Photo-induced electron emission of nanostructured carbon thin film based transmission photocathodes at different electric field, Adv. Electr. Electron. Engn. 20 (2022) 108-114.

Huran, J., Skrypnik, A.P., Sasinková, V., Doroshkevich, A.S., Nozdrin, M.A., Kováčová, E., and Shirkov, G.D.: Effect of electric field on the photoelectron emission properties of very thin carbon films prepared by electron beam-plasma vacuum deposition. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 129-132.

Osvald, J. and Zaťko, B.: Anomalous intersection point of Schottky diodes I-V curves measured at different temperatures. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 133-136.

**39.) Výskum radiačne odolných polovodičových detektorov pre jadrovú energetiku** (*Research of radiation resistant semiconductor detector for nuclear energies*)

**Zodpovedný riešiteľ:** Bohumír Zaťko  
**Trvanie projektu:** 1.7.2019 / 31.12.2022  
**Evidenčné číslo projektu:** 18-0243  
**Organizácia je** áno

**koordinátorom projektu:**

**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 1 - Slovensko: 1  
**Čerpané financie:** APVV: 36680 €

**Dosiahnuté výsledky:**

Osvald, J., Hrubčín, L., and Zaťko, B.: Temperature dependence of electrical behaviour of inhomogeneous Ni/Au/4H-SiC Schottky diodes, Mater. Sci Semicond. Process. 140 (2022) 106413.

Osvald, J. and Zaťko, B.: Anomalous intersection point of Schottky diodes I-V curves measured at different temperatures. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 133-136.

Sedláčková, K., Zaťko, B., Šagátová, A., and Nečas, V.: Polarization effect of Schottky-barrier CdTe semiconductor detectors after electron irradiation, Nuclear Instr. Methods Phys. Res. A 1027 (2022) 166282.

Huran, J., Boháček, P., Sasinková, V., Kleinová, A., Mikolášek, M., and Kobzev, A.P.: Amorphous silicon carbide thin films doped with P or B for the photoelectrochemical water splitting devices, Current Applied Phys. 34 (2022) 101-106.

Huran, J., Sasinková, V., Nozdrin, M.A., Kováčová, E., Kobzev, A.P., and Kleinová, A.: Photo-induced electron emission of nanostructured carbon thin film based transmission photocathodes at different electric field, Adv. Electr. Electron. Engn. 20 (2022) 108-114.

Huran, J., Skrypnik, A.P., Sasinková, V., Doroshkevich, A.S., Nozdrin, M.A., Kováčová, E., and Shirkov, G.D.: Effect of electric field on the photoelectron emission properties of very thin carbon films prepared by electron beam-plasma vacuum deposition. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 129-132.

**Programy: Iné projekty**

**40.) Štipendia pre excelentných výskumníkov ohrozených vojnovým konfliktom na Ukrajine**  
(*Scholarships for excellent researchers threatened by the war conflict in Ukraine*)

**Zodpovedný riešiteľ:** Tetiana Kalmykova  
**Trvanie projektu:** 1.4.2022 / 31.3.2025  
**Evidenčné číslo projektu:** 09I03-03-V01-00006  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** -

## Programy: Štrukturálne fondy EÚ Výskum a inovácie

### 41.) CEMEA - Vybudovanie centra pre využitie pokročilých materiálov SAV (*Building a centre for advanced material application SAS*)

**Zodpovedný riešiteľ:** Eva Majková  
**Zodpovedný riešiteľ v organizácii SAV:** Milan Ľapajna  
**Trvanie projektu:** 1.7.2019 / 30.6.2023  
**Evidenčné číslo projektu:** 313021T081  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Centrum pre využitie pokročilých materiálov SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 6 - Slovensko: 6  
**Čerpané financie:** SAV: 47612 €

#### Dosiahnuté výsledky:

Vegso, K., Shaji, A., Sojková, M., Pribusová Slušná, L., Vojteková, T., Hrdá, J., Halahovets, Y., Hulman, M., Jergel, M., Majková, E., Wiesmann, J., and Šiffalovič, P.: A wide-angle X-ray scattering laboratory setup for tracking phase changes of thin films in a chemical vapor deposition chamber, *Rev. Sci Instrum.* 93 (2022) 113909.

Mustonen, K., Hofer, Ch., Kotrusz, P., , Markevich, A., Hulman, M., Mangler, C., Susi, T., Pennycook, T.J., Hricovini, K., Richter, Ch. M., Meyer, J.C., Kotakoski, J., and Skákalová, V.: Towards exotic layered materials: 2D cuprous iodide, *Adv. Mater.* 34 (2022) 2106922.

## Programy: DoktoGranty

### 42.) Optimalizácia rastu parametrov pre tenké vrstvy MoTe<sub>2</sub> (*Oprimisation of growth parameters for MoTe2*)

**Zodpovedný riešiteľ:** Tatiana Vojteková  
**Trvanie projektu:** 1.1.2022 / 31.12.2022  
**Evidenčné číslo projektu:** APP0282  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** SAV: 2000 €

#### Dosiahnuté výsledky:

Vojteková, T., Pribusová-Slušná, L., and Hulman, M.: Optical characterisation of MOTe<sub>2</sub> thin films. In *Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT*. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 59-62.

## Programy: MoRePro

### 43.) Heteroštruktúry TMD/diamant: Príprava, charakterizácia a aplikácia (*TMD/diamond heterostructures: Fabrication, characterization and applications*)

**Zodpovedný riešiteľ:** Marian Varga  
**Trvanie projektu:** 1.8.2020 / 31.7.2024  
**Evidenčné číslo projektu:** 19MRP0010  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** SAV: 44448 €

#### Dosiahnuté výsledky:

Kromka, A., Babčenko, O., Izsák, T., Varga, M., Vanko, G., Zehetner, J., and Potocký, Š.: Growth of carbon allotropes in plasma CVD system. In Proc. 10<sup>th</sup> Inter. Conf. on Advances in Electron. Photon. Technol. – ADEPT. Eds. M. Feiler et al. Žilina: EDIS 2022. ISBN 978-80-554-1884-1. P. 17-20.

Cajzl, J., Nekvindová, P., Macková, A., Varga, M., and Kromka, A.: Erbium ion implantation into LiNbO<sub>3</sub>, Al<sub>2</sub>O<sub>3</sub>, ZnO and diamond – measurement and modelling – an overview, Phys. Chem. Chem. Phys. 24 (2022) 19052-19072.

## Programy: Európsky fond regionálneho rozvoja (EFRR)

### 44.) Nová technológia prípravy senzorov, detektorov a memristorov pre inteligentnú mikroelektroniku v 21. storočí (*New technology for the preparation of sensors, detectors and memristors for intelligent microelectronics in the 21st century*)

**Zodpovedný riešiteľ:** Vladimír Cambel  
**Trvanie projektu:** 1.3.2022 / 30.9.2023  
**Evidenčné číslo projektu:** ITMS2014+ 313011BVN5  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Elektrotechnický ústav SAV, v. v. i.  
**Počet spoluriešiteľských inštitúcií:** 1 - Slovensko: 1  
**Čerpané financie:** EFRR: 35645 €

**Príloha C****Publikačná činnosť organizácie (generovaná z ARL)****ADCA Vedecké práce v zahraničných karentovaných časopisoch – impaktovaných**

- ADCA01 BUDIL, J.\*\* - SZABÓ, O. - LISKOVA, P. - STENCLOVA, P. - IZSÁK, Tibor - POTOCKÝ, Štěpán - KROMKA, A. Impact of electrolyte solution on electrochemical oxidation treatment of Escherichia coli K-12 by boron-doped diamond electrodes. In Letters in Applied Microbiology, 2022, vol. 74, p. 924-931. (2021: 2.813 - IF, Q3 - JCR, 0.593 - SJR, Q2 - SJR). ISSN 0266-8254. Dostupné na: <https://doi.org/10.1111/lam.13687>
- ADCA02 BÚRAN, Marek\*\* - KOPERA, Ľubomír - KOVÁČ, Pavol. Transport measurement of MgB<sub>2</sub> wire under the sub-cooled water ice compared to other cooling conditions. In Superconductor Science and Technology, 2022, vol. 35, no. 105004. (2021: 3.482 - IF, Q2 - JCR, 0.826 - SJR, Q1 - SJR). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac8455> (APVV 18-0271)
- ADCA03 BYSTRICKÝ, Roman - TIWARI, S.K. - HUTÁR, Peter - VANČO, L. - SÝKORA, M.\*\*. Synthesis of sulfide perovskites by sulfurization with boron sulfides. In Inorganic Chemistry, 2022, vol. 61, p. 18823–18827. (2021: 5.436 - IF, Q1 - JCR, 1.121 - SJR, Q1 - SJR). ISSN 0020-1669. Dostupné na: <https://doi.org/10.1021/acs.inorgchem.2c03200>
- ADCA04 CAJZL, Jakub\*\* - NEKVINDOVÁ, P. - MACKOVÁ, A. - VARGA, Marian - KROMKA, A. Erbium ion implantation into LiNbO<sub>3</sub>, Al<sub>2</sub>O<sub>3</sub>, ZnO and diamond – measurement and modelling – an overview. In Physical Chemistry Chemical Physics, 2022, vol. 24, p. 19052-19072. (2021: 3.945 - IF, Q1 - JCR, 0.899 - SJR, Q1 - SJR). ISSN 1463-9076. Dostupné na: <https://doi.org/10.1039/d2cp01803a> (MoRePro 19MRP0010)
- ADCA05 CUNINKOVÁ, E.\*\* - PEKARČÍKOVÁ, M. - MOŠAŤ, Marek - SKARBA, M. Numerical simulation of thermal stabilization used in HTS tapes for SCFCL application. In IEEE Transactions on Applied Superconductivity, 2022, vol. 32, no. 5600805. (2021: 1.949 - IF, Q3 - JCR, 0.443 - SJR, Q2 - SJR). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2022.3148694> (VEGA 1/0205/21)
- ADCA06 DADHICH, Anang - LI, S. - SOLOVYOV, Mykola - ŠOUC, Ján - MOŠAŤ, Marek - PARDO, Enric\*\*. Reducing cross-field demagnetization of superconducting stacks by soldering in pairs. In Superconductor Science and Technology, 2022, vol. 35, no. 115001. (2021: 3.482 - IF, Q2 - JCR, 0.826 - SJR, Q1 - SJR). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac908f> (APVV 19-0536. VEGA 2/0036/21)
- ADCA07 DOSOUDIL, R. - ŠOKA, M.\*\* - UŠÁKOVÁ, M. - UŠÁK, E. - JANČÁRIK, V. - DOBROČKA, Edmund. Magnetic and structural properties analysis of Cerium substituted Nickel–Zinc ferrites. In IEEE Transactions on Magnetism, 2022, vol. 58, no. 2200305. (2021: 1.848 - IF, Q3 - JCR, 0.730 - SJR, Q2 - SJR). ISSN 0018-9464. Dostupné na: <https://doi.org/10.1109/TMAG.2021.3092581>
- ADCA08 DVUREČENSKIJ, Andrej - CIGÁŇ, Alexander - LOBOTKA, Peter - RADNÓCZI, G. - ŠKRÁTEK, Martin - BENYÓ, J. - KOVÁČOVÁ, Eva - MAJEROVÁ, Melinda - MAŇKA, Ján\*\*. Colloids of HEA nanoparticles in an imidazolium-based ionic liquid prepared by magnetron sputtering: Structural and magnetic properties. In Journal of Alloys and Compounds, 2022, vol. 896, art. no. 163089. (2021: 6.371 - IF, Q1 - JCR, 1.027 - SJR, Q1 - SJR, karentované - CCC). (2022 - Current Contents, WOS, SCOPUS). ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2021.163089> (VEGA 2/0059/21. VEGA č.



- 2/0141/21 : SQUID magnetometry of nano- and microparticles, nanocolloids and nanostructures in new applications in the field of biomedicine and materials research associated with the development of new measurement methods and procedures)
- ADCA09 FOS, Alen\*\* - ŠVEC, Peter - JANOTOVÁ, Irena - JANIČKOVIČ, Dušan - BUTVINOVÁ, Beata - BÚRAN, Marek - KYRITSÍ, Anna - KONSTANTINIDIS, Nikolaos - NOVÁK, Patrik. Effect of Cu and Co addition on non-isothermal crystallization kinetics of rapidly quenched Fe-Sn-B based alloys. In Journal of Non-Crystalline Solids, 2022, vol. 593, no. 12, 121785. (2021: 4.458 - IF, Q1 - JCR, 0.751 - SJR, Q1 - SJR). ISSN 0022-3093. Dostupné na: <https://doi.org/10.1016/j.jnoncrysol.2022.121785> (APVV-19-0369 : Nové nano / mikroštruktúrované kovové materiály pripravené nekonvenčnými spôsobmi spracovania. VEGA 2/0144/21 : Riadenie vlastností kovových systémov modifikáciou štruktúry na atomárnej škále pomocou vnútorných a vonkajších faktorov)
- ADCA10 FRACASSO, M.\*\* - GÖMÖRY, Fedor - SOLOVYOV, Mykola - GERBALDO, R. - GHIGO, G. - LAVIANO, F. - NAPOLITANO, A. - TORSELLO, D. - GOZZELINO, L. Modelling and performance analysis of MgB<sub>2</sub> and hybrid magnetic shields. In Materials, 2022, vol. 15, no. 667. (2021: 3.748 - IF, Q1 - JCR, 0.604 - SJR, Q2 - SJR). ISSN 1996-1944. Dostupné na: <https://doi.org/10.3390/ma15020667> (APVV 16-0418)
- ADCA11 GABINET, U.R. - LEE, C. - KIM, N.K. - HULMAN, Martin - THOMPSON, S.M. - KAGAN, C.R. - OSUJI, C.O.\*\*. Magnetic field alignment and optical anisotropy of MoS<sub>2</sub> nanosheets dispersed in a liquid crystal polymer. In Journal of Physical Chemistry Letters, 2022, vol. 13, p. 7994–8001. (2021: 6.888 - IF, Q1 - JCR, 2.009 - SJR, Q1 - SJR). ISSN 1948-7185. Dostupné na: <https://doi.org/10.1021/acs.jpclett.2c01819> (APVV-19-0365 TMD2DCOR)
- ADCA12 GERULOVÁ, K. - KUCMANOVÁ, A. - SANNY, Z. - GARAIOVÁ, Zuzana - SEILER, Eugen - ČAPLOVIČOVÁ, M. - ČAPLOVIČ, Ľubomír - PALCUT, M.\*\*. Fe<sub>3</sub>O<sub>4</sub>-PEI nanocomposites for magnetic harvesting of Chlorella vulgaris, Chlorella ellipsoidea, Microcystis aeruginosa, and Auxenochlorella protothecoides. In Nanomaterials-Basel, 2022, vol. 12, no. 1786. (2021: 5.719 - IF, Q1 - JCR, 0.839 - SJR, Q1 - SJR, karentované - CCC). (2022 - Current Contents, WOS, SCOPUS). ISSN 2079-4991. Dostupné na: <https://doi.org/10.3390/nano12111786>
- ADCA13 GÖMÖRY, Fedor\*\* - ŠOUC, Ján - MOŠAŤ, Marek. Formation of hot spots in coated conductors during static and dynamic DC loading. In IEEE Transactions on Applied Superconductivity, 2022, vol. 32, no. 5400207. (2021: 1.949 - IF, Q3 - JCR, 0.443 - SJR, Q2 - SJR). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2022.3147436> (VEGA 1/0205/21. APVV 20-0056)
- ADCA14 GÖMÖRY, Fedor\*\*. Probability of premature quenching of HTS coil due to local reduction of critical current. In IEEE Transactions on Applied Superconductivity, 2022, vol. 32, no. 4604005. (2021: 1.949 - IF, Q3 - JCR, 0.443 - SJR, Q2 - SJR). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2022.3171192> (VEGA 1/0205/21)
- ADCA15 GOZZELINO, L.\*\* - FRACASSO, M. - SOLOVYOV, Mykola - GÖMÖRY, Fedor - NAPOLITANO, A. - GERBALDO, R. - GHIGO, G. - LAVIANO, F. - TORSELLO, D. - GRIGOROSCUA, M.A. Screening of magnetic fields by superconducting and hybrid shields with a circular cross-section. In Superconductor Science and Technology, 2022, vol. 35, no. 044002. (2021: 3.482 - IF, Q2 - JCR, 0.826 - SJR, Q1 - SJR). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac4ad0>
- ADCA16 HOFER, C.\*\* - MUSTONEN, K. - SKÁKALOVÁ, V. - PENNYCOOK, T.J. Few-tilt electron ptychotomography: a new method to determine the 3D structure of 2D

- materials with high-precision and low-dose. In *Microscopy and Microanalysis*, 2022, vol. 28, no. S1, p. 2526-2527. (2021: 4.099 - IF, Q1 - JCR, 0.379 - SJR, Q3 - SJR). ISSN 1431-9276.
- ADCA17 HURAN, Jozef\*\* - BOHÁČEK, Pavol - SASINKOVÁ, Vlasta - KLEINOVÁ, Angela - MIKOLÁŠEK, Miroslav - KOBZEV, Aexander P. Amorphous silicon carbide thin films doped with P or B for the photoelectrochemical water splitting devices. In *Current Applied Physics*, 2022, vol. 34, p. 101-106. (2021: 2.856 - IF, Q2 - JCR, 0.521 - SJR, Q2 - SJR). ISSN 1567-1739. Dostupné na: <https://doi.org/10.1016/j.cap.2021.11.014> (VEGA 2/0084/20)
- ADCA18 KADLEČÍKOVÁ, M. - VANČO, L. - BREZA, J.\*\* - MIKOLÁŠEK, M. - HUŠEKOVÁ, Kristína - FRÖHLICH, Karol - PROCEL, P. - ZEMAN, M. - ISABELLA, O. Raman spectroscopy of silicon with nanostructured surface. In *Optik : International Journal for Light and Electron Optics*, 2022, vol. 257, no. 168869. (2021: 2.840 - IF, Q2 - JCR, 0.523 - SJR, Q2 - SJR). ISSN 0030-4026. Dostupné na: <https://doi.org/10.1016/j.ijleo.2022.168869>
- ADCA19 KEMENY, M. - ONDREJKA, P. - WEIS, M. - HURAN, Jozef - ANDOK, Robert - HOTOVÝ, I. - MIKOLÁŠEK, M.\*\*. Plasmonic enhanced photo-electrochemical water splitting on amorphous silicon structures. In *Optik*, 2022, vol. 257, no. 168769. (2021: 2.840 - IF, Q2 - JCR, 0.523 - SJR, Q2 - SJR). ISSN 0030-4026. Dostupné na: <https://doi.org/10.1016/j.ijleo.2022.168769>
- ADCA20 KITYK, Anna\*\* - PROTSENKO, V. - DANILOV, F.I. - BOBROVA, Lina - HNATKO, Miroslav - PAVLÍK, Viliam - ŠOLTÝS, Ján - LABUDOVÁ, Martina - RUSKOVÁ, Magdaléna - PANGALLO, Domenico. Design of Ti-6Al-4V alloy surface properties by galvanostatic electrochemical treatment in a deep eutectic solvent Ethaline. In *Surface & Coatings Technology*, 2022, vol. 429, art. no. 127936. (2021: 4.865 - IF, Q2 - JCR, 0.922 - SJR, Q1 - SJR). ISSN 0257-8972. Dostupné na: <https://doi.org/10.1016/j.surfcoat.2021.127936> (ITMS2014+: 313021T081 : Vybudovanie Centra pre využitie pokročilých materiálov Slovenskej akadémie vied)
- ADCA21 KORCHAGIN, S.A. - ROMANOVA, E.\*\* - NIKITIN, P. - SERDECHNYY, D. - BUBLIKOV, Konstantin - BYSTRENINA, I. Mathematical modeling of dielectric permeability and volt-ampere characteristics of a semiconductor nanocomposite conglomerate. In *Mathematics*, 2022, vol. 10, no. 596. (2021: 2.592 - IF, Q1 - JCR, 0.538 - SJR, Q2 - SJR). ISSN 2227-7390. Dostupné na: <https://doi.org/10.3390/math10040596>
- ADCA22 KOVÁČ, Ján - KOPERA, Ľubomír - PARDO, Enric\*\* - MELIŠEK, Tibor - RIES, Rastislav - BERBERICH, E. - WOLFSTÄDLER, S. - RIES, T. Measurement of AC loss down to 25 K in a REBCO racetrack coil for electrical aircraft motor. In *Scientific Reports*, 2022, vol. 12, no. 16454. (2021: 4.997 - IF, Q2 - JCR, 1.005 - SJR, Q1 - SJR). ISSN 2045-2322. Dostupné na: <https://doi.org/10.1038/s41598-022-20625-6> (APVV 19-0536. VEGA 2/0036/21)
- ADCA23 KOVÁČ, Pavol\*\* - KOPERA, Ľubomír - BEREK, Dušan - HAIN, Miroslav - MELIŠEK, Tibor - HUŠEK, Imrich - KOVÁČ, Ján - BÚRAN, Marek. High-current-density Rutherford MgB2 cable sheathed by CuNi30 alloy. In *Superconductor Science and Technology*, 2022, vol. 35, no. 115003. (2021: 3.482 - IF, Q2 - JCR, 0.826 - SJR, Q1 - SJR). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac8ad5> (APVV 18-0271)
- ADCA24 KOVÁČ, Pavol\*\* - BÚRAN, Marek - KOPERA, Ľubomír. Behaviour of Al2O3-oxide insulated and non-insulated superconducting MgB2 coils cooled by water ice. In *Superconductor Science and Technology*, 2022, vol. 35, no. 095007. (2021: 3.482 - IF, Q2 - JCR, 0.826 - SJR, Q1 - SJR). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac7d12>
- ADCA25 KOVÁČ, Pavol\*\* - MELIŠEK, Tibor - KOVÁČ, Ján - BÚRAN, Marek - HUŠEK,

- ADCA26 Imrich - RINDFLEISCH, M. - TOMSIC, M. DC characterization of advanced fine-filamentary MgB<sub>2</sub> superconducting wires. In Superconductor Science and Technology, 2022, vol. 35, no. 055004. (2021: 3.482 - IF, Q2 - JCR, 0.826 - SJR, Q1 - SJR). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac4afe>
- ADCA27 KOVÁČ, Pavol\*\* - KOPERA, Ľubomír - MELIŠEK, Tibor - BÚRAN, Marek - HUŠEK, Imrich - BEREK, Dušan - KOVÁČ, Ján. Water ice-cooled MgB<sub>2</sub> coil made by wind and react process. In Superconductor Science and Technology, 2022, vol. 35, no. 055001. (2021: 3.482 - IF, Q2 - JCR, 0.826 - SJR, Q1 - SJR). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac521c>
- ADCA28 KOZAK, Andrii\*\* - HOFBAUEROVÁ, Monika, Benkovičová - HALAHOVETS, Yuriy - PRIBUSOVÁ SLUŠNÁ, Lenka - PRECNER, Marián - MIČUŠÍK, Matej - OROVČÍK, Ľubomír - HULMAN, Martin - STEPURA, Anastasiia - OMASTOVÁ, Mária - ŠIFFALOVÍČ, Peter - ĽAPAJNA, Milan\*\*. Nanofriction properties of mono- and double-layer Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXenes. In ACS Applied Materials & Interfaces, 2022, vol. 14, no. 32, p. 36815-36824. (2021: 10.383 - IF, Q1 - JCR, 2.143 - SJR, Q1 - SJR). ISSN 1944-8244. Dostupné na: <https://doi.org/10.1021/acsami.2c08963> (APVV-17-0560 : Tribologické vlastnosti 2D materiálov a príbuzných nanokompozitov/. APVV-19-0465 : Hybridné nízkorozmerné vrstevnaté materiály s novými funkciami. APVV-20-0111 : Pokročilé lítiové batérie s dlhou životnosťou)
- KOZAK, Andrii\*\* - SOJKOVÁ, Michaela - GUCMANN, Filip - BODIK, Michal - VÉGSO, Karol - DOBROČKA, Edmund - PIŠ, I. - BONDINO, F. - HULMAN, Martin - ŠIFFALOVÍČ, Peter - ĽAPAJNA, Milan\*\*. Effect of the crystallographic c-axis orientation on the tribological properties of the few-layer PtSe<sub>2</sub>. In Applied Surface Science, 2022, vol. 605, art. no. 154883. (2021: 7.392 - IF, Q1 - JCR, 1.147 - SJR, Q1 - SJR). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2022.154883> (APVV-17-0560 : Tribologické vlastnosti 2D materiálov a príbuzných nanokompozitov/. APVV-20-0111 : Pokročilé lítiové batérie s dlhou životnosťou. APVV-19-0461 : Anódy pre Li-iónové batérie na báze uhlík-kremíkových kompozitov. APVV-19-0365 : Metalické 2D dichalkogenidy prechodných kovov: príprava, štúdium vlastností a korelované stavy. VEGA 2/0059/21)
- ADCA29 KRYLOV, Sergei - VETROVA, Iuliia - FEILHAUER, Juraj - FEDOR, Ján - DÉRER, Ján - ŠOLTÝS, Ján\*\* - CAMBEL, Vladimír. Improved durable vortex core MFM tip. In Journal of Magnetism and Magnetic Materials, 2022, vol. 555, no. 169357. (2021: 3.097 - IF, Q3 - JCR, 0.606 - SJR, Q2 - SJR, karentované - CCC). (2022 - Current Contents, WOS, SCOPUS). ISSN 0304-8853. Dostupné na: <https://doi.org/10.1016/j.jmmm.2022.169357> (APVV 19-0311. VEGA 2/0168/22. ITMS2014+: 313021T081 : Vybudovanie Centra pre využitie pokročilých materiálov Slovenskej akadémie vied)
- ADCA30 KUNDRATA, Ivan - BARR, M.K.S. - TYMEK, S. - DÖHLER, D. - HUDEK, Boris - BRÜNER, P. - VANKO, Gabriel - PRECNER, Marián - YOKOSAWA, T. - SPIECKER, E. - PLAKHOTNYUK, M. - FRÖHLICH, Karol - BACHMANN, J. Additive manufacturing in atomic layer processing mode. In Small methods, 2022, no. 2101546. (2021: 15.367 - IF, Q1 - JCR, 3.668 - SJR, Q1 - SJR). ISSN 2366-9608. Dostupné na: <https://doi.org/10.1002/smtd.202101546>
- ADCA31 LACROIX, C.\*\* - GIGUÈRE, J. - BERGERON HARTMAN, S.-M. - SAAD, H.B. - MARTIN, A. - LEDUC, T. - GENDRON-PAUL, M. - BELLIL, Z. - FOURNIER-LUPIEN, J.-H. - MORET, L. - BARUSCO, P. - GRANADOS, X. - OBRADORS, X. - PEKARČÍKOVÁ, M. - GÖMÖRY, Fedor - GROSSE, V. - BAUER, M. - SIROIS, F.\*\*. Normal zone propagation in various REBCO tape architectures. In Superconductor Science and Technology, 2022, vol. 35, no. 055009. (2021: 3.482 - IF, Q2 - JCR, 0.826 - SJR, Q1 - SJR). ISSN 0953-2048. Dostupné na:

- <https://doi.org/10.1088/1361-6668/ac56ff>
- ADCA32 MRKÝVKOVÁ, Nad'a, Tesařová\*\* - HELD, Vladimír - HALAHOVETS, Yuriy - NÁDAŽDY, Peter - JERGEL, Matej - MAJKOVÁ, Eva - SCHREIBER, F. - ŠIFFALOVÍČ, Peter. Simultaneous measurement of X-ray scattering and photoluminescence during molecular deposition. In Journal of Luminescence, 2022, vol. 248, art. no. 118950. (2021: 4.171 - IF, Q2 - JCR, 0.640 - SJR, Q2 - SJR). ISSN 0022-2313. Dostupné na: <https://doi.org/10.1016/j.jlumin.2022.118950> (APVV-17-0352 : Časovo-rozlíšené štúdium rastu hybridných van der Waalových heteroštruktúr. APVV-19-0465 : Hybridné nízkorozmerné vrstevnaté materiály s novými funkciami. APVV-20-0111 : Pokročilé lítiové batérie s dlhou životnosťou. SK-AT-20-0006 : Molekulárne nanoštruktúry na dvojdimenzionálnych subsrátoch. VEGA 2/0046/21 : Vplyv zabudovania MXénov do perovskitových solárnych článkov)
- ADCA33 MUSTONEN, K.\*\* - HOFER, C. - KOTRUSZ, P. - MARKEVICH, A. - HULMAN, Martin - MANGLER, C. - SUSI, T. - PENNYCOOK, T.J. - HRICOVÍNI, K. - RICHTER, C. - MEYER, J.C. - KOTAKOSKI, J.\*\* - SKÁKALOVÁ, V.\*\*. Towards exotic layered materials: 2D cuprous iodide. In Advanced Materials, 2022, vol. 34, no. 2106922. (2021: 32.086 - IF, Q1 - JCR, 8.663 - SJR, Q1 - SJR). ISSN 0935-9648. Dostupné na: <https://doi.org/10.1002/adma.202106922>
- ADCA34 NOVÁK, Jozef\*\* - LAURENČÍKOVÁ, Agáta - ELIÁŠ, Peter - HASENÖHRL, Stanislav - SOJKOVÁ, Michaela - KOVÁČ, Jaroslav Jr. - KOVÁČ, Jaroslav. Investigation of a nanostructured GaP/MoS2 p-n heterojunction photodiode. In AIP Advances, 2022, vol. 12, no. 065004. (2021: 1.697 - IF, Q3 - JCR, 0.375 - SJR, Q3 - SJR). ISSN 2158-3226. Dostupné na: <https://doi.org/10.1063/5.0089842> (APVV 20-0264. APVV 20-0437)
- ADCA35 OSVALD, Jozef\*\* - HRUBČÍN, Ladislav - ZAŤKO, Bohumír. Temperature dependence of electrical behaviour of inhomogeneous Ni/Au/4H-SiC Schottky diodes. In Materials science in semiconductor processing, 2022, vol. 140, no. 106413. (2021: 4.644 - IF, Q2 - JCR, 0.687 - SJR, Q1 - SJR). ISSN 1369-8001. Dostupné na: <https://doi.org/10.1016/j.mssp.2021.106413>
- ADCA36 OSVALD, Jozef\*\*. Intersection of 4H-SiC Schottky diodes I-V curves due to temperature dependent series resistance. In Semiconductor Science and Technology, 2022, vol. 37, no. 125003. (2021: 2.048 - IF, Q3 - JCR, 0.452 - SJR, Q2 - SJR). ISSN 0268-1242. Dostupné na: <https://doi.org/10.1088/1361-6641/ac9859>
- ADCA37 PRIBUS, Marek\*\* - BUDZÁK, Šimon - PRIBUSOVÁ SLUŠNÁ, Lenka - ŠIMONOVÁ, Tímea - JANKOVIČ, Ľuboš - MÉSZÁROS, R. - BUJDÁK, Juraj. Luminescence of Reichardt's dye in polyelectrolyte-modified saponite colloids. In Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, vol. 642, p. 128663-1-128663-10. (2021: 5.518 - IF, Q2 - JCR, 0.758 - SJR, Q2 - SJR). ISSN 0927-7757. Dostupné na: <https://doi.org/10.1016/j.colsurfa.2022.128663>
- ADCA38 PROCHAZKA, V.\*\* - KULHA, P. - IZSÁK, Tibor - UKRAINTSEV, E. - VARGA, Marian - JIRÁSEK, V. - KROMKA, A. Detection of globular and fibrillar proteins by quartz crystal microbalance sensor coated with a functionalized diamond thin film. In Applied Surface Science, 2022, vol. 589, no. 153017. (2021: 7.392 - IF, Q1 - JCR, 1.147 - SJR, Q1 - SJR). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2022.153017>
- ADCA39 RIES, Rastislav\*\* - SEILER, Eugen - GÖMÖRY, Fedor - MEDVIDS, A. - ONUFRIJEVS, P. - PIRA, C. - CHYHYRYNETS, E. - MALYSHEV, O.B. - VALIZADEH, R. Surface quality characterization of thin Nb films for superconducting radiofrequency cavities. In Superconductor Science and Technology, 2022, vol. 35, no. 075010. (2021: 3.482 - IF, Q2 - JCR, 0.826 - SJR, Q1

- SJR). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac7261> (VEGA 2/0036/21)
- ADCA40 ROSOVÁ, Alica\*\* - DOBROČKA, Edmund - ELIÁŠ, Peter - HASENÖHRL, Stanislav - KUČERA, Michal - GUCMANN, Filip - KUZMÍK, Ján. In(Ga)N 3D growth on GaN-buffered on-axis and off-axis (0001) sapphire substrates by MOCVD. In Nanomaterials-Basel, 2022, vol. 12, no. 3496. (2021: 5.719 - IF, Q1 - JCR, 0.839 - SJR, Q1 - SJR, karentované - CCC). (2022 - Current Contents, WOS, SCOPUS). ISSN 2079-4991. Dostupné na: <https://doi.org/10.3390/nano12193496> (VEGA 2/0005/22)
- ADCA41 SEDLÁČKOVÁ, K.\*\* - ZAŤKO, Bohumír - ŠAGÁTOVÁ, A. - NEČAS, V. Polarization effect of Schottky-barrier CdTe semiconductor detectors after electron irradiation. In Nuclear Instruments and Methods in Physics Research A. Accelerators, Spectrometers, Detectors and Associated Equipment, 2022, vol. 1027, no. 166282. (2021: 1.335 - IF, Q3 - JCR, 0.629 - SJR, Q2 - SJR). ISSN 0168-9002. Dostupné na: <https://doi.org/10.1016/j.nima.2021.166282>
- ADCA42 SHAJI, Ashin - VĚGSO, Karol - SOJKOVÁ, Michaela - HULMAN, Martin - NÁDAŽDY, Peter - HALAHOVETS, Yuriy - PRIBUSOVÁ SLUŠNÁ, Lenka - VOJTEKOVÁ, Tatiana - HRDÁ, Jana - JERGEL, Matej - MAJKOVÁ, Eva - WIESMANN, J. - ŠIFFALOVÍČ, Peter\*\*. Stepwise sulfurization of MoO<sub>3</sub> to MoS<sub>2</sub> thin films studied by real-time X-ray scattering. In Applied Surface Science, 2022, vol. 606, no. 154772. (2021: 7.392 - IF, Q1 - JCR, 1.147 - SJR, Q1 - SJR). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2022.154772>
- ADCA43 SUROVČÍK, J.\*\* - MEDVECKÁ, V. - GREGUŠ, J. - GREGOR, M. - ROCH, T. - ANNUŠOVÁ, Adriana - ĐURINA, P. - VOJTEKOVÁ, Tatiana. Characterization of TiO<sub>2</sub> nanofibers with enhanced photocatalytic properties prepared by plasma assisted calcination. In Ceramics International, 2022, vol. 48, no. 24, p. 37322-37332. (2021: 5.532 - IF, Q1 - JCR, 0.887 - SJR, Q1 - SJR, karentované - CCC). (2022 - Current Contents, WOS, SCOPUS). ISSN 0272-8842. Dostupné na: <https://doi.org/10.1016/j.ceramint.2022.08.309>
- ADCA44 ŠAGÁTOVÁ, A.\*\* - GÁL, Norbert - NOVÁK, A. - KOTOROVÁ, S. - RIABUKHIN, O. - KOVÁČOVÁ, Eva - ZAŤKO, Bohumír. GaAs radiation-degraded detectors: gamma spectrometry at lowered temperatures. In Journal of Instrumentation, 2022, vol. 17, no. C12018. (2021: 1.121 - IF, Q4 - JCR, 0.428 - SJR, Q2 - SJR, karentované - CCC). (2022 - Current Contents, WOS, SCOPUS). ISSN 1748-0221.
- ADCA45 ŠIMONOVÁ, Z.\*\* - KRBEČKOVÁ, V. - VILAMOVÁ, Z. - DOBROČKA, Edmund - KLEJDUS, B. - CIESLAR, M. - SVOBODA, Ladislav - DVORSKÝ, Radovan - SEIDLEROVÁ, J. The effects of nature-inspired synthesis on silver nanoparticle generation. In ACS Omega, 2022, vol. 7, p. 4850-4858. (2021: 4.132 - IF, Q2 - JCR, 0.708 - SJR, Q1 - SJR). ISSN 2470-1343. Dostupné na: <https://doi.org/10.1021/acsomega.1c05308>
- ADCA46 TIXADOR, Pascal\*\* - AKBAR, A. - BAUER, M. - BOCCHI, M. - CALLEJA, A. - CREUSOT, C. - DEUTSCHER, G. - GÖMÖRY, Fedor - NOE, M. - OBRADORS, X. - PEKARČÍKOVÁ, M. - SIROIS, F. Some Results of the EU Project FASTGRID. In IEEE Transactions on Applied Superconductivity, 2022, vol. 32, no. 5601006. (2021: 1.949 - IF, Q3 - JCR, 0.443 - SJR, Q2 - SJR). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2022.3151318>
- ADCA47 VĚGSO, Karol\*\* - SHAJI, Ashin - SOJKOVÁ, Michaela - PRIBUSOVÁ SLUŠNÁ, Lenka - VOJTEKOVÁ, Tatiana - HRDÁ, Jana - HALAHOVETS, Yuriy - HULMAN, Martin - JERGEL, Matej - MAJKOVÁ, Eva - WIESMANN, J. - ŠIFFALOVÍČ, Peter. A wide-angle X-ray scattering laboratory setup for tracking phase changes of thin films in a chemical vapor deposition chamber. In Review of

Scientific Instruments, 2022, vol. 93, no. 11, no. 113909. (2021: 1.843 - IF, Q3 - JCR, 0.606 - SJR, Q2 - SJR). ISSN 0034-6748. Dostupné na: <https://doi.org/10.1063/5.0104673>

- ADCA48 ZATKO, Bohumír\*\* - ŠAGÁTOVÁ, A. - GÁL, Norbert - NOVÁK, A. - OSVALD, Jozef - BOHÁČEK, Pavol - POLANSKY, Š. - JAKUBEK, J. - KOVÁČOVÁ, Eva. From a single silicon carbide detector to pixelated structure for radiation imaging camera. In Journal of Instrumentation, 2022, vol. 17, no. C12005. (2021: 1.121 - IF, Q4 - JCR, 0.428 - SJR, Q2 - SJR, karentované - CCC). (2022 - Current Contents, WOS, SCOPUS). ISSN 1748-0221. Dostupné na: <https://doi.org/10.1088/1748-0221/17/12/C12005>

#### ADFB Vedecké práce v ostatných domácich časopisoch – neimpaktovaných

- ADFB01 KOLENČÍK, M.\*\* - URÍK, M. - LESŇÁK, M. - ČECH BARABASZOVÁ, K. - BUJDOŠ, M. - ŠEBESTA, M. - DOBROČKA, Edmund - AYDIN, Elena - DUBORSKÁ, E. - ERNST, D. - JURIGA, M. - CHAKVAVARTHI, J. - QIAN, Y. - FENG, H. - KRATOŠOVÁ, G. - SUNIL, B.R. - ILLA, R. Effect of AC/DC electrical fields on ZnO nanoparticles kinetics. In Acta Fytotechnica et Zootechnica : Scientific journal for photechnics and zootechnics, 2022, vol. 25, no. 4, p. 324–332. (2021: 0.156 - SJR, Q4 - SJR). ISSN 1335-258X. Dostupné na: <https://doi.org/10.15414/afz.2022.25.04.324-33>

#### ADMA Vedecké práce v zahraničných impaktovaných časopisoch registrovaných v databázach Web of Science alebo SCOPUS

- ADMA01 ŠIMONOVÁ, Z.\*\* - PORUBOVÁ, L. - VERNER, A. - GÁBOR, R. - VILAMOVÁ, Z. - DOBROČKA, Edmund - CIESLAR, M. - KRBEČKOVÁ, V. - DĚDKOVÁ, K. - SVOBODA, Ladislav - BEDNÁŘ, J. - DVORSKÝ, R. - SEIDLEROVÁ, J. Simple fabrication of polycaprolactone-co-lactide membrane with silver nanowires: synthesis, characterization and cytotoxicity studies. In Fibers and polymers, 2022, vol. 23, p. 2983-2993. (2021: 2.347 - IF, Q2 - JCR, 0.445 - SJR, Q2 - SJR). ISSN 1229-9197. Dostupné na: <https://doi.org/10.1007/s12221-022-4994-2>

#### ADMB Vedecké práce v zahraničných neimpaktovaných časopisoch registrovaných v databázach Web of Science alebo SCOPUS

- ADMB01 HURAN, Jozef - SASINKOVÁ, Vlasta - NOZDRIN, Mikhail A. - KOVÁČOVÁ, Eva - KOBZEV, A.P. - KLEINOVÁ, Angela. Photo-induced electron emission of nanostructured carbon thin film based transmission photocathodes at different electric field. In Advances in Electrical and Electronic Engineering, 2022, vol. 20, p. 108-114. (2021: 0.202 - SJR, Q4 - SJR). ISSN 1336-1376. Dostupné na: <https://doi.org/10.15598/aece.v20i1.4138> (VEGA 2/0084/20)
- ADMB02 IVANOV, M. - RADYGIN, V.\*\* - KORCHAGIN, S.A. - PLESHAKOVA, E. - SHELDYAKOV, D. - YERBOL, Y. - BUBLIKOV, Konstantin. Intelligent web-application for countering DDoS attacks on educational institutions. In Studies in Computational Intelligence : BICA 2021: Biologically Inspired Cognitive Architectures 2021, 2022, vol. 1032, p. 182–194. (2021: 0.237 - SJR, Q4 - SJR). ISSN 1860-949X. Dostupné na: [https://doi.org/10.1007/978-3-030-96993-6\\_18](https://doi.org/10.1007/978-3-030-96993-6_18)
- ADMB03 KORCHAGIN, S.A. - OSIPOV, A.V. - PLESHAKOVA, E. - IVANOV, M. - KUPRIYANOV, D.\*\* - BUBLIKOV, Konstantin. Intelligent system for express analysis of electrophysical characteristics of nanocomposite media. In Studies in Computational Intelligence : BICA 2021: Biologically Inspired Cognitive

- ADMB04 Architectures 2021, 2022, vol. 1032, p. 223-230. (2021: 0.237 - SJR, Q4 - SJR). ISSN 1860-949X. Dostupné na: [https://doi.org/10.1007/978-3-030-96993-6\\_22](https://doi.org/10.1007/978-3-030-96993-6_22)  
 KOROTEEV, M. - ROMANOVA, E.\*\* - KOROVIN, D. - SHEVTSOV, V. - FEKLIN, V. - NIKITIN, P. - MAKRUSHIN, S. - BUBLIKOV, Konstantin. Optimization of food industry production using the Monte Carlo simulation method: a case study of a meat processing plant. In Informatics, 2022, vol. 9, no. 5. (2021: 0.595 - SJR, Q1 - SJR). ISSN 2227-9709. Dostupné na: <https://doi.org/10.3390/informatics9010005>
- ADMB05 ŠAGÁTOVÁ, A.\*\* - KOVÁČOVÁ, Eva - NOVÁK, A. - NEČAS, V. - ZAŤKO, Bohumír. Alpha-spectrometry by radiation-degraded semi-insulating GaAs detectors. In Materials Today: Proceedings, 2022, vol. 53, no. 293-298. (2021: 0.355 - SJR). ISSN 2214-7853. Dostupné na: <https://doi.org/10.1016/j.matpr.2021.06.457>
- ADMB06 VASILIEV, N.N. - PAVLOV, N. V. - OSIPOV, A.I. - IVANOV, Martin - RADYGIN, Vladimir Michajlovič\*\* - PLESHAKOVA, E. - KORCHAGIN, S.A. - BUBLIKOV, Konstantin. Development of the intelligent object detection system on the road for self-driving cars in low visibility conditions. In Studies in Computational Intelligence : Biologically Inspired Cognitive Architectures 2021, 2022, vol. 1032, p. 576–584. (2021: 0.237 - SJR, Q4 - SJR). ISSN 1860-949X. Dostupné na: [https://doi.org/10.1007/978-3-030-96993-6\\_64](https://doi.org/10.1007/978-3-030-96993-6_64)

#### AFD Publikované príspevky na domácich vedeckých konferenciách

- AFD01 EGYENES, Fridrich\*\* - GUCMANN, Filip - DOBROČKA, Edmund - MIKOLÁŠEK, M. - HUŠEKOVÁ, Kristína - ŤAPAJNA, Milan. Transport properties of Si-doped beta-Ga<sub>2</sub>O<sub>3</sub> grown by liquid-injection MOCVD. In ASDAM 2022 : Conference Proceedings. Eds. J. Marek et al. - IEEE, 2022, p. 119-122. ISBN 978-1-6654-6977-7. (International Conference on Advanced Semiconductor Devices and Microsystems)
- AFD02 HORSKÝ, Matej - NÁDAŽDY, Peter - DOBROČKA, Edmund - GREGUŠOVÁ, Dagmar - SEIFERTO VÁ, Alena - DÉRER, Ján - FEDOR, Ján - ŠČEPKA, Tomáš - HUDEK, Boris\*\*. Electrical properties of Pt/TiO<sub>2</sub>/TiN structures grown by atomic layer deposition using TTIP and water. In ASDAM 2022 : Conference Proceedings. Eds. J. Marek et al. - IEEE, 2022, p. 37-40. ISBN 978-1-6654-6977-7. (International Conference on Advanced Semiconductor Devices and Microsystems)
- AFD03 HRDÁ, Jana\*\* - VOJTEKOVÁ, Tatiana - PRIBUSOVÁ SLUŠNÁ, Lenka - DOBROČKA, Edmund - HULMAN, Martin - PÍŠ, I. - SOJKOVÁ, Michaela. Influence of Li-doping on the structural properties of thin-layer MOS<sub>2</sub> films. In Proceedings of ADEPT 2021 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 85-88. ISBN 978-80-554-1884-1. (VEGA 2/0059/21)
- AFD04 HRUBIŠÁK, Fedor\*\* - EGYENES, Fridrich - DOBROČKA, Edmund - GUCMANN, Filip - HUŠEKOVÁ, Kristína - KESHTKAR, Javad - ŤAPAJNA, Milan. Growth and properties of Ga<sub>2</sub>O<sub>3</sub> on 4H-SiC using liquid-injection MOCVD. In Proceedings of ADEPT 2021 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 47-50. ISBN 978-80-554-1884-1. (APVV 20-0220. VEGA 2/0100/21)
- AFD05 HRUBIŠÁK, Fedor\*\* - HUŠEKOVÁ, Kristína - EGYENES, Fridrich - ROSOVÁ, Alica - KUBRANSKÁ, A. - DOBROČKA, Edmund - NÁDAŽDY, Peter - KESHTKAR, Javad - GUCMANN, Filip - ŤAPAJNA, Milan. Structural and electrical properties of Ga<sub>2</sub>O<sub>3</sub> transistors grown on 4H-SiC substrates. In ASDAM

- 2022 : Conference Proceedings. Eds. J. Marek et al. - IEEE, 2022, p. 115-118. ISBN 978-1-6654-6977-7. (International Conference on Advanced Semiconductor Devices and Microsystems)
- AFD06 HRUBIŠÁK, Fedor\*\* - HUŠEKOVÁ, Kristína - EGYENES, Fridrich - GUCMANN, Filip - DOBROČKA, Edmund - KESHTKAR, Javad - ĎAPAJNA, Milan. Effects of repeated annealing in different atmospheres on surface morphology of  $\epsilon$ - $\kappa$ -Ga<sub>2</sub>O<sub>3</sub> grown on c-plane sapphire using LI-MOCVD method. In ELITECH '22 : 24th Conference of Doctoral Students. Editor: A. Kozáková recenzenti: E. Miklovičová, I. Bélai, M. Pavlovič. 1. - Bratislava, Slovenská republika : Vydavateľstvo Spektrum STU, 2022, p. non. ISBN 978-80-227-5192-6.
- AFD07 HUDEC, Boris - VANKO, Gabriel\*\* - PRECNER, Marián - DOBROČKA, Edmund - SEIFERTO VÁ, Alena - FEDOR, Ján - TÓBIK, Jaroslav - FRÖHLICH, Karol. Piezoelectric thin film pressure sensor made by atomic layer deposition of 002-oriented ZnO on. In ASDAM 2022 : Conference Proceedings. Eds. J. Marek et al. - IEEE, 2022, p. 199-202. ISBN 978-1-6654-6977-7. (International Conference on Advanced Semiconductor Devices and Microsystems)
- AFD08 HURAN, Jozef\*\* - SKRYPNIK, A.P. - DUJNÍČ, Viera - DOROSHKEVICH, A.S. - ZAŤKO, Bohumír - NOZDRIN, Mikhail A. - KOVÁČOVÁ, Eva - SHIRKOV, G.D. Electron beam-plasma vacuum deposition of very thin carbon films: photocathode application. In ASDAM 2022 : Conference Proceedings. Eds. J. Marek et al. - IEEE, 2022, p. 123-126. ISBN 978-1-6654-6977-7. (International Conference on Advanced Semiconductor Devices and Microsystems)
- AFD09 HURAN, Jozef\*\* - SKRYPNIK, A.P. - SASINKOVÁ, Vlasta - DOROSHKEVICH, A.S. - NOZDRIN, Mikhail A. - KOVÁČOVÁ, Eva - SHIRKOV, G.D. Effect of electric field on the photoelectron emission properties of very thin carbon films prepared by electron beam-plasma vacuum deposition. In Proceedings of ADEPT 2021 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 129-132. ISBN 978-80-554-1884-1. (VEGA 2/0084/20)
- AFD10 IZSÁK, Tibor\*\* - KOVÁČOVÁ, Eva - VANKO, Gabriel - HAŠČÍK, Štefan - ZEHE TNER, J. - VOJS, M. - ZAŤKO, Bohumír. Optimization of mask material for deep reactive ion etching of GaAs structures. In Proceedings of ADEPT 2021 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 169-172. ISBN 978-80-554-1884-1. (VEGA 2/0084/20. APVV 18-0273. APVV 18-0243)
- AFD11 KESHTKAR, Javad\*\* - GUCMANN, Filip - HOTOVÝ, I. - DOBROČKA, Edmund - EGYENES, Fridrich - ĎAPAJNA, Milan. NiO thin films for solar-blind photodetectors: structure and electrical properties. In ELITECH '22 : 24th Conference of Doctoral Students. Editor: A. Kozáková; recenzenti: E. Miklovičová, I. Bélai, M. Pavlovič. 1. - Bratislava, Slovenská republika : Vydavateľstvo Spektrum STU, 2022, p. non. ISBN 978-80-227-5192-6.
- AFD12 KESHTKAR, Javad\*\* - HOTOVÝ, I. - GUCMANN, Filip - HUŠEKOVÁ, Kristína - DOBROČKA, Edmund - NÁDAŽDY, Peter - EGYENES, Fridrich - MIKOLÁŠEK, M. - ĎAPAJNA, Milan. NiO thin films for solar-blind photodetectors: structure and electrical properties. In Proceedings of ADEPT 2021 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 113-116. ISBN 978-80-554-1884-1. (APVV 20-0220. VEGA 2/0100/21)
- AFD13 KOČÍ, M.\*\* - IZSÁK, Tibor - VANKO, Gabriel - SOJKOVÁ, Michaela - HUSÁK,



- M. - KROMKA, A. PtSe<sub>2</sub> and MOS<sub>2</sub> active layers for GaS sensing at room temperature. In Proceedings of ADEPT 2021 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 117-120. ISBN 978-80-554-1884-1.
- AFD14 KROMKA, A.\*\* - BABCHENKO, Oleg - IZSÁK, Tibor - VARGA, Marian - VANKO, Gabriel - ZEHETNER, J. - POTOCKÝ, Štěpán. Growth of carbon allotropes in plasma CVD system. In Proceedings of ADEPT 2021 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 17-20. ISBN 978-80-554-1884-1. (MoRePro 19MRP0010)
- AFD15 NOVÁK, A.\*\* - ŠAGÁTOVÁ, A. - ZAŤKO, Bohumír - GRANJA, C. - CHVATIL, David. Spectral tracking in wide field-of-view of MeV electrons using timepix detector with GaAs sensor. In ELITECH '22 : 24th Conference of Doctoral Students. Editor: A. Kozáková; recenzenti: E. Miklovičová, I. Bélai, M. Pavlovič. 1. - Bratislava, Slovenská republika : Vydavateľstvo Spektrum STU, 2022, p. non. ISBN 978-80-227-5192-6.
- AFD16 NOVÁK, Jozef\*\* - LAURENČÍKOVÁ, Agáta - ELIÁŠ, Peter - HASENÖHRL, Stanislav - SOJKOVÁ, Michaela - KOVÁČ, Jaroslav - KOVÁČ, Jaroslav Jr. MOVPE growth of edge rich GaP surfaces for preparation of molybdenum disulphide. In Proceedings of ADEPT 2021 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 21-24. ISBN 978-80-554-1884-1. (APVV 20-0437. APVV 20-0264. VEGA 2/0104/17)
- AFD17 OSVALD, Jozef\*\* - ZAŤKO, Bohumír. Anomalous intersection point of Schottky diodes I-V curves measured at different temperatures. In Proceedings of ADEPT 2021 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 133-136. ISBN 978-80-554-1884-1.
- AFD18 PARSA SAEB, Saviz\*\* - VARGA, Marian. Investigation of metal particle-free gallium telluride nanowire growth using conventional CVD method. In ASDAM 2022 : Conference Proceedings. Eds. J. Marek et al. - IEEE, 2022, p. 111-114. ISBN 978-1-6654-6977-7. (International Conference on Advanced Semiconductor Devices and Microsystems)
- AFD19 STOKLAS, Roman\*\* - ŠICHMAN, Peter - HASENÖHRL, Stanislav - GREGUŠOVÁ, Dagmar - ĽAPAJNA, Milan - HUDEEC, Boris - HAŠČÍK, Štefan - KUZMÍK, Ján. Interface states analysis of Al<sub>2</sub>O<sub>3</sub>/GaN MOS capacitors with semi-insulating C-doped GaN. In ASDAM 2022 : Conference Proceedings. Eds. J. Marek et al. - IEEE, 2022, p. 15-16. ISBN 978-1-6654-6977-7. (International Conference on Advanced Semiconductor Devices and Microsystems)
- AFD20 VANKO, Gabriel\*\* - ANDOK, Robert - TOMÁŠKA, M. - WU, Shang-Ru - VOJS, M. - HUDEEC, Boris - MARTON, M. - ŘEHÁČEK, V. - KROMKA, A. - IZSÁK, Tibor - CHEN, Yi-Hung - TSAI, Hung-Yin. Diamond-based RF MEMS microheaters for insects behavior monitoring. In Proceedings of ADEPT 2021 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 145-148. ISBN 978-80-554-1884-1.
- AFD21 VOJTEKOVÁ, Tatiana\*\* - PRIBUSOVÁ SLUŠNÁ, Lenka - HULMAN, Martin.

Optical characterisation of MOTe2 thin films. In Proceedings of ADEPT 2021 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 59-62. ISBN 978-80-554-1884-1.

- AFD22 ZAŤKO, Bohumír\*\* - ŠAGÁTOVÁ, A. - OSVALD, Jozef - GÁL, Norbert - HRUBČÍN, Ladislav - KOVÁČOVÁ, Eva. High-quality detectors based on 4H-SiC operated at different temperatures. In ASDAM 2022 : Conference Proceedings. Eds. J. Marek et al. - IEEE, 2022, p. 203-206. ISBN 978-1-6654-6977-7. (International Conference on Advanced Semiconductor Devices and Microsystems)
- AFD23 ZEHEITNER, J. - VANKO, Gabriel - DOHNAL, F. - IZSÁK, Tibor - DRŽÍK, Milan - KROMKA, A. Recent challenges in micromachining of wide-bandgap materials and fabrication of MEMS for harsh environments. In Proceedings of ADEPT 2022 : 10th International Conference on Advances in Electronic and Photonic Technologies, Tatranská Lomnica, High Tatras, Slovakia. Eds. M. Feiler et al. - Žilina : University of Zilina in EDIS-Publishing Centre of UZ, 2022, p. 7-12. ISBN 978-80-554-1884-1.
- AFD24 ZEHEITNER, J.\*\* - VANKO, Gabriel - IZSÁK, Tibor - KOVÁČOVÁ, Eva - DRŽÍK, Milan - DOHNAL, F. - KROMKA, A. Diamond cantilevers for MEMS sensor applications fabricated by laser ablation and optimized etching techniques. In ASDAM 2022 : Conference Proceedings. Eds. J. Marek et al. - IEEE, 2022, p. 195-198. ISBN 978-1-6654-6977-7. (International Conference on Advanced Semiconductor Devices and Microsystems)

#### **AFF Abstrakty pozvaných príspevkov z domácich konferencií**

- AFF01 CHROMIK, Štefan\*\* - ŠPANKOVÁ, Marianna - ROSOVÁ, Alica - DOBROČKA, Edmund - GREGOR, M. - VOJTEKOVÁ, Tatiana - CORDIER, Y. - PÉCZ, B. - GIANNAZZO, F. Structural properties of MoS2 and WS2 two-dimensional systems prepared by PLD method on some specific substrates. In Proceedings of 12th solid state surfaces and interfaces : Extended Abstract Book. Eds. R. Brunner, S. Bačová. - Bratislava : Comenius University, 2022, p. 20-21. ISBN 978-80-223-5494-3. (Solid State Surfaces and Interfaces)
- AFF02 MOŠKO, Martin\*\* - KOSCELANSKÁ, M. - PLECENIK, T. - VOLKOV, S. - GREGOR, M. - MOŠKOVÁ, Antónia - VIDIŠ, M. - ĐURINA, P. - ROCH, T. - GRANČIČ, B. - SATRAPINSKY, Leonid - KÚŠ, P. - PLECENIK, Andrej. Point contact spectroscopy of superconductors using nanofilament in a titanium-oxide based memristor. In Proceedings of 12th solid state surfaces and interfaces : Extended Abstract Book. Eds. R. Brunner, S. Bačová. - Bratislava : Comenius University, 2022, p. 30-31. ISBN 978-80-223-5494-3. (Solid State Surfaces and Interfaces)

#### **AFG Abstrakty príspevkov zo zahraničných konferencií**

- AFG01 IZSÁK, Tibor\*\* - VANKO, Gabriel - BABCHENKO, Oleg - ZAŤKO, Bohumír - KROMKA, A. Effects of metal layers on chemical vapor deposition of diamond films. In NANOCON 2022 : Abstracts. - Ostrava : Tanger Ltd., 2022, p. 68. ISBN 978-80-88365-07-5. (International Conference on Nanomaterials - Research & Application)
- AFG02 KOVÁČOVÁ, Zuzana\*\* - OROVČÍK, Ľubomír - BAČA, Ľuboš - TATARKO, Peter - DOBROČKA, Edmund - KITZMANTEL, M. - NEUBAUER, Erich. Oxidation performance of ZrB2-SiC composites tested above 2000 °C and effect of

Y-containing additives. In Ceramics in Europe 2022 : Abstract book. Kraków, 10.-14.7.2022. - B.V., 2022, p. 526. ISBN 978-83-942760-9-6. (Ceramics in Europe 2022)

- AFG03 VARGA, Marian\*\* - SOJKOVÁ, Michaela - CHROMIK, Štefan - HRDÁ, Jana - PARSA SAEB, Saviz - PRIBUSOVÁ SLUŠNÁ, Lenka - REMEŠ, Z. - ONDIČ, L. - FAIT, J. - KROMKA, A. - HULMAN, Martin. Transition metal dichalcogenides and diamond – new friends for promising heterostructures. In NANOCON 2022 : Abstracts. - Ostrava : Tanger Ltd., 2022, p. 59. ISBN 978-80-88365-07-5. (International Conference on Nanomaterials - Research & Application)

## AFH Abstrakty príspevkov z domácich konferencií

- AFH01 BENNÁR, Michal\*\* - CHROMIK, Štefan - TALACKO, Marcel - KRONEK, Juraj - ŠPANKOVÁ, Marianna. Impact of organic based chiral molecules on perovskites. In Proceedings of 12th solid state surfaces and interfaces : Extended Abstract Book. - Bratislava : Comenius University, 2022, p. 13. ISBN 978-80-223-5494-3. (Solid State Surfaces and Interfaces)
- AFH02 BYSTRICKÝ, Roman\*\* - TIWARI, S.K. - HUTÁR, Peter - SÝKORA, M. Synthesis and characterization of the ternary chalcogenide perovskites. In The 6th International conference on nanomaterials: Fundamentals and applications : Book of abstracts. Košice, 16.-19.10.2022. - Košice : Prírodovedecká fakulta UPJŠ, 2022, p. 35-37. ISBN 978-80-5740127-8. (International conference on nanomaterials: Fundamentals and applications)
- AFH03 NEMEC, Pavol\*\* - KLARÁK, Jaromír - ŠOLTÝS, Ján. TiO<sub>2</sub> as an active layer in a gas sensor. In Proceedings of 12th solid state surfaces and interfaces : Extended Abstract Book. - Bratislava : Comenius University, 2022, p. 35. ISBN 978-80-223-5494-3. (Solid State Surfaces and Interfaces)
- AFH04 PINČÍK, Emil\*\* - KOBAYASHI, H. - BRUNNER, Róbert - MIKULA, M. - KUČERA, Michal - VOJTEK, P. - ZÁBUDLÁ, Z. - GREGUŠ, J. - BAČOVÁ, Silvia. Porous silicon and solar cell application. In Proceedings of 12th solid state surfaces and interfaces : Extended Abstract Book. - Bratislava : Comenius University, 2022, p. 43. ISBN 978-80-223-5494-3. (Solid State Surfaces and Interfaces)
- AFH05 ŠČEPKA, Tomáš\*\* - FEDOR, Ján - EGYENES, Fridrich - DOBROČKA, Edmund - ROSOVÁ, Alica - HUDEEC, Boris. Fabrication of low resistivity titanium nitride thin films by reactive magnetron sputtering at room temperature. In Proceedings of 12th solid state surfaces and interfaces : Extended Abstract Book. - Bratislava : Comenius University, 2022, p. ISBN 978-80-223-5494-3. (Solid State Surfaces and Interfaces)
- AFH06 ŠPANKOVÁ, Marianna\*\* - DOBROČKA, Edmund - PRIBUSOVÁ SLUŠNÁ, Lenka - GREGOR, M. - PÉCZ, B. - KOOS, A. - FIORENZA, P. - GIANNAZZO, F. - CORDIER, Y. - FRAYSSINET, E. - CHROMIK, Štefan. Structural properties of few monolayer thick MoS<sub>2</sub> films prepared on GaN and sapphire substrates. In Proceedings of 12th solid state surfaces and interfaces : Extended Abstract Book. - Bratislava : Comenius University, 2022, p. 55-56. ISBN 978-80-223-5494-3. (Solid State Surfaces and Interfaces)
- AFH07 TALACKO, Marcel\*\* - CHROMIK, Štefan - ŠPANKOVÁ, Marianna - JUNG, G. Shapiro-like steps on electron irradiated YBCO thin film structures and their time stability. In Proceedings of 12th solid state surfaces and interfaces : Extended Abstract Book. - Bratislava : Comenius University, 2022, p. 58-59. ISBN 978-80-223-5494-3. (Solid State Surfaces and Interfaces)
- AFH08 TIWARI, S.K. - BYSTRICKÝ, Roman - HUTÁR, Peter - SÝKORA, M.\*\*. Novel synthesis approach for the preparation of chalcogenide Perovskites. In The 6th

- International conference on nanomaterials: Fundamentals and applications : Book of abstracts. Košice, 16.-19.10.2022. - Košice : Prírodovedecká fakulta UPJŠ, 2022, p. 137. ISBN 978-80-5740127-8. (International conference on nanomaterials: Fundamentals and applications)
- AFH09 ZECHEL, F. - HUTÁR, Peter - HAQUE, A. - SÝKORA, M.\*\*. Preparation of MoS<sub>2</sub> nanocrystals by colloidal methods using nontoxic precursors. In The 6th International conference on nanomaterials: Fundamentals and applications : Book of abstracts. Košice, 16.-19.10.2022. - Košice : Prírodovedecká fakulta UPJŠ, 2022, p. 143-145. ISBN 978-80-5740127-8. (International conference on nanomaterials: Fundamentals and applications)

**FAI Zostavovateľské práce knižného charakteru (bibliografie, encyklopédie, katalógy, slovníky, zborníky, atlasy ...)**

- FAI01 Journal of Electrical Engineering. Bratislava : Slovak Centre of IEE : SUT, Faculty of Electrical Engineering and Information Technology : SAS, Institute of Electrical Engineering, 1994. V rokoch 1959-1994 vychádzal pod hlavným názvom Elektrotechnický časopis. Bimonthly. ISSN 1335-3632

**GII Rôzne publikácie a dokumenty, ktoré nemožno zaradiť do žiadnej z predchádzajúcich kategórií**

- GII01 HANZEL, Ondrej - LENČEŠ, Zoltán - KIM, Young-Wook - FEDOR, Ján - ŠAJGALÍK, Pavol. Silicon carbide - graphene composites with high functional properties. In IMEC 2022. 1st International Conference on Innovative Materials in Extreme Conditions, 22-23 March 2022, Belgrade, Serbia : Program and Book of Abstracts. - Belgrade, Serbia : Vinča Institute of Nuclear Sciences - National Institute of the Republic of Serbia, University of Belgrade and Serbian Society for Innovative Materials in Extreme Conditions, 2022, p. 27. (IMEC 2022. International Conference on Innovative Materials in Extreme Conditions)
- GII02 HANZEL, Ondrej - LENČEŠ, Zoltán - KIM, Young-Wook - FEDOR, Ján - ŠAJGALÍK, Pavol. Silicon carbide - graphene composites with high thermal and electrical conductivity. In KERAMIK/CERAMICS 2022, 97. DKG Annual Meeting, virtual conference, 07.-09.03.2022 : Abstracts. - Köln, Germany : Deutsche Keramische Gesellschaft e.V., 2022, p. 64. (KERAMIK/CERAMICS 2022. DKG Annual Meeting)
- GII03 HANZEL, Ondrej\*\* - LENČEŠ, Zoltán - KIM, Young-Wook - FEDOR, Ján - ŠAJGALÍK, Pavol. Highly electrically and thermally conductive silicon carbide - graphene composites. In 15th international ceramics congress : CIMTEC 2022. Perugia, 20.-24.6.2022. - B.V., 2022, p. CD-1:L10. (International ceramics congress : CIMTEC 2022)

## Ohlasy (citácie):

### ABC Kapitoly vo vedeckých monografiách vydané v zahraničných vydavateľstvách

- ABC01 ŠIFFALOVIČ, Peter - VÉGSO, Karol - HODAS, Martin - JERGEL, Matej - HALAHOVETS, Yuriy - PELLETTA, Marco - KORYTÁR, Dušan - ZÁPRAŽNÝ, Zdenko - MAJKOVÁ, Eva. In situ x-ray reciprocal space mapping for characterization of nanomaterials. In X-ray and neutron techniques for nanomaterials characterization. - Berlin : Springer, 2016, p. 507-544. ISBN 978-3-662-48604-7. Dostupné na: [https://doi.org/10.1007/978-3-662-48606-1\\_9](https://doi.org/10.1007/978-3-662-48606-1_9)  
Citácie:  
1. [1.2] BARANNIKOV, Aleksandr - SHEVYRTALOV, Sergey - ZVEREV, Dmitrii - NARIKOVICH, Anton - SINITSYN, Aleksandr - PANORMOV, Igor - SNIGIREVA, Irina - SNIGIREV, Anatoly. Laboratory complex for the tests of the X-ray optics and coherence-related techniques. In Proceedings of SPIE The International Society for Optical Engineering. ISSN 0277786X, 2021-01-01, 11776, pp. Dostupné na: <https://doi.org/10.1117/12.2582687>., Registrované v: SCOPUS
- ABC02 ĽAPAJNA, Milan - KOLLER, C. Reliability Issues in GaN electronic devices. In Nitride semiconductor technology : power electronics and optoelectronic devices. - Weinheim : Wiley-VCH, 2020, p. 199-253. ISBN 978-3-527-34710-0.  
Citácie:  
1. [1.1] WANG, H. - BLAABJERG, F. Power Electronics Reliability: State of the Art and Outlook. In IEEE JOURNAL OF EMERGING AND SELECTED TOPICS IN POWER ELECTRONICS. ISSN 2168-6777, DEC 2021, vol. 9, no. 6, p. 6476-6493., Registrované v: WOS

### ADCA Vedecké práce v zahraničných karentovaných časopisoch – impaktovaných

- ADCA01 AARIK, L. - ARROVAL, T. - RAMMULA, R. - MÄNDAR, H. - SAMMELSELG, V. - HUDEK, Boris - HUŠEKOVÁ, Kristína - FRÖHLICH, Karol - AARIK, J. Atomic layer deposition of high-quality Al<sub>2</sub>O<sub>3</sub> and Al-doped TiO<sub>2</sub> thin films from hydrogen-free precursors. In Thin Solid Films, 2014, vol. 565, p. 19-24. (2013: 1.867 - IF, Q2 - JCR, 0.818 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents, WOS, SCOPUS). ISSN 0040-6090. Dostupné na: <https://doi.org/10.1016/j.tsf.2014.06.038>  
Citácie:  
1. [1.1] CHIAPPIM, William - TESTONI, Giorgio - MIRANDA, Felipe - FRAGA, Mariana - FURLAN, Humber - SARAVIA, David Ardiles - SOBRINHO, Argemiro da Silva - PETRACONI, Gilberto - MACIEL, Homero - PESSOA, Rodrigo. Effect of Plasma-Enhanced Atomic Layer Deposition on Oxygen Overabundance and Its Influence on the Morphological, Optical, Structural, and Mechanical Properties of Al-Doped TiO<sub>2</sub> Coating. In MICROMACHINES, 2021, vol. 12, no. 6, pp. Dostupné na: <https://doi.org/10.3390/mi12060588>., Registrované v: WOS  
2. [1.1] GHAZARYAN, Lilit - HANDA, Shiti - SCHMITT, Paul - BELADIYA, Vivek - RODDATIS, Vladimir - TUENNERMANN, Andreas - SZEGLHALMI, Adriana. Structural, optical, and mechanical properties of TiO<sub>2</sub> nanolaminates. In NANOTECHNOLOGY, 2021, vol. 32, no. 9, pp. ISSN 0957-4484. Dostupné na: <https://doi.org/10.1088/1361-6528/abcbe1>., Registrované v: WOS  
3. [1.1] KIM, Byungkuk - CHOI, Yeonsik - LEE, Dahyun - BYUN, Younghun - JUNG, Chanwon - JEON, Hyeongtag. Leakage Current Characteristics of Atomic

*Layer Deposited Al-Doped TiO<sub>2</sub> Thin Film for Dielectric in DRAM Capacitor. In ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY, 2021, vol. 10, no. 8, pp. ISSN 2162-8769. Dostupné na: <https://doi.org/10.1149/2162-8777/ac1c9c>., Registrované v: WOS*

4. [1.1] KWON, Dae Seon - JEON, Woojin - KIM, Dong Gun - KIM, Tae Kyun - SEO, Haengha - LIM, Junil - HWANG, Cheol Seong. Improved Properties of the Atomic Layer Deposited Ru Electrode for Dynamic Random-Access Memory Capacitor Using Discrete Feeding Method. In ACS APPLIED MATERIALS & INTERFACES, 2021, vol. 13, no. 20, pp. 23915-23927. ISSN 1944-8244. Dostupné na: <https://doi.org/10.1021/acsami.1c03795>., Registrované v: WOS

5. [1.1] LALE, A. - JOLY, M. - MEKKAOU, S. - JOLY, X. - SCHEID, E. - LAUNAY, J. - TEMPLE-BOYER, Pierre. Effect of thermal annealing on the dielectric, passivation and pH detection properties of aluminium oxide thin films deposited by plasma-enhanced atomic layer deposition. In THIN SOLID FILMS, 2021, vol. 732, no., pp. ISSN 0040-6090. Dostupné na: <https://doi.org/10.1016/j.tsf.2021.138761>., Registrované v: WOS

ADCA02 ÁBEL, M. - ZÁCHENSKÁ, J. - DOBROČKA, Edmund - ZEMANOVÁ, Matilda\*\*. Electrocatalytic properties of pulse plated Ni-W alloy coatings in alkaline electrolytes. In Transactions of the Institute of Metal Finishing, 2021, vol. 99, p. 23-28. (2020: 1.244 - IF, Q3 - JCR, 0.293 - SJR, Q3 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0020-2967. Dostupné na: <https://doi.org/10.1080/00202967.2020.1841453>

Citácie:

1. [1.1] SHEN, X.Y. - TAN, W. - WEI, Z.C. - WANG, X.Y. - ZHOU, H.L. - LV, J.G. - ZHAO, M. - ZHANG, M. - YANG, J. - HE, G. - YANG, L. Co-modified Ni/N-doped carbon as electrocatalysts for HER and OER. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS. ISSN 0957-4522, SEP 2021, vol. 32, no. 18, p. 22974-22983., Registrované v: WOS

2. [1.1] SU, C.W. - SA, Z. - LIU, Y.Y. - ZHAO, L.F. - WU, F.J. - BAI, W. Excellent Properties of Ni-15 wt.% W Alloy Electrodeposited from a Low-Temperature Pyrophosphate System. In COATINGS. OCT 2021, vol. 11, no. 10., Registrované v: WOS

ADCA03 ABERMANN, S. - POZZOVIVO, G. - KUZMÍK, Ján - STRASSER, G. - POGANY, D. - CARLIN, J.-F. - GRANDJEAN, N. - BERTAGNOLLI, E. MOCVD of HfO<sub>2</sub> and ZrO<sub>2</sub> high-k gate dielectrics for InAlN/AlN/GaN MOS-HEMTs. In Semiconductor Science and Technology, 2007, vol. 22, p. 1272-1275. (2006: 1.586 - IF, Q1 - JCR, 1.191 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents). ISSN 0268-1242.

Citácie:

1. [1.1] CLYMORE, C.J. - MOHANTY, S. - JIAN, Z. - KRISHNA, A. - KELLER, S. - AHMADI, E. HfO<sub>2</sub> as gate insulator on N-polar GaN-AlGaIn heterostructures. In SEMICONDUCTOR SCIENCE AND TECHNOLOGY. ISSN 0268-1242, MAR 2021, vol. 36, no. 3., Registrované v: WOS

2. [1.1] DEMIR, G.E. - YUCEDAG, I. DETERMINATION OF MAIN ELECTRICAL PARAMETERS OF Au-4H-n-SiC (MS) AND Au-Al<sub>2</sub>O<sub>3</sub>-4H-n-SiC (MIS) DEVICES. In SURFACE REVIEW AND LETTERS. ISSN 0218-625X, MAY 2021, vol. 28, no. 05., Registrované v: WOS

3. [1.1] LAI, C.H. - LEE, T.Y. - HUANG, J.S. - LEE, K.W. - WANG, Y.H. The growth of solution-gelation TiO<sub>2</sub> and its application to InAlAs/InGaAs metamorphic high-electron-mobility transistor. In MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING. ISSN 1369-8001, JUL 2021, vol. 129., Registrované v: WOS



- ADCA04 ABOL'SHEV, A. - ABOL'SHEVA, I. - GIERLOWSKI, P. - LEWANDOWSKI, S.J. - KONCZYKOWSKI, M. - RIZZA, G. - CHROMIK, Štefan. Effect of pulsed UV laser irradiation on the properties of crystalline YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-?</sub> thin films. In Superconductor Science and Technology, 2007, vol. 20, p. 433-440. (2006: 1.440 - IF, Q2 - JCR, 1.403 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, SCOPUS). ISSN 0953-2048.
- Citácie:
1. [1.1] MANOJREDDY, Poreddy - ITAPU, Srikanth - RAVALI, Jammalamadaka Krishna - SAKKARAI, Selvendran. Tuning the Electrical Parameters of p-NiOx-Based Thin Film Transistors (TFTs) by Pulsed Laser Irradiation. In CONDENSED MATTER, 2021, vol. 6, no. 2, pp. ISSN 2410-3896. Dostupné na: <https://doi.org/10.3390/condmat6020021>., Registrované v: WOS
- ADCA05 ADIKIMENAKIS, A.\*\* - CHATZOPOULOU, P. - DIMITRAKOPULOS, G.P. - KEHAGIAS, Th. - TSAGARAKI, K. - ANDROULIDAKI, M. - DOUNDOULAKIS, G. - KUZMÍK, Ján - GEORGAKILAS, A. Correlation of threading dislocations with the electron concentration and mobility in InN heteroepitaxial layers grown by MBE. In ECS Journal of Solid State Science and Technology, 2020, vol. 9, no. 015006. (2019: 2.142 - IF, Q3 - JCR, 0.521 - SJR, Q2 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 2162-8769. Dostupné na: <https://doi.org/10.1149/2.0212001JSS>
- Citácie:
1. [1.1] LAI, F.I. - YANG, J.F. - LIN, W.T. - CHEN, W.C. - HSU, Y.C. - KUO, S.Y. Correlation of Morphology Evolution with Carrier Dynamics in InN Films Heteroepitaxially Grown by MOMBE. In CATALYSTS. AUG 2021, vol. 11, no. 8., Registrované v: WOS
- ADCA06 AINSLIE, M.D.\*\* - GRILLI, F. - QUEVAL, L. - PARDO, Enric - PEREZ-MENDEZ, F. - MATAIRA, R. - MORANDI, A. - GHABELI, Asef - BUMBY, C. - BRAMBILLA, R. A new benchmark problem for electromagnetic modelling of superconductors: the high-T<sub>c</sub> superconducting dynamo. In Superconductor Science and Technology, 2020, vol. 33, no. 105009. (2019: 3.067 - IF, Q2 - JCR, 0.991 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/abae04>
- Citácie:
1. [1.1] CHEN, L. - DENG, Z.G. - DENG, B. - ZHENG, J. Numerical Simulations on the Vertical Dynamic Characteristics of High-Temperature Superconducting Bulk. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, MAR 2021, vol. 34, no. 3, p. 683-694., Registrované v: WOS
2. [1.1] LI, G.Y. - LI, C. - XIN, Y. - HONG, W. - LI, W.X. - YANG, T.H. - LI, B. Dynamic modelling methodology for an HTS energy converter using moving mesh. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS
3. [1.1] PRIGOZHIN, L. - SOKOLOVSKY, V. Fast solution of the superconducting dynamo benchmark problem. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUN 2021, vol. 34, no. 6., Registrované v: WOS
4. [1.1] PRIGOZHIN, L. - SOKOLOVSKY, V. Two-Dimensional Model of a High-T<sub>c</sub> Superconducting Dynamo. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, APR 2021, vol. 31, no. 3., Registrované v: WOS
5. [1.1] TRILLAUD, F. - DOS SANTOS, G. - SOTELO, G.G. Essential Material Knowledge and Recent Model Developments for REBCO-Coated Conductors in Electric Power Systems. In MATERIALS. APR 2021, vol. 14, no. 8., Registrované

v: WOS

6. [1.1] VERTELIS, V. - BALEVICIUS, S. - STANKEVIC, V. - ZURAUSKIENE, N. - SCHNEIDER, M. *The Application of a CMR-B-Scalar Sensor for the Investigation of the Electromagnetic Acceleration of Type II Superconductors*. In *SENSORS. FEB 2021*, vol. 21, no. 4., Registrované v: WOS

7. [1.1] WEN, Z.Z. - ZHANG, H.Y. - MUELLER, M. *Sensitivity analysis and machine learning modelling for the output characteristics of rotary HTS flux pumps*. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, DEC 2021*, vol. 34, no. 12., Registrované v: WOS

ADCA07

ALPERN, H. - PERIYASAMY, M. - TANNOUS, J. - JUNG, G. - ZAYTSEVA, I. - ROISOVÁ, Alica - CHROMIK, Štefan - ŠTRBÍK, Vladimír - TALACKO, Marcel - YOCHELIS, S. - YACOBY, Y. - MILLO, O.\*\* - PALTIEL, Y.\*\*. *Increasing the transition temperature of high-T-C superconductor thin films by organic linking of gold nanoparticles*. In *Journal of Superconductivity and Novel Magnetism*, 2020, vol. 33, p. 1941-1948. (2019: 1.244 - IF, Q4 - JCR, 0.293 - SJR, Q3 - SJR, karentované - CCC). (2020 - Current Contents, WOS, SCOPUS). ISSN 1557-1939. Dostupné na: <https://doi.org/10.1007/s10948-020-05450-0>

Citácie:

1. [1.1] BASSAID, Salah - DEHBI, Abdelkader. *Effect of nickel and calcium substitution on the superconducting properties of the  $Y(1-x)Ca(x)Ba(2)Cu(3-y)Ni(y)O(7)(-)(\delta)$  system with  $0.1 = x = 0.3$  and  $0.0 = y = 0.2$* . In *MOLECULAR PHYSICS*, 2021, vol. 119, no. 3, pp. ISSN 0026-8976. Dostupné na: <https://doi.org/10.1080/00268976.2020.1802073>, Registrované v: WOS

2. [1.1] PRISCHEPA, Serghej L. - KUSHNIR, Vasiliy N. - CIRILLO, Carla - GRANATA, Veronika - KOMISSAROV, Ivan - KOVALCHUK, Nikolai G. - MIKHALIK, Mikhail M. - DANILYUK, Alexander L. - SVITO, Ivan A. - ANDRULEVICIUS, Mindaugas - ATTANASIO, Carmine. *Superconducting critical temperature and softening of the phonon spectrum in ultrathin Nb and NbN/graphene hybrids*. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*, 2021, vol. 34, no. 11, pp. ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac2c0e>, Registrované v: WOS

ADCA08

AMARO, N. - ŠOUC, Ján - PARDO, Enric - MURTA-PINA, J. - MARTINS, J. - CEBALLOS, J.M. - GÖMÖRY, Fedor. *AC losses in Bi-2223 single-pancake coils from 72 to 1152 Hz - modeling and measurements*. In *IEEE Transactions on Applied Superconductivity*, 2016, vol. 26, no. 8202207. (2015: 1.092 - IF, Q3 - JCR, 0.403 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2598770>

Citácie:

1. [1.1] CHEN, W. - YANG, X.S. - SHEN, B.Y. - HAO, Q.B. - ZHANG, S.N. - LI, C.S. - ZHAO, Y. *AC Loss of Bi-2212 Round Wire at Wide Frequency Ranges up to 500 kHz*. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS

2. [1.1] GUO, S.Q. - REN, L. - LI, X. - PENG, S.H. - XU, Y. - SHI, J. - TANG, Y.J. - LI, J.D. *The relationship between AC loss of YBCO superconducting coil and current waveform, amplitude, frequency and temperature*. In *PHYSICA C- SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, JUN 15 2021*, vol. 585., Registrované v: WOS

ADCA09

AN, K. - BHAT, V.S. - MRUCZKIEWICZ, Michal - DUBS, C - GRUNDLER, D.\*\*. *Optimization of spin-wave propagation with enhanced group velocities by exchange-coupled ferrimagnet-ferromagnet bilayers*. In *Physical Review Applied*, 2019, vol. 11, no. 034065. (2018: 4.532 - IF, Q1 - JCR, 1.940 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 2331-7019. Dostupné na:



<https://doi.org/10.1103/PhysRevApplied.11.034065>

Citácie:

1. [1.1] SANTOS, O.A. - FERINGA, F. - DAS, K.S. - BEN YOUSSEF, J. - VAN WEES, B.J. Efficient Modulation of Magnon Conductivity in Y3Fe5O12 Using Anomalous Spin Hall Effect of a Permalloy Gate Electrode. In *PHYSICAL REVIEW APPLIED*. ISSN 2331-7019, JAN 21 2021, vol. 15, no. 1., Registrované v: WOS
2. [1.1] SOBUCKI, K. - SMIGAJ, W. - RYCHLY, J. - KRAWCZYK, M. - GRUSZECKI, P. Resonant subwavelength control of the phase of spin waves reflected from a Gires-Tournois interferometer. In *SCIENTIFIC REPORTS*. ISSN 2045-2322, FEB 24 2021, vol. 11, no. 1., Registrované v: WOS
3. [1.1] WANG, H.C. - FLACKE, L. - WEI, W.W. - LIU, S. - JIA, H. - CHEN, J.L. - SHENG, L.T. - ZHANG, J.Y. - ZHAO, M.K. - GUO, C.Y. - FANG, C. - HAN, X.F. - YU, D.P. - ALTHAMMER, M. - WEILER, M. - YU, H.M. Sub-50nm wavelength spin waves excited by low-damping Co25Fe75 nanowires. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, OCT 11 2021, vol. 119, no. 15., Registrované v: WOS
4. [1.1] ZHANG, Z.Z. - YANG, H.H. - WANG, Z.Y. - CAO, Y.S. - YAN, P. Strong coupling of quantized spin waves in ferromagnetic bilayers. In *PHYSICAL REVIEW B*. ISSN 2469-9950, MAR 12 2021, vol. 103, no. 10., Registrované v: WOS

ADCA10 ARISTOV, V.J. - LELAY, G. - SOUKIASSIAN, P. - HRICOVÍNI, K. - BONNET, J.E. - OSVALD, Jozef - OLSSON, O. Alkali-metal-induced highest Fermi-level pinning position above semiconductor conduction band minimum. In *Europhysics Letters*, 1994, vol. 26, p. 359.

Citácie:

1. [1.1] VRUBEL, Ivan I. - YUDIN, Dmitry - PERVISHKO, Anastasiia A. On the origin of the electron accumulation layer at clean InAs(111) surfaces. In *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*, 2021, vol. 23, no. 8, pp. 4811-4817. ISSN 1463-9076. Dostupné na: <https://doi.org/10.1039/d0cp05632d>., Registrované v: WOS

ADCA11 ASUBAR, J.T.\*\* - YATABE, Z. - GREGUŠOVÁ, Dagmar\*\* - HASHIZUME, T. Controlling surface/interface states in GaN-based transistors: Surface model, insulated gate, and surface passivation. In *Journal of Applied Physics*, 2021, vol. 129, no. 121102. (2020: 2.546 - IF, Q2 - JCR, 0.699 - SJR, Q2 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/5.0039564>

Citácie:

1. [1.1] HIRAI, Hirohisa - MIURA, Yoshinao - NAKAJIMA, Akira - HARADA, Shinsuke - YAMAGUCHI, Hiroshi. Crystal-orientation-dependent flatband voltage of non-polar GaN MOS interfaces investigated using trench sidewall capacitors. In *APPLIED PHYSICS LETTERS*, 2021, vol. 119, no. 7, pp. ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/5.0060415>., Registrované v: WOS
2. [1.1] NGUYEN, Duong Dai - ISODA, Takehiro - DENG, Yuchen - SUZUKI, Toshi-kazu. Normally-off operations in partially-gate-recessed AlTiO/AlGaIn/GaN field-effect transistors based on interface charge engineering. In *JOURNAL OF APPLIED PHYSICS*, 2021, vol. 130, no. 1, pp. ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/5.0054045>., Registrované v: WOS
3. [1.1] SHI, Wen - JIANG, Qimeng - LUAN, Tiantian - HUANG, Sen - WANG, Xinhua - GUO, Fuqiang - YAO, Yixu - DENG, Kexin - BI, Lan - FAN, Jie - YIN, Haibo - WEI, Ke - XIONG, Wenjuan - LI, Yankui - JIANG, Haojie - LI, Junfeng -

LIU, Xinyu. *Implementation of RTCVD-SiNx Gate Dielectric Into Enhancement-Mode GaN MIS-HEMTs Fabricated on Ultrathin-Barrier AlGaIn/GaN-on-Si Platform*. In *IEEE TRANSACTIONS ON ELECTRON DEVICES*, 2021, vol. 68, no. 9, pp. 4274-4277. ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2021.3088771>., Registrované v: WOS  
4. [1.2] NABATAME, Toshihide - MAEDA, Erika - INOUE, Mari - HIROSE, Masafumi - OCHI, Ryota - SAWADA, Tomomi - IROKAWA, Yoshihiro - HASHIZUME, Tamotsu - SHIOZAKI, Koji - ONAYA, Takashi - TSUKAGOSHI, Kazuhito - KOIDE, Yasuo. *Study of HfO<sub>2</sub>-Based High-k Gate Insulators for GaN Power Device*. In *ECS Transactions*, 2021-01-01, 104, 4, pp. 113-120. ISSN 19386737. Dostupné na: <https://doi.org/10.1149/10404.0113ecst>., Registrované v: SCOPUS

ADCA12 BABCHENKO, Oleg\*\* - VANKO, Gabriel - GERBOC, Michal - IZSÁK, Tibor - VOJS, M. - LALINSKÝ, Tibor - KROMKA, A. *Study on electronic properties of diamond/SiNx-coated AlGaIn/GaN high electron mobility transistors operating up to 500 °C*. In *Diamond and Related Materials*, 2018, vol. 89, p. 266-272. (2017: 2.232 - IF, Q2 - JCR, 0.686 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 0925-9635. Dostupné na: <https://doi.org/10.1016/j.diamond.2018.09.014>

Citácie:

1. [1.1] SOBASZEK, Michal - GNYBA, Marcin - KULESZA, Slawomir - BRAMOWICZ, Mirosław - KLIMCZUK, Tomasz - BOGDANOWICZ, Robert. *Boron-Doped Diamond/GaN Heterojunction-The Influence of the Low-Temperature Deposition*. In *MATERIALS*, 2021, vol. 14, no. 21, pp. Dostupné na: <https://doi.org/10.3390/ma14216328>., Registrované v: WOS

2. [1.1] TIJENT, Fatima Zahrae - FAQIR, Mustapha - CHOUYIAKH, Hajar - ESSADIQI, El Hachmi. *Review-Integration Methods of GaN and Diamond for Thermal Management Optimization*. In *ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY*, 2021, vol. 10, no. 7, pp. ISSN 2162-8769.

Dostupné na: <https://doi.org/10.1149/2162-8777/ac12b3>., Registrované v: WOS

ADCA13 BALOG, Martin\*\* - ROSOVA, Alica - SZUNDIOVÁ, Bronislava - OROVČÍK, Ľubomír - KRÍŽIK, Peter - ŠVEC, Peter Jr. - KULICH, Miloslav - KOPERA, Ľubomír - KOVÁČ, Pavol - HUŠEK, Imrich - IBRAHIM, Ahmed Mohamed Hassan. *HITEMAL-an outer sheath material for MgB<sub>2</sub> superconductor wires: The effect of annealing at 595-655 degrees C on the microstructure and properties*. In *Materials and Design*, 2018, vol. 157, p. 12-23. (2017: 4.525 - IF, Q1 - JCR, 1.820 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 0261-3069. Dostupné na: <https://doi.org/10.1016/j.matdes.2018.07.033>

Citácie:

1. [1.2] PROKHASKO, L. S. - ZALILOV, R. V. - TERENCEVA, N. G. - OVCHINNIKOVA, K. R. - SHAKHOVSKOY, A. V. *Analytical study of the nonisothermal flow of viscous fluid in an annular clearance at large pressure differentials*. In *IOP Conference Series: Earth and Environmental Science*, 2021-10-01, 839, 5, pp. ISSN 17551307. Dostupné na: <https://doi.org/10.1088/1755-1315/839/5/052033>., Registrované v: SCOPUS

ADCA14 BALOG, Miroslav - ŠAJGALÍK, Pavol - HOFER, F. - WARBICHLER, P. - FRÖHLICH, Karol - VÁVRA, Ondrej - JANEK, Jozef - HUANG, J.-L. *Electrically conductive SiC-(Nb, Ti)ss-(Nb, Ti)C<sub>ss</sub> cermet*. In *Journal of the European Ceramic Society*. - Essex : Elsevier Science Publishers, 2006, vol. 26, p. 1259-1266. (2005: 1.567 - IF, Q1 - JCR, 1.095 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 0955-2219.

Citácie:

1. [1.1] REMYAMOL, T. - GOPI, R. - AJITH, M. R. - PANT, Bhanu. Porous silicon carbide structures with anisotropic open porosity for high-temperature cycling applications. In *JOURNAL OF THE EUROPEAN CERAMIC SOCIETY*, 2021, vol. 41, no. 3, pp. 1828-1833. ISSN 0955-2219. Dostupné na: <https://doi.org/10.1016/j.jeurceramsoc.2020.10.060>., Registrované v: WOS
- ADCA15 BALOG, Miroslav - SEDLÁČKOVÁ, K. - ZIFCAK, P. - JANEKA, J. Liquid phase sintering of SiC with rare-earth oxides. In *Ceramics-Silikáty*, 2005, vol. 49, p. 259-262. (2004: 0.385 - IF, karentované - CCC). (2005 - Current Contents, WOS, SCOPUS). ISSN 0862-5468.
- Citácie:
1. [1.1] YASAR, Zeynep Ayguzer - DELUCCA, Vincent A. - HABER, Richard A. Effect of boron carbide additive and sintering temperature Dwelling time on silicon carbide properties. In *CERAMICS INTERNATIONAL*. ISSN 0272-8842, 2021, vol. 47, no. 5, pp. 7177-7182. Dostupné na: <https://doi.org/10.1016/j.ceramint.2020.11.071>., Registrované v: WOS
2. [1.1] YASAR, Zeynep Ayguzer - DELUCCA, Vincent A. - HABER, Richard A. Effect of carbon source on the properties of dense alpha-SiC. In *MATERIALS RESEARCH EXPRESS*, 2021, vol. 8, no. 12, pp. Dostupné na: <https://doi.org/10.1088/2053-1591/ac406c>., Registrované v: WOS
3. [1.1] YASAR, Zeynep Ayguzer - HABER, Richard A. Effect of Carbon Addition and Mixture Method on the Microstructure and Mechanical Properties of Silicon Carbide. In *MATERIALS*, 2020, vol. 13, no. 17, pp. Dostupné na: <https://doi.org/10.3390/ma13173768>., Registrované v: WOS
- ADCA16 BARDOŠOVÁ, Mária - HODGE, P. - PACH, Ladislav - PEMBLE, M.E. - ŠMATKO, Vasilij - TREDGOLD, R.H. - WHITEHEAD, D. Synthetic opals made by the Langmuir-Blodgett method. In *Thin Solid Films*, 2003, vol. 437, p. 276-279. ISSN 0040-6090. Dostupné na: [https://doi.org/10.1016/S0040-6090\(03\)00596-0](https://doi.org/10.1016/S0040-6090(03)00596-0)
- Citácie:
1. [1.1] DAGLAR, Selin - KAHYA, Naime Didem - USTUNISIK, Gokce - ONAL, Muserref - SARIKAYA, Yuksel. Thermal Crystallization Kinetics of an Opal-like Biogenic Silica. In *SILICON*. ISSN 1876-990X, 2021, vol., no., pp. Dostupné na: <https://doi.org/10.1007/s12633-021-01498-2>., Registrované v: WOS
- ADCA17 BARTOLOME, E. - PAVAU, A. - GUITIERREZ, J. - GRANADOS, X. - POMAR, A. - PUIG, T. - OBRADORS, X. - CAMBEL, Vladimír - ŠOLTÝS, Ján - GREGUŠOVÁ, Dagmar - CHEN, D.-X. - SANCHEZ, A. Artificial magnetic granularity effects on patterned epitaxial YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub> thin films. In *Physical Review B. B.Condensed Matter*, 2007, vol. 76, 094508. (2006: 3.107 - IF, Q1 - JCR, 2.620 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, WOS, SCOPUS). ISSN 1550-235X.
- Citácie:
1. [1.1] PESSOA, Alexsander L. - KOBLISCHKA-VERNEVA, Anjela - CARVALHO, Claudio L. - ZADOROSNY, Rafael - KOBLISCHKA, Michael R. Paramagnetic Meissner Effect and Current Flow in YBCO Nanofiber Mats. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*, 2021, vol. 31, no. 5, pp. ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2021.3058596>., Registrované v: WOS
- ADCA18 BENKEL, T. - LAO, M. - LIU, Y. - PARDO, Enric - WOLFTÄDLER, S. - REIS, T. - GRILLI, F.\*\*. T-A-formulation to model electrical machines with HTS coated conductor coils. In *IEEE Transactions on Applied Superconductivity*, 2020, vol. 30, no. 5205807. (2019: 1.692 - IF, Q3 - JCR, 0.419 - SJR, Q2 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2020.2968950> (H2020 ASuMED)

Citácie:

1. [1.1] INANIR, F. - TERZIOGLU, R. AC Loss Evaluation of a Superconducting Pancake Coil with Coated Conductors using an Extended A-V Formulation. In *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*. ISSN 0921-4534, AUG 15 2021, vol. 587., Registrované v: WOS
2. [1.1] KOVALEV, K. - IVANOV, N. - ZHURAVLEV, S. - RUSANOV, D. - KUZNETSOV, G. - PODGUZOV, V. Calculation, design and test results of 3 kW fully HTS electric machine. In *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*. ISSN 0921-4534, AUG 15 2021, vol. 587., Registrované v: WOS
3. [1.1] LI, X.H. - REN, L. - XU, Y. - SHI, J. - CHEN, X.G. - CHEN, G.L. - TANG, Y.J. - LI, J.D. Calculation of CORC Cable Loss Using a Coupled Electromagnetic-Thermal T-A Formulation Model. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, JUN 2021, vol. 31, no. 4., Registrované v: WOS
4. [1.1] MU, S. - JIN, J.X. - ZHANG, R.T. - YANG, R.H. - WANG, L.N. - ZHANG, T.L. - WANG, J. Calculation and comparison of HTS electromagnetic characteristics with different models. In *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*. ISSN 0921-4534, OCT 15 2021, vol. 589., Registrované v: WOS
5. [1.1] QIAO, Y.K. - WANG, Y.S. - YUAN, X. - ZHANG, G.Y. - PI, W. Trapped field characteristics of an HTS magnet with two holes using four magnetization methods. In *INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS*. ISSN 1383-5416, 2021, vol. 66, no. 1, p. 115-125., Registrované v: WOS
6. [1.1] TIAN, M.Y. - YANG, J.B. - SHEN, B.Y. - OZTURK, Y. - MA, J. - LI, C. - HU, J.T. - WEI, H.G.N. - LI, J.S. - COOMBS, T. Analysis on the Effect of Superconductor Layer Thickness on the AC Loss of Conductor on Round Core (CORC) Cables. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
7. [1.1] TRILLAUD, F. - DOS SANTOS, G. - SOTELO, G.G. Essential Material Knowledge and Recent Model Developments for REBCO-Coated Conductors in Electric Power Systems. In *MATERIALS*. APR 2021, vol. 14, no. 8., Registrované v: WOS
8. [1.1] WANG, S.J. - YONG, H.D. - ZHOU, Y.H. Modified FFT-based method for the calculations of the thin superconductors with transport current. In *AIP ADVANCES*. MAR 1 2021, vol. 11, no. 3., Registrované v: WOS
9. [1.1] WEN, Z.Z. - ZHANG, H.Y. - MUELLER, M. Sensitivity analysis and machine learning modelling for the output characteristics of rotary HTS flux pumps. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS
10. [1.1] XU, A.H. - WU, K.H. - SHI, Y. - WU, Y. - YU, X.P. - DAI, C. - HAO, Q.W. - HAN, H.X. - JIN, H. - ZHANG, Y.L. - WU, J.R. - HU, L.B. Electromagnetic and Mechanical Analysis of DC Magnet for Super X Test Facility. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS
11. [1.1] XUE, S.S. - THOMAS, A.S. - ZHU, Z.Q. - HUANG, L.R. - DUKE, A. - CLARK, R.E. - AZAR, Z. Stator Optimization of Wind Power Generators With High-Temperature Superconducting Armature Windings and Permanent Magnet Rotor. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, MAR 2021, vol. 31, no. 2., Registrované v: WOS
12. [1.1] YOU, S.R. - KALSI, S.S. - AINSLIE, M.D. - BADCOCK, R.A. - LONG,



- N.J. - JIANG, Z.N. Simulation of AC Loss in the Armature Windings of a 100 kW All-HTS Motor With Various (RE)BCO Conductor Considerations. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 130968-130980., Registrované v: WOS
13. [1.1] ZANEGIN, S. - IVANOV, N. - ZUBKO, V. - KOVALEV, K. - SHISHOV, I. - SHISHOV, D. - PODGUZOV, V. Measurements and Analysis of AC Losses in HTS Windings of Electrical Machine for Different Operation Modes. In APPLIED SCIENCES-BASEL. MAR 2021, vol. 11, no. 6., Registrované v: WOS
14. [1.2] KOVALEV, K. - IVANOV, N. - PODGUZOV, V. - ZANEGIN, S. - ZHURAVLEV, S. Modelling and experimental research of machine with annular HTS winding using equivalent magnetic permeability. In Journal of Physics: Conference Series, 2021-10-12, 2043, 1, pp. ISSN 17426588. Dostupné na: <https://doi.org/10.1088/1742-6596/2043/1/012003>., Registrované v: SCOPUS
15. [1.2] NIE, Yang - WANG, Yinshun - WANG, Jian - PI, Wei. Study on Screening Current Field Characteristics of Flexible Like-round Core Based on Quasi-Isotropic High Temperature Superconductor Conductor. In Zhongguo Dianji Gongcheng Xuebao/Proceedings of the Chinese Society of Electrical Engineering. ISSN 02588013, 2021-09-20, 41, 18, pp. 6440-6448. Dostupné na: <https://doi.org/10.13334/j.0258-8013.pcsee.210968>., Registrované v: SCOPUS
- ADCA19 BETKO, Július - KORDOŠ, Peter - KUKLOVSKÝ, Stanislav - FORSTER, A. - GREGUŠOVÁ, Dagmar - LUTH, H. Electrical properties of molecular beam epitaxial GaAs layers grown at low temperature. In Materials Science and Engineering B, 1994, vol. 28, p. 147.
- Citácie:
1. [1.1] NANDI, U. - MOHAMMADI, M. - LU, H. - NORMAN, J. - GOSSARD, A. C. - ALFF, L. - PREU, S. Material properties and performance of ErAs:In(Al)GaAs photoconductors for 1550 nm laser operation. In JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A, 2021, vol. 39, no. 2, pp. ISSN 0734-2101. Dostupné na: <https://doi.org/10.1116/6.0000773>., Registrované v: WOS
- ADCA20 BEZÁK, Viktor. Homogenization of random concentration profiles by diffusion. In Metallurgical and transactions, 1972, vol. 3, p. 1235.
- Citácie:
1. [1.1] LU, Ning - KANG, Jiwoong - SHAHANI, Ashwin J. Origins of Non-random Particle Distributions and Implications to Abnormal Grain Growth in an Al-3.5 Wt Pct Cu Alloy. In METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE. ISSN 1073-5623, 2021, vol. 52, no. 3, pp. 914-927. Dostupné na: <https://doi.org/10.1007/s11661-020-06125-0>., Registrované v: WOS
- ADCA21 BLAGOEV, B. - NURGALIEV, T. - BINEVA, I. - VASILEVA, E.D. - ŠTRBÍK, Vladimír - MATEEV, E. Resistive characteristics of LSMO/LCMO bi-layers and temperature switching effect of magnetoresistance. In Modern Physics Letters B, 2014, vol. 28, 1450096. (2013: 0.687 - IF, Q4 - JCR, 0.289 - SJR, Q3 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0217-9849. Dostupné na: <https://doi.org/10.1142/S0217984914500961>
- Citácie:
1. [1.1] CHEN, Ying - XUE, Fen - ZHOU, Zhengyang - WANG, Genshui - WANG, Wensheng - DONG, Xianlin - WU, Liangcai - SONG, Zhitang. Large magnetodielectric response of PST/LSMO/LCMO film over a wide temperature range. In RSC ADVANCES, 2021, vol. 11, no. 22, pp. 13175-13182. Dostupné na: <https://doi.org/10.1039/d1ra00689d>., Registrované v: WOS
- ADCA22 BLAHO, Michal - GREGUŠOVÁ, Dagmar - HAŠČÍK, Štefan - JURKOVIČ, Michal - ĽAPAJNA, Milan - FRÖHLICH, Karol - DÉRER, Ján - CARLIN, J.-F. - GRANDJOUAN, G. - KUZMÍK, Ján. Self-aligned normally-off metal-oxide-

semiconductor n++GaN/InAlN/GaN high-electron mobility transistors. In *Physica Status Solidi A*, 2015, vol. 212, p. 1086-1090. (2014: 1.616 - IF, Q2 - JCR, 0.688 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 1862-6300. Dostupné na: <https://doi.org/10.1002/pssa.201431588>

Citácie:

1. [1.1] NGUYEN, D.D. - ISODA, T. - DENG, Y.C. - SUZUKI, T.K. *Normally-off operations in partially-gate-recessed AlTiO/AlGaIn/GaN field-effect transistors based on interface charge engineering. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, JUL 7 2021, vol. 130, no. 1., Registrované v: WOS*
2. [1.1] ZHANG, W.H. - LIU, X. - FU, L.Y. - HUANG, R. - ZHAO, S.L. - ZHANG, J.C. - ZHANG, J.F. - HAO, Y. *Investigation of normally-off GaN-based p-channel and n-channel heterojunction field-effect transistors for monolithic integration. In RESULTS IN PHYSICS. ISSN 2211-3797, MAY 2021, vol. 24., Registrované v: WOS*

ADCA23 BLAHO, Michal - GREGUŠOVÁ, Dagmar - HAŠČÍK, Štefan - SEIFERTO VÁ, Alena - ĎAPAJNA, Milan - ŠOLTÝS, Ján - ŠATKA, A. - NAGY, L. - CHVÁLA, A. - MAREK, J. - CARLIN, J.-F. - GRANDJEAN, N. - KONSTANTINIDIS, G. - KUZMÍK, Ján. Technology of integrated self-aligned E/D-mode n++GaIn/AlIn/AlN/GaN MOS HEMTs for mixed-signal electronics. In *Semiconductor Science and Technology*, 2016, vol. 31, no. 065011. (2015: 2.098 - IF, Q2 - JCR, 0.844 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents). ISSN 0268-1242. Dostupné na: <https://doi.org/10.1088/0268-1242/31/6/065011>

Citácie:

1. [1.1] HOFSTETTER, D. - AKU-LEH, C. - BECK, H. - BOUR, D.P. *AlGaIn-Based 1.55  $\mu$ m Phototransistor as a Crucial Building Block for Optical Computers. In CRYSTALS. NOV 2021, vol. 11, no. 11., Registrované v: WOS*

ADCA24 BLASCO, J. - JANČOVIČ, Peter - FRÖHLICH, Karol - SUÑÉ, J. - MIRANDA, E. Modeling of the switching I-V characteristics in ultrathin (5nm) atomic layer deposited HfO<sub>2</sub> films using the logistic hysteron. In *Journal of Vacuum Science and Technology B: Microelectronics and Nanometer Structures*, 2015, vol. 33, 01A102. (2014: 1.464 - IF, Q2 - JCR, 0.509 - SJR, Q2 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 1071-1023. Dostupné na: <https://doi.org/10.1116/1.4900599>

Citácie:

1. [1.1] LIN, Albert S. - PRATIK, Sparsh - OTA, Jun - RAWAT, Tejender Singh - HUANG, Tzu-Hsiang - HSU, Chun-Ling - SU, Wei-Ming - TSENG, Tseung-Yuen. *A Process-Aware Memory Compact-Device Model Using Long-Short Term Memory. In IEEE ACCESS, 2021, vol. 9, no., pp. 3126-3139. ISSN 2169-3536. Dostupné na: https://doi.org/10.1109/ACCESS.2020.3047491., Registrované v: WOS*

ADCA25 BODIK, Michal\*\* - SOJKOVÁ, Michaela - HULMAN, Martin - ĎAPAJNA, Milan - TRUCHLY, Martin - VÉGSO, Karol - JERGEL, Matej - MAJKOVÁ, Eva - ŠPANKOVÁ, Marianna\*\* - ŠIFFALOVIČ, Peter. Friction control by engineering the crystallographic orientation of the lubricating few-layer MoS<sub>2</sub> films. In *Applied Surface Science*, 2021, vol. 540, no. 1, 148328. (2020: 6.707 - IF, Q1 - JCR, 1.295 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2020.148328>

Citácie:

1. [1.1] GOLOVYNSKYI, S. - DONG, D. - LIN, Y. - DATSENKO, O.I. - LI, B.K. *Hexagram bi-layer MoS2 flake: The impact of polycrystallinity and strains on the exciton and trion photoluminescence. In SURFACES AND INTERFACES. ISSN*

- 2468-0230, OCT 2021, vol. 26, 101343., Registrované v: WOS
2. [1.1] SATHYAMOORTHY, G. - VIJAY, R. - SINGARAVELU, D. Lenin. Brake friction composite materials: A review on classifications and influences of friction materials in braking performance with characterizations. In PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART J-JOURNAL OF ENGINEERING TRIBOLOGY. ISSN 1350-6501, 2021, vol., no., pp. Dostupné na: <https://doi.org/10.1177/13506501211064082>., Registrované v: WOS
- ADCA26 BOCHNÍČEK, Z. - VÁVRA, Ivo. Thermal stability of partially crystalline Nb/Si multilayers. In Journal of Physics D: Applied Physics, 2001, vol. 34, p. A214-A218. (2000: 1.179 - IF, karentované - CCC). (2001 - Current Contents, SCOPUS). ISSN 0022-3727.
- Citácie:
1. [1.1] CHANDRASEKARAN, Anirudhan - VAN DE KRUIJS, Robbert W. E. - STURM, Jacobus M. - BIJKERK, Fred. Nb Texture Evolution and Interdiffusion in Nb/Si-Layered Systems. In ACS APPLIED MATERIALS & INTERFACES. ISSN 1944-8244, 2021, vol. 13, no. 26, pp. 31260-31270. Dostupné na: <https://doi.org/10.1021/acsami.1c06210>., Registrované v: WOS
2. [1.1] WU, Manyu - ZHANG, Jiayi - ZHU, Jingtao - ZHU, Hangyu - GUO, Sheng - HUANG, Shuiping. Stabilization of Nb/Si nano-multilayers by B4C diffusion barriers. In SURFACES AND INTERFACES. ISSN 2468-0230, 2021, vol. 24, no., pp. Dostupné na: <https://doi.org/10.1016/j.surf.2021.101108>., Registrované v: WOS
- ADCA27 BOCHNÍČEK, Z. - VÁVRA, Ivo. Interdiffusion in amorphous Nb/Si multilayers. In Materials Letters, 2000, vol. 45, p. 120-124. (1999: 0.580 - IF, karentované - CCC). (2000 - Current Contents).
- Citácie:
1. [1.1] CHANDRASEKARAN, Anirudhan - VAN DE KRUIJS, Robbert W. E. - STURM, Jacobus M. - BIJKERK, Fred. Nb Texture Evolution and Interdiffusion in Nb/Si-Layered Systems. In ACS APPLIED MATERIALS & INTERFACES. ISSN 1944-8244, 2021, vol. 13, no. 26, pp. 31260-31270. Dostupné na: <https://doi.org/10.1021/acsami.1c06210>., Registrované v: WOS
2. [1.1] WU, Manyu - ZHANG, Jiayi - ZHU, Jingtao - ZHU, Hangyu - GUO, Sheng - HUANG, Shuiping. Stabilization of Nb/Si nano-multilayers by B4C diffusion barriers. In SURFACES AND INTERFACES. ISSN 2468-0230, 2021, vol. 24, no., pp. Dostupné na: <https://doi.org/10.1016/j.surf.2021.101108>., Registrované v: WOS
- ADCA28 BRNDIAROVÁ, Jana\*\* - ŠIFFALOVÍČ, Peter - HULMAN, Martin - KÁLOSI, Anna - BODIK, Michal - SKÁKALOVÁ, V. - MIČUŠÍK, Matej - MARKOVIČ, Zoran M. - MAJKOVÁ, Eva - FRÖHLICH, Karol. Functionalized graphene transistor for ultrasensitive detection of carbon quantum dots. In Journal of Applied Physics, 2019, vol. 126, no. 21, no. 214303. (2018: 2.328 - IF, Q2 - JCR, 0.746 - SJR, Q2 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.5120757> (VEGA 2/0136/18)
- Citácie:
1. [1.1] KUTLUOGLU, E.E. - ORHAN, E.O. - BAYRAM, O. - OCAK, S.B. Gamma-ray irradiation effects on capacitance and conductance of graphene-based Schottky diode. In PHYSICA B-CONDENSED MATTER. ISSN 0921-4526, NOV 15 2021, vol. 621., Registrované v: WOS
- ADCA29 BRYTAVSKYI, I.V. - HUŠEKOVÁ, Kristína - MYNDRUL, V. - PAVLENKO, M. - COY, E. - ZALESKI, K. - GREGUŠOVÁ, Dagmar - YATE, L. - SMYNTYNA, V. - IATSUNSKYI, I.\*\*. Effect of porous silicon substrate on structural, mechanical and optical properties of MOCVD and ALD ruthenium oxide nanolayers. In Applied

Surface Science, 2019, vol. 471, p. 686-693. (2018: 5.155 - IF, Q1 - JCR, 1.115 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2018.12.022>

Citácie:

1. [1.2] WINTER, Charles H. - UPADHYAY, Apoorva - OVERBEEK, Michael - HOLLIN, Jonathan - CWIK, Stefan. Group 7 and 8 compounds for chemical vapor deposition. In *Comprehensive Coordination Chemistry III*, 2021-07-21, 1-9, pp. 824-841. Dostupné na: <https://doi.org/10.1016/B978-0-12-409547-2.14951-0>, Registrované v: SCOPUS

ADCA30

BÚRAN, Marek\*\* - VOJENČIAK, Michal - MOŠAŤ, Marek - GHABELI, Asef - SOLOVYOV, Mykola - PEKARČÍKOVÁ, M. - KOPERA, Ľubomír - GÖMÖRY, Fedor. Impact of a REBCO coated conductor stabilization layer on the fault current limiting functionality. In *Superconductor Science and Technology*, 2019, vol. 32, no. 095008. (2018: 2.489 - IF, Q2 - JCR, 0.879 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab2c8e> (H2020 FASTGRID. VEGA 2/0097/18. VEGA 1/0151/17)

Citácie:

1. [1.1] DOS SANTOS, G. - SASS, F. - SOTELO, G.G. - FAJONI, F. - BALDAN, C.A. - RUPPERT, E. Multi-objective optimization for the superconducting bias coil of a saturated iron core fault current limiter using the T-A formulation. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, FEB 2021, vol. 34, no. 2., Registrované v: WOS

2. [1.1] JIANG, Z.N. - SONG, W.J. - PEI, X.Z. - FANG, J. - BADCOCK, R.A. - WIMBUSH, S.C. 15% reduction in AC loss of a 3-phase 1 MVA HTS transformer by exploiting asymmetric conductor critical current. In *JOURNAL OF PHYSICS COMMUNICATIONS*. ISSN 2399-6528, FEB 2021, vol. 5, no. 2., Registrované v: WOS

3. [1.1] XU, Y. - SUO, H.L. - QUREISHY, T. - GRIVEL, J.C. - MIKHEENKO, P. - LIU, M. - MA, L. - ZHANG, X.L. - ZHOU, Y.Q. - LIU, J.H. - WANG, L. - ZHANG, Z.L. - WANG, Q.L. Systematic research on the effect of both positive and negative mismatch dopants in double-doped YBCO superconducting films. In *JOURNAL OF THE EUROPEAN CERAMIC SOCIETY*. ISSN 0955-2219, JAN 2021, vol. 41, no. 1, p. 480-487., Registrované v: WOS

4. [1.1] YUKI, K. - ITO, S. - HASHIZUME, H. Effect of Electrical and Thermal Properties of Porous-Stabilized REBCO Tape on Recovery Performance. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

ADCA31

BUSSE, F. - NEBEL, R. - HERZOG, P. - DARULA, Marian - SEIDEL, P. Effects of noise and capacitance on the dynamical characteristics of highT<sub>c</sub> Josephson junctions. In *Applied Physics Letters*, 1992, vol. 63, p. 1687.

Citácie:

1. [1.1] STEPANOV, V.A. - LIN, C.T. - GONNELLI, R.S. - TORTELLO, M. Probing the current-phase relation in Josephson point-contact junctions between Pb<sub>0.6</sub>In<sub>0.4</sub> and Ba<sub>0.6</sub>K<sub>0.4</sub>(FeAs)<sub>2</sub> superconductors. In *SCIENTIFIC REPORTS*. ISSN 2045-2322, DEC 14 2021, vol. 11, no. 1., Registrované v: WOS

ADCA32

BYSTRITSKY, V.M. - BYSTRITSKII, Vit.M. - DUDKIN, G.N. - FILIPOWICZ, M. - GAŽI, Štefan - HURAN, Jozef - KOBZEV, A.P. - MESYATS, G.A. - NECHAEV, B.A. - PADALKO, V.N. - PARZHITSKII, S.S. - PENKOV, F.M. - PHILIPPOV, A.V. - KAMINSKII, V.L. - TULEUSHEV, Yu.Zh. - WOZNIAK, J. Measurement of astrophysical S factors and electron screening potentials for d(d,n)<sup>3</sup>He reaction in ZrD<sub>2</sub>, TiD<sub>2</sub>, and TaD<sub>0.5</sub> targets in the ultralow energy region



using plasma accelerators. In Nuclear Physics A, 2012, vol. 889, p. 93-104. (2011: 1.540 - IF, Q3 - JCR, 1.596 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0375-9474. Dostupné na: <https://doi.org/10.1016/j.nuclphysa.2012.07.001>

Citácie:

1. [1.2] ROBINSON, Shadow J.Q. - FAN, Castaly - HARPER, Matthew - ZAMICK, Larry. On the vibrational model of  $^{92}\text{Pd}$  and comparison with  $^{48}\text{Cr}$ . In International Journal of Modern Physics E, 2021-06-01, 30, 6, pp. ISSN 02183013. Dostupné na: <https://doi.org/10.1142/S0218301321500476>, Registrované v: SCOPUS

- ADCA33 BYSTRITSKY, V.M. - KOBZEV, A.P. - KRYLOV, A.R. - PARZHITSKII, S.S. - PHILIPPOV, A.V. - DUDKIN, G.N. - NECHAEV, B.A. - PADALCO, V.N. - PENKOV, F.M. - TULEUSHEV, Yu.Zh. - FILIPOWICZ, M. - BYSTRITSKY, Vit. M. - GAŽI, Štefan - HURAN, Jozef. Study of the  $d(p, \gamma)^3\text{He}$  reaction at ultralow energies using a zirconium deuteride target. In Nuclear Instruments and Methods in Physics Research A. Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, vol. 737, p. 248-252. (2013: 1.316 - IF, Q2 - JCR, 0.944 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0168-9002. Dostupné na: <https://doi.org/10.1016/j.nima.2013.11.072>

Citácie:

1. [1.1] MOSCOSO, J. - DE SOUZA, R.S. - COC, A. - ILIADIS, C. Bayesian Estimation of the  $D(p, \gamma)\text{He-3}$  Thermonuclear Reaction Rate. In ASTROPHYSICAL JOURNAL. ISSN 0004-637X, DEC 2021, vol. 923, no. 1., Registrované v: WOS

- ADCA34 BYSTRITSKY, V.M. - BYSTRITSKY, Vit. M. - DUDKIN, G.N. - FILIPOWICZ, M. - GAŽI, Štefan - HURAN, Jozef - NECHAEV, B.A. - PADALCO, V.N. - PARZHITSKII, S.S. - PENKOV, F.M. - PHILIPPOV, A.V. - TULEUSHEV, Yu.Zh. First experimental evidence of  $D(p, \gamma)^3\text{He}$  reaction in deuteride titanium in ultralow collision energy region. In Nuclear Instruments and Methods in Physics Research A. Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, vol. 753, p. 91-96. (2013: 0.931 - IF, Q3 - JCR, 0.482 - SJR, Q2 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0168-9002. Journal of Experimental and Theoretical Physics, 2014, vol. 119, p. 54-62. (2013: 0.931 - IF, Q3 - JCR, 0.482 - SJR, Q2 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 1063-7761. Dostupné na: <https://doi.org/10.1134/S1063776114060107>

Citácie:

1. [1.1] MOSCOSO, J. - DE SOUZA, R.S. - COC, A. - ILIADIS, C. Bayesian Estimation of the  $D(p, \gamma)\text{He-3}$  Thermonuclear Reaction Rate. In ASTROPHYSICAL JOURNAL. ISSN 0004-637X, DEC 2021, vol. 923, no. 1., Registrované v: WOS

- ADCA35 CAMBEL, Vladimír - KARAPETROV, Goran. Micromagnetic simulations of pacman-like nanomagnets for memory applications. In Journal of Nanoscience and Nanotechnology, 2012, vol. 12, p. 7422-7425. (2011: 1.563 - IF, Q2 - JCR, 0.550 - SJR, Q2 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 1533-4880. Dostupné na: <https://doi.org/10.1166/jnn.2012.6539>

Citácie:

1. [1.1] PATHAK, Pankaj - MALLICK, Dhiman. Size-Dependent Magnetization Switching in Magnetoelectric Heterostructures for Self-Biased MRAM Applications. In IEEE TRANSACTIONS ON ELECTRON DEVICES, 2021, vol. 68, no. 9, pp. 4418-4424. ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2021.3088079>, Registrované v: WOS

- ADCA36 CAMBEL, Vladimír - PRECNER, Marián - FEDOR, Ján - ŠOLTÝS, Ján - TÓBIK,

Jaroslav - ŠČEPKA, Tomáš - KARAPETROV, Goran. High resolution switching magnetization magnetic force microscopy. In Applied Physics Letters, 2013, vol. 102, 062405. (2012: 3.794 - IF, Q1 - JCR, 2.570 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.4791591>

Citácie:

1. [1.1] CHOU, Wei-Yang - PENG, Sheng-Kuang - CHANG, Fu-Hsuan - CHENG, Horng-Long - RUAN, Jr-Jeng - HO, Tsung-Yeh. Ferromagnetism above Room Temperature in a Ni-Doped Organic-Based Magnetic Semiconductor. In ACS APPLIED MATERIALS & INTERFACES, 2021, vol. 13, no. 29, pp. 34962-34972. ISSN 1944-8244. Dostupné na: <https://doi.org/10.1021/acsami.1c08967>., Registrované v: WOS

ADCA37

CAMBEL, Vladimír - KARAPETROV, Goran. Control of vortex chirality and polarity in magnetic nanodots with broken rotational symmetry. In Physical Review B, 2011, vol. 84, no. 014424. (2010: 3.774 - IF, Q1 - JCR, 3.318 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.84.014424>

Citácie:

1. [1.1] BACHAR, Fatima-Zohra - SCHROEDER, Christian - EHRMANN, Andrea. Magnetization reversal in Pac-Man shaped Fe nanostructures with varying aperture. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, 2021, vol. 537, no., pp. ISSN 0304-8853. Dostupné na: <https://doi.org/10.1016/j.jmmm.2021.168205>., Registrované v: WOS  
2. [1.1] BRAN, Cristina - SAUGAR, Elias - ANGEL FERNANDEZ-ROLDAN, Jose - DEL REAL, Rafael P. - ASENJO, Agustina - ABALLE, Lucia - FOERSTER, Michael - FRAILE RODRIGUEZ, Arantxa - PALMERO, Ester M. - VAZQUEZ, Manuel - CHUBYKALO-FESENKO, Oksana. Stochastic vs. deterministic magnetic coding in designed cylindrical nanowires for 3D magnetic networks. In NANOSCALE, 2021, vol. 13, no. 29, pp. 12587-12593. ISSN 2040-3364. Dostupné na: <https://doi.org/10.1039/d1nr02337c>., Registrované v: WOS  
3. [1.1] LI, Junqin - WANG, Yong - CAO, Jiefeng - MENG, Xiangyu - ZHU, Fangyuan - TAI, Renzhong. Fast control of the polarity of the magnetic vortex for a pair of magnetic nanodots. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, 2021, vol. 529, no., pp. ISSN 0304-8853. Dostupné na: <https://doi.org/10.1016/j.jmmm.2021.167841>., Registrované v: WOS  
4. [1.1] MA XIAO-PING - YANG HONG-GUO - LI CHANG-FENG - LIU YOU-JI - PIAO HONG-GUANG. Control of magnetic vortex circulation in one-side-flat nanodisk pairs by in-plane magnetic field. In ACTA PHYSICA SINICA, 2021, vol. 70, no. 10, pp. ISSN 1000-3290. Dostupné na: <https://doi.org/10.7498/aps.70.20201995>., Registrované v: WOS  
5. [1.1] NAVAU, C. - SORT, J. Exploiting random phenomena in magnetic materials for data security, logics, and neuromorphic computing: Challenges and prospects. In APL MATERIALS, 2021, vol. 9, no. 7, pp. ISSN 2166-532X. Dostupné na: <https://doi.org/10.1063/5.0055400>., Registrované v: WOS

ADCA38

CAMBEL, Vladimír - FEDOR, Ján - GREGUŠOVÁ, Dagmar - KOVÁČ, Pavol - HUŠEK, Imrich. Large-scale high-resolution scanning Hall probe microscope used for MgB2 filament characterization. In Superconductor Science and Technology, 2005, vol. 18, p. 417-421. (2004: 1.556 - IF, karentované - CCC). (2005 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] HUANG, Zigeng - CAI, Xinwei - XI, Dan - LUO, Wenhao - GUO, Chen - FENG, Qingrong - NIE, Ruijuan - WANG, Furen - GAN, Zizhao. Low-

*temperature sintering to fabricate MgB<sub>2</sub> by using Mg(BH<sub>4</sub>)(2) as precursor. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY, 2021, vol. 34, no. 7, pp. ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/abff70>, Registrované v: WOS*

- ADCA39 CAPONE, S.\*\* - HOFBAUEROVÁ, Monika, Benkovičová - FORLEO, A. - JERSEL, Matej - MANERA, M.G. - ŠIFFALOVÍČ, Peter - TAURINO, A. - MAJKOVÁ, Eva - SICILIANO, P. - VÁVRA, Ivo - LUBY, Štefan - RELLA, R. Palladium/gamma-Fe<sub>2</sub>O<sub>3</sub> nanoparticle mixtures for acetone and NO<sub>2</sub> gas sensors. In Sensors and Actuators B, 2017, vol. 243, p. 895-903. (2016: 5.401 - IF, Q1 - JCR, 1.343 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0925-4005. Dostupné na: <https://doi.org/10.1016/j.snb.2016.12.027>

Citácie:

1. [1.1] HE, Lang - WU, Hongyuan - ZHANG, Wenyuan - BAI, Xue - CHEN, Junkun - IKRAM, Muhammad - WANG, Ruihong - SHI, Keying. High-dispersed Fe<sub>2</sub>O<sub>3</sub>/Fe nanoparticles residing in 3D honeycomb-like N-doped graphitic carbon as high-performance room-temperature NO<sub>2</sub> sensor. In JOURNAL OF HAZARDOUS MATERIALS. ISSN 0304-3894, 2021, vol. 405, 124252. Dostupné na: <https://doi.org/10.1016/j.jhazmat.2020.124252>, Registrované v: WOS
2. [1.1] LU, Tianqi - AL-HAMRY, Ammar - ROSOLEN, Jose Mauricio - HU, Zheng - HAO, Junfeng - WANG, Yuchao - ADIRAJU, Anurag - YU, Tengfei - MATSUBARA, Elaine Yoshiko - KANOUN, Olfa. Flexible Impedimetric Electronic Nose for High-Accurate Determination of Individual Volatile Organic Compounds by Tuning the Graphene Sensitive Properties. In CHEMOSENSORS, 2021, vol. 9, no. 12, 360. Dostupné na: <https://doi.org/10.3390/chemosensors9120360>, Registrované v: WOS
3. [1.1] NGUYEN THANH VINH - TRAN VAN DANG - BUI THI HANG - ANH-TUAN LE - NGUYEN TRI TUAN - LE KHANH VINH - NGUYEN VAN QUY. Effect of ferric ion [Fe<sup>3+</sup>] and [Fe<sup>2+</sup>] on SO<sub>2</sub> adsorption ability of gamma-Fe<sub>2</sub>O<sub>3</sub> nanoparticles for mass-type gas sensors. In SENSORS AND ACTUATORS A-PHYSICAL. ISSN 0924-4247, 2021, vol. 331, 112981. Dostupné na: <https://doi.org/10.1016/j.sna.2021.112981>, Registrované v: WOS
4. [1.1] THANH VINH NGUYEN - NGOC ANH LUONG - VAN TOAN NGUYEN - ANH TUAN PHAM - ANH TUAN LE - THANH LOAN TO - VAN QUY NGUYEN. Effect of the phase composition of iron oxide nanorods on SO<sub>2</sub> gas sensing performance. In MATERIALS RESEARCH BULLETIN. ISSN 0025-5408, 2021, vol. 134, 111087. Dostupné na: <https://doi.org/10.1016/j.materresbull.2020.111087>, Registrované v: WOS

- ADCA40 CARIA, M. - BARBERINI, L. - CADEDDU, S. - GIANNATTASIO, A. - RUSANI, A. - SESSELEGO, A. - LAI, A. - D'AURIA, S. - DUBECKÝ, František. Gallium arsenide photodetectors for imaging in the far ultraviolet region. In Applied Physics Letters, 2002, vol. 81, p. 1506-1508. ISSN 0003-6951.

Citácie:

1. [1.1] HOU, Xiaohu - ZOU, Yanni - DING, Mengfan - QIN, Yuan - ZHANG, Zhongfang - MA, Xiaolan - TAN, Pengju - YU, Shunjie - ZHOU, Xuanzhe - ZHAO, Xiaolong - XU, Guangwei - SUN, Haiding - LON, Shibing. Review of polymorphous Ga<sub>2</sub>O<sub>3</sub> materials and their solar-blind photodetector applications. In JOURNAL OF PHYSICS D-APPLIED PHYSICS, 2021, vol. 54, no. 4, pp. ISSN 0022-3727. Dostupné na: <https://doi.org/10.1088/1361-6463/abbb45>, Registrované v: WOS

- ADCA41 CENTALA, G. - SOKOLOVSKYY, M.L. - DAVIES, C.S. - MRUCZKIEWICZ, Michal - MAMICA, S. - RYCHLY, J. - KLOS, J.W.\*\* - KRUGLYAK, V.V. - KRAWCZYK, M. Influence of nonmagnetic dielectric spacers on the spin-wave

response of one-dimensional planar magnonic crystals. In *Physical Review B*, 2019, vol. 100, p. 224428. (2018: 3.736 - IF, Q1 - JCR, 1.502 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.100.224428>

Citácie:

1. [1.1] SINGH, S. - WANG, X.S. - KUMAR, A. - QAIUMZADEH, A. - SVEDLINDH, P. - TYBELL, T. - WAHLSTROM, E. *Magnetodynamic properties of dipole-coupled 1D magnonic crystals. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. ISSN 0304-8853, DEC 1 2021, vol. 539., Registrované v: WOS*

- ADCA42 CIGÁŇ, Alexander - LOBOTKA, Peter - DVUREČENSKIJ, Andrej - ŠKRÁTEK, Martin - RADNÓCZI, G. - MAJEROVÁ, Melinda - CZIGÁNY, Zs. - MAŇKA, Ján\*\* - VÁVRA, Ivo - MIČUŠÍK, Matej. Characterization and magnetic properties of nickel and nickel-iron nanoparticle colloidal suspensions in imidazolium-based ionic liquids prepared by magnetron sputtering. In *Journal of Alloys and Compounds*, 2018, vol. 768, p. 625-634. (2017: 3.779 - IF, Q1 - JCR, 1.020 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2018.07.205>

Citácie:

1. [1.1] SOLANO, R. - PATINO-RUIZ, D. - TEJEDA-BENITEZ, L. - HERRERA, A. *Metal- and metal/oxide-based engineered nanoparticles and nanostructures: a review on the applications, nanotoxicological effects, and risk control strategies. In ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH. ISSN 0944-1344, 2021, vol. 28, no. 14, p. 16962-16981. Dostupné na: https://doi.org/10.1007/s11356-021-12996-6., Registrované v: WOS*

- ADCA43 ČIČO, Karol - JANČOVIČ, Peter - DÉRER, Ján - ŠMATKO, Vasilij - ROŠOVÁ, Alica - BLAHO, Michal - HUDEC, Boris - GREGUŠOVÁ, Dagmar - FRÖHLICH, Karol. Resistive switching in nonplanar HfO<sub>2</sub>-based structures with variable series resistance. In *Journal of Vacuum Science and Technology B: Microelectronics and Nanometer Structures*, 2015, vol. 33, 01A108. (2014: 1.464 - IF, Q2 - JCR, 0.509 - SJR, Q2 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 1071-1023. Dostupné na: <https://doi.org/10.1116/1.4905727>

Citácie:

1. [1.2] YANG, Jinwoong - CHO, Hyojong - RYU, Hojeong - ISMAIL, Muhammad - MAHATA, Chandreswar - KIM, Sungjun. *Tunable Synaptic Characteristics of a Ti/TiO<sub>2</sub>/In/Si Memory Device for Reservoir Computing. In ACS Applied Materials and Interfaces*, 2021-07-21, 13, 28, pp. 33244-33252. ISSN 19448244. Dostupné na: <https://doi.org/10.1021/acsami.1c06618>., Registrované v: SCOPUS

- ADCA44 ČIČO, Karol - GREGUŠOVÁ, Dagmar - KUZMÍK, Ján - JURKOVIČ, Michal - ALEXEWICZ, A. - DI FORTE POISSON, M.A. - POGANY, D. - STRASSER, G. - DELAGE, S. - FRÖHLICH, Karol. Influence of processing and annealing steps on electrical properties of InAlN/GaN high electron mobility transistor with Al<sub>2</sub>O<sub>3</sub> gate insulation and passivation. In *Solid-State Electronics*, 2012, vol. 67, p. 74-78. (2011: 1.397 - IF, Q2 - JCR, 0.903 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0038-1101. Dostupné na: <https://doi.org/10.1016/j.sse.2011.09.002>

Citácie:

1. [1.1] BORDOLOI, S. - RAY, A. - TRIVEDI, G. *Introspection Into Reliability Aspects in AlGaIn/GaN HEMTs With Gate Geometry Modification. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 99828-99841., Registrované v: WOS*

- ADCA45 DADHICH, Anang - PARDO, Enric\*\*. Modeling cross-field demagnetization of superconducting stacks and bulks for up to 100 tapes and 2 million cycles. In *Scientific Reports*, 2020, vol. 10, no. 19265. (2019: 3.998 - IF, Q1 - JCR, 1.341 -



SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents, WOS, SCOPUS). ISSN 2045-2322. Dostupné na: <https://doi.org/10.1038/s41598-020-76221-z> (H2020 ASuMED. APVV 19-0536. VEGA 2/0097/18)

Citácie:

1. [1.1] ZHONG, Z.Y. - WU, W. - JIN, Z.J. Sharp demagnetization of closed-loop HTS coil in first cycle of external AC fields induced by unexpected dynamic resistance. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, AUG 2021, vol. 34, no. 8., Registrované v: WOS

ADCA46 DADHICH, Anang - PARDO, Enric\*\* - KAPOLKA, Milan. Time constant of the transverse-field demagnetization of superconducting stacks of tapes. In Superconductor Science and Technology, 2020, vol. 33, no. 6, no. 065003. (2019: 3.067 - IF, Q2 - JCR, 0.991 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab877b> (VEGA 2/0097/18. H2020 ASuMED)

Citácie:

1. [1.1] SUYAMA, M. - PYON, S. - IJIMA, Y. - TAMEGAI, T. Crossed-Field Demagnetization of a EuBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> Coated Conductor with BaHfO<sub>3</sub> Nanorods. In 33RD INTERNATIONAL SYMPOSIUM ON SUPERCONDUCTIVITY (ISS2020). ISSN 1742-6588, 2021, vol. 1975., Registrované v: WOS

2. [1.1] ZHANG, H.Y. - MUELLER, M. Electromagnetic properties of curved HTS trapped field stacks under high-frequency cross fields for high-speed rotating machines. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, APR 2021, vol. 34, no. 4., Registrované v: WOS

3. [1.1] ZHONG, Z.Y. - WU, W. - JIN, Z.J. Sharp demagnetization of closed-loop HTS coil in first cycle of external AC fields induced by unexpected dynamic resistance. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, AUG 2021, vol. 34, no. 8., Registrované v: WOS

ADCA47 DANILEWSKY, A. - WITTGE, J. - CRÖLL, A. - ALLEN, David - MCNALLY, P. - VAGOVIČ, Patrik - DOS SANTOS ROLO, T. - LI, Z.J. - BAUMBACH, T. - GOROSTEGUI-COLINAS, E. - GARAGORRI, J. - ELIZELDE, M.R. - FOSSATI, M.C. - BOWEN, D.K. - TANNER, B.K. Dislocation dynamics and slip band formation in silicon: In-situ study by X-ray diffraction imaging. In Journal of Crystal Growth, 2011, vol. 318, p. 1157-1163. (2010: 1.746 - IF, Q2 - JCR, 1.157 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents, WOS, SCOPUS). ISSN 0022-0248. Dostupné na: <https://doi.org/10.1016/j.jcrysgro.2010.10.199>

Citácie:

1. [1.1] ZOLOTOV, D. A. - ASADCHIKOV, V. E. - BUZMAKOV, A. V. - DYACHKOVA, I. G. - SUVOROV, E. V. Unusual X-Shaped Defects in the Silicon Single Crystal Subjected to Four-Point Bending. In JETP LETTERS. ISSN 0021-3640, 2021, vol. 113, no. 3, pp. 149-154. Dostupné na:

<https://doi.org/10.1134/S0021364021030115>, Registrované v: WOS

ADCA48 DARMO, Juraj - DUBECKÝ, František - ZAŤKO, Bohumír - BOHÁČEK, Pavol - SEKÁČOVÁ, Mária - KVITKOVIČ, Jozef - NEČAS, V. - PELFER, P.G. The Semi-insulating GaAs-base particle detector at IEE SAS: first imaging results. In Nuclear Instruments and Methods in Physics Research A. Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, vol. 458, p. 418-421. (2000: 0.964 - IF, karentované - CCC). (2001 - Current Contents, SCOPUS). ISSN 0168-9002.

Citácie:

1. [1.1] RANGEL-KUOPPA, V.T. - YE, S. - NOORI, Y.J. - HOLMKVIST, W. - YOUNG, R.J. - MUENSTERMANN, D. Towards GaAs thin-film tracking detectors. In JOURNAL OF INSTRUMENTATION. ISSN 1748-0221, SEP 2021, vol. 16, no. 9., Registrované v: WOS

- ADCA49 DE SANTIS, A. - BARUCCA, G. - BOBBA, F. - CACIUFFO, R. - FRÖHLICH, Karol - PRIPKO, Mojmír - CUCOLO, A. Effect of oxygen post-annealing on the magnetoresistance of highly epitaxial La<sub>0.7</sub>Ca<sub>0.3</sub>MnO<sub>3</sub> thin films. In Journal of Magnetism and Magnetic Materials, 2004, vol. 272-276, p. e1501-1502. (2003: 0.910 - IF, karentované - CCC). (2004 - Current Contents, WOS, SCOPUS). ISSN 0304-8853.
- Citácie:
- [1.2] WANG, Chengyi - LI, Yule - SUN, Peng - YANG, Sheng';an - ZHANG, Hui - CHEN, Qingming. Electrical transport properties of Sm-doped La<sub>0.7</sub>Ca<sub>0.3</sub>MnO<sub>3</sub> polycrystalline ceramics. In Ceramics International, 2021-09-15, 47, 18, pp. 25281-25286. ISSN 02728842. Dostupné na: <https://doi.org/10.1016/j.ceramint.2021.05.249>., Registrované v: SCOPUS
- ADCA50 DEMENČÍK, Eduard - GRILLI, F. - KARIO, A. - NAST, R. - JUNG, A. - VOJENČIAK, Michal - SCHEITER, J. - GOLDACKER, W. AC magnetization loss and transverse resistivity of striated YBCO coated conductors. In IEEE Transactions on Applied Superconductivity, 2015, vol. 25, 8201405. (2014: 1.235 - IF, Q3 - JCR, 0.478 - SJR, Q2 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2014.2381561>
- Citácie:
- [1.1] WULFF, A. C. - ABRAHAMSEN, A. B. - INSINGA, A. R. Multifilamentary coated conductors for ultra-high magnetic field applications. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, 2021, vol. 34, no. 5, pp. Dostupné na: <https://doi.org/10.1088/1361-6668/abee2b>., Registrované v: WOS
- ADCA51 DEMENČÍK, Eduard - VOJENČIAK, Michal - KARIO, A. - NAST, R. - JUNG, A. - GOLDACKER, W. - GRILLI, F. AC loss and coupling currents in YBCO coated conductors with varying number of filaments. In IEEE Transactions on Applied Superconductivity, 2014, vol. 24, 6601008. (2013: 1.324 - IF, Q2 - JCR, 0.431 - SJR, Q2 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2014.2338320>
- Citácie:
- [1.1] LI, W.R. - SHENG, J. - ZHENG, J.X. - WU, Y. - GUO, C.J. - LI, Z.Y. - JIN, Z.J. Study on Reducing Magnetization Loss in CORC Cables By Laser Cutting Technology. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2021, vol. 31, no. 4., Registrované v: WOS
  - [1.1] WULFF, A.C. - ABRAHAMSEN, A.B. - INSINGA, A.R. Multifilamentary coated conductors for ultra-high magnetic field applications. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS
- ADCA52 DERIAN, René - GENDIAR, Andrej - NISHINO, T. Modulation of local magnetization in two-dimensional axial-next-nearest-neighbor model. In Journal of Physical Society of Japan, 2006, vol. 75, p. 114001, also condmat 0605411. Dostupné na: <https://doi.org/10.1143/JPSJ.75.114001>
- Citácie:
- [1.1] HU, Yi - CHARBONNEAU, Patrick. Numerical transfer matrix study of frustrated next-nearest-neighbor Ising models on square lattices. In PHYSICAL REVIEW B. ISSN 2469-9950, 2021, vol. 104, no. 14, 144429. Dostupné na: <https://doi.org/10.1103/PhysRevB.104.144429>., Registrované v: WOS
  - [1.1] HU, Yi - CHARBONNEAU, Patrick. Resolving the two-dimensional axial next-nearest-neighbor Ising model using transfer matrices. In PHYSICAL REVIEW B. ISSN 2469-9950, 2021, vol. 103, no. 9, 094441. Dostupné na:

- ADCA53 <https://doi.org/10.1103/PhysRevB.103.094441>, Registrované v: WOS  
DOBROČKA, Edmund - OSVALD, Jozef. Influence of barrier height distribution on the parameters of Schottky diodes. In Applied Physics Letters, 1994, vol. 65, p. 575.  
 Citácie:  
 1. [1.1] EJDERHA, K. - TURUT, A. Dependence of Electrical Properties of Ni/n-GaP/Al Schottky Contacts on Measurement Temperature and Thermal Annealing. In JOURNAL OF ELECTRONIC MATERIALS. ISSN 0361-5235, DEC 2021, vol. 50, no. 12, SI, p. 6741-6747., Registrované v: WOS  
 2. [1.1] KHALILI, S. - CHENARI, H.M. - YILDIRIM, F. - ORHAN, Z. - AYDOGAN, S. Highly sensitive, self-powered photodetector based on reduced graphene oxide- polyvinyl pyrrolidone fibers (Fs)/p-Si heterojunction. In JOURNAL OF ALLOYS AND COMPOUNDS. ISSN 0925-8388, DEC 31 2021, vol. 889., Registrované v: WOS  
 3. [1.1] KLEPPINGER, J.W. - CHAUDHURI, S.K. - KARADAVUT, O. - MANDAL, K.C. Role of deep levels and barrier height lowering in current-flow mechanism in 150 nm thick epitaxial n-type 4H-SiC Schottky barrier radiation detectors. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, AUG 9 2021, vol. 119, no. 6., Registrované v: WOS  
 4. [1.1] POLAT, O. - COSKUN, M. - EFEUGLU, H. - CAGLAR, M. - COSKUN, F.M. - CAGLAR, Y. - TURUT, A. The temperature induced current transport characteristics in the orthoferrite YbFeO<sub>3</sub>-delta thin film/p-type Si structure. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, JAN 20 2021, vol. 33, no. 3., Registrované v: WOS  
 5. [1.1] SKACHKOV, D. - LIU, S.L. - WANG, Y. - ZHANG, X.G. - CHENG, H.P. First-principles theory for Schottky barrier physics. In PHYSICAL REVIEW B. ISSN 2469-9950, JUL 27 2021, vol. 104, no. 4., Registrované v: WOS  
 6. [1.1] TURUT, A. - EFEUGLU, H. Thermal sensitivity from current-voltage-measurement temperature characteristics in Au/n-GaAs Schottky contacts. In TURKISH JOURNAL OF PHYSICS. ISSN 1300-0101, 2021, vol. 45, no. 5, p. 268-280., Registrované v: WOS  
 7. [1.1] VISVKARMA, A.K. - SHARMA, C. - SARASWAT, C. - RAWAL, D.S. - VINAYAK, S. - SAXENA, M. Improvement in Schottky barrier inhomogeneities of Ni/AlGaIn/GaN Schottky diodes after cumulative gamma-ray irradiation. In SEMICONDUCTOR SCIENCE AND TECHNOLOGY. ISSN 0268-1242, JUN 2021, vol. 36, no. 6., Registrované v: WOS
- ADCA54 DOBROČKA, Edmund - NOVÁK, P. - BÚC, D. - HARMATHA, L. - MURÍN, J. X-ray diffraction analysis of residual stresses in textured ZnO thin films. In Applied Surface Science, 2017, vol. 395, p. 16-23. (2016: 3.387 - IF, Q1 - JCR, 0.958 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0169-4332.  
 Dostupné na: <https://doi.org/10.1016/j.apsusc.2016.06.060>  
 Citácie:  
 1. [1.1] BOLANOS, J.D.M. - RODRIGUEZ-PAEZ, J.E. WO(3 )mono-nanocrystals: Synthesis, characterization and evaluation of their electrical behavior in and acetone. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS. ISSN 0921-5107, DEC 2021, vol. 274., Registrované v: WOS  
 2. [1.1] PENG, Y. - ZHAO, J. - CHEN, L.S. - DONG, J. Residual stress measurement combining blind-hole drilling and digital image correlation approach. In JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH. ISSN 0143-974X, JAN 2021, vol. 176., Registrované v: WOS
- ADCA55 DONOVAN, D. - FLOROVIC, M. - GREGUŠOVÁ, Dagmar - KOVÁČ, Jaroslav - KORDOŠ, Peter. High temperature performance of AlGaIn/GaN HFETs and

MOSFETs. In Microelectronics reliability, 2008, vol. 48, p. 1669-1672. (2007: 1.011 - IF, Q2 - JCR, 0.733 - SJR, Q1 - SJR, karentované - CCC). (2008 - Current Contents). ISSN 0026-2714.

Citácie:

1. [1.1] MUTSAFI, Z. - SHIMANOVICH, K. - KAIRYS, V - SHIMA-EDELSTEIN, R. - ROIZIN, Y. - ROSENWAKS, Y. *High-Temperature Sensitivity of a Depletion-Mode AlGaIn/GaN MIS-HEMT. In IEEE TRANSACTIONS ON ELECTRON DEVICES*, 2021, vol. 68, no. 11, pp. 5695-5700. ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2021.3109848>., Registrované v: WOS

ADCA56 DONOVAL, D. - CHVÁLA, A. - ŠRAMATÝ, R. - KOVÁČ, Jaroslav - CARLIN, J.-F. - GRANDJEAN, N. - POZZOVIVO, G. - KUZMÍK, Ján - POGANY, D. - STRASSER, G. - KORDOŠ, Peter. Current transport and barrier height evaluation in Ni/InAlN/GaN Schottky diodes. In Applied Physics Letters, 2010, vol. 96, 223501. (2009: 3.554 - IF, 2.826 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, SCOPUS). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.3442486>

Citácie:

1. [1.1] JANG, J. - SONG, J. - LEE, S.S. - JEONG, S. - LEE, B.J. - KIM, S. *Analysis of temperature-dependent I-V characteristics of the Au/n-GaSb Schottky diode. In MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING. ISSN 1369-8001, AUG 15 2021, vol. 131., Registrované v: WOS*

ADCA57 DONOVAL, D. - CHVÁLA, A. - ŠRAMATÝ, R. - KOVÁČ, Ján - MORVAN, E. - DUA, C. - DI FORTE POISSON, M.A. - KORDOŠ, Peter. Transport properties and barrier height evaluation in Ni/InAlN/GaN Schottky diodes. In Journal of Applied Physics, 2011, vol. 109, 063711. (2010: 2.079 - IF, Q2 - JCR, 1.484 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.3560919>

Citácie:

1. [1.1] JANG, Junho - GEUM, Dae-Myeong - KIM, SangHyeon. *Broadband Au/n-GaSb Schottky photodetector array with a spectral range from 300 nm to 1700nm. In OPTICS EXPRESS. ISSN 1094-4087, 2021, vol. 29, no. 23, pp. 38894-38903. Dostupné na: https://doi.org/10.1364/OE.443094., Registrované v: WOS*

2. [1.1] JANG, Junho - SONG, Jaeman - LEE, Seung S. - JEONG, Sangkwon - LEE, Bong Jae - KIM, Sanghyeon. *Analysis of temperature-dependent I-V characteristics of the Au/n-GaSb Schottky diode. In MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING. ISSN 1369-8001, 2021, vol. 131, no., pp.*

*Dostupné na: https://doi.org/10.1016/j.mssp.2021.105882., Registrované v: WOS*

ADCA58 DRIENOVSKÝ, M.\*\* - MICHALCOVÁ, E. - PEKARČÍKOVÁ, M. - PALCUT, M. - FROLEK, Lubomír - GOGOLA, P. - JANČUŠKA, I. - MIŠÍK, J. - GÖMÖRY, Fedor. Induction soldering of coated conductor high-temperature superconducting tapes with lead-free solder alloys. In IEEE Transactions on Applied Superconductivity, 2018, vol. 28, no. 6601305. (2017: 1.288 - IF, Q3 - JCR, 0.408 - SJR, Q2 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2018.2805102>

Citácie:

1. [1.1] GHADERI, D. *Reliability analysis for TO-247 multilayered power module packaging under mechanical oscillation based on finite element method. In MICROELECTRONICS RELIABILITY. ISSN 0026-2714, MAR 2021, vol. 118., Registrované v: WOS*

2. [1.1] SHAMOTO, S.I. - LEE, M.K. - FUJIMURA, Y. - KONDO, K. - ITO, T.U. - IKEUCHI, K. - YASUDA, S. - CHANG, L.J. *Gallium-effect in a lead-free solder*



- for silver-sheathed superconducting tape. In *MATERIALS RESEARCH EXPRESS*. JUL 2021, vol. 8, no. 7., Registrované v: WOS
3. [1.1] YANG, G.S. - WANG, W.T. - LIU, L. - WANG, M.J. - TIAN, Z.J. - ZHENG, Q.T. - ZHAO, Y. Electromechanical Properties of Lapped Joints of  $Y_{0.5}Gd_{0.5}Ba_2Cu_3O_{7-x}$  Coated Conductors Joined with Lead-free Solders. In *RARE METAL MATERIALS AND ENGINEERING*. ISSN 1002-185X, FEB 2021, vol. 50, no. 2, p. 511-518., Registrované v: WOS
- ADCA59 DRUGA, J. - KAŠIAROVÁ, Monika - DOBROČKA, Edmund - ZEMANOVÁ, Mária. Corrosion and tribological properties of nanocrystalline pulse electrodeposited Ni-W alloy coatings. In *Transactions of the Institute of Metal Finishing*, 2017, vol. 95, p. 39-45. (2016: 0.802 - IF, Q3 - JCR, 0.306 - SJR, Q2 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0020-2967. Dostupné na: <https://doi.org/10.1080/00202967.2017.1262117>
- Citácie:
1. [1.1] ESMAEILI, A.R. - MIR, N. - MOHAMMADI, R. Influence of W content on microstructure and surface morphology of hard Ni-W films fabricated by magnetron co-sputtering. In *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*. ISSN 0734-2101, MAY 2021, vol. 39, no. 3., Registrované v: WOS
2. [1.1] KUSHWAHA, A.K. - JOHN, M. - MISRA, M. - MENEZES, P.L. Nanocrystalline Materials: Synthesis, Characterization, Properties, and Applications. In *CRYSTALS*. NOV 2021, vol. 11, no. 11., Registrované v: WOS
3. [1.1] ZAKARYAN, M. - NAZARETYAN, K. - AYDINYAN, S. - KHARATYAN, S. Joint Reduction of NiO/WO<sub>3</sub> Pair and NiWO<sub>4</sub> by Mg + C Combined Reducer at High Heating Rates. In *METALS*. SEP 2021, vol. 11, no. 9., Registrované v: WOS
- ADCA60 DUBECKÝ, František - KINDL, D. - HUBÍK, P. - MIČUŠÍK, Matej - DUBECKÝ, Matúš - BOHÁČEK, Pavel - VANKO, Gabriel - GOMBIA, E. - NEČAS, V. - MUDROŇ, J. A comparative study of Mg and Pt contacts on semi-insulating GaAs: electrical and XPS characterization. In *Applied Surface Science*, 2017, vol. 395, p. 131-135. (2016: 3.387 - IF, Q1 - JCR, 0.958 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2016.04.176>
- Citácie:
1. [1.1] ALDAWSARI, Abdullah M. - ALSOHAIMI, Ibrahim - HASSAN, Hassan M. A. - ABDALLA, Zaki E. A. - HASSAN, Ismail - BERBER, Mohamed R. Tailoring an efficient nanocomposite of activated carbon-layered double hydroxide for elimination of water-soluble dyes. In *JOURNAL OF ALLOYS AND COMPOUNDS*, 2021, vol. 857, no., pp. ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2020.157551>., Registrované v: WOS
2. [1.1] YU, Xiaopeng - ZHANG, Fubao - WANG, Yi - CHENG, Dejun. Easily Recycled CuMgFe Catalysts Derived from Layered Double Hydroxides for Hydrogenolysis of Glycerol. In *CATALYSTS*, 2021, vol. 11, no. 2, pp. Dostupné na: <https://doi.org/10.3390/catal11020232>., Registrované v: WOS
3. [1.1] ZHANG, Shanshan - ZHOU, Lilong - LI, Zhengjie - ESMAILPOUR, Ali Asghar - LI, Kunjie - WANG, Shuhuan - LIU, Runjing - LI, Xiaoyan - YUN, Jimmy. Efficient Treatment of Phenol Wastewater by Catalytic Ozonation over Micron-Sized Hollow MgO Rods. In *ACS OMEGA*, 2021, vol. 6, no. 39, pp. 25506-25517. ISSN 2470-1343. Dostupné na: <https://doi.org/10.1021/acsomega.1c03497>., Registrované v: WOS
- ADCA61 ĎURIŠOVÁ, J. - PUDIŠ, D. - LAURENČÍKOVÁ, Agáta - NOVÁK, Jozef - ŠUŠLIK, Ľ. Reflectance suppression of ZnO coated GaP nanowires. In *Thin Solid Films*, 2017, vol. 640, p. 88-92. (2016: 1.879 - IF, Q2 - JCR, 0.639 - SJR, Q1 - SJR,

karentované - CCC). (2017 - Current Contents). ISSN 0040-6090. Dostupné na:  
<https://doi.org/10.1016/j.tsf.2017.08.043>

Citácie:

1. [1.1] TRIPATHI, Sudhanshu - AGARWAL, Rekha - SINGH, Devraj. Elastic, Mechanical and Ultrasonic Properties of Nanostructured IIIrd Group Phosphides. In MAPAN-JOURNAL OF METROLOGY SOCIETY OF INDIA, 2021, vol. 36, no. 1, pp. 97-107. ISSN 0970-3950. Dostupné na:

<https://doi.org/10.1007/s12647-020-00412-2>, Registrované v: WOS

2. [1.1] VAZINISHAYAN, Ali - YAZDI, Mohammad Reza Hairi. Correlation between mechanical and optical properties of ZnO nanowire. In OPTIK, 2021, vol. 234, no., pp. ISSN 0030-4026. Dostupné na:

<https://doi.org/10.1016/j.ijleo.2021.166545>, Registrované v: WOS

ADCA62

DZUBA, Jaroslav - VANKO, Gabriel - DRŽÍK, Milan - RÝGER, Ivan - KUTIŠ, V. - ZEHEETNER, J. - LALINSKÝ, Tibor. AlGaIn/GaN diaphragm-based pressure sensor with direct high performance piezoelectric transduction mechanism. In Applied Physics Letters, 2015, vol. 107, 122102. (2014: 3.302 - IF, Q1 - JCR, 1.861 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents, WOS, SCOPUS). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.4931436>

Citácie:

1. [1.1] GUO, Xinge - LIU, Long - ZHANG, Zixuan - GAO, Shan - HE, Tianyi - SHI, Qiongfeng - LEE, Chengkuo. Technology evolution from micro-scale energy harvesters to nanogenerators. In JOURNAL OF MICROMECHANICS AND MICROENGINEERING, 2021, vol. 31, no. 9, pp. ISSN 0960-1317. Dostupné na:

<https://doi.org/10.1088/1361-6439/ac168e>, Registrované v: WOS

2. [1.1] WANG, Ashu - ZENG, Lingyan - WANG, Wen. Study on the GaN/AlGaIn Piezotronic Effect Applied in Pressure Sensors. In ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY, 2021, vol. 10, no. 3, pp. ISSN 2162-8769. Dostupné na: <https://doi.org/10.1149/2162-8777/abeecf>, Registrované v: WOS

3. [1.1] WANG, Rui-Rong - GUO, Hao - TANG, Jun - LIU, Jin-Ping - LIU, Li-Shuang. Research on the Force-Sensitive Characteristic of InAs QD Embedded in HEMT. In MICROMACHINES, 2021, vol. 12, no. 11, pp. Dostupné na:

<https://doi.org/10.3390/mi12111413>, Registrované v: WOS

ADCA63

EGYENES, Fridrich - GUCCIMANN, Filip - HUŠEKOVÁ, Kristína - DOBROČKA, Edmund - SOBOTA, M. - MIKOLÁŠEK, M. - FRÖHLICH, Karol - ĽAPAJNA, Milan\*\*. Growth of  $\alpha$ - and  $\beta$ -Ga<sub>2</sub>O<sub>3</sub> epitaxial layers on sapphire substrates using liquid-injection MOCVD. In Semiconductor Science and Technology, 2020, vol. 35, no. 115002. (2019: 2.361 - IF, Q2 - JCR, 0.790 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0268-1242. Dostupné na:

<https://doi.org/10.1088/1361-6641/ababdc>

Citácie:

1. [1.1] TAK, B.R. - KUMAR, S. - KAPOOR, A.K. - WANG, D.H. - LI, X.H. - SUN, H.D. - SINGH, R. Recent advances in the growth of gallium oxide thin films employing various growth techniques-a review. In JOURNAL OF PHYSICS D-APPLIED PHYSICS. ISSN 0022-3727, NOV 11 2021, vol. 54, no. 45., Registrované v: WOS

2. [1.1] ZHOU, J.G. - CHEN, H. - FU, K. - ZHAO, Y.J. Gallium oxide-based optical nonlinear effects and photonics devices. In JOURNAL OF MATERIALS RESEARCH. ISSN 0884-2914, DEC 2021, vol. 36, no. 23, p. 4832-4845., Registrované v: WOS

ADCA64

EICKELKAMP, M. - WEINGARTEN, M. - KHOSHROO, L.R. - KETTENISS, N. - BEHMENBURG, H. - HEUKEN, M. - DONOVAN, D. - CHVÁLA, A. - KORDOŠ,

Peter - KALISCH, H. - VESCAN, A. Electrical properties of thermally oxidized AlInN/AlN/GaN-based metal oxide semiconductor hetero field effect transistors. In Journal of Applied Physics, 2011, vol. 110, 084501. (2010: 2.079 - IF, Q2 - JCR, 1.484 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.3647589>

Citácie:

1. [1.1] THRON, Andrew M. - GAO, Jianyi - ERCAN, Burcu - LAURENT, Matthew A. - CHOWDHURY, Srabanti - VAN BENTHEM, Klaus. Oxidation Behavior of InAlN during Rapid Thermal Annealing. In PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE. ISSN 1862-6300, 2021, vol. 218, no. 19, pp. Dostupné na: <https://doi.org/10.1002/pssa.202100304>., Registrované v: WOS

ADCA65 EISTERER, M. - HAESSLER, W. - KOVÁČ, Pavol. Critical currents in weakly textured MgB<sub>2</sub>: Nonlinear transport in anisotropic heterogeneous media. In Physical Review B : condensed matter and materials physics, 2009, vol. 80, no. 174516. (2008: 3.322 - IF, Q1 - JCR, 2.923 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, WOS, SCOPUS). ISSN 1550-235X.

Citácie:

1. [1.1] MELONE, M. - MORAN, M. - MALAMUD, F. - MALACHEVSKY, M.T. - SERQUIS, A. Crystallographic Texture Study of Nano-SiC-Doped MgB<sub>2</sub> Wires. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

2. [1.1] SANDU, V. - IONESCU, A.M. - ALDICA, G. - GRIGOROSCU, M.A. - BURDUSEL, M. - BADICA, P. On the pinning force in high density MgB<sub>2</sub> samples. In SCIENTIFIC REPORTS. ISSN 2045-2322, MAR 15 2021, vol. 11, no. 1., Registrované v: WOS

ADCA66 ELIÁŠ, Peter - KOSTIČ, Ivan - ŠOLTÝS, Ján - HASENÖHRL, Stanislav. Wet-etch bulk micromachining of (100) InP substrates. In Journal of Micromechanics and Microengineering, 2004, vol. 14, p. 1205–1214. ISSN 0960-1317. Dostupné na: <https://doi.org/10.1088/0960-1317/14/8/013>

Citácie:

1. [1.1] SUTTIJALERN, Kamonwan - NIEMCHAROEN, Surasak. Anisotropic wet etching of a novel micro-texture structure for an Al/n-Si/Al metal-semiconductor-metal photodetector fabrication. In JOURNAL OF MICROMECHANICS AND MICROENGINEERING. ISSN 0960-1317, 2021, vol. 31, no. 8, pp. Dostupné na: <https://doi.org/10.1088/1361-6439/ac0e7e>., Registrované v: WOS

ADCA67 ELIÁŠ, Peter - HASENÖHRL, Stanislav - FEDOR, Ján - CAMBEL, Vladimír. Hall bar device processing on patterned substrates using optical lithography. In Sensors and Actuators A, 2002, vol. 101, p. 150-155.

Citácie:

1. [1.1] WANG, Yantao - DJURISIC, Aleksandra B. - CHEN, Wei - LIU, Fangzhou - CHENG, Rui - PING FENG, Shien - NG, Alan Man Ching - HE, Zhubing. Metal oxide charge transport layers in perovskite solar cells-optimising low temperature processing and improving the interfaces towards low temperature processed, efficient and stable devices. In JOURNAL OF PHYSICS-ENERGY, 2021, vol. 3, no. 1, pp. ISSN 2515-7655. Dostupné na: <https://doi.org/10.1088/2515-7655/abc73f>., Registrované v: WOS

ADCA68 FABBRICATORE, P. - PRIANO, C. - SCIUTTI, A. - GEMME, G. - MUSENICH, R. - PARODI, R. - GÖMÖRY, Fedor - THOMPSON, J.R. Flux pinning in Bi-2212/Ag-based wires and coils. In Physical Review B, 1996, vol. 54, p. 12 543-12 550. (1995: 2.834 - IF, karentované - CCC). (1996 - Current Contents).

Citácie:

1. [1.1] LEVERATTO, A. - ARMENIO, A.A. - TRAVERSO, A. - DE MARZI, G. - CELENTANO, G. - MALAGOLI, A. Transport current and magnetization of Bi-2212 wires above liquid Helium temperature for cryogen-free applications. In SCIENTIFIC REPORTS. ISSN 2045-2322, JUN 3 2021, vol. 11, no. 1., Registrované v: WOS
- ADCA69 FAGNARD, J.F.\*\* - VANDERHEYDEN, B. - PARDO, Enric - VANDERBEMDEN, P. Magnetic shielding of various geometries of bulk semi-closed superconducting cylinders subjected to axial and transverse fields. In Superconductor Science and Technology, 2019, vol. 32, no. 074007. (2018: 2.489 - IF, Q2 - JCR, 0.879 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab1824> (VEGA 2/0097/18)
- Citácie:
1. [1.1] PENG, Y.Q. - ZENG, Z.G. - ZHOU, D.F. - ZHAO, W.W. - JIA, Z.Y. - GUO, Y.Q. - BAI, C.Y. - FAN, F. - CHEN, Y.Y. - CAI, C.B. Passive Magnetic Shielding of Stacked Joint-free Superconducting Annular Disks Made of REBCO Tapes. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, OCT 2021, vol. 34, no. 10, p. 2493-2501., Registrované v: WOS
- ADCA70 FARINON, S. - FABBRICATORE, P. - GÖMÖRY, Fedor. Critical state and magnetization loss in multifilamentary superconducting wire solved through the commercial finite element code ANSYS. In Superconductor Science and Technology, 2010, vol. 23, 115004. (2009: 2.694 - IF, 1.256 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/23/11/115004>
- Citácie:
1. [1.1] DE OLIVEIRA, R.A.H. - MURTA-PINA, J. - RIVERA, M.B. - ALVAREZ, A. - VALTCHEV, S. - PRONTO, A.G. - SUAREZ, P. Effects of Noncharacteristic Harmonics on AC Losses of High-Temperature Superconducting Coils. In IEEE TRANSACTIONS ON POWER ELECTRONICS. ISSN 0885-8993, DEC 2021, vol. 36, no. 12, p. 13697-13705., Registrované v: WOS
  2. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS
  3. [1.1] ZHANG, K. - AINSLIE, M. - CALVI, M. - KINJO, R. - SCHMIDT, T. Fully-staggered-array bulk Re-Ba-Cu-O short-period undulator: large-scale 3D electromagnetic modelling and design optimization using A-V and H-formulation methods. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, SEP 2021, vol. 34, no. 9., Registrované v: WOS
- ADCA71 FARKAS, B. - KOLENČÍK, M. - HAIN, Miroslav - DOBROČKA, Edmund - KRATOŠOVÁ, G. - BUJDOŠ, M. - FENG, H. - DENG, Y. - YU, Q. - ILLA, R. - SUNIL, B.R. - KIM, H. - MATÚŠ, P. - URÍK, M.\*\*. Aspergillus niger decreases bioavailability of arsenic(V) via biotransformation of manganese oxide into biogenic oxalate minerals. In Journal of Fungi, 2020, vol. 6, no. 4, art. no. 270. (2019: 4.621 - IF, Q1 - JCR, 1.416 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 2309-608X. Dostupné na: <https://doi.org/10.3390/jof6040270>
- Citácie:
1. [1.2] PANDEY, D. - KEHRI, H.K. - ZOOMI, I. - AKHTAR, O. - CHATURVEDI, S. Bioremediation of arsenic contamination from the environment: New approach to sustainable resource management. In JOURNAL OF APPLIED AND NATURAL SCIENCE. ISSN 0974-9411, 2021, vol. 13, no. 4, p. 1499-1517. Dostupné na: <https://doi.org/10.31018/jans.v13i4.2986>,



*Registrované v: SCOPUS*

- ADCA72 FEILHAUER, Juraj - MOŠKO, Martin. Quantum and Boltzmann transport in a quasi-one-dimensional wire with rough edges. In *Physical Review B*, 2011, vol. 83, 245328. (2010: 3.774 - IF, Q1 - JCR, 3.318 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.83.245328>
- Citácie:
- [1.1] *ZHENG, Chao - YANG, Kun - WAN, Xin. Effect of surface disorder on the chiral surface states of a three-dimensional quantum Hall system. In PHYSICAL REVIEW B, 2021, vol. 103, no. 7, pp. ISSN 2469-9950. Dostupné na: <https://doi.org/10.1103/PhysRevB.103.075401>., Registrované v: WOS*
- ADCA73 FEILHAUER, Juraj\*\* - SCHUMER, A. - DOPPLER, J. - MAILYBAEV, A.A. - BOHM, J. - KÜHL, Uwe - MOISEYEV, N. - ROTTER, S. Encircling exceptional points as a non-Hermitian extension of rapid adiabatic passage. In *Physical Review A*, 2020, vol. 102, no. 040201. (2019: 2.777 - IF, Q2 - JCR, 1.416 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 1050-2947. Dostupné na: <https://doi.org/10.1103/PhysRevA.102.040201> (VEGA 2/0162/18)
- Citácie:
- [1.1] *DEY, Sibnath - LAHA, Arnab - GHOSH, Somnath. Exotic light dynamics around an exceptional point of order four associated with three connecting second-order exceptional points. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS, 2021, vol. 38, no. 4, pp. 1297-1306. ISSN 0740-3224. Dostupné na: <https://doi.org/10.1364/JOSAB.416232>., Registrované v: WOS*
  - [1.1] *WEINHOLD, F. Time-Conjugation in a Unified Quantum Theory for Hermitian and Non-Hermitian Electronic Systems under Time-Reversal Symmetry. In SYMMETRY-BASEL, 2021, vol. 13, no. 5, pp. Dostupné na: <https://doi.org/10.3390/sym13050808>., Registrované v: WOS*
- ADCA74 FEILHAUER, Juraj\*\* - SAHA, S. - TÓBIK, Jaroslav - ZEHETMAYER, M. - HEYDERMAN, L.J. - MRUCZKIEWICZ, Michal\*\*. Controlled motion of skyrmions in a magnetic antidot lattice. In *Physical Review B*, 2020, vol. 102, no. 184425. (2019: 3.575 - IF, Q2 - JCR, 1.811 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.102.184425>
- Citácie:
- [1.1] *BINDAL, N. - NISAR, A. - DHULL, S. - KAUSHIK, B.K. Magnetic Skyrmions: Recent advances and applications. In IEEE NANOTECHNOLOGY MAGAZINE. ISSN 1932-4510, DEC 2021, vol. 15, no. 6, p. 28-40., Registrované v: WOS*
  - [1.1] *REICHHARDT, C. - REICHHARDT, C.J.O. Clogging, dynamics, and reentrant fluid for active matter on periodic substrates. In PHYSICAL REVIEW E. ISSN 2470-0045, JUN 3 2021, vol. 103, no. 6., Registrované v: WOS*
  - [1.1] *REICHHARDT, C. - REICHHARDT, C.J.O. Drive dependence of the Hall angle for a sliding Wigner crystal in a magnetic field. In PHYSICAL REVIEW B. ISSN 2469-9950, MAR 3 2021, vol. 103, no. 12., Registrované v: WOS*
  - [1.1] *VIZARIM, N.P. - REICHHARDT, C. - VENEGAS, P.A. - REICHHARDT, C.J.O. Guided skyrmion motion along pinning array interfaces. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. ISSN 0304-8853, JUN 15 2021, vol. 528., Registrované v: WOS*
  - [1.1] *ZHANG, X.C. - XIA, J. - SHIRAI, K. - FUJIWARA, H. - TRETIKOV, O.A. - EZAWA, M. - ZHOU, Y. - LIU, X.X. Configurable pixelated skyrmions on nanoscale magnetic grids. In COMMUNICATIONS PHYSICS. ISSN 2399-3650,*

- DEC 2 2021, vol. 4, no. 1., Registrované v: WOS*
- ADCA75 FERRARI, C. - BUFFAGNI, E. - BONNINI, E. - KORYTÁR, Dušan. High diffraction efficiency in crystal curved by surface damage. In Journal of Applied Crystallography, 2013, vol. 46, p. 1576-1581. (2012: 3.343 - IF, Q1 - JCR, 2.580 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0021-8898. Dostupné na: <https://doi.org/10.1107/S0021889813022954>
- Citácie:
- [1.1] GIROU, David - FORD, Eric - WADE, Colin - VAN AARLE, Casper - ULIYANOV, Alexei - HANLON, Lorraine - TOMSICK, John A. - ZOGLAUER, Andreas - COLLON, Maximilien J. - BEIJERSBERGEN, Marco W. - BARRIERE, Nicolas M. Design and modeling of a Laue lens for radiation therapy with hard x-ray photons. In PHYSICS IN MEDICINE AND BIOLOGY, 2021, vol. 66, no. 24, pp. ISSN 0031-9155. Dostupné na: <https://doi.org/10.1088/1361-6560/ac3840>., Registrované v: WOS
  - [1.1] MAZZOLARI, A. - ROMAGNONI, M. - BAGLI, E. - BANDIERA, L. - BARICORDI, S. - CAMATTARI, R. - CASOTTI, D. - TAMISARI, M. - SYTOV, A. - GUIDI, V. - CAVOTO, G. - CARTURAN, S. M. - DE SALVADOR, D. - BALBO, A. - CRUCIANI, G. - CALISTE, Thu Nhi Tran - VERBENI, R. - PASTRONE, N. - LANZONI, L. - ROSSALL, A. - VAN DEN BERG, J. A. - JENKINS, R. - DUMAS, P. Silicon crystals for steering high-intensity particle beams at ultrahigh-energy accelerators. In PHYSICAL REVIEW RESEARCH, 2021, vol. 3, no. 1, pp. Dostupné na: <https://doi.org/10.1103/PhysRevResearch.3.013108>., Registrované v: WOS
- ADCA76 FERRARI, C. - GERMINI, F. - KORYTÁR, Dušan - MIKULÍK, P. - PEVERINI, L. X-ray diffracted intensity for double-reflection channel-cut Ge monochromators at extremely asymmetric diffraction conditions. In Journal of Applied Crystallography, 2011, vol. 44, p. 353-358. (2010: 3.794 - IF, Q2 - JCR, 2.626 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0021-8898. Dostupné na: <https://doi.org/10.1107/S0021889811001439>
- Citácie:
- [1.1] MIZUHATA, Minoru - KUBO, Hiroshi - ICHIKAWA, Yudai - MAKI, Hideshi - MATSUI, Masaki. Electrical Conductivity of Ceria-Based Oxides/Alkali Carbonate Eutectic Nanocomposites. In JOURNAL OF THE ELECTROCHEMICAL SOCIETY, 2021, vol. 168, no. 4, pp. ISSN 0013-4651. Dostupné na: <https://doi.org/10.1149/1945-7111/abf699>., Registrované v: WOS
- ADCA77 FERRARI, C.\*\* - BERETTA, S. - ROTUNNO, E. - KORYTÁR, Dušan - ZÁPRAŽNÝ, Zdenko. Compressive strain formation in surface-damaged crystals. In Journal of Applied Crystallography, 2020, vol. 53, part 3, p. 629-634. (2019: 2.995 - IF, Q2 - JCR, 1.525 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0021-8898. Dostupné na: <https://doi.org/10.1107/S1600576720003702> (VEGA 2/0092/18)
- Citácie:
- [1.1] KLIMOVA, Nataliya - YEFANOV, Oleksandr - SNIGIREVA, Irina - SNIGIREV, Anatoly. Determination of the Exact Orientation of Single-Crystal X-ray Optics from Its Glitch Spectrum and Modeling of Glitches for an Arbitrary Configuration. In CRYSTALS, 2021, vol. 11, no. 5, pp. ISSN 2073-4352. Dostupné na: <https://doi.org/10.3390/cryst11050504>., Registrované v: WOS
- ADCA78 FRAIT, Z. - ŠTURC, P. - TEMST, K. - BRUYNSEAEDE, Y. - VÁVRA, Ivo. Microwave and d.c. differential giant magnetoresistance study of iron/chromium superlattices. In Solid State Communications, 1999, vol. 112, p. 569-573. (1998: 1.297 - IF, karentované - CCC). (1999 - Current Contents, SCOPUS). ISSN 0038-1098.

Citácie:

1. [1.1] RINKEVICH, A.B. - KUZNETSOV, E.A. - PEROV, D.V. - MILYAEV, M.A. - ROMASHEV, L.N. *Ferromagnetic Resonance for Electromagnetic Waves Passing through Metal Superlattices. In TECHNICAL PHYSICS. ISSN 1063-7842, AUG 2021, vol. 66, no. 8, p. 917-928., Registrované v: WOS*
2. [1.1] RINKEVICH, A.B. - KUZNETSOV, E.A. - PEROV, D.V. - MILYAEV, M.A. *The Giant Magnetoresistance Effect in Microwave Reflection from (CoFe)/Cu Superlattices. In TECHNICAL PHYSICS. ISSN 1063-7842, FEB 2021, vol. 66, no. 2, p. 298-304., Registrované v: WOS*

ADCA79

FRÖHLICH, Karol - LUPTÁK, Roman - DOBROČKA, Edmund - HUŠEKOVÁ, Kristína - ČIČO, Karol - ROSOVÁ, Alica - LUKOCIUS, M. - ABRUTIS, A. - PÍSEČNÝ, Pavol - ESPINOS, J.P. Characterization of rare earth oxides based MOSFET gate stacks prepared by metal-organic chemical vapour deposition. In Materials science in semiconductor processing, 2006, vol. 9, p.1065-1072. (2005: 0.884 - IF, Q2 - JCR, 0.554 - SJR, Q2 - SJR, karentované - CCC). (2006 - Current Contents). ISSN 1369-8001. Dostupné na: <https://doi.org/10.1016/j.mssp.2006.10.025>

Citácie:

1. [1.1] MORKOC, B. - KAHRAMAN, A. - YILMAZ, E. *Effects of the oxide/interface traps on the electrical characteristics in Al/Yb2O3/SiO2/n-Si/Al MOS capacitors. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS. ISSN 0957-4522, APR 2021, vol. 32, no. 7, p. 9231-9243., Registrované v: WOS*

ADCA80

FRÖHLICH, Karol - HUŠEKOVÁ, Kristína - MACHAJDÍK, Daniel - HOOKER, J.C. - PEREZ, N. - FANCIULLI, M. - FERRARI, S. - WIEMER, C. - DIMOULAS, A. - VELLIANITIS, G. - ROOZEBOOM, F. Ru and RuO2 gate electrodes for advanced CMOS technology. In Materials Science and Engineering. B.Solid-State Materials for Advanced Technology, 2004, vol. 109, p. 117–121. (2003: 1.070 - IF, karentované - CCC). (2004 - Current Contents, WOS, SCOPUS). ISSN 0921-5107.

Citácie:

1. [1.1] HAYES, Michael - JENKINS, Melanie A. - WOODRUFF, Jacob - MOSER, Daniel F. - DEZELAH, Charles L. - CONLEY, John F. *Improved properties of atomic layer deposited ruthenium via postdeposition annealing. In JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A, 2021, vol. 39, no. 5, pp. ISSN 0734-2101. Dostupné na: <https://doi.org/10.1116/6.0001078>., Registrované v: WOS*
2. [1.1] ZHANG, Fan - YU, Xuegong - HU, Jiajun - LEI, Lecheng - HE, Yi - ZHANG, Xingwang. *Coupling Ru-MoS2 heterostructure with silicon for efficient photoelectrocatalytic water splitting. In CHEMICAL ENGINEERING JOURNAL, 2021, vol. 423, no., pp. ISSN 1385-8947. Dostupné na: <https://doi.org/10.1016/j.cej.2021.130231>., Registrované v: WOS*

ADCA81

FRÖHLICH, Karol - HUŠEKOVÁ, Kristína - ÖSZI, Zsolt - HOOKER, J.C. - FANCIULLI, M. - WIEMER, C. - DIMOULAS, A. - VELLIANITIS, G. - ROOZEBOOM, F. Metal oxide gate electrodes for advanced CMOS technology. In Annalen der Physik, 2004, vol. 13, p. 31. ISSN 0003-3804.

Citácie:

1. [1.1] KIM, Hyun Min - LEE, Jong Hoon - YOM, Ahram - LEE, Han Sol - KIM, Dong Geun - KO, Dong Wan - KIM, Hong Seung - AHN, Ji-Hoon. *Low-resistivity SrRuO3 thin films formed on SiO2 substrates without buffer layer by RF magnetron sputtering. In JOURNAL OF ALLOYS AND COMPOUNDS, 2021, vol. 857, no., pp. ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2020.157627>., Registrované v: WOS*

- ADCA82 FRÖHLICH, Karol - HUŠEKOVÁ, Kristína - MACHAJDÍK, Daniel - LUPTÁK, Roman - ĽAPAJNA, Milan - HOOKER, J.C. - ROOZEBOOM, F. - KOBZEV, A.P. - WIEMER, C. - FERRARI, C. - FANCIULLI, M. - ROSSEL, C. - CABRAL, C., Jr. Preparation of SrRuO<sub>3</sub> films for advanced CMOS metal gates. In Materials science in semiconductor processing, 2004, vol. 7, p. 265-269.  
Citácie:  
1. [1.1] CHEN, C.H. - HER, J.L. - PAN, T.M. Structural properties of ferroelectric characteristics of mixed NiTiO<sub>3</sub>-BiFeO<sub>3</sub> thin film by the sol-gel method. In JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS. ISSN 0022-3697, MAY 2021, vol. 152., Registrované v: WOS
- ADCA83 FRÖHLICH, Karol - CAMBEL, Vladimír - MACHAJDÍK, Daniel - BAUMANN, P.K. - LINDNER, J. - SCHUMACHER, M. - JUERGENSEN, H. Low-temperature growth of RuO<sub>2</sub> films for conductive electrode applications. In Materials science in semiconductor processing, 2003, vol. 5, p. 173-177.  
Citácie:  
1. [1.2] WINTER, Charles H. - UPADHYAY, Apoorva - OVERBEEK, Michael - HOLLIN, Jonathan - CWIK, Stefan. Group 7 and 8 compounds for chemical vapor deposition. In Comprehensive Coordination Chemistry III, 2021-07-21, 1-9, pp. 824-841. Dostupné na: <https://doi.org/10.1016/B978-0-12-409547-2.14951-0>, Registrované v: SCOPUS
- ADCA84 FRÖHLICH, Karol. TiO<sub>2</sub>-based structures for nanoscale memory applications : invited review. In Materials science in semiconductor processing, 2013, vol. 16, p. 1186-1195. (2012: 1.338 - IF, Q2 - JCR, 0.450 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 1369-8001. Dostupné na: <https://doi.org/10.1016/j.mssp.2012.11.013>  
Citácie:  
1. [1.1] YADAV, Vinit Kumar - NATH, Amitabha - SARKAR, Mitra Barun. Indium Nanoparticles Coated High Dielectric TiO<sub>2</sub> Nanowire for Capacitive Memory Application. In IEEE TRANSACTIONS ON NANOTECHNOLOGY, 2021, vol. 20, no., pp. 860-865. ISSN 1536-125X. Dostupné na: <https://doi.org/10.1109/TNANO.2021.3129305>, Registrované v: WOS
- ADCA85 FRÖHLICH, Karol\*\* - KUNDRATA, Ivan - BLAHO, Michal - PRECNER, Marián - ĽAPAJNA, Milan - KLIMO, Martin - ŠUCH, Ondrej - ŠKVAREK, Ondrej. Hafnium oxide and tantalum oxide based resistive switching structures for realization of minimum and maximum functions. In Journal of Applied Physics, 2018, vol. 124, no. 152109. (2017: 2.176 - IF, Q2 - JCR, 0.739 - SJR, Q2 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.5025802>  
Citácie:  
1. [1.1] AGUIRRE, F.L. - GOMEZ, N.M. - PAZOS, S.M. - PALUMBO, F. - SUNE, J. - MIRANDA, E. Minimization of the Line Resistance Impact on Memdiode-Based Simulations of Multilayer Perceptron Arrays Applied to Pattern Recognition. In JOURNAL OF LOW POWER ELECTRONICS AND APPLICATIONS. MAR 2021, vol. 11, no. 1., Registrované v: WOS  
2. [1.1] AGUIRRE, F.L. - PAZOS, S.M. - PALUMBO, F. - SUNE, J. - MIRANDA, E. SPICE Simulation of RRAM-Based Cross-Point Arrays Using the Dynamic Memdiode Model. In FRONTIERS IN PHYSICS. ISSN 2296-424X, SEP 23 2021, vol. 9., Registrované v: WOS
- ADCA86 FULAJTÁROVÁ, K. - SOTÁK, T. - HRONEC, M. - VÁVRA, Ivo - DOBROČKA, Edmund - OMASTOVÁ, Mária. Aqueous phase hydrogenation of furfural to furfural alcohol over Pd-Cu catalysts. In Applied Catalysis A: General, 2015, vol. 502, p. 78-85. (2014: 3.942 - IF, Q1 - JCR, 1.335 - SJR, Q1 - SJR, karentované - CCC). (2015 -



Current Contents). ISSN 0926-860X. Dostupné na:

<https://doi.org/10.1016/j.apcata.2015.05.031>

Citácie:

1. [1.1] AHORSU, R. - CONSTANT, M. - MEDINA, F. Recent Impacts of Heterogeneous Catalysis in Biorefineries. In *INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH*. ISSN 0888-5885, DEC 29 2021, vol. 60, no. 51, p. 18612-18626., Registrované v: WOS
2. [1.1] AKINBILE, B.J. - MATSINHA, L.C. - MAKHUBELA, B.C.E. - AMBUSHE, A.A. Towards Sustainability Pathway with Bio-Derived Platinum and Palladium Catalyst for Furfural Hydrogenation-A Novel Greener Approach in Catalysis. In *MINERALS*. AUG 2021, vol. 11, no. 8., Registrované v: WOS
3. [1.1] AKMAZ, S. - ALGORABI, S. - KOC, S.N. Furfural hydrogenation to 2-methylfuran over efficient sol-gel copper-cobalt/zirconia catalyst. In *CANADIAN JOURNAL OF CHEMICAL ENGINEERING*. ISSN 0008-4034, OCT 2021, vol. 99, p. S562-S574., Registrované v: WOS
4. [1.1] ALI, W.A. - BHARATH, G. - MORAJKAR, P.P. - SALKAR, A.V. - ABU HAIJA, M. - BANAT, F. Morphology-dependent catalytic activity of tungsten trioxide (WO<sub>3</sub>) nanostructures for hydrogenation of furfural to furfuryl alcohol. In *JOURNAL OF PHYSICS D-APPLIED PHYSICS*. ISSN 0022-3727, JUL 29 2021, vol. 54, no. 30., Registrované v: WOS
5. [1.1] BAGNATO, G. - SANNA, A. - PAONE, E. - CATIZZONE, E. Recent Catalytic Advances in Hydrotreatment Processes of Pyrolysis Bio-Oil. In *CATALYSTS*. FEB 2021, vol. 11, no. 2., Registrované v: WOS
6. [1.1] BYUN, M.Y. - LEE, M.S. Effect of carboxylate stabilizers on the performance of Pt/C catalysts for furfural hydrogenation. In *JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING*. ISSN 2213-2929, OCT 2021, vol. 9, no. 5., Registrované v: WOS
7. [1.1] CARDONA-FARRENY, M. - LECANTE, P. - ESVAN, J. - DINOI, C. - DEL ROSAL, I. - POTEAU, R. - PHILIPPOT, K. - AXET, M.R. Bimetallic RuNi nanoparticles as catalysts for upgrading biomass: metal dilution and solvent effects on selectivity shifts. In *GREEN CHEMISTRY*. ISSN 1463-9262, NOV 1 2021, vol. 23, no. 21, p. 8480-8500., Registrované v: WOS
8. [1.1] CHEN, J.J. - SUN, W.X. - WANG, Y.X. - FANG, W.H. Performant Au hydrogenation catalyst cooperated with Cu-doped Al<sub>2</sub>O<sub>3</sub> for selective conversion of furfural to furfuryl alcohol at ambient pressure. In *GREEN ENERGY & ENVIRONMENT*. ISSN 2096-2797, AUG 2021, vol. 6, no. 4, p. 546-556., Registrované v: WOS
9. [1.1] FANG, R.Q. - CHEN, L.Y. - SHEN, Z.R. - LI, Y.W. Efficient hydrogenation of furfural to fufuryl alcohol over hierarchical MOF immobilized metal catalysts. In *CATALYSIS TODAY*. ISSN 0920-5861, MAY 15 2021, vol. 368, SI, p. 217-223., Registrované v: WOS
10. [1.1] FANG, W.T. - RIISAGER, A. Recent advances in heterogeneous catalytic transfer hydrogenation/hydrogenolysis for valorization of biomass-derived furanic compounds. In *GREEN CHEMISTRY*. ISSN 1463-9262, JAN 21 2021, vol. 23, no. 2, p. 670-688., Registrované v: WOS
11. [1.1] GAO, G. - JIANG, Z.C. - HU, C.W. Selective Hydrogenation of the Carbonyls in Furfural and 5-Hydroxymethylfurfural Catalyzed by PtNi Alloy Supported on SBA-15 in Aqueous Solution Under Mild Conditions. In *FRONTIERS IN CHEMISTRY*. ISSN 2296-2646, SEP 29 2021, vol. 9., Registrované v: WOS
12. [1.1] GAO, G.M. - SHAO, Y.W. - GAO, Y. - WEI, T. - GAO, G.G. - ZHANG, S. - WANG, Y. - CHEN, Q.F. - HU, X. Synergetic effects of hydrogenation and acidic

- sites in phosphorus-modified nickel catalysts for the selective conversion of furfural to cyclopentanone. In *CATALYSIS SCIENCE & TECHNOLOGY*. ISSN 2044-4753, JAN 21 2021, vol. 11, no. 2, p. 575-593., Registrované v: WOS
13. [1.1] GHOLINEJAD, M. - KHOSRAVI, F. - AFRASI, M. - SANSANO, J.M. - NAJERA, C. Applications of bimetallic PdCu catalysts. In *CATALYSIS SCIENCE & TECHNOLOGY*. ISSN 2044-4753, APR 21 2021, vol. 11, no. 8, p. 2652-2702., Registrované v: WOS
14. [1.1] HU, X. - MING, C. - LI, Q.Y. - ZHANG, L.J. - LI, C.Z. Polymerization of sugars/furan model compounds and bio-oil during the acid-catalyzed conversion-A review. In *FUEL PROCESSING TECHNOLOGY*. ISSN 0378-3820, NOV 2021, vol. 222., Registrované v: WOS
15. [1.1] HUANG, L. - HAO, F. - LV, Y. - LIU, Y. - LIU, P.L. - XIONG, W. - LUO, H.A. MOF-derived well-structured bimetallic catalyst for highly selective conversion of furfural. In *FUEL*. ISSN 0016-2361, APR 1 2021, vol. 289., Registrované v: WOS
16. [1.1] HUO, J.J. - TESSONNIER, J.P. - SHANKS, B.H. Improving Hydrothermal Stability of Supported Metal Catalysts for Biomass Conversions: A Review. In *ACS CATALYSIS*. ISSN 2155-5435, MAY 7 2021, vol. 11, no. 9, p. 5248-5270., Registrované v: WOS
17. [1.1] ISLAM, M.J. - MESA, M.G. - OSATIASHTIANI, A. - MANAYIL, J.C. - ISAACS, M.A. - TAYLOR, M.J. - TSATSOS, S. - KYRIAKOU, G. PdCu single atom alloys supported on alumina for the selective hydrogenation of furfural. In *APPLIED CATALYSIS B-ENVIRONMENTAL*. ISSN 0926-3373, DEC 15 2021, vol. 299., Registrované v: WOS
18. [1.1] JUN, M. - YANG, H. - KIM, D. - BANG, G.J. - KIM, M. - JIN, H. - KWON, T. - BAIK, H. - SOHN, J.H. - JUNG, Y. - KIM, H. - LEE, K. Pd3Pb Nanospices for Selective Conversion of Furfural to Furfuryl Alcohol under Mild Condition. In *SMALL METHODS*. ISSN 2366-9608, JUL 2021, vol. 5, no. 7., Registrované v: WOS
19. [1.1] KAMBLE, P.A. - KANTAM, M.L. - RATHOD, V.K. Hydrogenation of Furfural to Furfuryl Alcohol over Nickel Supported Bentonite Catalyst. In *CHEMISTRYSELECT*. ISSN 2365-6549, JUL 7 2021, vol. 6, no. 25, p. 6601-6606., Registrované v: WOS
20. [1.1] KHAN, F.A. - YAQOOB, S. - NASIM, N. - WANG, Y. - USMAN, M. - ISAB, A.A. - ALTAF, M. - SUN, B. - EL AZAB, I.H. - EL-SEEDI, H.R. Ruthenium Nanoparticles Intercalated in Montmorillonite (nano-Ru@MMT) Is Highly Efficient Catalyst for the Selective Hydrogenation of 2-Furaldehyde in Benign Aqueous Medium. In *CATALYSTS*. JAN 2021, vol. 11, no. 1., Registrované v: WOS
21. [1.1] KHEMTHONG, P. - YIMSUKANAN, C. - NARKKUN, T. - SRIFA, A. - WITOON, T. - PONGCHAIPHOL, S. - KIATPHUENGPORN, S. - FAUNGNAWAKIJ, K. Advances in catalytic production of value-added biochemicals and biofuels via furfural platform derived lignocellulosic biomass. In *BIOMASS & BIOENERGY*. ISSN 0961-9534, MAY 2021, vol. 148., Registrované v: WOS
22. [1.1] KUTLUGILDINA, K.R. - CHISTYAKOVA, P.A. - NIKOLAEV, S.A. - KROTOVA, I.N. - EZHELENKO, D.I. - CHISTYAKOV, A.V. Selective Hydration of Furfural in the Presence of Platinum-Containing Catalysts. In *RUSSIAN JOURNAL OF PHYSICAL CHEMISTRY B*. ISSN 1990-7931, MAY 2021, vol. 15, no. 3, p. 399-406., Registrované v: WOS
23. [1.1] LE, S.D. - NISHIMURA, S. Influence of metal ratio on alumina-supported CuPd catalysts for the production of tetrahydrofuran from succinic

- acid. In *APPLIED CATALYSIS A-GENERAL*. ISSN 0926-860X, APR 25 2021, vol. 616., Registrované v: WOS
24. [1.1] LI, G.N. - WANG, B. - RESASCO, D.E. Solvent effects on catalytic reactions and related phenomena at liquid-solid interfaces. In *SURFACE SCIENCE REPORTS*. ISSN 0167-5729, NOV 2021, vol. 76, no. 4., Registrované v: WOS
25. [1.1] LUO, L. - YUAN, F.L. - ZAERA, F. - ZHU, Y.J. Catalytic hydrogenation of furfural to furfuryl alcohol on hydrotalcite-derived  $Cu_xNi_{3-x}AlO_y$  mixed-metal oxides. In *JOURNAL OF CATALYSIS*. ISSN 0021-9517, DEC 2021, vol. 404, p. 420-429., Registrované v: WOS
26. [1.1] MAO, W.Z. - LIU, J.H. - YIN, B.Q. - KONG, D.Y. - MIAO, S.W. - WANG, F. Transfer hydrogenation of furfural catalyzed by multi-centers collaborative Ni-based catalyst and kinetic research. In *APPLIED CATALYSIS A-GENERAL*. ISSN 0926-860X, AUG 5 2021, vol. 623., Registrované v: WOS
27. [1.1] MARINESCU, M. - POPOVICI, D.R. - BOMBOS, D. - VASILIEVICI, G. - ROSCA, P. - OPRESCU, E.E. - BOLOCAN, I. Hydrodeoxygenation and hydrocracking of oxygenated compounds over CuPd/gamma- $Al_2O_3$ -ZSM-5 catalyst. In *REACTION KINETICS MECHANISMS AND CATALYSIS*. ISSN 1878-5190, AUG 2021, vol. 133, no. 2, p. 1013-1026., Registrované v: WOS
28. [1.1] PIRMORADI, M. - KASTNER, J.R. A kinetic model of multi-step furfural hydrogenation over a Pd-TiO<sub>2</sub> supported activated carbon catalyst. In *CHEMICAL ENGINEERING JOURNAL*. ISSN 1385-8947, JUN 15 2021, vol. 414., Registrované v: WOS
29. [1.1] STEPANOVA, L.N. - BELSKAYA, O.B. - LEONT'EVA, N.N. - KOBZAR, E.O. - SALANOV, A.N. - GULYAEVA, T.I. - TRENIKHIN, M.V. - LIKHOLOBOV, V.A. Study of the properties of the catalysts based on Ni(Mg)Al-Layered Hydroxides for the reaction of furfural hydrogenation. In *MATERIALS CHEMISTRY AND PHYSICS*. ISSN 0254-0584, APR 15 2021, vol. 263., Registrované v: WOS
30. [1.1] TAN, J. - JI, Y.N. - DENG, W.S. - SU, Y.F. Process intensification in gas/liquid/solid reaction in trickle bed reactors: A review. In *PETROLEUM SCIENCE*. ISSN 1672-5107, AUG 2021, vol. 18, no. 4, p. 1203-1218., Registrované v: WOS
31. [1.1] TAYLOR, M.J. - BEAUMONT, S.K. - ISLAM, M.J. - TSATSOS, S. - PARLETT, C.A.M. - ISSACS, M.A. - KYRIAKOU, G. Atom efficient PtCu bimetallic catalysts and ultra dilute alloys for the selective hydrogenation of furfural. In *APPLIED CATALYSIS B-ENVIRONMENTAL*. ISSN 0926-3373, MAY 5 2021, vol. 284., Registrované v: WOS
32. [1.1] VAN SLAGMAAT, C.A.M.R. - FABER, T. - CHOU, K.C. - FREIRE, A.J.S. - HADAVI, D. - HAN, P.L. - QUAEDFLIEG, P.J.L.M. - VERZIIL, G.K.M. - ALSTERS, P.L. - DE WILDEMAN, S.M.A. Chemoselective formation of cycloaliphatic and cycloolefinic 1,3-diols via pressure hydrogenation of potentially biobased platform molecules using Knolker-type catalysts. In *DALTON TRANSACTIONS*. ISSN 1477-9226, AUG 7 2021, vol. 50, no. 29, p. 10102-10112., Registrované v: WOS
33. [1.1] VAN SLAGMAAT, C.A.M.R. - VERZIIL, G.K.M. - QUAEDFLIEG, P.J.L.M. - ALSTERS, P.L. - DE WILDEMAN, S.M.A. Hydrogenation of Cyclic 1,3-Diones to Their 1,3-Diols Using Heterogeneous Catalysts: Toward a Facile, Robust, Scalable, and Potentially Bio-Based Route. In *ACS OMEGA*. ISSN 2470-1343, FEB 16 2021, vol. 6, no. 6, p. 4313-4328., Registrované v: WOS
34. [1.1] WANG, Z.Q. - WANG, X.C. - ZHANG, C. - ARAI, M. - ZHOU, L.L. - ZHAO, F.Y. Selective hydrogenation of furfural to furfuryl alcohol over Pd/TiH<sub>2</sub>

- catalyst. In *MOLECULAR CATALYSIS*. ISSN 2468-8231, MAY 2021, vol. 508., Registrované v: WOS
35. [1.1] WEERACHAWANASAK, P. - KRAWMANEE, P. - INKAMHAENG, W. - AIRES, F.J.C.S. - SOOKNOI, T. - PANPRANOT, J. Development of bimetallic Ni-Cu/SiO<sub>2</sub> catalysts for liquid phase selective hydrogenation of furfural to furfuryl alcohol. In *CATALYSIS COMMUNICATIONS*. ISSN 1566-7367, JAN 15 2021, vol. 149., Registrované v: WOS
36. [1.1] ZHANG, J.X. - MAO, D.L. - WU, D.F. Industrially Applicable Aqueous-Phase Selective Hydrogenation of Furfural on an Efficient TiO<sub>x</sub>-Modified Ni Nanocatalyst. In *ACS SUSTAINABLE CHEMISTRY & ENGINEERING*. ISSN 2168-0485, OCT 18 2021, vol. 9, no. 41, p. 13902-13914., Registrované v: WOS
37. [1.1] ZHANG, X. - XU, S.Q. - LI, Q.F. - ZHOU, G.L. - XIA, H.A. Recent advances in the conversion of furfural into bio-chemicals through chemo- and bio-catalysis. In *RSC ADVANCES*. AUG 16 2021, vol. 11, no. 43, p. 27042-27058., Registrované v: WOS
38. [1.1] ZHU, Z.K. - YANG, L.L. - KE, C.X. - FAN, G.L. - YANG, L. - LI, F. Highly efficient catalytic transfer hydrogenation of furfural over defect-rich amphoteric ZrO<sub>2</sub> with abundant surface acid-base sites. In *DALTON TRANSACTIONS*. ISSN 1477-9226, FEB 21 2021, vol. 50, no. 7, p. 2616-2626., Registrované v: WOS
39. [1.2] ONU, Peter - MBOHWA, Charles. Agricultural Waste Diversity and Sustainability Issues: Sub-Saharan Africa as a Case Study. In *Agricultural Waste Diversity and Sustainability Issues: Sub-Saharan Africa as a Case Study*, 2021-01-01, pp. 1-187. Dostupné na: <https://doi.org/10.1016/B978-0-323-85402-3.01001-9>., Registrované v: SCOPUS
40. [1.2] ZHANG, Jun - LI, Dan Ni - YUAN, Hao Ran - WANG, Shu Rong - CHEN, Yong. Advances on the catalytic hydrogenation of biomass-derived furfural and 5-hydroxymethylfurfural. In *Ranliao Huaxue Xuebao/Journal of Fuel Chemistry and Technology*, 2021-12-01, 49, 12, pp. 1752-1767. ISSN 02532409. Dostupné na: [https://doi.org/10.1016/S1872-5813\(21\)60135-4](https://doi.org/10.1016/S1872-5813(21)60135-4)., Registrované v: SCOPUS

ADCA87 GENDIAR, Andrej - KRČMÁR, Roman - NISHINO, T. Spherical deformation for one-dimensional quantum systems (vol 122, pg 953, 2009) : errata. In *Progress Theoretical Physics*, 2010, vol. 123, p. 393. (2009: 2.368 - IF, Q2 - JCR, 0.500 - SJR, Q3 - SJR, karentované - CCC). (2010 - Current Contents).

Citácie:

1. [1.1] ANDERSEN, M. - NORFJAND, F. - ZINNER, N.T. Real-time correlation function of Floquet conformal fields. In *PHYSICAL REVIEW D*. ISSN 2470-0010, MAR 10 2021, vol. 103, no. 5., Registrované v: WOS
2. [1.1] CAPUTA, P. - MACCORMACK, I. Geometry and complexity of path integrals in inhomogeneous CFTs. In *JOURNAL OF HIGH ENERGY PHYSICS*. ISSN 1029-8479, JAN 7 2021, no. 1., Registrované v: WOS
3. [1.1] FAN, Ruihua - GU, Yingfei - VISHWANATH, Ashvin - WEN, Xueda. Floquet conformal field theories with generally deformed Hamiltonians. In *SCIPOST PHYSICS*. ISSN 2542-4653, 2021, vol. 10, no. 2, pp. Dostupné na: <https://doi.org/10.21468/SciPostPhys.10.2.049>., Registrované v: WOS
4. [1.1] HOTTA, C. - NAKAMANIWA, T. - NAKAMURA, T. Sine-square deformation applied to classical Ising models. In *PHYSICAL REVIEW E*. ISSN 2470-0045, SEP 30 2021, vol. 104, no. 3., Registrované v: WOS
5. [1.1] KUREBAYASHI, Y. - OSHIYAMA, H. - SHIBATA, N. Ground-state phase diagram of the one-dimensional t-J(s)-J(tau) model at quarter filling. In *PHYSICAL REVIEW B*. ISSN 2469-9950, APR 14 2021, vol. 103, no. 16.,



*Registrované v: WOS*

6. [1.1] LEE, J.H. - LEE, H.C. Machine learning study of the deformed one-dimensional topological superconductor. In JOURNAL OF THE KOREAN PHYSICAL SOCIETY. ISSN 0374-4884, JUL 2021, vol. 79, no. 2, p. 173-184.,  
*Registrované v: WOS*

ADCA88 GENDIAR, Andrej - DANIŠKA, Michal - LEE, Y. - NISHINO, T. Suppression of finite-size effects in one-dimensional correlated systems. In Physical Review A, 2011, vol. 83, no. 5, 052118. (2010: 2.861 - IF, Q1 - JCR, 2.400 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 1050-2947. Dostupné na: <https://doi.org/10.1103/PhysRevA.83.052118>

*Citácie:*

1. [1.1] ANDERSEN, Malthe - NORFJAND, Frederik - ZINNER, Nikolaj Thomas. Real-time correlation function of Floquet conformal fields. In PHYSICAL REVIEW D. ISSN 2470-0010, 2021, vol. 103, no. 5, 056005. Dostupné na: <https://doi.org/10.1103/PhysRevD.103.056005>., *Registrované v: WOS*  
2. [1.1] HOTTA, Chisa - NAKAMANIWA, Takashi - NAKAMURA, Tota. Sine-square deformation applied to classical Ising models. In PHYSICAL REVIEW E. ISSN 2470-0045, 2021, vol. 104, no. 3, 034133. Dostupné na: <https://doi.org/10.1103/PhysRevE.104.034133>., *Registrované v: WOS*

ADCA89 GENDIAR, Andrej - KRČMÁR, Roman - UEDA, K. - NISHINO, T. Phase transition of clock models on a hyperbolic lattice studied by corner transfer matrix renormalization group method. In Physical Review E : statistical physics, plasmas, fluids, 2008, vol. 77, art. no. 041123. (2007: 2.483 - IF, Q1 - JCR, 1.615 - SJR, Q1 - SJR, karentované - CCC). (2008 - Current Contents, WOS, SCOPUS). ISSN 2470-0045. Dostupné na: <https://doi.org/10.1103/PhysRevE.77.041123>

*Citácie:*

1. [1.1] ZHU, Xingchuan - GUO, Jiaojiao - BREUCKMANN, Nikolas P. - GUO, Huaoming - FENG, Shiping. Quantum phase transitions of interacting bosons on hyperbolic lattices. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, 2021, vol. 33, no. 33, 335602. Dostupné na: <https://doi.org/10.1088/1361-648X/ac0a1a>., *Registrované v: WOS*

ADCA90 GENDIAR, Andrej - NISHINO, T. Phase diagram of the 3D Axial-Next-Nearest-Neighbor Ising model. In Physical Review B, 2005, vol. 71, no. 024404-10. (2004: 3.075 - IF, karentované - CCC). (2005 - Current Contents). ISSN 1550-235X.

*Citácie:*

1. [1.1] VLAAR, P.C.G. - CORBOZ, P. Simulation of three-dimensional quantum systems with projected entangled-pair states. In PHYSICAL REVIEW B. ISSN 2469-9950, MAY 19 2021, vol. 103, no. 20., *Registrované v: WOS*

ADCA91 GENDIAR, Andrej - MAESHIMA, N. - NISHINO, T. Stable optimization of tensor product variational state. In Progress Theoretical Physics, 2003, vol. 110, p. 691-699.

*Citácie:*

1. [1.1] VLAAR, P.C.G. - CORBOZ, P. Simulation of three-dimensional quantum systems with projected entangled-pair states. In PHYSICAL REVIEW B. ISSN 2469-9950, MAY 19 2021, vol. 103, no. 20., *Registrované v: WOS*

ADCA92 GENDIAR, Andrej - NISHINO, T. Latent heat calculation of the three-dimensional  $q=3, 4$ , and 5 potts models by the tensor product variational approach. In Physical Review E, 2002, vol. 65, p. 046702. (2001: 2.235 - IF, karentované - CCC). (2002 - Current Contents). ISSN 2470-0045.

*Citácie:*

1. [1.1] VLAAR, P.C.G. - CORBOZ, P. Simulation of three-dimensional quantum systems with projected entangled-pair states. In PHYSICAL REVIEW B. ISSN

- 2469-9950, MAY 19 2021, vol. 103, no. 20., Registrované v: WOS
- ADCA93 GHABELI, Asef\*\* - AINSLIE, M.D. - PARDO, Enric - QUEVAL, L. - MATAIRA, R. Modeling the charging process of a coil by an HTS dynamo-type flux pump. In Superconductor Science and Technology, 2021, vol. 34, no. 084002. (2020: 3.219 - IF, Q2 - JCR, 1.033 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac0ccb>
- Citácie:
- [1.1] WEN, Z.Z. - ZHANG, H.Y. - MUELLER, M. Sensitivity analysis and machine learning modelling for the output characteristics of rotary HTS flux pumps. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS
- ADCA94 GHABELI, Asef - PARDO, Enric\*\* - KAPOLKA, Milan. 3D modeling of a superconducting dynamo-type flux pump. In Scientific Reports, 2021, vol. 11, no. 10296. (2020: 4.380 - IF, Q1 - JCR, 1.240 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents, WOS, SCOPUS). ISSN 2045-2322. Dostupné na: <https://doi.org/10.1038/s41598-021-89596-4>
- Citácie:
- [1.1] FAWAZ, S. - MENANA, H. - DOUINE, B. - QUEVAL, L. DC modeling and characterization of HTS coils with non uniform current density distribution. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS
  - [1.1] PRIGOZHIN, L. - SOKOLOVSKY, V. Two-Dimensional Model of a High-T-c Superconducting Dynamo. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, APR 2021, vol. 31, no. 3., Registrované v: WOS
  - [1.1] WEN, Z.Z. - ZHANG, H.Y. - MUELLER, M. Sensitivity analysis and machine learning modelling for the output characteristics of rotary HTS flux pumps. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS
- ADCA95 GHABELI, Asef\*\* - PARDO, Enric\*\*. Modeling of airgap influence on DC voltage generation in a dynamo-type flux pump. In Superconductor Science and Technology, 2020, vol. 33, no. 035008. (2019: 3.067 - IF, Q2 - JCR, 0.991 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab6958> (VEGA 2/0097/18)
- Citácie:
- [1.1] AINSLIE, M.D. - QUEVAL, L. - MATAIRA, R.C. - BUMBY, C.W. Modelling the Frequency Dependence of the Open-Circuit Voltage of a High-T-c Superconducting Dynamo. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
  - [1.1] LI, G.Y. - LI, C. - XIN, Y. - HONG, W. - LI, W.X. - YANG, T.H. - LI, B. Dynamic modelling methodology for an HTS energy converter using moving mesh. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS
  - [1.1] PRIGOZHIN, L. - SOKOLOVSKY, V. Fast solution of the superconducting dynamo benchmark problem. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUN 2021, vol. 34, no. 6., Registrované v: WOS
  - [1.1] PRIGOZHIN, L. - SOKOLOVSKY, V. Two-Dimensional Model of a High-T-c Superconducting Dynamo. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, APR 2021, vol. 31, no. 3., Registrované v: WOS

5. [1.1] WEN, Z.Z. - ZHANG, H.Y. - MUELLER, M. Sensitivity analysis and machine learning modelling for the output characteristics of rotary HTS flux pumps. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS
- ADCA96 GLASSON, N. - STAINES, M. - ALLPRESS, N. - PANNU, M. - TANCHON, J. - PARDO, Enric - BADCOCK, R. - BUCKLEY, R. Test results and conclusions from a 1 MVA superconducting transformer featuring 2G HTS Roebel cable. In *IEEE Transactions on Applied Superconductivity*, 2017, vol. 27, art. no. 5500205. (2016: 1.583 - IF, Q3 - JCR, 0.398 - SJR, Q2 - SJR, karentované - CCC). (2017 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2639032>
- Citácie:
- [1.1] GOO, J. - HAN, J.W. - LEE, S. - KIM, W.S. - CHOI, K. - LEE, J.K. Magnetization Loss of CORC With Various Configurations of 2G HTS Strands. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
  - [1.1] HAN, J. - CHOI, K. - KIM, W.S. - LEE, J.K. Measurement of magnetization loss according to the winding pitch of CORC (R). In *PROGRESS IN SUPERCONDUCTIVITY AND CRYOGENICS*. ISSN 1229-3008, DEC 2021, vol. 23, no. 4, p. 25-29., Registrované v: WOS
  - [1.1] MACMANUS-DRISCOLL, J.L. - WIMBUSH, S.C. Processing and application of high-temperature superconducting coated conductors. In *NATURE REVIEWS MATERIALS*. ISSN 2058-8437, JUL 2021, vol. 6, no. 7, p. 587-604., Registrované v: WOS
  - [1.1] SCURTI, F. - WEISS, J.D. - VAN DER LAAN, D.C. - SCHWARTZ, J. SMART conductor on round core (CORC(R)) wire via integrated optical fibers. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, MAR 2021, vol. 34, no. 3., Registrované v: WOS
- ADCA97 GLOWACKI, B.A. - MAJOROŠ, Milan - VICKERS, M. - EVETTS, J.E. - SHI, Y. - MCDOUGALL, I. Superconductivity of powder-in-tube MgB<sub>2</sub> wires. In *Superconductor Science and Technology*, 2001, vol. 14, p. 193-199. (2000: 1.250 - IF, karentované - CCC). (2001 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.
- Citácie:
- [1.1] AHMAD, I. - SARUN, P.M. Theoretical study of electrical current transport in various metal sheathed MgB<sub>2</sub> superconducting wires. In *PHYSICA B-CONDENSED MATTER*. ISSN 0921-4526, FEB 15 2021, vol. 603., Registrované v: WOS
  - [1.1] CHOI, S. - PATEL, D. - KIM, J.H. - KUMAKURA, H. - MATSUMOTO, A. - NISHIJIMA, G. - KIM, S.H. - JOO, J. - MAEDA, M. Evaluation and control of residual amorphous phases in carbon-doped MgB<sub>2</sub> superconductors. In *JOURNAL OF ALLOYS AND COMPOUNDS*. ISSN 0925-8388, MAY 25 2021, vol. 864., Registrované v: WOS
  - [1.1] DADIEL, J.L. - NAIK, S.P.K. - PECZKOWSKI, P. - SUGIYAMA, J. - OGINO, H. - SAKAI, N. - KAZUYA, Y. - WARSKI, T. - WOJCIK, A. - OKA, T. - MURAKAMI, M. Synthesis of Dense MgB<sub>2</sub> Superconductor via In Situ and Ex Situ Spark Plasma Sintering Method. In *MATERIALS*. DEC 2021, vol. 14, no. 23., Registrované v: WOS
  - [1.1] FUJII, H. - KATO, T. Improved critical current density property in ex situ processed MgB<sub>2</sub> tapes using filling powders with metallic particle addition. In *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*. ISSN 0921-4534, DEC 15 2021, vol. 591., Registrované v: WOS

5. [1.1] FUJII, H. - KITAGUCHI, H. Superconducting properties of sintered *ex situ* MgB<sub>2</sub> tapes through ball milling process as a function of crystallite size in the as-milled and sintered states. In *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*. ISSN 0921-4534, APR 15 2021, vol. 583., Registrované v: WOS
  6. [1.1] KAMBE, H. - KAWAYAMA, I. - KITAMURA, N. - ICHINOSE, A. - IWANAKA, T. - KUSUNOKI, T. - DOI, T. Increase in the in-field critical current density of MgB<sub>2</sub> thin films by high-temperature post-annealing. In *APPLIED PHYSICS EXPRESS*. ISSN 1882-0778, FEB 1 2021, vol. 14, no. 2., Registrované v: WOS
  7. [1.1] KANG, M.O. - JOO, J. - JUN, B.H. - KIM, C.J. Superconducting properties of MgB<sub>2</sub> superconductors in-situ processed using various boron powder mixtures. In *PROGRESS IN SUPERCONDUCTIVITY AND CRYOGENICS*. ISSN 1229-3008, SEP 2021, vol. 23, no. 3, p. 45-50., Registrované v: WOS
  8. [1.1] KIM, S.H. - PATEL, D. - MAEDA, M. - KIM, M. - LEE, S.H. - CHOI, S. - KIM, J.H. Fundamental insight in the design of multifilament MgB<sub>2</sub> joint for boosting the persistent-mode operation. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS
  9. [1.1] VAZQUEZ, M. - SUAREZ, O.M. - THOMPSON, M. - JANG, H. - GONG, N. - WEISS, D. - RIOS, O. Effect of Ce Content on Properties of Al-Ce-Based Composites by Powder-in-Tube Method. In *JOURNAL OF COMPOSITES SCIENCE*. ISSN 2504-477X, OCT 2021, vol. 5, no. 10., Registrované v: WOS
- ADCA98 GOLDACKER, W. - GRILLI, F. - PARDO, Enric - KARIO, A. - SCHLACHTER, S. - VOJENČIAK, Michal. Roebel cables from REBCO coated conductors: a one-century-old concept for the superconductivity of the future. In *Superconductor Science and Technology*, 2014, vol. 27, art. no. 093001. (2013: 2.796 - IF, Q1 - JCR, 0.873 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/27/9/093001>
- Citácie:
1. [1.1] ASHOK, K.B. - THOMAS, R.J. - PRAKASH, M.J. - NIJHUIS, A. Performance limits in REBCO tape for variation in winding parameters of CORC (R) cable and wire. In *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*. ISSN 0921-4534, MAR 15 2021, vol. 582., Registrované v: WOS
  2. [1.1] CAVALLUCCI, L. - BRESCHI, M. - RIBANI, P.L. - PELEGRIN, J. - ZHANG, Q. - BAILEY, W. - YANG, Y. Quench Propagation at Different Conditions in an HTS Pancake Coil Wound With Roebel Cable. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
  3. [1.1] DA SILVA, F.F. - FERNANDES, J.F.P. - BRANCO, P.J.D. Barriers and Challenges Going from Conventional to Cryogenic Superconducting Propulsion for Hybrid and All-Electric Aircrafts. In *ENERGIES*. NOV 2021, vol. 14, no. 21., Registrované v: WOS
  4. [1.1] DE MARZI, G. - CELENTANO, G. - AUGIERI, A. - MARCHETTI, M. - VANNOZZI, A. Experimental and numerical studies on current distribution in stacks of HTS tapes for cable-in-conduit-conductors. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, MAR 2021, vol. 34, no. 3., Registrované v: WOS
  5. [1.1] DIAZ, M.A. - NISAY, A.R. - SHIN, H.S. - KIM, G.T. - OH, S.S. - HA, H.S. Evaluation of Electromechanical Properties in Multiple HTS Layered Conductors at 77 K. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN



- 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
6. [1.1] GIJOY, S. - ROY, K.E.R. The Importance of Geometrical Parameters on the Mechanical Stability of Roebel Cables. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS
7. [1.1] GOO, J. - HAN, J.W. - LEE, S. - KIM, W.S. - CHOI, K. - LEE, J.K. Magnetization Loss of CORC With Various Configurations of 2G HTS Strands. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
8. [1.1] HAN, J. - CHOI, K. - KIM, W.S. - LEE, J.K. Measurement of magnetization loss according to the winding pitch of CORC (R). In PROGRESS IN SUPERCONDUCTIVITY AND CRYOGENICS. ISSN 1229-3008, DEC 2021, vol. 23, no. 4, p. 25-29., Registrované v: WOS
9. [1.1] HU, R. - YUAN, Y.C. - CHEN, Y.J. - LI, W.R. - YE, H.S. - SHENG, J. - ZHAO, Y. - JIN, Z.J. Numerical Study on Mechanical Properties of Conductors on Round Core Cables. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
10. [1.1] JIANG, Shili - QIAN, Xinxing - DING, Hangwei - CHEN, Wenge - CHEN, Zhiyou - ZOU, Guihong - HUANG, Pengcheng - GUO, Yongchao - JIANG, Donghui - KUANG, Guangli. Optimization Research of Winding Parameters for a Single-Layer CORC Cable. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, 2021, vol. 34, no. 2, pp. 417-423. ISSN 1557-1939. Dostupné na: <https://doi.org/10.1007/s10948-020-05757-y>., Registrované v: WOS
11. [1.1] JIANG, Z.N. - SONG, W.J. - PEI, X.Z. - FANG, J. - BADCOCK, R.A. - WIMBUSH, S.C. 15% reduction in AC loss of a 3-phase 1 MVA HTS transformer by exploiting asymmetric conductor critical current. In JOURNAL OF PHYSICS COMMUNICATIONS. ISSN 2399-6528, FEB 2021, vol. 5, no. 2., Registrované v: WOS
12. [1.1] LI, W.R. - SHENG, J. - ZHENG, J.X. - WU, Y. - GUO, C.J. - LI, Z.Y. - JIN, Z.J. Study on Reducing Magnetization Loss in CORC Cables By Laser Cutting Technology. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2021, vol. 31, no. 4., Registrované v: WOS
13. [1.1] LI, Z.Y. - QIAN, G. - WANG, M.Y. - HONG, Z. - JIN, Z. - RYU, K. Experimental Study on Magnetic Field Dependence of Critical Current for Soldered-Stacked-Square (3S) HTS Wires. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
14. [1.1] LIU, Dong - SONG, Xiaowei - WANG, Xuezhou - ELHINDI, Mohamed - HASANOV, Urfa - YE, Chongqing - GOU, Xiaofan. Short-Circuit Characteristics of Superconducting Permanent Magnet Generators for 10 MW Wind Turbines. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, 2021, vol. 31, no. 5, pp. ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2021.3056996>., Registrované v: WOS
15. [1.1] OBANA, T. - YANAGI, N. Measurements of self-field and voltage for the REBCO stacked tapes assembled in rigid structure (STARS) conductor at 77 K. In CRYOGENICS. ISSN 0011-2275, APR 2021, vol. 115., Registrované v: WOS
16. [1.1] OMANYUDA, Y. - MIURA, S. - IWAKUMA, M. Additional AC Loss Properties of Three-Strand Transposed Parallel Conductors Composed of REBa<sub>2</sub>Cu<sub>3</sub>O<sub>y</sub> Tapes. In IEEE TRANSACTIONS ON APPLIED

- SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*
17. [1.1] SCURTI, F. - WEISS, J.D. - VAN DER LAAN, D.C. - SCHWARTZ, J. SMART conductor on round core (CORC(R)) wire via integrated optical fibers. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAR 2021, vol. 34, no. 3., Registrované v: WOS*
18. [1.1] SHEN, B.Y. - CHEN, X.Y. - FU, L. - JIANG, S. - GOU, H.Y. - SHENG, J. - HUANG, Z. - WANG, W. - ZHAI, Y.J. - YUAN, Y.P. - GAO, S. - WANG, S. - LI, C.Y. - CHEN, W. - MU, S. - ZHOU, Q. - SONG, W.J. - PEI, X.Z. - OZTURK, Y. - GAWITH, J. - LIU, Y. - PATEL, I. - TIAN, M.Y. - YANG, J.B. - COOMBS, T. Superconducting Conductor on Round Core (CORC) Cables: 2D or 3D Modeling?. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS*
19. [1.1] TSUCHIYA, K. - WANG, X.D. - FUJITA, S. - ICHINOSE, A. - YAMADA, K. - TERASHIMA, A. - KIKUCHI, A. Superconducting properties of commercial REBCO-coated conductors with artificial pinning centers. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS*
20. [1.1] WANG, F. - FU, W. - HUANG, J.J. Industrial pulsed laser deposition for ultra-fast growth of high-temperature superconducting thin films with nanostructured pinning centers. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, AUG 2021, vol. 34, no. 8., Registrované v: WOS*
21. [1.1] WANG, X.R. - ABRAIMOV, D. - ARBELAEZ, D. - BOGDANOF, T.J. - BROUWER, L. - CASPI, S. - DIETDERICH, D.R. - DIMARCO, J. - FRANCIS, A. - FAJARDO, L.G. - GHIORSO, W.B. - GOURLAY, S.A. - HIGLEY, H.C. - MARCHEVSKY, M. - MARUSZEWSKI, M.A. - MYERS, C.S. - PRESTEMON, S.O. - SHEN, T.M. - TAYLOR, J. - TEYBER, R. - TURQUETI, M. - VAN DER LAAN, D. - WEISS, J.D. Development and performance of a 2.9 Tesla dipole magnet using high-temperature superconducting CORC(R) wires. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JAN 2021, vol. 34, no. 1., Registrované v: WOS*
22. [1.1] WULFF, A.C. - ABRAHAMSEN, A.B. - INSINGA, A.R. Multifilamentary coated conductors for ultra-high magnetic field applications. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS*
23. [1.1] XIAO, G.Y. - ZHOU, C. - QIN, J.G. - JIN, H. - GAO, P. - LIU, H.J. - LIU, F. Experimental study on critical current of bent ReBCO tapes in CORC type cable. In *FUSION ENGINEERING AND DESIGN. ISSN 0920-3796, NOV 2021, vol. 172., Registrované v: WOS*
24. [1.1] XIAO, G.Y. - ZHOU, C. - QIN, J.G. - JIN, H. - XU, P. - LIU, H.H. Experimental Study On the Critical Current of CORC Cable Under Cyclic Bending-straightening. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS*
25. [1.1] YANG, J.B. - TIAN, M.Y. - MA, J. - OZTURK, Y. - LI, C. - HU, J.T. - GAWITH, J. - SHAH, A. - PATEL, I. - WEI, H.G.N. - HAO, L.N. - SHEN, B.Y. - COOMBS, T. Numerical Study on AC Loss Characteristics of Conductor on Round Core Cables Under Transport Current and Magnetic Field. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS*
26. [1.1] YE, H.S. - LI, W.R. - SHEN, B.Y. - HU, R. - JIN, Z.J. - SHENG, J.

*Numerical Study on Effect of Current Injection Methods on Terminal Resistance of Superconducting Compact Cables. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5.,*

*Registrované v: WOS*

27. [1.1] YOU, S.R. - KALSI, S.S. - AINSLIE, M.D. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. Simulation of AC Loss in the Armature Windings of a 100 kW All-HTS Motor With Various (RE)BCO Conductor Considerations. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 130968-130980., *Registrované v: WOS*

28. [1.2] MARCHEVSKY, Maxim. Quench detection and protection for high-temperature superconductor accelerator magnets. In Instruments, 2021-09-01, 5, 3, pp. *Dostupné na: <https://doi.org/10.3390/INSTRUMENTS5030027>., Registrované v: SCOPUS*

29. [1.2] ROSSI, Lucio - SENATORE, Carmine. Hts accelerator magnet and conductor development in europe. In Instruments, 2021-01-01, 5, 1, pp. *Dostupné na: <https://doi.org/10.3390/instruments5010008>., Registrované v: SCOPUS*

ADCA99

GÖMÖRY, Fedor - ŠOUC, Ján - PARDO, Enric - SEILER, Eugen - SOLOVYOV, Mykola - FROLEK, Lubomír - SKARBA, M. - KONOPKA, P. - PEKARČÍKOVÁ, M. - JANOVEC, J. AC loss in pancake coil made from 12 mm wide ReBCO tape. In IEEE Transactions on Applied Superconductivity, 2013, vol. 23, 5900406. (2012: 1.199 - IF, Q2 - JCR, 0.575 - SJR, karentované - CCC). (2013 - Current Contents, SCOPUS). ISSN 1051-8223. *Dostupné na: <https://doi.org/10.1109/TASC.2013.2238986>*

*Citácie:*

1. [1.1] DE OLIVEIRA, R.A.H. - MURTA-PINA, J. - RIVERA, M.B. - ALVAREZ, A. - VALTCHEV, S. - PRONTO, A.G. - SUAREZ, P. Effects of Noncharacteristic Harmonics on AC Losses of High-Temperature Superconducting Coils. In IEEE TRANSACTIONS ON POWER ELECTRONICS. ISSN 0885-8993, DEC 2021, vol. 36, no. 12, p. 13697-13705., *Registrované v: WOS*

2. [1.1] INANIR, F. - TERZIOGLU, R. AC Loss Evaluation of a Superconducting Pancake Coil with Coated Conductors using an Extended A-V Formulation. In PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, AUG 15 2021, vol. 587., *Registrované v: WOS*

3. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., *Registrované v: WOS*

ADCA100

GÖMÖRY, Fedor - INANIR, F. AC losses in coil wound from round wire coated by a superconducting layer. In IEEE Transactions on Applied Superconductivity, 2012, vol. 22, no. 4704704. (2011: 1.041 - IF, Q2 - JCR, 0.368 - SJR, Q2 - SJR, karentované - CCC). (2012 - Current Contents, SCOPUS). ISSN 1051-8223. *Dostupné na: <https://doi.org/10.1109/TASC.2011.2174579>*

*Citácie:*

1. [1.1] XU, A.H. - WU, K.H. - SHI, Y. - WU, Y. - YU, X.P. - DAI, C. - HAO, Q.W. - HAN, H.X. - JIN, H. - ZHANG, Y.L. - WU, J.R. - HU, L.B. Electromagnetic and Mechanical Analysis of DC Magnet for Super X Test Facility. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., *Registrované v: WOS*

2. [1.1] ZHANG, K. - AINSLIE, M. - CALVI, M. - KINJO, R. - SCHMIDT, T. Fully-staggered-array bulk Re-Ba-Cu-O short-period undulator: large-scale 3D electromagnetic modelling and design optimization using A-V and H-formulation methods. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, SEP 2021, vol. 34, no. 9., *Registrované v: WOS*

- ADCA101 GÖMÖRY, Fedor - VOJENČIAK, Michal - PARDO, Enric - SOLOVYOV, Mykola - ŠOUC, Ján. AC losses in coated conductors. In Superconductor Science and Technology, 2010, vol. 23, 034012. (2009: 2.694 - IF, 1.256 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1109/TASC.2005.848234>  
Citácie:  
1. [1.1] GRILLI, F. - ABRAHAM, S. - BRAMBILLA, R. AC loss calculation in high-temperature superconductor wires and windings with analytical and numerical models: influence of  $J(c)(B)$  dependence. In 33RD INTERNATIONAL SYMPOSIUM ON SUPERCONDUCTIVITY (ISS2020). ISSN 1742-6588, 2021, vol. 1975., Registrované v: WOS  
2. [1.1] MUSSO, A. - BRESCHI, M. - RIBANI, P.L. - GRILLI, F. Analysis of AC Loss Contributions From Different Layers of HTS Tapes Using the A-V Formulation Model. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, MAR 2021, vol. 31, no. 2., Registrované v: WOS  
3. [1.1] WANG, R.C. - MA, G.T. - ZHOU, P.B. - GONG, T.Y. - LI, S.L. Thermo-electromagnetic modeling of coated superconductor coils with metal insulation. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, NOV 2021, vol. 34, no. 11., Registrované v: WOS  
4. [1.1] WANG, R.C. - WANG, C. - DENG, Y.K. - GONG, T.Y. - LI, J. - ZHOU, P.B. - LIU, K. - ZHAO, Z.W. - CUI, H.B. - DENG, X. - MA, G.T. The Underlying Mechanism of Faster Current Attenuation of HTS Magnet in Persistent Current Mode Subject to the Traveling Magnetic Fields. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, JAN 2021, vol. 34, no. 1, p. 27-36., Registrované v: WOS  
5. [1.1] WANG, X.L. - SHENG, J. - ZHONG, Z.Y. - WU, W. - LI, X.F. - JIN, Z.J. - HONG, Z.Y. Magnetization loss of no-insulation coil for an electrodynamic suspension system. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUN 2021, vol. 34, no. 6., Registrované v: WOS  
6. [1.1] WENG, F.J. - ZHANG, M. - ELWAKEEL, A. - LAN, T. - MCNEILL, N. - YUAN, W.J. Transient Test and AC Loss Study of a Cryogenic Propulsion Unit for All Electric Aircraft. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 59628-59636., Registrované v: WOS
- ADCA102 GÖMÖRY, Fedor - PARDO, Enric - VOJENČIAK, Michal - ŠOUC, Ján. Magnetic flux penetration and transport AC loss in superconductor coated conductor on ferromagnetic substrate. In IEEE Transactions on Applied Superconductivity, 2009, vol. 19, p. 3102-3105. (2008: 0.919 - IF, Q3 - JCR, 0.884 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, SCOPUS).  
Citácie:
1. [1.1] HUANG, C.G. - SONG, Z.Y. - ZHANG, T.Y. - XU, B. Electro-thermal-mechanical modeling of quench and stress evolution triggered by various factors in high-temperature superconducting coils. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, JUN 7 2021, vol. 129, no. 21., Registrované v: WOS
- ADCA103 GÖMÖRY, Fedor. Improvement of the self-field critical current of a high-Tc superconducting tape by the edge cover from soft ferromagnetic material. In Applied Physics Letters, 2006, vol. 89, 072506. (2005: 4.127 - IF, Q1 - JCR, 3.755 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, SCOPUS). ISSN 0003-6951.  
Citácie:
1. [1.1] MACHURA, P. - LI, Q. AC Loss Reduction Through Flux Diverters for Superconducting Wireless Charging Coils at High Frequencies. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, APR



- 2021, vol. 31, no. 3., Registrované v: WOS
2. [1.1] SEO, K. - COOMBS, T. - PARK, I. Continuum sensitivity and design optimization of superconducting systems under critical current densities with magnetic field dependence. In *STRUCTURAL AND MULTIDISCIPLINARY OPTIMIZATION*. ISSN 1615-147X, DEC 2021, vol. 64, no. 6, p. 3937-3950., Registrované v: WOS
3. [1.1] YANG, H. - AHN, M. A design of multi-width HTS magnets considering both wire consumption and field homogeneity. In *PROGRESS IN SUPERCONDUCTIVITY AND CRYOGENICS*. ISSN 1229-3008, JUN 2021, vol. 23, no. 2, p. 24-27., Registrované v: WOS
- ADCA104 GÖMÖRY, Fedor - VOJENČIAK, Michal - PARDO, Enric - ŠOUC, Ján. Magnetic flux penetration and AC loss in a composite superconducting wire with ferromagnetic parts. In *Superconductor Science and Technology*, 2009, vol. 22, 034017. (2008: 1.847 - IF, Q2 - JCR, 1.867 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.
- Citácie:
1. [1.1] PI, W. - MA, Y.T. - TIAN, B.Y. - MENG, Y.R. - SHI, Q.M. - DONG, J. - WANG, Y.S. Current transfer length in individual superconducting tape and quasi-isotropic superconducting strand. In *FUSION ENGINEERING AND DESIGN*. ISSN 0920-3796, DEC 2021, vol. 173., Registrované v: WOS
2. [1.1] WANG, L. - CHEN, Y. Hysteresis loss calculations of 2D and 3D large-scale HTS coil models: from multi-scale method to multi-dimension method. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS
3. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In *ENERGIES*. APR 2021, vol. 14, no. 8., Registrované v: WOS
- ADCA105 GÖMÖRY, Fedor - ŠOUC, Ján - VOJENČIAK, Michal. AC transport loss of coated conductors in anti-parallel arrangement. In *IEEE Transactions on Applied Superconductivity*, 2011, vol. 21, p. 3307-3310. (2010: 1.035 - IF, Q2 - JCR, 0.473 - SJR, Q2 - SJR, karentované - CCC). (2011 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2010.2093864>
- Citácie:
1. [1.1] SONG, W.J. - PEI, X.Z. - ALAFNAN, H. - XI, J.W. - ZENG, X.W. - YAZDANI-ASRAMI, M. - XIANG, B. - LIU, Z.Y. Experimental and Simulation Study of Resistive Helical HTS Fault Current Limiters: Quench and Recovery Characteristics. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
- ADCA106 GÖMÖRY, Fedor - SOLOVYOV, Mykola - ŠOUC, Ján - NAVAU, C. - CAMPS, J.P. - SANCHEZ, A. Experimental realization of a magnetic cloak. In *Science*, 2012, vol. 335, p. 1466-1468. (2011: 31.201 - IF, Q1 - JCR, 14.238 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0036-8075. Dostupné na: <https://doi.org/10.1126/science.1218316>
- Citácie:
1. [1.1] ALEKSEEV, G. - TERESHKO, D. A. - SHESTOPALOV, Yu. Optimization approach for axisymmetric electric field cloaking and shielding. In *INVERSE PROBLEMS IN SCIENCE AND ENGINEERING*, 2021, vol. 29, no. 1, pp. 40-55. ISSN 1741-5977. Dostupné na: <https://doi.org/10.1080/17415977.2020.1772780>., Registrované v: WOS
2. [1.1] ALEKSEEV, G.V. - SPIVAK, Y.E. Optimization-Based Numerical

- Analysis of Three-Dimensional Magnetic Cloaking Problems. In COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS. ISSN 0965-5425, FEB 2021, vol. 61, no. 2, p. 212-225., Registrované v: WOS*
3. [1.1] BAQIR, M.A. - CHOUDHURY, P.K. - AKHTAR, M.N. Zn fractal-graphene-based metamaterial absorber in the visible and near-IR regimes. In OPTIK. ISSN 0030-4026, JUL 2021, vol. 237., Registrované v: WOS
4. [1.1] BORTOT, L. - MENTINK, M. - PETRONE, C. - VAN NUGTEREN, J. - DEFERNE, G. - KOETTIG, T. - KIRBY, G. - PENTELLA, M. - PEREZ, J.C. - PINCOT, F.O. - DE RIJK, G. - RUSSENSCHUCK, S. - VERWEIJ, A.P. - SCHOPS, S. High-temperature superconducting screens for magnetic field-error cancellation in accelerator magnets. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS
5. [1.1] CHEN, T.H. - GONG, P.Y. - SONG, R.Y. - ZHU, R.R. - JING, L.Q. - CAI, T. - ZHENG, B. Three-dimensional direct current invisibility cloak produced with bulk materials. In OPTICS EXPRESS. ISSN 1094-4087, DEC 20 2021, vol. 29, no. 26, p. 42580-42588., Registrované v: WOS
6. [1.1] CHOUDHURY, P. K. - ABOU EL-NASR, M. Waves in resonant metasurfaces. In JOURNAL OF ELECTROMAGNETIC WAVES AND APPLICATIONS, 2020, vol. 34, no. 10, pp. 1309-1313. ISSN 0920-5071. Dostupné na: <https://doi.org/10.1080/09205071.2020.1790141>., Registrované v: WOS
7. [1.1] FAREED, M.U. - RUIZ, H.S. Critical State Theory for the Magnetic Coupling between Soft Ferromagnetic Materials and Type-II Superconductors. In MATERIALS. OCT 2021, vol. 14, no. 20., Registrované v: WOS
8. [1.1] GARCIA-GORDILLO, A.S. - ALTSHULER, E. Design of a magnetically driven current cloak. In JOURNAL OF PHYSICS D-APPLIED PHYSICS. ISSN 0022-3727, AUG 12 2021, vol. 54, no. 32., Registrované v: WOS
9. [1.1] JI, L.Z. - ZHAO, R.Z. - HU, C.L. - CHEN, W.C. - LI, Y.X. - REN, K. - CHEN, Y.M. - ZHANG, X.F. Logical devices based on the antiferromagnetic-antimeron in a ferromagnet nanodot with gain. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, APR 26 2021, vol. 118, no. 17., Registrované v: WOS
10. [1.1] LI, X.C. - WANG, J. - ZHANG, J.H. Equivalence between positive and negative refractive index materials in electrostatic cloaks. In SCIENTIFIC REPORTS. ISSN 2045-2322, OCT 14 2021, vol. 11, no. 1., Registrované v: WOS
11. [1.1] LI, Y. - LI, W. - HAN, T.C. - ZHENG, X. - LI, J.X. - LI, B.W. - FAN, S.H. - QIU, C.W. Transforming heat transfer with thermal metamaterials and devices. In NATURE REVIEWS MATERIALS. ISSN 2058-8437, JUN 2021, vol. 6, no. 6, p. 488-507., Registrované v: WOS
12. [1.1] LIU, Z.C. - LI, X.B. - CUI, X. The cloaking method in non-uniform static fields of cylindrical and spherical invisibility cloaks. In JOURNAL OF PHYSICS D-APPLIED PHYSICS. ISSN 0022-3727, APR 8 2021, vol. 54, no. 14., Registrované v: WOS
13. [1.1] MENDES, D. - SOUSA, D. - CERDEIRA, A.C. - PEREIRA, L.C.J. - MARQUES, A. - MURTA-PINA, J. - PRONTO, A. - FERREIRA, I. Low-cost and high-performance 3D printed YBCO superconductors. In CERAMICS INTERNATIONAL. ISSN 0272-8842, JAN 1 2021, vol. 47, no. 1, p. 381-387., Registrované v: WOS
14. [1.1] NIEMEYER, A. - SCHROFF, P. - CHOI, W. - CHO, J. - NABER, A. - CHOI, W. - WEGENER, M. Interferometric experiments on the transmission matrix of diffusive neutral inclusions. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, SEP 1 2021, vol. 38, no.

9, p. C42-C49., Registrované v: WOS

15. [1.1] PAPADIMOPOULOS, A.N. - DUSPAYEV, A. - TSITSAS, N.L. - KANTARTZIS, N.V. - VALAGIANNOPOULOS, C. Wavefront engineering with optimally loaded absorbing metamirrors. In PHYSICAL REVIEW B. ISSN 2469-9950, APR 27 2021, vol. 103, no. 16., Registrované v: WOS

16. [1.1] PARK, J. - YOUN, J.R. - SONG, Y.S. Metamaterial hydrodynamic flow concentrator. In EXTREME MECHANICS LETTERS. ISSN 2352-4316, JAN 2021, vol. 42., Registrované v: WOS

17. [1.1] QU, T. - WANG, J. - HUANG, J.P. Manipulating thermoelectric fields with bilayer schemes beyond Laplacian metamaterials. In EPL. ISSN 0295-5075, SEP 2021, vol. 135, no. 5., Registrované v: WOS

18. [1.1] STECKIEWICZ, A. High-frequency cylindrical magnetic cloaks with thin layer structure. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. ISSN 0304-8853, SEP 15 2021, vol. 534., Registrované v: WOS

19. [1.1] WANG, B. - SHIH, T.M. - HUANG, J.P. Transformation heat transfer and thermo-hydrodynamic cloaks for creeping flows: Manipulating heat fluxes and fluid flows simultaneously. In APPLIED THERMAL ENGINEERING. ISSN 1359-4311, MAY 25 2021, vol. 190., Registrované v: WOS

20. [1.1] WANG, B. - SHIH, T.M. - XU, L.J. - DAI, G.L. - HUANG, J.P. Intangible Hydrodynamic Cloaks for Convective Flows. In PHYSICAL REVIEW APPLIED. ISSN 2331-7019, MAR 4 2021, vol. 15, no. 3., Registrované v: WOS

21. [1.1] XU, L. - CHEN, H.Y. Transformation Metamaterials. In ADVANCED MATERIALS. ISSN 0935-9648, DEC 2021, vol. 33, no. 52., Registrované v: WOS

22. [1.1] YANG, S. - WANG, J. - DAI, G.L. - YANG, F.B. - HUANG, J.P. Controlling macroscopic heat transfer with thermal metamaterials: Theory, experiment and application. In PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS. ISSN 0370-1573, MAY 5 2021, vol. 908, p. 1-65., Registrované v: WOS

23. [1.1] YUE, X.L. - NANGONG, J.Y. - CHEN, P.Y. - HAN, T.C. Thermal Cloak: Theory, Experiment and Application. In MATERIALS. DEC 2021, vol. 14, no. 24., Registrované v: WOS

24. [1.1] ZHAN, J.J. - LI, K. - ZHOU, Y. - LIU, X.X. - MA, Y.G. Ultrathin Conformal Magnetic Invisible Cloak for Irregular Objects. In ACS APPLIED MATERIALS & INTERFACES. ISSN 1944-8244, APR 14 2021, vol. 13, no. 14, p. 17104-17109., Registrované v: WOS

25. [1.1] ZHOU, X. - XU, G.Q. - ZHANG, H.Y. Binary masses manipulation with composite bilayer metamaterial. In COMPOSITE STRUCTURES. ISSN 0263-8223, JUL 1 2021, vol. 267., Registrované v: WOS

ADCA107 GÖMÖRY, Fedor - ŠOUC, Ján - VOJENČIAK, Michal - KLINČOK, Boris. Phenomenological description of flux pinning in non-uniform high-temperature superconductors in magnetic fields lower than self-field. In Superconductor Science and Technology, 2007, vol. 20, p. S271-S277. (2006: 1.440 - IF, Q2 - JCR, 1.403 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] INANIR, F. - TERZIOGLU, R. AC Loss Evaluation of a Superconducting Pancake Coil with Coated Conductors using an Extended A-V Formulation. In PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, AUG 15 2021, vol. 587., Registrované v: WOS

2. [1.2] GURYEV, V. V. - SHAVKIN, S. V. - KRUGLOV, V. S. Method for critical current angular dependencies analysis of superconducting tapes. In Journal of Physics: Conference Series, 2021-12-14, 2103, 1, pp. ISSN 17426588. Dostupné

- ADCA108 *na: <https://doi.org/10.1088/1742-6596/2103/1/012096>, Registrované v: SCOPUS*  
GÖMÖRY, Fedor - KLINČOK, Boris. Self-field critical current of a conductor with an elliptical cross-section. In *Superconductor Science and Technology*, 2006, vol. 19, p. 732-737. (2005: 1.896 - IF, Q1 - JCR, 1.409 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.  
 Citácie:  
 1. [1.1] GRILLI, F. - ABRAHAM, S. - BRAMBILLA, R. AC loss calculation in high-temperature superconductor wires and windings with analytical and numerical models: influence of  $J(c)(B)$  dependence. In *33RD INTERNATIONAL SYMPOSIUM ON SUPERCONDUCTIVITY (ISS2020)*. ISSN 1742-6588, 2021, vol. 1975., Registrované v: WOS  
 2. [1.1] TALANTSEV, E.F. - MATAIRA, R.C. Cooper pair trajectories in superconducting slab at self-field conditions. In *MODERN PHYSICS LETTERS B*. ISSN 0217-9849, MAY 10 2021, vol. 35, no. 13., Registrované v: WOS  
 3. [1.2] RIVA, Nicolò - GRILLI, Francesco - DUTOIT, Bertrand. AURORA: A public applications server to introduce students to superconductivity. In *Journal of Physics: Conference Series*, 2021-10-12, 2043, 1, pp. ISSN 17426588.  
*Dostupné na: <https://doi.org/10.1088/1742-6596/2043/1/012005>, Registrované v: SCOPUS*
- ADCA109 GÖMÖRY, Fedor. Characterization of high-temperature superconductors by AC susceptibility measurement : Topical Review. In *Superconductor Science and Technology*, 1997, vol. 10, p. 523-542. (1996: 1.447 - IF, karentované - CCC). (1997 - Current Contents, SCOPUS). ISSN 0953-2048.  
 Citácie:  
 1. [1.1] ALGARNI, R. - SLIMANI, Y. - HANNACHI, E. - ALMESSIERE, M.A. - ALQAHTANI, B.H. - AKHTAR, S. - BEN AZZOUZ, F. Intergrain connectivity in  $YBa_2Cu_3O_{7-\delta}$  superconductor added with  $Dy_2O_3$  nanoparticles: AC susceptibility investigation. In *CURRENT APPLIED PHYSICS*. ISSN 1567-1739, JUL 2021, vol. 27, p. 89-97., Registrované v: WOS  
 2. [1.1] CAFFER, A.M. - CHAVES, D.A.D. - PESSOA, A.L. - CARVALHO, C.L. - ORTIZ, W.A. - ZADOROSNY, R. - MOTTA, M. Optimum heat treatment to enhance the weak-link response of  $Y_{123}$  nanowires prepared by Solution Blow Spinning. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, FEB 2021, vol. 34, no. 2., Registrované v: WOS  
 3. [1.1] DAHAN, Y. - HOLDENGREBER, E. - GLASSNER, E. - SORKIN, O. - SCHACHAM, S.E. - FARBER, E. Measurement of Electrical Properties of Superconducting YBCO Thin Films in the VHF Range. In *MATERIALS*. JUN 2021, vol. 14, no. 12., Registrované v: WOS  
 4. [1.1] LEE, K.V. - MUHAMMAD-NAJIB, K. - ABD-SHUKOR, R. Influence of copper(II) sulfide addition on AC susceptibility and electrical properties of  $YBa_2Cu_3O_7$  superconductor. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, DEC 2021, vol. 127, no. 12., Registrované v: WOS  
 5. [1.1] LEE, M.K. - CHARNAYA, E.V. - MUHLBAUER, S. - JENG, U. - CHANG, L.J. - KUMZEROV, Y.A. The morphologic correlation between vortex transformation and upper critical field line in opal-based nanocomposites. In *SCIENTIFIC REPORTS*. ISSN 2045-2322, FEB 26 2021, vol. 11, no. 1., Registrované v: WOS  
 6. [1.1] PAULSEN, C. - KNEBEL, G. - LAPERTOT, G. - BRAITHWAITE, D. - POURRET, A. - AOKI, D. - HARDY, F. - FLOUQUET, J. - BRISON, J.P. Anomalous anisotropy of the lower critical field and Meissner effect in  $UTe_2$ . In *PHYSICAL REVIEW B*. ISSN 2469-9950, MAY 5 2021, vol. 103, no. 18.,



*Registrované v: WOS*

7. [1.1] PECZKOWSKI, P. - ZACHARIASZ, P. - KOWALIK, M. - TOKARZ, W. - NAIK, S.P.K. - ZUKROWSKI, J. - JASTRZEBSKI, C. - DADIEL, L.J. - TABIS, W. - GONDEK, L. Iron diffusivity into superconducting YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>-delta at oxygen-assisted sintering: structural, magnetic, and transport properties. In JOURNAL OF THE EUROPEAN CERAMIC SOCIETY. ISSN 0955-2219, NOV 2021, vol. 41, no. 14, p. 7085-7097., *Registrované v: WOS*

8. [1.1] PIGALSKIY, K.S. Vibrational motion of a vortex lattice induced near the surface of a type-II superconductor by an external low-frequency ac magnetic field. In PHYSICAL REVIEW B. ISSN 2469-9950, FEB 22 2021, vol. 103, no. 6., *Registrované v: WOS*

9. [1.1] VALERIO-CUADROS, M.I. - CHAVES, D.A.D. - COLAUTO, F. - DE OLIVEIRA, A.A.M. - DE ANDRADE, A.M.H. - JOHANSEN, T.H. - ORTIZ, W.A. - MOTTA, M. Superconducting Properties and Electron Scattering Mechanisms in a Nb Film with a Single Weak-Link Excavated by Focused Ion Beam. In MATERIALS. DEC 2021, vol. 14, no. 23., *Registrované v: WOS*

10. [1.1] ZHANG, D.T. - LE, T. - LV, B.J. - YIN, L.C. - CHEN, C.F. - NIE, Z.Y. - SU, D.J. - YUAN, H.Q. - XU, Z.A. - LU, X. Full superconducting gap and type-I to type-II superconductivity transition in single crystalline NbGe<sub>2</sub>. In PHYSICAL REVIEW B. ISSN 2469-9950, JUN 11 2021, vol. 103, no. 21., *Registrované v: WOS*

11. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., *Registrované v: WOS*

12. [1.1] ZHANG, X. - CHATZIDROSOS, G. - HU, Y.A. - ZHENG, H.J. - WICKENBROCK, A. - JERSCHOW, A. - BUDKER, D. Battery Characterization via Eddy-Current Imaging with Nitrogen-Vacancy Centers in Diamond. In APPLIED SCIENCES-BASEL. APR 2021, vol. 11, no. 7., *Registrované v: WOS*

ADCA110 GÖMÖRY, Fedor - LOBOTKA, Peter. Determination of shielding current density in bulk cylindrical samples of high T<sub>c</sub> superconductors from AC susceptibility measurement. In Solid State Communications, 1988, vol. 66, p. 645-649.

*Citácie:*

1. [1.1] KHENE, S. Overview of critical currents and vortex trapping phenomena in massive and nanometric high-T-C superconductors. In JOURNAL OF NANOPARTICLE RESEARCH. ISSN 1388-0764, NOV 2021, vol. 23, no. 11., *Registrované v: WOS*

2. [1.1] ROY, S. - GHOSH, A.K. Pinning mediated field penetration and complex susceptibility in inhomogeneous superconductors. In PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, JAN 15 2021, vol. 580., *Registrované v: WOS*

ADCA111 GÖMÖRY, Fedor - SOLOVYOV, Mykola - ŠOUC, Ján. Magnetization loop modelling for superconducting/ferromagnetic tube of an ac magnetic cloak. In Superconductor Science and Technology, 2015, vol. 28, no. 044001. (2014: 2.325 - IF, Q2 - JCR, 1.196 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/28/4/044001>

*Citácie:*

1. [1.1] FAREED, M.U. - RUIZ, H.S. Critical State Theory for the Magnetic Coupling between Soft Ferromagnetic Materials and Type-II Superconductors. In MATERIALS. OCT 2021, vol. 14, no. 20., *Registrované v: WOS*

ADCA112 GÖMÖRY, Fedor - SHENG, J.. Two methods of AC loss calculation in numerical

modelling of superconducting coils. In *Superconductor Science and Technology*, 2017, vol. 30, no. 064005. (2016: 2.878 - IF, Q2 - JCR, 0.967 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/aa66af>

Citácie:

1. [1.1] INANIR, F. - TERZIOGLU, R. AC Loss Evaluation of a Superconducting Pancake Coil with Coated Conductors using an Extended A-V Formulation. In *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*. ISSN 0921-4534, AUG 15 2021, vol. 587., Registrované v: WOS
2. [1.1] XU, A.H. - WU, K.H. - SHI, Y. - WU, Y. - YU, X.P. - DAI, C. - HAO, Q.W. - HAN, H.X. - JIN, H. - ZHANG, Y.L. - WU, J.R. - HU, L.B. Electromagnetic and Mechanical Analysis of DC Magnet for Super X Test Facility. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS
3. [1.1] YAZDANI-ASRAMI, M. - GHOLAMIAN, S.A. - MIRIMANI, S.M. - ADABI, J. Influence of field-dependent critical current on harmonic AC loss analysis in HTS coils for superconducting transformers supplying non-linear loads. In *CRYOGENICS*. ISSN 0011-2275, JAN 2021, vol. 113., Registrované v: WOS
4. [1.1] YAZDANI-ASRAMI, M. - SONG, W.J. - ZHANG, M. - YUAN, W.J. - PEI, X.Z. AC Transport Loss in Superconductors Carrying Harmonic Current With Different Phase Angles for Large-Scale Power Components. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS
5. [1.1] ZHANG, Y.F. - SU, T. - GUO, Q. - HE, J.F. - GAO, W.T. - CHEN, T.T. - WU, Z.H. - ZHOU, Q.X. Dependence of AC Transport Loss of HTS-Coated Conductor on Current Parameters in the Frequency Range under 1MHz. In *JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM*. ISSN 1557-1939, SEP 2021, vol. 34, no. 9, p. 2271-2280., Registrované v: WOS

ADCA113 GÖMÖRY, Fedor\*\* - ŠOUC, Ján. Stability of DC transport in HTS conductor with local critical current reduction. In *Superconductor Science and Technology*, 2021, vol. 34, no. 025005. (2020: 3.219 - IF, Q2 - JCR, 1.033 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/abc73e>

Citácie:

1. [1.1] CUNINKOVA, E. - PEKARCIKOVA, M. - SKARBA, M. - KRAJCOVIC, J. - PASAK, M. Experimental and Numerical Analysis of High-Temperature Superconducting Tapes Modified by Composite Thermal Stabilization Subjected to Thermomechanical Loading. In *MATERIALS*. JUL 2021, vol. 14, no. 13., Registrované v: WOS
2. [1.1] YANG, Z.L. - XU, Y. - FENG, T.Y. - DING, X. - LI, X.H. - ZOU, X.Y. - LONG, J.J. - REN, L. - SHI, J. - LI, J.D. - TANG, Y.J. Research on DC overcurrent characteristics and life prediction of YBCO tapes. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS
3. [1.1] ZAMPA, A. - TIXADOR, P. - BADEL, A. Effect of the Conductor Length on the Hot-Spot Regime for Resistive-Type Superconducting Fault Current Limiter Applications. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, SEP 2021, vol. 31, no. 6., Registrované v: WOS
4. [1.1] ZAMPA, A. - TIXADOR, P. - BADEL, A. Experimental Observations of the Hot-Spot Regime On 2G HTS Coated Conductors. In *IEEE TRANSACTIONS*

*ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*

- ADCA114 GÖMÖRY, Fedor - ŠOUC, Ján - VOJENČIAK, Michal - TERZIOGLU, R. - FROLEK, Lubomír. Design and testing of coils wound using the Conductor-On-Round-Tube (CORT) cable. In IEEE Transactions on Applied Superconductivity, 2017, vol. 27, no. 4600305. (2016: 1.583 - IF, Q3 - JCR, 0.398 - SJR, Q2 - SJR, karentované - CCC). (2017 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2631340>

Citácie:

1. [1.1] DE MARZI, G. - CELENTANO, G. - AUGIERI, A. - MARCHETTI, M. - VANNOZZI, A. Experimental and numerical studies on current distribution in stacks of HTS tapes for cable-in-conduit-conductors. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAR 2021, vol. 34, no. 3., Registrované v: WOS
2. [1.1] LI, S. - KOVAC, J. - PARDO, E. Dependence of Resistance and Number of Tapes on the Coupling AC Loss of Soldered REBCO Stacks. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
3. [1.1] WULFF, A.C. - ABRAHAMSEN, A.B. - INSINGA, A.R. Multifilamentary coated conductors for ultra-high magnetic field applications. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS

- ADCA115 GÖMÖRY, Fedor\*\* - ŠOUC, Ján - ADÁMEK, Miroslav - GHABELI, Asef - SOLOVYOV, Mykola - VOJENČIAK, Michal. Impact of critical current fluctuations on the performance of a coated conductor tape. In Superconductor Science and Technology, 2019, vol. 32, no. 124001. (2018: 2.489 - IF, Q2 - JCR, 0.879 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab4638> (APVV 16-0418. VEGA 1/0151/17)

Citácie:

1. [1.1] CASTANEDA, N. - MAJKIC, G. - ROBLES, F.C. Scanning Raman spectroscopy for inline characterization of 2G-HTS conductors. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAR 2021, vol. 34, no. 3., Registrované v: WOS
2. [1.1] JI, Y.T. - SUO, H.L. - ZHANG, Z.L. - MA, L. - LI, J.Z. - ZHANG, C.X. - WU, X.Y. - KAUSAR, S. - CUI, J. - LIU, M. - WANG, Y. - WANG, Q.L. Strong Cube Texture Formation in Heavily Cold-Rolled Ni8W/Ni12W/Ni8W Composite Alloy Substrates Used in YBCO Coated Conductors. In METALS AND MATERIALS INTERNATIONAL. ISSN 1598-9623, MAY 2021, vol. 27, no. 5, p. 1337-1345., Registrované v: WOS
3. [1.1] JIANG, Z.N. - SONG, W.J. - PEI, X.Z. - FANG, J. - BADCOCK, R.A. - WIMBUSH, S.C. 15% reduction in AC loss of a 3-phase 1 MVA HTS transformer by exploiting asymmetric conductor critical current. In JOURNAL OF PHYSICS COMMUNICATIONS. ISSN 2399-6528, FEB 2021, vol. 5, no. 2., Registrované v: WOS
4. [1.1] NIELSEN, S. - TAYLOR, R. Prediction of Critical Currents in Superconducting Windings Using Wire Data and Field Modeling. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
5. [1.1] XU, Y. - YANG, Z.L. - FENG, T.Y. - LI, X.H. - CHENG, J. - CHEN, G.L. - LI, P.F. - REN, L. - SHI, J. - LI, J.D. - TANG, Y.J. Analysis of Overcurrent Performance of YBCO Tape Considering Different Heat Exchange Conductions.

*In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*

6. [1.1] ZHANG, G.Y. - WANG, Y.S. - WANG, Y.Y. - CHEN, Y.H. - ZHU, L.F. *Electro-thermo-mechanical properties of quasi-isotropic strand in thermal disturbance. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, AUG 2021, vol. 34, no. 8., Registrované v: WOS*

- ADCA116 GRACHEV, A.A. - MATVEEV, O.V. - MRUCZKIEWICZ, Michal - MOROZOVA, M.A. - BEGININ, E.N. - SHESHUKOVA, S.E. - SADOVNIKOV, A.V.\*\*. Strain-mediated tunability of spin-wave spectra in the adjacent magnonic crystal stripes with piezoelectric layer. In Applied Physics Letters, 2021, vol. 118, no. 262405. (2020: 3.791 - IF, Q2 - JCR, 1.182 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/5.0051429>

Citácie:

1. [1.1] HEYDERMAN, L.J.J. - GROLLIER, J. - MARROWS, C.H.H. - VAVASSORI, P. - GRUNDLER, D. - MAKAROV, D. - PANE, S. *Mesoscopic magnetic systems: From fundamental properties to devices. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, AUG 23 2021, vol. 119, no. 8., Registrované v: WOS*

- ADCA117 GRAJCAR, M. - PLECENIK, Andrej - SEIDEL, P. - PFUCH, A. Influence of inelastic effects on differential conductance of a high-T<sub>c</sub> superconductor/metal junction. In Physical Review B, 1995, vol. 51, p. 16185-16189.

Citácie:

1. [1.1] YANG, Feng - LIU, Hui - LIU, Hairui - LU, Qingfeng - CHANG, Fanggao. Polarity switching of the photo-induced voltage in YBCO/Ag heterojunction. In JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS. ISSN 0022-3697, 2020, vol. 138, no., pp. Dostupné na:

<https://doi.org/10.1016/j.jpcs.2019.109232>, Registrované v: WOS

- ADCA118 GRANČIČ, B. - MIKULA, Marian - ROCH, T. - ZEMAN, Petr - SATRAPINSKY, L. - GREGOR, M. - PLECENIK, T. - DOBROČKA, Edmund - HÁJOVSKÁ, Zuzana - MIČUŠÍK, Matej - ŠATKA, A. - ZAHORAN, M. - PLECENIK, Andrej - KÚŠ, P. Effect of Si addition on mechanical properties and high temperature oxidation resistance of Ti-B-Si hard coatings. In Surface and coatings technology, 2014, vol.240, p.48-54. (2013: 2.199 - IF, Q1 - JCR, 1.057 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0257-8972. Dostupné na: <https://doi.org/10.1016/j.surfcoat.2013.12.011>

Citácie:

1. [1.1] DEAMBROSIO, Silvia Maria - ZIN, Valentina - MONTAGNER, Francesco - MORTAL, Cecilia - FABRIZIO, Monica - MIORIN, Enrico. Effect of temperature and deposition technology on the microstructure, chemistry and tribo-mechanical characteristics of Ti-B based thin films by magnetron sputtering. In SURFACE & COATINGS TECHNOLOGY, 2021, vol. 405, no., pp. ISSN 0257-8972. Dostupné na: <https://doi.org/10.1016/j.surfcoat.2020.126556>, Registrované v: WOS

2. [1.1] ZHANG, Yingbo - ZOU, Dening - LI, Yunong - WANG, Yu - ZHANG, Wei - ZHANG, Xiaoming. Effect of Al content on the high-temperature oxidation behavior of 18Cr-Al-Si ferritic heat-resistant stainless steel. In JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY-JMR&T, 2021, vol. 11, no., pp. 1730-1740. ISSN 2238-7854. Dostupné na:

<https://doi.org/10.1016/j.jmrt.2021.02.024>, Registrované v: WOS

3. [1.1] ZHANG, Yingbo - ZOU, Dening - WANG, Xiaoqiao - WANG, Quansheng - XU, Ran - ZHANG, Wei. Influences of Si content on the high-temperature



- oxidation behavior of X10CrAlSi18 ferritic heat-resistant stainless steel at 700 degrees C and 800 degrees C. In SURFACE & COATINGS TECHNOLOGY, 2021, vol. 422, no., pp. ISSN 0257-8972. Dostupné na: <https://doi.org/10.1016/j.surfcoat.2021.127523>, Registrované v: WOS*
- ADCA119 GREGUŠOVÁ, Dagmar - STOKLAS, Roman - MIZUE, Ch. - HORI, Y. - NOVÁK, Jozef - HASHIZUME, T. - KORDOŠ, Peter. Trap states in AlGaIn/GaN metal-oxide-semiconductor structures with Al<sub>2</sub>O<sub>3</sub> prepared by atomic layer deposition. In Journal of Applied Physics, 2010, vol. 107, 106104. (2009: 2.072 - IF, Q1 - JCR, 1.510 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, WOS, SCOPUS). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.3428492>
- Citácie:
- [1.1] LIU, Shuang - ZHANG, Weihang - ZHANG, Jincheng - SONG, Xiufeng - WU, Yinhe - CHEN, Dazheng - XU, Shengrui - ZHAO, Shenglei - HAO, Yue. AlN/GaN Superlattice Channel HEMTs on Silicon Substrate. In IEEE TRANSACTIONS ON ELECTRON DEVICES, 2021, vol. 68, no. 7, pp. 3296-3301. ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2021.3078674>, Registrované v: WOS
  - [1.1] YUAN, Yi-Dong - ZHAO, Dong-Yan - CAO, Yan-Rong - WANG, Yu-Bo - SHAO, Jin - CHEN, Yan-Ning - HE, Wen-Long - DU, Jian - WANG, Min - PENG, Ye-Ling - ZHANG, Hong-Tao - FU, Zhen - REN, Chen - LIU, Fang - ZHANG, Long-Tao - ZHAO, Yang - LV, Ling - ZHAO, Yi-Qiang - ZHENG, Xue-Feng - ZHOU, Zhi-Mei - WAN, Yong - MA, Xiao-Hua. Degradation of gate-recessed MOS-HEMTs and conventional HEMTs under DC electrical stress\*. In CHINESE PHYSICS B, 2021, vol. 30, no. 7, pp. ISSN 1674-1056. Dostupné na: <https://doi.org/10.1088/1674-1056/abe117>, Registrované v: WOS
- ADCA120 GREGUŠOVÁ, Dagmar - MARTAUŠ, Jozef - FEDOR, Ján - KÚDELA, Róbert - KOSTIČ, Ivan - CAMBEL, Vladimír. On-tip sub-micrometer Hall probes for magnetic microscopy prepared by AFM lithography. In Ultramicroscopy, 2009, vol. 109, p. 1080-1084. (2008: 2.629 - IF, Q1 - JCR, 1.583 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents). Dostupné na: <https://doi.org/10.1016/j.ultramic.2009.03.018>
- Citácie:
- [1.1] COLLOMB, David - LI, Penglei - BENDING, Simon. Frontiers of graphene-based Hall-effect sensors. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, 2021, vol. 33, no. 24, pp. Dostupné na: <https://doi.org/10.1088/1361-648X/abf7e2>, Registrované v: WOS
- ADCA121 GREGUŠOVÁ, Dagmar - STOKLAS, Roman - ČIČO, Karol - LALINSKÝ, Tibor - KORDOŠ, Peter. AlGaIn/GaN metal-oxide-semiconductor heterostructure field-effect transistors with 4nm thick Al<sub>2</sub>O<sub>3</sub> gate oxide. In Semiconductor Science and Technology, 2007, vol. 22, p. 947-951. (2006: 1.586 - IF, Q1 - JCR, 1.191 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents). ISSN 0268-1242.
- Citácie:
- [1.1] KHACHARIYA, Dolar - SZYMANSKI, Dennis - BRECKENRIDGE, M. Hayden - REDDY, Pramod - KOHN, Erhard - SITAR, Zlatko - COLLAZO, Ramon - PAVLIDIS, Spyridon. On the characteristics of N-polar GaN Schottky barrier contacts with LPCVD SiN interlayers. In APPLIED PHYSICS LETTERS, 2021, vol. 118, no. 12, pp. ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/5.0039888>, Registrované v: WOS
  - [1.1] LEE, Ching-Sung - LI, Chia-Lun - HSU, Wei-Chou - YOU, Cheng-Yang - LIU, Han-Yin. Enhancement-Mode Characteristics of Al<sub>0.65</sub>Ga<sub>0.35</sub>N/Al<sub>0.3</sub>Ga<sub>0.7</sub>N/AlN/SiC MOS-HFETs. In IEEE JOURNAL OF THE ELECTRON DEVICES SOCIETY, 2021, vol. 9, no., pp. 1003-1008. ISSN 2168-

6734. Dostupné na: <https://doi.org/10.1109/JEDS.2021.3121441>., Registrované v: WOS

3. [1.1] SINGH, Preeti - KUMARI, Vandana - SAXENA, Manoj - GUPTA, Mridula. TCAD-Based Assessment of Dual-Gate MISHEMT with Sapphire, SiC, and Silicon Substrate. In IETE TECHNICAL REVIEW, 2021, vol. 38, no. 2, pp. 197-205. ISSN 0256-4602. Dostupné na:

<https://doi.org/10.1080/02564602.2019.1699455>., Registrované v: WOS

ADCA122 GREGUŠOVÁ, Dagmar - BLAHO, Michal - HAŠČÍK, Štefan - ŠICHMAN, Peter - LAURENČÍKOVÁ, Agáta - SEIFERTO VÁ, Alena - DÉRER, Ján - BRUNNER, F. - WÜRFL, H.-J. - KUZMÍK, Ján. Polarization-engineered n+GaN/InGaN/AlGaN/GaN normally-off MOS HEMTs. In Physica Status Solidi A : applications and materials science, 2017, vol. 214, no. 1700407. (2016: 1.775 - IF, Q2 - JCR, 0.694 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 1862-6300. Dostupné na: <https://doi.org/10.1002/pssa.201700407> (VEGA 2/0109/17)

Citácie:

1. [1.1] BISWAS, D. - TSUBOI, T. - EGAWA, T. GaN/InGaN double quantum well (DQW) gate structure for GaN-on-Si based normally-off AlGaN/GaN high electron mobility transistors (HEMTs). In MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING. ISSN 1369-8001, NOV 15 2021, vol. 135., Registrované v: WOS

ADCA123 GREGUŠOVÁ, Dagmar - GUCMANN, Filip - KÚDELA, Róbert - MIČUŠÍK, Matej - STOKLAS, Roman - VÁLIK, Lukáš - GREGUŠ, J. - BLAHO, Michal - KORDOŠ, Peter. Properties of InGaAs/GaAs metal-oxide-semiconductor heterostructure field-effect transistors modified by surface treatment. In Applied Surface Science, 2017, vol. 395, p. 140-144. (2016: 3.387 - IF, Q1 - JCR, 0.958 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2016.07.019>

Citácie:

1. [1.2] PANDA, Sangita R. - SAHU, Trinath - PANDA, Ajit Kumar. Analysing structural asymmetry on the nonmonotonic electron mobility of pseudomorphic heterojunction field effect transistors. In Proceedings of 4th International Conference on 2021 Devices for Integrated Circuit, DevIC 2021, 2021-05-19, pp. 71-74. Dostupné na: <https://doi.org/10.1109/DevIC50843.2021.9455826>., Registrované v: SCOPUS

ADCA124 GREGUŠOVÁ, Dagmar - JURKOVIČ, Michal - HAŠČÍK, Štefan - BLAHO, Michal - SEIFERTO VÁ, Alena - FEDOR, Ján - ŤAPAJNA, Milan - FRÖHLICH, Karol - VOGRINČIČ, P. - LIDAY, J. - DERLUYN, J. - GERMAIN, M. - KUZMÍK, Ján. Adjustment of threshold voltage in AlN/AlGaN/GaN high-electron mobility transistors by plasma oxidation and Al<sub>2</sub>O<sub>3</sub> atomic layer deposition overgrowth. In Applied Physics Letters, 2014, vol. 104, 013506. (2013: 3.515 - IF, Q1 - JCR, 2.149 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.4861463>

Citácie:

1. [1.1] LIU, Y. - LV, Y.J. - GUO, S.S. - LUAN, Z.F. - CHENG, A.J. - LIN, Z.J. - YANG, Y.X. - JIANG, G.Y. - ZHOU, Y. A novel AlGaN/GaN heterostructure field-effect transistor based on open-gate technology. In SCIENTIFIC REPORTS. ISSN 2045-2322, NOV 17 2021, vol. 11, no. 1., Registrované v: WOS

ADCA125 GREGUŠOVÁ, Dagmar\*\* - TÓTH, L. - POHORELEC, Ondrej - HASENÖHRL, Stanislav - HAŠČÍK, Štefan - CORA, Ildikó - FOGARASSY, Zsolt - STOKLAS, Roman - SEIFERTO VÁ, Alena - BLAHO, Michal - LAURENČÍKOVÁ, Agáta - OYOBIKI, T. - PÉCZ, B. - HASHIZUME, T. - KUZMÍK, Ján\*\*.

InGaN/(GaN)/AlGaN/GaN normally-off metal-oxide-semiconductor high-electron mobility transistors with etched access region. In Japanese Journal of Applied Physics, 2019, vol. 58, no. SCCCD21. (2018: 1.471 - IF, Q3 - JCR, 0.471 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0021-4922. Dostupné na: <https://doi.org/10.7567/1347-4065/ab06b8> (VEGA 2/0012/18)

Citácie:

1. [1.1] BISWAS, D. - TSUBOI, T. - EGAWA, T. GaN/InGaN double quantum well (DQW) gate structure for GaN-on-Si based normally-off AlGaN/GaN high electron mobility transistors (HEMTs). In MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING. ISSN 1369-8001, NOV 15 2021, vol. 135., Registrované v: WOS

ADCA126 GRILLI, F. - ZERMONO, V. - VOJENČIAK, Michal - PARDO, Enric - KARIO, A. - GOLDACKER, W. AC losses of pancake coils made of Roebel cable. In IEEE Transactions on Applied Superconductivity, 2013, vol. 23, 5900205. (2012: 1.199 - IF, Q2 - JCR, 0.575 - SJR, karentované - CCC). (2013 - Current Contents, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2013.2238987>

Citácie:

1. [1.1] CAVALLUCCI, L. - BRESCHI, M. - RIBANI, P.L. - ZHANG, Q.B. - YANG, Y.F. Quench in a pancake coil wound with REBCO Roebel cable: model and validation. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS  
2. [1.1] DA SILVA, F.F. - FERNANDES, J.F.P. - BRANCO, P.J.D. Barriers and Challenges Going from Conventional to Cryogenic Superconducting Propulsion for Hybrid and All-Electric Aircrafts. In ENERGIES. NOV 2021, vol. 14, no. 21., Registrované v: WOS  
3. [1.1] PI, W. - OU, Y.S. - MA, Y.T. - TIAN, B.Y. - SHI, Q.M. - WANG, Y.S. - DONG, J. Current Distribution and AC Loss of BSCCO/REBCO Hybrid Tapes in Self-Magnetic Field. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS  
4. [1.1] XUE, S.S. - THOMAS, A.S. - ZHU, Z.Q. - HUANG, L.R. - DUKE, A. - CLARK, R.E. - AZAR, Z. Stator Optimization of Wind Power Generators With High-Temperature Superconducting Armature Windings and Permanent Magnet Rotor. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, MAR 2021, vol. 31, no. 2., Registrované v: WOS

ADCA127 GRILLI, F. - VOJENČIAK, Michal - KARIO, A. - ZERMONO, V. HTS Roebel cables: self-field critical current and AC losses under simultaneous applications of transport current and magnetic field. In IEEE Transactions on Applied Superconductivity, 2016, vol. 26, art. no. 4803005. (2015: 1.092 - IF, Q3 - JCR, 0.403 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2536652>

Citácie:

1. [1.1] LI, G.Y. - LI, C. - XIN, Y. - HONG, W. - LI, W.X. - YANG, T.H. - LI, B. Dynamic modelling methodology for an HTS energy converter using moving mesh. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS  
2. [1.1] YANG, J.B. - TIAN, M.Y. - MA, J. - OZTURK, Y. - LI, C. - HU, J.T. - GAWITH, J. - SHAH, A. - PATEL, I. - WEI, H.G.N. - HAO, L.N. - SHEN, B.Y. - COOMBS, T. Numerical Study on AC Loss Characteristics of Conductor on Round Core Cables Under Transport Current and Magnetic Field. In IEEE

*TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS*

- ADCA128 GRILLI, F. - PARDO, Enric. Simulation of ac loss in Roebel coated conductor cables. In *Superconductor Science and Technology*, 2010, vol. 23, 115018. (2009: 2.694 - IF, 1.256 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/23/11/115018>

Citácie:

1. [1.1] INANIR, F. - TERZIOGLU, R. AC Loss Evaluation of a Superconducting Pancake Coil with Coated Conductors using an Extended A-V Formulation. In *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, AUG 15 2021, vol. 587., Registrované v: WOS*

2. [1.1] UENO, Y. - NAGAMOTO, N. - KAWAGOE, A. - OBANA, T. - TAKAYASU, M. Evaluation AC Losses in Large-Scale Conductors Consisting of Stacked REBCO Tapes. In *PLASMA AND FUSION RESEARCH. ISSN 1880-6821, 2021, vol. 16, 1., Registrované v: WOS*

- ADCA129 GRILLI, F. - PARDO, Enric - STENVALL, A. - NGUYEN, D.N. - YUAN, W. - GÖMÖRY, Fedor. Computation of losses in HTS under the action of varying magnetic fields and currents. In *IEEE Transactions on Applied Superconductivity*, 2014, vol. 24, p. 8200433. (2013: 1.324 - IF, Q2 - JCR, 0.431 - SJR, Q2 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2013.2259827>

Citácie:

1. [1.1] AINSLIE, M.D. - QUEVAL, L. - MATAIRA, R.C. - BUMBY, C.W. Modelling the Frequency Dependence of the Open-Circuit Voltage of a High-T-c Superconducting Dynamo. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*

2. [1.1] ARSENAULT, A. - ALVES, B.D. - SIROIS, F. COMSOL Implementation of the H-phi-Formulation With Thin Cuts for Modeling Superconductors With Transport Currents. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, SEP 2021, vol. 31, no. 6., Registrované v: WOS*

3. [1.1] CHEN, W. - YANG, X.S. - SHEN, B.Y. - HAO, Q.B. - ZHANG, S.N. - LI, C.S. - ZHAO, Y. AC Loss of Bi-2212 Round Wire at Wide Frequency Ranges up to 500 kHz. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS*

4. [1.1] FAREED, M.U. - RUIZ, H.S. Critical State Theory for the Magnetic Coupling between Soft Ferromagnetic Materials and Type-II Superconductors. In *MATERIALS. OCT 2021, vol. 14, no. 20., Registrované v: WOS*

5. [1.1] IKEDA, K. - NAKAMURA, T. - YOSHIKAWA, M. - ITOH, Y. Quantitative evaluation of DC voltage-current characteristics of a high temperature superconducting stator winding located in silicon steel core at 77 K. In *CRYOGENICS. ISSN 0011-2275, JUL 2021, vol. 117., Registrované v: WOS*

6. [1.1] LI, D. - WANG, H.Z. - REN, Y. - WANG, D.Q. Electromagnetic Design and Mechanical Behavior Analysis of an 850 MHz All REBCO Nuclear Magnetic Resonance Magnet. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, APR 2021, vol. 31, no. 3., Registrované v: WOS*

7. [1.1] LI, G.Y. - LI, C. - XIN, Y. - HONG, W. - LI, W.X. - YANG, T.H. - LI, B. Dynamic modelling methodology for an HTS energy converter using moving mesh. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048,*



*OCT 2021, vol. 34, no. 10., Registrované v: WOS*

8. [1.1] MACHADO, R.D. - PIRES, F.D. - CALDEIRA, G.R. - GIUNTINI, F.T. - SANTOS, F.D. - FONSECA, P.R. Towards Energy Efficiency in Data Centers: An Industrial Experience Based on Reuse and Layout Changes. In *APPLIED SCIENCES-BASEL. JUN 2021, vol. 11, no. 11., Registrované v: WOS*

9. [1.1] MITCHELL, N. - ZHENG, J.X. - VORPAHL, C. - CORATO, V. - SANABRIA, C. - SEGAL, M. - SORBOM, B. - SLADE, R. - BRITTLES, G. - BATEMAN, R. - MIYOSHI, Y. - BANNO, N. - SAITO, K. - KARIO, A. - TEN KATE, H. - BRUZZONE, P. - WESCHE, R. - SCHILD, T. - BYKOVSKIY, N. - DUDAREV, A. - MENTINK, M. - MANGIAROTTI, F.J. - SEDLAK, K. - EVANS, D. - VAN DER LAAN, D.C. - WEISS, J.D. - LIAO, M. - LIU, G. Superconductors for fusion: a roadmap. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS*

10. [1.1] NICKEL, D.S. - FIETZ, W.H. - WEISS, K.P. - WOLF, M.J. Impact of Bending on the Critical Current of HTS CrossConductors. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*

11. [1.1] PETROV, A.A. - GOLOSNOY, I.O. - PILGRIM, J.A. Efficient Multiphysics Finite Element Simulation of a Transient Fault in a Bi-2223 HTS Power Cable. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2021, vol. 31, no. 4., Registrované v: WOS*

12. [1.1] PETROV, A.A. - GOLOSNOY, I.O. - PILGRIM, J.A. Load Test and Efficiency Map Measurement of 50 kW Class Induction/Synchronous Superconducting Machine (HTS-ISM). In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2021, vol. 31, no. 4., Registrované v: WOS*

13. [1.1] RUDNEV, I. Unexpected dynamic resistance as a new factor leading to abrupt demagnetization of closed-loop superconducting coils in alternating magnetic fields. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS*

14. [1.1] SHEN, H.T. - RU, Y.Y. - YU, H.W. - HU, X.K. - YONG, H.D. - ZHOU, Y.H. Three-dimensional peridynamic modeling of crack initiation and propagation in bulk superconductor during field cooling magnetization. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, AUG 2021, vol. 34, no. 8., Registrované v: WOS*

15. [1.1] SHI, G.P. - QIAN, Y.C. - SUN, Z. - ZHANG, Y.F. - ZHAI, L.H. - HAN, C.B. The Influence of Local Tapes Misalignment in Stacked YBCO Cable on Its AC Loss. In *JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, JUL 2021, vol. 34, no. 7, p. 1903-1913., Registrované v: WOS*

16. [1.1] WANG, L. - CHEN, Y. Hysteresis loss calculations of 2D and 3D large-scale HTS coil models: from multi-scale method to multi-dimension method. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS*

17. [1.1] WANG, S.J. - YONG, H.D. - ZHOU, Y.H. Modified FFT-based method for the calculations of the thin superconductors with transport current. In *AIP ADVANCES. MAR 1 2021, vol. 11, no. 3., Registrované v: WOS*

18. [1.1] WEN, Z.Z. - ZHANG, H.Y. - MUELLER, M. Sensitivity analysis and machine learning modelling for the output characteristics of rotary HTS flux pumps. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS*

19. [1.1] WENG, F.J. - ZHANG, M. - ELWAKEEL, A. - LAN, T. - MCNEILL, N. -

YUAN, W.J. Transient Test and AC Loss Study of a Cryogenic Propulsion Unit for All Electric Aircraft. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 59628-59636., Registrované v: WOS

20. [1.1] XU, A.H. - WU, K.H. - SHI, Y. - WU, Y. - YU, X.P. - DAI, C. - HAO, Q.W. - HAN, H.X. - JIN, H. - ZHANG, Y.L. - WU, J.R. - HU, L.B. Electromagnetic and Mechanical Analysis of DC Magnet for Super X Test Facility. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS

21. [1.1] ZHONG, Z.Y. - WU, W. - WANG, L.B. - LI, X.F. - LI, Z.Y. - HONG, Z.Y. - JIN, Z.J. Study of Induced Current in Closed HTS Magnets Under AC Fields: Simulation and Experiment. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, NOV 2021, vol. 34, no. 11, p. 2809-2819., Registrované v: WOS

22. [1.1] ZHOU, Q.X. - GUO, Q. - GAO, W.T. - SU, T. - CHEN, T.T. - ZHANG, Y.F. Numerical Analysis of AC Losses of HTS Coils with Different Structural Parameters. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, NOV 2021, vol. 34, no. 11, p. 2733-2742., Registrované v: WOS

23. [1.1] ZHOU, Q.X. - GUO, Q. - SU, T. - GAO, W.T. - ZHANG, Y.F. Comparative Study on Loss Characteristics of High-Temperature Superconducting Coils under Low Magnetic Field. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, SEP 2021, vol. 34, no. 9, p. 2301-2311., Registrované v: WOS

24. [1.2] KALSIA, Mohit - YADAV, Mukheshwar - KAUSHIK, Rajneesh. AC Loss Assessment of 110 kV/5 kA<inf>rms</inf> HTS Cable for Large Scale Power Application. In Lecture Notes in Mechanical Engineering. ISSN 21954356, 2021-01-01, pp. 699-706. Dostupné na: [https://doi.org/10.1007/978-981-15-9956-9\\_68](https://doi.org/10.1007/978-981-15-9956-9_68)., Registrované v: SCOPUS

ADCA130 GRILLI, F. - RODRIGUEZ-ZERMENO, V.M. - PARDO, Enric - VOJENČIAK, Michal - BRAND, J. - KARIO, A. - GOLDACKER, W. Self-field effects and AC losses in pancake coils assembled from coated conductor Roebel cables. In IEEE Transactions on Applied Superconductivity, 2014, vol. 24, p. 4801005. (2013: 1.324 - IF, Q2 - JCR, 0.431 - SJR, Q2 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2013.2282182>

Citácie:

1. [1.1] FAWAZ, S. - MENANA, H. - DOUINE, B. - QUEVAL, L. DC modeling and characterization of HTS coils with non uniform current density distribution. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS

2. [1.1] MACHURA, P. - LI, Q. AC Loss Reduction Through Flux Diverters for Superconducting Wireless Charging Coils at High Frequencies. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, APR 2021, vol. 31, no. 3., Registrované v: WOS

3. [1.1] QIAO, Y.K. - WANG, Y.S. - YUAN, X. - ZHANG, G.Y. - PI, W. Trapped field characteristics of an HTS magnet with two holes using four magnetization methods. In INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS. ISSN 1383-5416, 2021, vol. 66, no. 1, p. 115-125., Registrované v: WOS

4. [1.1] SUN, T. - LI, L. - LI, G.P. - YANG, S.J. - WANG, W. Evaluation and optimization of electric field on a high-voltage switchgear in nuclear power station. In ELECTRICAL ENGINEERING. ISSN 0948-7921, DEC 2021, vol. 103,

no. 6, p. 2733-2746., Registrované v: WOS

5. [1.1] TRILLAUD, F. - DOS SANTOS, G. - SOTELO, G.G. Essential Material Knowledge and Recent Model Developments for REBCO-Coated Conductors in Electric Power Systems. In MATERIALS. APR 2021, vol. 14, no. 8., Registrované v: WOS

6. [1.1] UTSCHICK, C. - SOM, C. - SOUC, J. - GROSSE, V. - GOMORY, F. - GROSS, R. Superconducting Wireless Power Transfer Beyond 5 kW at High Power Density for Industrial Applications and Fast Battery Charging. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, APR 2021, vol. 31, no. 3., Registrované v: WOS

7. [1.1] YAZDANI-ASRAMI, M. - GHOLAMIAN, S.A. - MIRIMANI, S.M. - ADABI, J. Influence of field-dependent critical current on harmonic AC loss analysis in HTS coils for superconducting transformers supplying non-linear loads. In CRYOGENICS. ISSN 0011-2275, JAN 2021, vol. 113., Registrované v: WOS

8. [1.1] ZHANG, Y.F. - SU, T. - GUO, Q. - HE, J.F. - GAO, W.T. - CHEN, T.T. - WU, Z.H. - ZHOU, Q.X. Dependence of AC Transport Loss of HTS-Coated Conductor on Current Parameters in the Frequency Range under 1MHz. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, SEP 2021, vol. 34, no. 9, p. 2271-2280., Registrované v: WOS

9. [1.1] ZHOU, Q. - YANG, Y.J. - WANG, J. - WANG, L.N. Analysis and Methods for HTS DC Cables. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS

ADCA131 GRILLI, F. - SIROIS, F. - ZERMONO, V. - VOJENČIAK, Michal. Self-consistent modeling of the  $I_c$  of HTS devices: how accurate do models really need to be? In IEEE Transactions on Applied Superconductivity, 2014, vol. 24, 8000508. (2013: 1.324 - IF, Q2 - JCR, 0.431 - SJR, Q2 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 1051-8223.

Citácie:

1. [1.1] FAZILLEAU, P. - DILASSER, G. Quasi 3-D Model for Numerical Computations of Screening Currents in ReBCO Coils. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, SEP 2020, vol. 30, no. 6., Registrované v: WOS

2. [1.1] GONG, T.Y. - MA, G.T. - WANG, R.C. - LI, S.L. - YAO, C.X. - LUO, Z. - NIE, X.C. - YE, C.Q. An Improved Self-Consistent Model and Its Application to Estimate the Critical Current of REBCO Magnet. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2020, vol. 30, no. 4., Registrované v: WOS

3. [1.1] GURNHAM, C.W.A. - GROSSE, V. - HAMPSHIRE, D.P. Angular  $J(c)$  measurements at 77 K in-field, on an ISD REBCO coated conductor using a straightforward mechanical scribing technique to reduce tape width. In 14TH EUROPEAN CONFERENCE ON APPLIED SUPERCONDUCTIVITY (EUCAS2019). ISSN 1742-6588, 2020, vol. 1559., Registrované v: WOS

4. [1.1] HU, J.T. - MA, J. - YANG, J.B. - TIAN, M.Y. - SHAH, A. - PATEL, I. - WEI, H.G.N. - HAO, L.N. - OZTURK, Y. - SHEN, B.Y. - COOMBS, T.A. Numerical Study on Dynamic Resistance of an HTS Switch Made of Series-Connected YBCO Stacks. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

5. [1.1] HUANG, W.C. - JIANG, X.H. - XUE, P. - MAO, H.Y. - SUN, Y.G. Current Distribution Analysis in Bi2223 Tapes of Superconducting Bipolar DC Energy

- Pipeline. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS*
6. [1.1] HUANG, X.Y. - HUANG, Z. - XU, X.Y. - LI, W. - JIN, Z.J. An Electromagnetic-Thermal Coupling Numerical Study of the Synchronous Generator with Second-Generation High-Temperature Superconducting Armatures. In APPLIED SCIENCES-BASEL. AUG 2020, vol. 10, no. 15., Registrované v: WOS
7. [1.1] INOUE, R. - UEDA, H. - KIM, S. - TSUDA, M. Thermal Characteristics of REBCO Coil in a Wireless Power Transmission System for the Railway Vehicle in Liquid Nitrogen. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
8. [1.1] KUBICZEK, K. - KAMPIK, M. - STEPIEN, M. Characterization of High-Temperature Superconducting Tapes. In IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT. ISSN 0018-9456, JUN 2020, vol. 69, no. 6, 1, p. 2959-2965., Registrované v: WOS
9. [1.1] LI, G.Y. - LI, C. - XIN, Y. - HONG, W. - LI, W.X. - YANG, T.H. - LI, B. Dynamic modelling methodology for an HTS energy converter using moving mesh. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS
10. [1.1] PI, W. - LIU, Z.Q. - LI, G.Q. - MA, S.W. - MENG, Y.R. - SHI, Q.M. - DONG, J. - WANG, Y.S. 4D simulation of quench behavior in quasi-isotropic superconducting cable of stacked REBCO tapes considering thermal contact resistance. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, AUG 2020, vol. 33, no. 8., Registrované v: WOS
11. [1.1] PI, W. - MA, S.W. - LIU, Z.Q. - WANG, Y.Y. - KAN, C.T. - WANG, Y.S. - SHI, Q.M. - DONG, J. Numerical and experimental study on critical current of quasi-isotropic superconducting strand stacked by REBCO and copper tapes with different stacking patterns. In FUSION ENGINEERING AND DESIGN. ISSN 0920-3796, NOV 2020, vol. 160., Registrované v: WOS
12. [1.1] PI, W. - MENG, Y.R. - GUO, T. - WEI, D.F. - WANG, Y.Y. - LIU, Z.Q. - LI, G.Q. - WANG, Y.S. Transport AC losses analysis of twisted quasi-isotropic conductor. In PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, SEP 15 2020, vol. 576., Registrované v: WOS
13. [1.1] SHEN, B.Y. - CHEN, X.Y. - FU, L. - ZHANG, M.S. - CHEN, Y. - SHENG, J. - HUANG, Z. - WANG, W. - ZHAI, Y.J. - YUAN, Y.P. - SOOMRO, W.A. - GUO, Y.G. - BIAN, X.M. - LIU, H.W. - OZTURK, Y. - TIAN, M.Y. - HAO, L.I. - HU, J.T. - WEI, H.G. - SHAH, A. - PATEL, I. - YANG, J.B. - COOMBS, T. A Simplified Model of the Field Dependence for HTS Conductor on Round Core (CORC) Cables. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
14. [1.1] VESA, J. - LAHTINEN, V. - RASILO, P. Finite Element Method Based Estimation of Critical Current Density of NbTi. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, DEC. 2020, vol. 30, no. 8., Registrované v: WOS
15. [1.1] WANG, Y.Y. - WANG, Y.S. - WEI, D.F. - GUO, T. - MENG, Y.R. - WANG, J.K. - KAN, C.T. AC losses of a like-corc conductor using accelerated 3D T-A model. In PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, DEC 15 2020, vol. 579., Registrované v: WOS
16. [1.1] WU, W. - GAO, Y.S. - JIN, Z.J. Magnetic Field Saturation of Non-Insulation High-Temperature Superconducting Coils during Overcurrent. In



*ELECTRONICS. NOV 2021, vol. 10, no. 22., Registrované v: WOS*

17. [1.1] XUE, W. - HUANG, Z. - XU, X.Y. - SHEN, B.Y. - JIN, Z.J. Ramping Loss Analysis of No-Insulation HTS Coil Under External Field Using an Improved Equivalent Circuit Model. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS

18. [1.1] YAO, L.P. - LV, Y.Y. - GU, F. - ZHONG, L.H. - DUAN, X.H. - SONG, M. - LI, L. - LI, Z.Y. - HONG, Z.Y. - JIN, Z.J. 3D Numerical Study on Magnetization Losses in Twisted Soldered-Stacked-Square (3S) HTS Wires Based on Homogenized Models. In 32ND INTERNATIONAL SYMPOSIUM ON SUPERCONDUCTIVITY (ISS2019). ISSN 1742-6588, 2020, vol. 1590., Registrované v: WOS

19. [1.1] YUAN, X. - WANG, Y.S. - QIAO, Y.K. - WANG, Y.Y. - KANG, Q.Q. Characterization of Magnetic Field in the Bitter-Like HTS Magnet Magnetized By Multiple Excitation Methods. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

20. [1.1] ZHANG, K. - HELLMANN, S. - CALVI, M. - SCHMIDT, T. Magnetization Simulation of Rebco Tape Stack With a Large Number of Layers Using the Ansys ***A V A*** Formulation. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2020, vol. 30, no. 4., Registrované v: WOS

21. [1.1] ZHONG, Z.Y. - WU, W. - JIN, Z.J. Sharp demagnetization of closed-loop HTS coil in first cycle of external AC fields induced by unexpected dynamic resistance. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, AUG 2021, vol. 34, no. 8., Registrované v: WOS

22. [1.1] ZHONG, Z.Y. - WU, W. - WANG, L.B. - LI, X.F. - LI, Z.Y. - HONG, Z.Y. - JIN, Z.J. Study of Induced Current in Closed HTS Magnets Under AC Fields: Simulation and Experiment. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, NOV 2021, vol. 34, no. 11, p. 2809-2819., Registrované v: WOS

ADCA132 GRILLI, F.\*\* - PARDO, Enric - MORANDI, A. - GÖMÖRY, Fedor - SOLOVYOV, Mykola - ZERMONO, V. - BRAMBILLA, R. - BENKEL, T. - RIVA, N. Electromagnetic modeling of superconductors with commercial software: possibilities with two vector potential-based formulations. In IEEE Transactions on Applied Superconductivity, 2021, vol. 31, no. 5900109. (2020: 1.704 - IF, Q3 - JCR, 0.467 - SJR, Q2 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2020.3013028>

Citácie:

1. [1.1] HADJIGEORGIOU, N. - ASIMAKOPOULOS, K. - PAPAFOOTIS, K. - SOTIRIADIS, P.P. Vector Magnetic Field Sensors: Operating Principles, Calibration, and Applications. In IEEE SENSORS JOURNAL. ISSN 1530-437X, JUN 1 2021, vol. 21, no. 11, p. 12531-12544., Registrované v: WOS

2. [1.1] TRILLAUD, F. - DOS SANTOS, G. - SOTELO, G.G. Essential Material Knowledge and Recent Model Developments for REBCO-Coated Conductors in Electric Power Systems. In MATERIALS. APR 2021, vol. 14, no. 8., Registrované v: WOS

ADCA133 GROVENOR, C.R.M. - GOODSIR, L. - SALTER, C.J. - KOVÁČ, Pavol - HUŠEK, Imrich. Interfacial reactions and oxygen distribution in MgB<sub>2</sub> wires in Fe, stainless steel and Nb sheaths. In Superconductor Science and Technology, 2004, vol. 17, p. 479-484. (2003: 2.247 - IF, karentované - CCC). (2004 - Current Contents, WOS,

SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] AHMAD, I. - SARUN, P.M. Theoretical study of electrical current transport in various metal sheathed MgB<sub>2</sub> superconducting wires. In *PHYSICA B-CONDENSED MATTER*. ISSN 0921-4526, FEB 15 2021, vol. 603., Registrované v: WOS

2. [1.1] DAN, X. - WANG, D.Y. - CAI, X.W. - WANG, Q.Y. - HUANG, Z.G. - NIE, R.J. - GUO, Y. - WANG, F.R. - GAN, Z.Z. Preparation of a small-size superconducting joint for C-doped 30-filament MgB<sub>2</sub> wires. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS

ADCA134 GUARINO, G. - DONALDSON, W.R. - MIKULICS, M. - MARSO, M. - KORDOŠ, Peter - SOBOLEWSKI, R. Finite element simulation of metal-semiconductor-metal photodetector. In *Solid-State Electronics*, 2009, vol. 53, p. 1144-1148. (2008: 1.422 - IF, Q2 - JCR, 0.861 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents). ISSN 0038-1101.

Citácie:

1. [1.1] QODRATNAMA, Arash - KHUNJUSH, Farshad - RAJI, Mohsen. A methodology for the SPICE-Compatible modelling of metal-semiconductor-metal photodetectors for nanophotonic interconnects application. In *MICROELECTRONICS JOURNAL*. ISSN 0026-2692, 2021, vol. 115, no., pp. Dostupné na: <https://doi.org/10.1016/j.mejo.2021.105170>., Registrované v: WOS

ADCA135 GUCMANN, Filip - ĽAPAJNA, Milan - POHORELEC, Ondrej - HAŠČÍK, Štefan - HUŠEKOVÁ, Kristína - KUZMÍK, Ján\*\*. Creation of two-dimensional electron gas and role of surface donors in III-N metal-oxide-semiconductor high-electron mobility transistors. In *Physica Status Solidi A : applications and materials science*, 2018, vol. 215, no. 1800090. (2017: 1.795 - IF, Q2 - JCR, 0.648 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 1862-6300. Dostupné na: <https://doi.org/10.1002/pssa.201800090>

Citácie:

1. [1.1] KAUSHIK, P.K. - SINGH, S.K. - GUPTA, A. - BASU, A. - CHANG, E.Y. Impact of Surface States and Aluminum Mole Fraction on Surface Potential and 2DEG in AlGaIn/GaN HEMTs. In *NANOSCALE RESEARCH LETTERS*. ISSN 1931-7573, OCT 20 2021, vol. 16, no. 1., Registrované v: WOS

ADCA136 GUCMANN, Filip\*\* - POMEROY, J.W. - KUBALL, M. Scanning thermal microscopy for accurate nanoscale device thermography. In *Nano Today*, 2021, vol. 39, no. 101206. (2020: 20.722 - IF, Q1 - JCR, 5.586 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 1748-0132. Dostupné na: <https://doi.org/10.1016/j.nantod.2021.101206>

Citácie:

1. [1.1] FUJII, Shintaro - SHOJI, Yoshiaki - FUKUSHIMA, Takanori - NISHINO, Tomoaki. Visualization of Thermal Transport Properties of Self-Assembled Monolayers on Au(111) by Contact and Noncontact Scanning Thermal Microscopy. In *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*, 2021, vol. 143, no. 44, pp. 18777-18783. ISSN 0002-7863. Dostupné na: <https://doi.org/10.1021/jacs.1c09757>., Registrované v: WOS

ADCA137 HAGARA, Jakub - MRKÝVKOVÁ, Nad'a, Tesařová\*\* - NÁDAŽDY, Peter - HODAS, Martin - BODIK, Michal - JERGEL, Matej - MAJKOVÁ, Eva - TOKÁR, Kamil - HUTÁR, Peter - SOJKOVÁ, Michaela - CHUMAKOV, A. - KONOVALOV, O. - PANDIT, P. - ROTH, S. - HINDERHOFER, A. - HULMAN, Martin - ŠIFFALOVÍČ, Peter - SCHREIBER, F. Reorientation of  $\pi$ -conjugated molecules on few-layer MoS<sub>2</sub> films. In *Physical Chemistry Chemical Physics*, 2020,

vol. 22, p. 3097-3104. (2019: 3.430 - IF, Q1 - JCR, 1.143 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 1463-9076. Dostupné na: <https://doi.org/10.1039/c9cp05728e> (VEGA 2/0149/17. VEGA 2/0092/18)

Citácie:

1. [1.1] HUANG, Y.L. - WEE, A.T.S. THE ELECTRONIC STRUCTURE AT ORGANIC-2D MATERIAL HETEROINTERFACES. In SURFACE REVIEW AND LETTERS. ISSN 0218-625X, AUG 2021, vol. 28, no. 08., Registrované v: WOS

ADCA138 HANZEL, Ondrej\*\* - LENČEŠ, Zoltán - KIM, Young-Wook - FEDOR, Ján - ŠAJGALÍK, Pavol. Highly electrically and thermally conductive silicon carbide-graphene composites with yttria and scandia additives. In Journal of the European Ceramic Society, 2020, vol. 40, no. 2, p. 241-250. (2019: 4.495 - IF, Q1 - JCR, 1.164 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0955-2219. Dostupné na: <https://doi.org/10.1016/j.jeurceramsoc.2019.10.001>

Citácie:

1. [1.1] ANWAR, Muhammad Shoaib - BUKHARI, Syed Zaighum Abbas - HA, Jang-Hoon - LEE, Jongman - SONG, In-Hyuck. Effect of Ni content and its particle size on electrical resistivity and flexural strength of porous SiC ceramic sintered at low-temperature using clay additive. In CERAMICS INTERNATIONAL. ISSN 0272-8842, 2021, vol. 47, no. 22, pp. 31536-31547.

Dostupné na: <https://doi.org/10.1016/j.ceramint.2021.08.032>, Registrované v: WOS

2. [1.1] BUKHARI, Syed Zaighum Abbas - ANWAR, Muhammad Shoaib - NASEER, Danyal - HA, Jang-Hoon - LEE, Jongman - SONG, In-Hyuck. Effect of graphite and Mn3O4 on clay-bonded SiC ceramics for the production of electrically conductive heatable filter. In CERAMICS INTERNATIONAL. ISSN 0272-8842, 2021, vol. 47, no. 16, pp. 23045-23052. Dostupné na:

<https://doi.org/10.1016/j.ceramint.2021.05.019>, Registrované v: WOS

3. [1.1] ZHENG, Yinong - LI, Ke - HUANG, Wenyan - HAN, Yuchen - LAN, Siqi - HU, Jiahao - HUANG, Zhenguo - JIN, Chao - ZHANG, Yinggan - YAO, Rongqian. Using graphene networks to build SiC(rGO, Gx) bulk ceramics from polymeric precursors. In CERAMICS INTERNATIONAL. ISSN 0272-8842, 2021, vol. 47, no. 13, pp. 18466-18476. Dostupné na:

<https://doi.org/10.1016/j.ceramint.2021.03.170>, Registrované v: WOS

ADCA139 HARTMANOVÁ, Mária - LE, M.T. - JERGEL, Matej - ŠMATKO, Vasilij - KUNDRACIK, F. Structure and electrical conductivity of multicomponent metal oxides having scheelite structure. In Russian Journal of Electrochemistry, 2009, vol. 45, no. 6, p. 621-629. (2008: 0.431 - IF, Q4 - JCR, 0.218 - SJR, Q4 - SJR, karentované - CCC). (2009 - Current Contents). ISSN 1023-1935. Dostupné na: <https://doi.org/10.1134/S1023193509060019>

Citácie:

1. [1.1] LIN, Yuanwei - ZHANG, Bo - CHANG, Aimin. Nonlinear electrical behaviors and conductivity mechanisms in Ca1-xYbxCeNbWO8 ceramics. In JOURNAL OF THE AMERICAN CERAMIC SOCIETY. ISSN 0002-7820, 2021, vol. 104, no. 6, pp. 2428-2435. Dostupné na: <https://doi.org/10.1111/jace.17647>, Registrované v: WOS

ADCA140 HARTMANOVÁ, Mária - THURZO, Ilja - JERGEL, Matej - BARTOŠ, J. - KADLEC, K. - ŽELEZNÝ, V. - TUNEGA, Daniel - KUNDRACIK, F. - CHROMIK, Štefan - BRUNEL, M. Characterization of yttria-stabilized zirconia thin films deposited by electron beam evaporation on silicon substrates. In Journal of Materials Science, 1998, vol. 33, no. 4, p. 969-975. (1997: 0.670 - IF). Dostupné na: <https://doi.org/10.1023/A:1004359727737>

Citácie:



1. [1.1] LE THU LAM - VU VAN HUNG - DANG THANH HAI - HO KHAC HIEU. Theoretical investigation of diffusion and electrical properties of yttria-stabilized zirconia thin film. In *THIN SOLID FILMS*. ISSN 0040-6090, 2021, vol. 732, 138787. Dostupné na: <https://doi.org/10.1016/j.tsf.2021.138787>., Registrované v: WOS
- ADCA141 HASHIZUME, T.\*\* - NISHIGUCHI, K. - KANEKI, S. - KUZMÍK, Ján - YATABE, Z. State of the art on gate insulation and surface passivation for GaN-based power HEMTs. In *Materials science in semiconductor processing*, 2018, vol. 78, p. 85-95. (2017: 2.593 - IF, Q2 - JCR, 0.634 - SJR, Q2 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 1369-8001. Dostupné na: <https://doi.org/10.1016/j.mssp.2017.09.028>
- Citácie:
1. [1.1] GUPTA, S.D. - JOSHI, V. - CHAUDHURI, R.R. - SHRIVASTAVA, M. Observations regarding deep-level states causing p-type doping in AlTiO gate and positive threshold voltage shift in AlGaIn/GaN high electron mobility transistors. In *JOURNAL OF APPLIED PHYSICS*. ISSN 0021-8979, JUL 7 2021, vol. 130, no. 1., Registrované v: WOS
2. [1.1] HE, J.Q. - CHENG, W.C. - WANG, Q. - CHENG, K. - YU, H.Y. - CHAI, Y. Recent Advances in GaN-Based Power HEMT Devices. In *ADVANCED ELECTRONIC MATERIALS*. ISSN 2199-160X, APR 2021, vol. 7, no. 4., Registrované v: WOS
3. [1.1] LAUKKANEN, P. - PUNKKINEN, M.P.J. - KUZMIN, M. - KOKKO, K. - LANG, J. - WALLACE, R.M. Passivation of III-V surfaces with crystalline oxidation. In *APPLIED PHYSICS REVIEWS*. ISSN 1931-9401, MAR 2021, vol. 8, no. 1., Registrované v: WOS
4. [1.1] MATYS, M. - ISHIDA, T. - NAM, K.P. - SAKURAI, H. - NARITA, T. - UESUGI, T. - BOCKOWSKI, M. - SUDA, J. - KACHI, T. Mg-implanted bevel edge termination structure for GaN power device applications. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, MAR 1 2021, vol. 118, no. 9., Registrované v: WOS
5. [1.1] MIKULICS, M. - KORDOS, P. - GREGUSOVA, D. - GAZI, S. - NOVAK, J. - SOFER, Z. - MAYER, J. - HARDTDEGEN, H. Local increase in compressive strain (GaN) in gate recessed AlGaIn/GaN MISHFET structures induced by an amorphous AlN dielectric layer. In *SEMICONDUCTOR SCIENCE AND TECHNOLOGY*. ISSN 0268-1242, SEP 2021, vol. 36, no. 9., Registrované v: WOS
6. [1.1] NELA, L. - ERINE, C. - OROPALLO, M.V. - MATIOLI, E. Figures-of-Merit of Lateral GaN Power Devices: Modeling and Comparison of HEMTs and PSJs. In *IEEE JOURNAL OF THE ELECTRON DEVICES SOCIETY*. ISSN 2168-6734, 2021, vol. 9, p. 1066-1075., Registrované v: WOS
7. [1.1] OFIARE, A. - TAKING, S. - KARAMI, K. - DHONGDE, A. - AL-KHALIDI, A. - WASIGE, E. Investigation of Plasma Induced Etch Damage/Changes in AlGaIn/GaN HEMTs. In *INTERNATIONAL JOURNAL OF NANOELECTRONICS AND MATERIALS*. ISSN 1985-5761, DEC 2021, vol. 14, SI, p. 29-36., Registrované v: WOS
8. [1.1] SEOK, O. - HA, M.W. Effects of incomplete ionization on forward current-voltage characteristics of p-type diamond Schottky barrier diodes based on numerical simulation. In *JAPANESE JOURNAL OF APPLIED PHYSICS*. ISSN 0021-4922, JUN 1 2021, vol. 60, no. SC., Registrované v: WOS
9. [1.1] SUSANTO, I. - TSAI, C.Y. - HO, Y.T. - TSAI, P.Y. - YU, I.S. Temperature Effect of van der Waals Epitaxial GaN Films on Pulse-Laser-Deposited 2D MoS2 Layer. In *NANOMATERIALS*. JUN 2021, vol. 11, no. 6., Registrované v: WOS

10. [1.1] TURUT, A. - KARABULUT, A. - EFEOGLU, H. Effect of the Al<sub>2</sub>O<sub>3</sub> interfacial layer thickness on the measurement temperature-induced I-V characteristics in Au/Ti/Al<sub>2</sub>O<sub>3</sub>/n-GaAs structures. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS. ISSN 0957-4522, SEP 2021, vol. 32, no. 17, p. 22680-22688., Registrované v: WOS
  11. [1.1] ZHANG, Y.H. - ZUBAIR, A. - LIU, Z.H. - XIAO, M. - PEROZEK, J. - MA, Y.W. - PALACIOS, T. GaN FinFETs and trigate devices for power and RF applications: review and perspective. In SEMICONDUCTOR SCIENCE AND TECHNOLOGY. ISSN 0268-1242, MAY 2021, vol. 36, no. 5., Registrované v: WOS
- ADCA142 HAŠČÍK, Štefan - HRKÚT, Pavol - KOSTIČ, Ivan - KONEČNÍKOVÁ, Anna. Dry etching of carbon layers in various etch gases. In Vacuum, 2000, vol. 58, p. 434-439. (1999: 0.510 - IF, karentované - CCC). (2000 - Current Contents).
- Citácie:
1. [3.1] HYEONJIN, S.H.I.N. - KIM, S. - MINSU, S.E.O.L. - PARK, S. - YEONCHOO, C.H.O. Hardmask composition and method of forming pattern using the hardmask composition. August 10, 2021, United States Patent no. 11086223 B2.
  2. [3.1] HYEONJIN, S.H.I.N. - KIM, S. - MINSU, S.E.O.L. - PARK, S. - YEONCHOO, C.H.O. Hardmask composition and method of forming pattern using the hardmask composition. June 15, 2021, United States Patent no. 11034847 B2.
- ADCA143 HERRANZ, D. - GUERRERO, R. - VILLAR, R. - ALIEV, F.G. - SWAVING, A.C. - DUINE, R.A. - VAN HAESENDONCK, C. - VÁVRA, Ivo. Anomalous low-frequency noise in synthetic antiferromagnets: possible evidence of current-induced domain-wall motion. In Physical Review B, 2009, vol. 79, 134423. (2008: 3.322 - IF, Q1 - JCR, 2.923 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, WOS, SCOPUS). ISSN 1550-235X.
- Citácie:
1. [1.1] NAKANE, Jotaro J. - KOHNO, Hiroshi. Magnetic-Field-Driven Antiferromagnetic Domain Wall Motion. In JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN. ISSN 0031-9015, 2021, vol. 90, no. 3, pp. Dostupné na: <https://doi.org/10.7566/JPSJ.90.034702>., Registrované v: WOS
- ADCA144 HLINKA, Jozef - GREGORA, I. - POKORNÝ, Jaromír - PLECENIK, Andrej - KÚŠ, P. - SATRAPINSKY, L. - BEŇAČKA, Štefan. Phonons in MgB<sub>2</sub> by polarized Raman scattering on single crystals. In Physical Review B, 2001, vol. 64, p. 140503-1-140503-4. (2000: 3.065 - IF, karentované - CCC). (2001 - Current Contents, WOS, SCOPUS). ISSN 1550-235X.
- Citácie:
1. [1.1] LI YAN-LI - WU YUE - ZHANG XIN-YUE - KONG XIANG-DONG - GAO ZHAO-SHUN - HAN LI. Study on Raman Spectra of MgB<sub>2</sub> Superconducting Film at Different Temperatures. In SPECTROSCOPY AND SPECTRAL ANALYSIS. ISSN 1000-0593, 2021, vol. 41, no. 11, pp. 3451-3455. Dostupné na: [https://doi.org/10.3964/j.issn.1000-0593\(2021\)11-3451-05](https://doi.org/10.3964/j.issn.1000-0593(2021)11-3451-05)., Registrované v: WOS
  2. [1.1] PUTRA, R.P. - LEE, Y.S. - DUONG, P. - KO, Y.J. - KANG, W.N. - KIM, K.H. - KANG, B. Electron-phonon coupling behavior in MgB<sub>2</sub> films with various thicknesses of ZnO buffer layer on metallic substrates. In SOLID STATE COMMUNICATIONS. ISSN 0038-1098, JAN 2021, vol. 323., Registrované v: WOS
- ADCA145 HOLÚBEK, Tomáš - KOVÁČ, Pavol - TAKÁCS, Silvester - HUŠEK, Imrich - MELIŠEK, Tibor. Current sharing and the stability of composite MgB<sub>2</sub> superconductors. In Superconductor Science and Technology, 2008, vol. 21, no.

065013. (2007: 2.547 - IF, Q1 - JCR, 1.430 - SJR, Q1 - SJR, karentované - CCC). (2008 - Current Contents, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] AHMAD, I. - SARUN, P.M. *Theoretical study of electrical current transport in various metal sheathed MgB<sub>2</sub> superconducting wires. In PHYSICA B-CONDENSED MATTER. ISSN 0921-4526, FEB 15 2021, vol. 603.,*

*Registrované v: WOS*

ADCA146 HOLÚBEK, Tomáš - SCHLACHTER, S. - GOLDACKER, W. Fabrication and transport properties of superconducting MgB<sub>2</sub> cables. In Superconductor Science and Technology, 2009, vol. 22, no. 055011. (2008: 1.847 - IF, Q2 - JCR, 1.867 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] BAIRAGI, Nitin - TANNA, Vipul L. *Thermo-Hydraulic Study of MgB<sub>2</sub> Superconducting Feeder for SST-1 Tokamak. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, 2021, vol. 31, no. 4, pp.*

*Dostupné na: <https://doi.org/10.1109/TASC.2021.3063714>., Registrované v: WOS*

ADCA147 HOLÚBEK, Tomáš - DHALLÉ, M. - KOVÁČ, Pavol. Current transfer in MgB<sub>2</sub> wires with different sheath materials. In Superconductor Science and Technology, 2007, vol. 20, p. 123-128. (2006: 1.440 - IF, Q2 - JCR, 1.403 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] AHMAD, I. - SARUN, P.M. *Theoretical study of electrical current transport in various metal sheathed MgB<sub>2</sub> superconducting wires. In PHYSICA B-CONDENSED MATTER. ISSN 0921-4526, FEB 15 2021, vol. 603.,*

*Registrované v: WOS*

2. [1.1] FOURNIER-LUPIEN, J.H. - SIROIS, F. - LACROIX, C. *Concepts of static vs. dynamic current transfer length in 2G HTS coated conductors with a current flow diverter architecture. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, AUG 2021, vol. 34, no. 8.,* Registrované v: WOS

ADCA148 HOLÝ, V. - DARHUBER, A.A. - STANGL, J. - ZERLAUTH, S. - SCHÄFLER, F. - BAUER, G. - DAROWSKI, N. - LUBERT, D. - PIETSCH, U. - VÁVRA, Ivo. Coplanar and grazing incidence x-ray-diffraction investigation of self-organized SiGe quantum dot multilayers. In Physical Review B, 1998, vol. 58, p. 7934-7943. (1997: 2.880 - IF, karentované - CCC). (1998 - Current Contents).

Citácie:

1. [1.1] TOSO, Stefano - BARANOV, Dmitry - GIANNINI, Cinzia - MANNA, Liberato. *Structure and Surface Passivation of Ultrathin Cesium Lead Halide Nanoplatelets Revealed by Multilayer Diffraction. In ACS NANO. ISSN 1936-0851, 2021, vol. 15, no. 12, pp. 20341-20352. Dostupné na:*

*<https://doi.org/10.1021/acsnano.1c08636>., Registrované v: WOS*

ADCA149 HONG, Z. - LI, W. - CHEN, Yanjun - GÖMÖRY, Fedor - FROLEK, Lubomír - ZHANG, M. - SHENG, J.\*\*. Design optimization of superconducting coils based on asymmetrical characteristics of REBCO tapes. In Physica C. Superconductivity and its applications, 2018, vol. 550, p. 74-77. (2017: 1.453 - IF, Q3 - JCR, 0.492 - SJR, Q2 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 0921-4534. Dostupné na: <https://doi.org/10.1016/j.physc.2018.04.008>

Citácie:

1. [1.1] JIANG, Z.N. - SONG, W.J. - PEI, X.Z. - FANG, J. - BADCOCK, R.A. - WIMBUSH, S.C. *15% reduction in AC loss of a 3-phase 1 MVA HTS transformer by exploiting asymmetric conductor critical current. In JOURNAL OF PHYSICS*

- COMMUNICATIONS. ISSN 2399-6528, FEB 2021, vol. 5, no. 2., Registrované v: WOS*
2. [1.1] SUN, Y.M. - FANG, J. - PANTOJA, A.E. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. Role of asymmetric critical current on magnetization loss characteristics of (RE)Ba<sub>2</sub>Cu<sub>3</sub>O<sub>7-d</sub> coated conductors at various temperatures. In *JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, AUG 28 2021, vol. 130, no. 8., Registrované v: WOS*
3. [1.1] YOU, S.R. - KALSI, S.S. - AINSLIE, M.D. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. Simulation of AC Loss in the Armature Windings of a 100 kW All-HTS Motor With Various (RE)BCO Conductor Considerations. In *IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 130968-130980., Registrované v: WOS*
- ADCA150 HOPKINS, S.C. - MITCHELL-WILLIAMS, T.B. - VANDEN BUSSCHE, D.R. - CALLEJA, A. - VLAD, V.R. - VILARDELL, M. - GRANADOS, X. - PUIG, T. - OBRADORS, X. - USOSKIN, A. - SOLOVYOV, Mykola - VOJENČIAK, Michal - GÖMÖRY, Fedor - VAN DRIESCHE, I. - BÄCKER, M. - GLOWACKI, B.A. Low AC loss inkjet-printed multifilamentary YBCO coated conductors. In *IEEE Transactions on Applied Superconductivity*, 2016, vol. 26, art. no. 6602905. (2015: 1.092 - IF, Q3 - JCR, 0.403 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2542001>
- Citácie:
1. [3.1] WULFF, A.C. - ABRAHAMSEN, A.B. - INSINGA, A.R. Multifilamentary coated conductors for ultra-high magnetic field applications. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAY 2021, vol. 34, no. 5.*
- ADCA151 HORVÁTH, B. - HRONEC, M. - VÁVRA, Ivo - ŠUSTEK, M. - KRIŽANOVÁ, Zuzana - DÉREK, Ján - DOBROČKA, Edmund. Direct gas-phase epoxidation of propylene over nanostructured molybdenum oxide film catalysts. In *Catalysis communications*, 2013, vol. 34, p. 16-21. (2012: 2.915 - IF, Q2 - JCR, 1.163 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 1566-7367. Dostupné na: <https://doi.org/10.1016/j.catcom.2013.01.006>
- Citácie:
1. [1.2] FERNÁNDEZ-CATALÁ, Javier - GARCÍA-AGUILAR, Jaime - CAZORLA-AMORÓS, Diego - BERENGUER-MURCIA, Ángel. Keys and New Trends of Iron-Based Catalysts in Selective Oxidation of Propylene in Gas Phase. In *Catalytic Science Series. ISSN 17931398, 2021-01-01, 19, pp. 35-56. Dostupné na: https://doi.org/10.1142/9781786349620\_0002., Registrované v: SCOPUS*
- ADCA152 HOSSAIN, M.S.A. - MOTAMAN, A. - BARUA, S. - PATEL, D. - MUSTAPIC, M. - KIM, J. H. - MAEDA, M. - RINDFLEISCH, M. - TOMSIC, M. - ÇIÇEK, Özlem - MELIŠEK, Tibor - KOPERA, Ľubomír - KARIO, A. - RINGSDORF, B. - RUNTSCH, B. - JUNG, A. - DOU, S.X. - GOLDACKER, W. - KOVÁČ, Pavol. The roles of CHPD: superior critical current density and n-value obtained in binary in situ MgB<sub>2</sub> cables. In *Superconductor Science and Technology*, 2014, vol. 27, 095016. (2013: 2.796 - IF, Q1 - JCR, 0.873 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/27/9/095016>
- Citácie:
1. [1.1] KRINITSINA, T.P. - KUZNETSOVA, E.I. - DEGTYAREV, M.V. - BLINOVA, Y.V. MgB<sub>2</sub>-Based Superconductors: Structure and Properties. In *PHYSICS OF METALS AND METALLOGRAPHY. ISSN 0031-918X, DEC 2021, vol. 122, no. 12, p. 1183-1206., Registrované v: WOS*
- ADCA153 HOTOVÝ, I.\*\* - SPIESS, L. - MIKOLÁŠEK, M. - KOSTIČ, Ivan - SOJKOVÁ,



Michaela - ROMANUS, H. - HULMAN, Martin - BÚC, D. - ŘEHÁČEK, V. Layered WS<sub>2</sub> thin films prepared by sulfurization of sputtered W films. In *Applied Surface Science*, 2021, vol. 544, no. 148719. (2020: 6.707 - IF, Q1 - JCR, 1.295 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2020.148719>

Citácie:

1. [1.1] CUPAK, C. - SZABO, P. S. - BIBER, H. - STADLMAYR, R. - GRAVE, C. - FELLINGER, M. - BROETZNER, J. - WILHELM, R. A. - MOELLER, W. - MUTZKE, A. - MORO, M. V. - AUMAYR, F. Sputter yields of rough surfaces: Importance of the mean surface inclination angle from nano- to microscopic rough regimes. In *APPLIED SURFACE SCIENCE*. ISSN 0169-4332, 2021, vol. 570, no., pp. Dostupné na: <https://doi.org/10.1016/j.apsusc.2021.151204>, Registrované v: WOS

2. [1.1] ROMANOV, Roman - KOZODAEV, Maxim G. - CHERNIKOVA, Anna G. - ZABROSAEV, Ivan - CHOUPRIK, Anastasia A. - ZARUBIN, Sergey S. - NOVIKOV, Sergey M. - VOLKOV, Valentyn S. - MARKEEV, Andrey M. Thickness-Dependent Structural and Electrical Properties of WS<sub>2</sub> Nanosheets Obtained via the ALD-Grown WO<sub>3</sub> Sulfurization Technique as a Channel Material for Field-Effect Transistors. In *ACS OMEGA*. ISSN 2470-1343, 2021, vol., no., pp. Dostupné na: <https://doi.org/10.1021/acsomega.1c04532>, Registrované v: WOS

ADCA154 HOTOVÝ, I. - ŘEHÁČEK, V. - MIKA, F. - LALINSKÝ, Tibor - HAŠČÍK, Štefan - VANKO, Gabriel - DRŽÍK, Milan. Gallium arsenide suspended microheater for MEMS sensor arrays. In *Microsystem Technologies*, 2008, vol. 14, p. 629-635. (2007: 0.912 - IF, Q2 - JCR, 0.594 - SJR, Q2 - SJR).

Citácie:

1. [1.1] KALININ, I. A. - ROSLYAKOV, I. V. - TSYMBARENKO, D. M. - BOGRACHEV, D. A. - KRIVETSKIY, V. V. - NAPOLSKII, K. S. Microhotplates based on Pt and Pt-Rh films: The impact of composition, structure, and thermal treatment on functional properties. In *SENSORS AND ACTUATORS A-PHYSICAL*, 2021, vol. 317, no., pp. ISSN 0924-4247. Dostupné na: <https://doi.org/10.1016/j.sna.2020.112457>, Registrované v: WOS

ADCA155 HOTOVÝ, I. - HURAN, Jozef - SPIESS, L. - ROMANUS, H. - BÚC, D. - KOSIBA, R. NiO-based nanostructured thin films with Pt surface modification for gas detection. In *Thin Solid Films*, 2006, vol. 515, p. 658-661. (2005: 1.569 - IF, Q1 - JCR, 1.179 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents). ISSN 0040-6090.

Citácie:

1. [1.1] MENG, Xue - GAO, Xiaoyong - LI, Binqi. Study on NiO:Zn<sup>2+</sup> films fabricated through dc magnetron reactive sputtering: substrate temperature-dependent microstructure pattern, optical and electrical properties. In *PHYSICA SCRIPTA*, 2021, vol. 96, no. 7, pp. ISSN 0031-8949. Dostupné na: <https://doi.org/10.1088/1402-4896/abf7fd>, Registrované v: WOS

ADCA156 HOTOVÝ, I. - HURAN, Jozef - SPIESS, L. Characterization of sputtered NiO films using XRD and AFM. In *Journal of Materials Science*. - New York : Springer, 2004, vol. 39, p. 2609-2612. (2003: 0.826 - IF, karentované - CCC). (2004 - Current Contents, WOS, SCOPUS). ISSN 0022-2461.

Citácie:

1. [1.1] ACUNA, Juan R. Abenuz - PEREZ, Israel - SOSA, Victor - GAMBOA, Fidel - ELIZALDE, Jose T. - FARIAS, Rurik - CARRILLO, Diana - ENRIQUEZ, Jose L. - BURROLA, Andres - MANI, Pierre. Sputtering power effects on the electrochromic properties of NiO films. In *OPTIK*, 2021, vol. 231, no., pp. ISSN

0030-4026. Dostupné na: <https://doi.org/10.1016/j.ijleo.2021.166509>.,

Registrované v: WOS

2. [1.1] CHTOUKI, T. - EL MRABET, M. - TARBI, A. - GONCHAROVA, I - ERGUIG, H. Comprehensive review of the morphological, linear and nonlinear optical characterization of spin-coated NiO thin films for optoelectronic applications. In OPTICAL MATERIALS, 2021, vol. 118, no., pp. ISSN 0925-3467.

Dostupné na: <https://doi.org/10.1016/j.optmat.2021.111294>., Registrované v: WOS

3. [1.1] ECE, Mehmet Sakir - EKINCI, Arzu - KUTLUAY, Sinan - SAHIN, Omer - HOROZ, Sabit. Facile synthesis and comprehensive characterization of Ni-decorated amine groups-immobilized Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub> magnetic nanoparticles having enhanced solar cell efficiency. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, 2021, vol. 32, no. 13, pp. 18192-18204. ISSN 0957-4522. Dostupné na: <https://doi.org/10.1007/s10854-021-06361-z>.,

Registrované v: WOS

4. [1.1] GUILLEN, Cecilia - HERRERO, Jose. Influence of Acceptor Defects on the Structural, Optical and Electrical Properties of Sputtered NiO Thin Films. In PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE, 2021, vol. 218, no. 16, pp. ISSN 1862-6300. Dostupné na:

<https://doi.org/10.1002/pssa.202100237>., Registrované v: WOS

5. [1.1] LIU, Yusong - MENG, Fanbin - HUANG, Jichuan - NI, Lijuan - SHEN, Yingdong - ZHANG, Liyan. Polyphenylene sulfide-coated wrench composites by nanopinning effect. In NANOTECHNOLOGY REVIEWS, 2021, vol. 10, no. 1, pp. 166-177. ISSN 2191-9089. Dostupné na: <https://doi.org/10.1515/ntrev-2021-0014>., Registrované v: WOS

6. [1.1] YANG, Yi - JOHANSSON, M. - WIOREK, A. - TARAKINA, N. V. - SAYED, F. - MATHIEU, R. - JONSSON, M. - SOROKA, I. L. Gamma-radiation induced synthesis of freestanding nickel nanoparticles. In DALTON TRANSACTIONS, 2021, vol. 50, no. 1, pp. 376-383. ISSN 1477-9226. Dostupné na: <https://doi.org/10.1039/d0dt03223a>., Registrované v: WOS

ADCA157 HOTOVÝ, I. - HURAN, Jozef - SICILIANO, P. - CAPONE, S. - SPIESS, L. - REHACEK, V. Enhancement of H<sub>2</sub> sensing properties of NiO-based thin films with a Pt surface modification. In Sensors and Actuators B, 2004, vol. 103, p. 300-311.

Citácie:

1. [1.1] ARIDI, Amani - AWAD, Ramadan - KHALAF, Ahmed. Synthesis and identification of structural, optical, electrical, and magnetic properties of novel ZnFe<sub>2</sub>O<sub>4</sub>/NiO nanocomposites. In PHYSICA SCRIPTA, 2021, vol. 96, no. 10, pp. ISSN 0031-8949. Dostupné na: <https://doi.org/10.1088/1402-4896/ac0e02>.,

Registrované v: WOS

2. [1.1] CHTOUKI, T. - EL MRABET, M. - TARBI, A. - GONCHAROVA, I - ERGUIG, H. Comprehensive review of the morphological, linear and nonlinear optical characterization of spin-coated NiO thin films for optoelectronic applications. In OPTICAL MATERIALS, 2021, vol. 118, no., pp. ISSN 0925-3467.

Dostupné na: <https://doi.org/10.1016/j.optmat.2021.111294>., Registrované v: WOS

3. [1.1] HAUNSBHAVI, Kumar - KUMAR, Karuppiyah Deva Arun - MELE, Paolo - ALDOSSARY, Omar M. - UBAIDULLAH, Mohd - MAHESH, H. M. - MURAHARI, Prashantha - ANGADI, Basavaraj. Pseudo n-type behaviour of nickel oxide thin film at room temperature towards ammonia sensing. In CERAMICS INTERNATIONAL, 2021, vol. 47, no. 10, pp. 13693-13703. ISSN 0272-8842. Dostupné na: <https://doi.org/10.1016/j.ceramint.2021.01.230>., Registrované v: WOS

4. [1.1] SAIGANESH, Srihasam - KRISHNAN, Thyagarajan - NARASIMHA, Golla - ALMOALLIM, Hesham S. - ALHARI, Sulaiman Ali - REDDY, Lebaka Veeranjanya - MALLIKARJUNA, Koduru - MOHAMMED, Arifullah - PRABHAKAR, Vattikuti S. V. Phytosynthetic Fabrication of Lanthanum Ion-Doped Nickel Oxide Nanoparticles Using Sesbania grandiflora Leaf Extract and Their Anti-Microbial Properties. In CRYSTALS, 2021, vol. 11, no. 2, pp. ISSN 2073-4352. Dostupné na: <https://doi.org/10.3390/cryst11020124>., Registrované v: WOS
  5. [1.1] ZHANG, Zhen - MONDAL, Sandip - MANDAL, Subhasish - ALLRED, Jason M. - AGHAMIRI, Neda Alsadat - FALI, Alireza - ZHANG, Zhan - ZHOU, Hua - CAO, Hui - RODOLAKIS, Fanny - MCCHESENEY, Jessica L. - WANG, Qi - SUN, Yifei - ABATE, Yohannes - ROY, Kaushik - RABE, Karin M. - RAMANATHAN, Shriram. Neuromorphic learning with Mott insulator NiO. In PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 2021, vol. 118, no. 39, pp. ISSN 0027-8424. Dostupné na: <https://doi.org/10.1073/pnas.2017239118>., Registrované v: WOS
- ADCA158 HOTOVÝ, I. - HURAN, Jozef - SPIESS, L. - LIDAY, J. - SITTER, H. - HAŠČÍK, Štefan. Influence of process parameters and annealing temperature on the physical properties of sputtered NiO thin films. In Vacuum, 2002, vol. 69, p. 237-242.
- Citácie:
1. [1.1] JAMAL, Mohammad Shah - SOBAYEL, Khan - MISRAN, Halina - NASRIN, Taskina - ALTHUBEITI, Khaled - ALKHAMMASH, Hend - SHAHIDUZZAMAN, Md - SOPIAN, Kamaruzzaman - AMIN, Nowshad - AKHTARUZZAMAN, Md. Effect of Selective Lateral Chromium Doping by RF Magnetron Sputtering on the Structural, and Opto-Electrical Properties of Nickel Oxide. In APPLIED SCIENCES-BASEL, 2021, vol. 11, no. 23, pp. Dostupné na: <https://doi.org/10.3390/app112311546>., Registrované v: WOS
  2. [1.1] THILAGAVATHI, T. - VENUGOPAL, D. - MARNADU, R. - CHANDRASEKARAN, J. - ALSHAHRANI, T. - SHKIR, Mohd. An Investigation on Microstructural, Morphological, Optical, Photoluminescence and Photocatalytic Activity of WO(3) for Photocatalysis Applications: An Effect of Annealing. In JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, 2021, vol. 31, no. 3, pp. 1217-1230. ISSN 1574-1443. Dostupné na: <https://doi.org/10.1007/s10904-020-01731-2>., Registrované v: WOS
- ADCA159 HOTOVÝ, I. - HURAN, Jozef - JANÍK, J. - KOBZEV, A.P. Deposition and properties of nickel oxide films produced by DC reactive magnetron sputtering. In Vacuum, 1998, vol. 50, p. 157-160. (1997: 0.480 - IF, karentované - CCC). (1998 - Current Contents).
- Citácie:
1. [1.1] LI, Yinlong - SUN, Yun - YANG, Xudong - ZHOU, Zhiqiang - LIU, Fangfang - LI, Feng - SONG, Dengyuan - LIU, Wei. RF magnetron sputtered NiOx and NiOx/c-Si single-side heterojunction solar cells. In CHINESE SCIENCE BULLETIN-CHINESE, 2021, vol. 66, no. 32, pp. 4197-4204. ISSN 0023-074X. Dostupné na: <https://doi.org/10.1360/TB-2021-0294>., Registrované v: WOS
  2. [1.1] WOODS-ROBINSON, Rachel - FIORETTI, Angela N. - HASCHKE, Jan - BOCCARD, Mathieu - PERSSON, Kristin A. - BALLIF, Christophe. Evaluating Materials Design Parameters of Hole-Selective Contacts for Silicon Heterojunction Solar Cells. In IEEE JOURNAL OF PHOTOVOLTAICS, 2021, vol. 11, no. 2, pp. 247-258. ISSN 2156-3381. Dostupné na: <https://doi.org/10.1109/JPHOTOV.2020.3038330>., Registrované v: WOS
- ADCA160 HOTOVÝ, I. - HURAN, Jozef - SPIESS, L. - ČAPKOVIČ, R. - HAŠČÍK, Štefan.



Preparation and characterization of NiO thin films for gas sensor applications. In Vacuum, 2000, vol. 58, p. 300-307. (1999: 0.510 - IF, karentované - CCC). (2000 - Current Contents).

Citácie:

1. [1.1] ABBASNEJAD, Sina - NOROUZI, Banafsheh. Biosynthesis of Nano Nickel Oxide Powder Using *Malva sylvestris*; Evaluation of Electrocatalytic Activity for Determination of Cephalexin in Real Samples. In RUSSIAN JOURNAL OF ELECTROCHEMISTRY, 2021, vol. 57, no. 5, pp. 478-489. ISSN 1023-1935. Dostupné na: <https://doi.org/10.1134/S1023193521050037>., Registrované v: WOS
2. [1.1] GUPTA, Priya - MAURYA, Savita - PANDEY, N. K. - VERMA, Vernica. Structural, electrical and humidity sensing properties of nano-structured nickel oxide prepared by sol-gel method. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, 2021, vol. 32, no. 3, pp. 3529-3542. ISSN 0957-4522. Dostupné na: <https://doi.org/10.1007/s10854-020-05099-4>., Registrované v: WOS

ADCA161 HOTOVÝ, I. - HURAN, Jozef - SICILIANO, P. - CAPONE, S. - SPIESS, L. - REHACEK, V. The Influences of preparation parameters on NiO thin film properties for gas-sensing application. In Sensors and Actuators B : Chemical, 2001, vol. 78, p. 126-132.

Citácie:

1. [1.1] CHTOUKI, T. - EL MRABET, M. - TARBI, A. - GONCHAROVA, I - ERGUIG, H. Comprehensive review of the morphological, linear and nonlinear optical characterization of spin-coated NiO thin films for optoelectronic applications. In OPTICAL MATERIALS, 2021, vol. 118, no., pp. ISSN 0925-3467. Dostupné na: <https://doi.org/10.1016/j.optmat.2021.111294>., Registrované v: WOS
2. [1.1] KAYA, Dogan - AKYOL, Mustafa - WANG, Yitao - GUO, Quanmin - KARADAG, Faruk - EKICIBIL, Ahmet. Investigation of Magnetic Anisotropy in the Ni-Ge and Ni(NiO)-Ge Thin Films. In JOURNAL OF MOLECULAR STRUCTURE, 2021, vol. 1230, no., pp. ISSN 0022-2860. Dostupné na: <https://doi.org/10.1016/j.molstruc.2020.129662>., Registrované v: WOS
3. [1.1] KOKUBUN, Yoshihiro - KOYANAGI, Masato - NAKAGOMI, Shinji. Magnesium Diffusion from MgO Substrates in Sol-Gel-Derived NiO Epitaxial Films: Effects of Heat Treatment Temperature and Li Doping. In PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, 2021, vol. 258, no. 10, pp. ISSN 0370-1972. Dostupné na: <https://doi.org/10.1002/pssb.202100230>., Registrované v: WOS
4. [1.1] SHKIR, Mohd. - KHAN, Z. R. - SAYED, M. A. - CHANDEKAR, Kamlesh V. - KHAN, Aslam - KUMAR, Ashwani - JOWHARI, Mohammed A. - ALFAIFY, S. Effect of Er doping on linear and nonlinear optical properties of NiO films. In CHINESE JOURNAL OF PHYSICS, 2021, vol. 72, no., pp. 547-557. ISSN 0577-9073. Dostupné na: <https://doi.org/10.1016/j.cjph.2021.05.020>., Registrované v: WOS
5. [1.2] PADVI, M. N. - MOHOLKAR, A. V. - PRASAD, S. R. - PRASAD, N. R. A critical review on design and development of gas sensing materials. In Engineered Science, 2021-01-01, 15, pp. 20-37. ISSN 2576988X. Dostupné na: <https://doi.org/10.30919/es8d431>., Registrované v: SCOPUS

ADCA162 HOTOVÝ, I. - HURAN, Jozef - SPIESS, L. - HAŠČÍK, Štefan - REHACEK, V. Preparation of nickel oxide thin films for gas sensors applications. In Sensors and Actuators B : Chemical, 1999, vol. 57, p. 147-152. (1998: 1.130 - IF, karentované - CCC). (1999 - Current Contents).

Citácie:

1. [1.1] ALHARTHI, F.A. - ALANAZI, H.S. - ALSYAH, A.A. - AHMAD, N. Hydrothermal Synthesis, Characterization and Exploration of Photocatalytic Activities of Polyoxometalate: Ni-CoWO<sub>4</sub> Nanoparticles. In CRYSTALS. ISSN 2073-4352, MAY 2021, vol. 11, no. 5., Registrované v: WOS
2. [1.1] CHANDEKAR, K.V. - SHKIR, M. - KHAN, A. - SAYED, M.A. - ALOTAIBI, N. - ALSHAHRANI, T. - ALGARNI, H. - ALFAIFY, S. Significant and systematic impact of yttrium doping on physical properties of nickel oxide nanoparticles for optoelectronics applications. In JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY-JMR&T. ISSN 2238-7854, NOV-DEC 2021, vol. 15, p. 2584-2600., Registrované v: WOS
3. [1.1] KARAMZADEH, A. - BAGHERI-MOHAGHEGHI, M.M. Synthesis and study of structural, optical and magnetic properties of Ni<sub>3</sub>P-Ni compounds nanoparticles: The effect of reduction and complexing agents. In SOLID STATE COMMUNICATIONS. ISSN 0038-1098, FEB 2021, vol. 325., Registrované v: WOS
4. [1.1] KUMAR, V.P. - MATHEW, S. - ANAND, V.R. - RADHAKRISHNAN, P. - NAMPOORI, V.P.N. - MUJEEB, A. Defect level dependent visible emission of nickel oxide nanoparticles through controlled calcination temperature. In OPTIK. ISSN 0030-4026, APR 2021, vol. 231., Registrované v: WOS
5. [1.1] MAITY, P.C. - PULAGARA, N.V. - ARYA, J. - KAUR, G. - KHAN, Y. - LAHIRI, I. Nickel oxide-1D/2D carbon nanostructure hybrid as efficient field emitters. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS. ISSN 0957-4522, JUN 2021, vol. 32, no. 12, p. 16761-16774., Registrované v: WOS
6. [1.1] MOMENI, B.Z. - ANARI, S.K. - TORREI, M. - JANCZAK, J. Crystal exploring, Hirshfeld surface analysis, and properties of 4'-(furan-2-yl)-2,2';6';2';-terpyridine complexes of nickel (II): New precursors for the synthesis of nanoparticles. In APPLIED ORGANOMETALLIC CHEMISTRY. ISSN 0268-2605, MAY 2021, vol. 35, no. 5., Registrované v: WOS
7. [1.1] PEHLIVANOGLU, S.A. Fabrication of p-Si/n-NiO:Zn photodiodes and current/capacitance-voltage characterizations. In PHYSICA B-CONDENSED MATTER. ISSN 0921-4526, FEB 15 2021, vol. 603., Registrované v: WOS
8. [1.1] RUBAB, R. - ALI, S. - REHMAN, A.U. - KHAN, S.A. - KHAN, A.M. Templated synthesis of NiO/SiO<sub>2</sub> nanocomposite for dye removal applications: Adsorption kinetics and thermodynamic properties. In COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS. ISSN 0927-7757, APR 20 2021, vol. 615., Registrované v: WOS
9. [1.2] DEOTALE, Anjali Jain - SINGH, Usha - GOLANI, Mahima - HAJELA, Krishnan - NANDEDKAR, R. V. Raman spectroscopic study of nickel oxide nanoparticles and its antibacterial activity. In AIP Conference Proceedings, 2021-09-13, 2369, pp. ISSN 0094243X. Dostupné na: <https://doi.org/10.1063/5.0061146>., Registrované v: SCOPUS
10. [1.2] DUBE, Paras - PARWANI, Suraj - KAURAV, Netram. Study of dielectric properties of non-stoichiometric nickel oxide. In AIP Conference Proceedings, 2021-09-13, 2369, pp. ISSN 0094243X. Dostupné na: <https://doi.org/10.1063/5.0060883>., Registrované v: SCOPUS
11. [1.2] LEKSHMI, M. S. - K, Arun - SUJA, K. J. Design and simulation of metal oxide gas sensor for breath analyzer application. In Key Engineering Materials. ISSN 10139826, 2021-01-01, 877 KEM, pp. 96-101. Dostupné na: <https://doi.org/10.4028/www.scientific.net/KEM.877.96>., Registrované v: SCOPUS

12. [1.2] MOHAMMED, Khalid G. - AGOOL, Ibrahim R. - ABDULAMEER, Firas S. - DAWOOD, Mohammed O. - ABDULMUNEM, Oday M. - HABUBI, Nadir F. - CHIAD, Sami S. Investigation of Nanostructured NiO and Au Doped NiO Thin Films by SPT. In IOP Conference Series: Earth and Environmental Science, 2021-06-18, 790, 1, pp. ISSN 17551307. Dostupné na: <https://doi.org/10.1088/1755-1315/790/1/012080>., Registrované v: SCOPUS
- ADCA163 HOTOVÝ, I.\*\* - SPIESS, L. - SOJKOVÁ, Michaela - KOSTIČ, Ivan - MIKOLÁŠEK, M. - PREDANOCY, Martin - ROMANUS, H. - HULMAN, Martin - ŘEHÁČEK, V. Structural and optical properties of WS<sub>2</sub> prepared using sulfurization of different thick sputtered tungsten films. In Applied Surface Science, 2018, vol. 461, p. 133-138. (2017: 4.439 - IF, Q1 - JCR, 1.093 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2018.05.209> (VEGA 2/0149/17)
- Citácie:
1. [1.1] ROMANOV, Roman - KOZODAEV, Maxim G. - CHERNIKOVA, Anna G. - ZABROSAEV, Ivan - CHOUPRIK, Anastasia A. - ZARUBIN, Sergey S. - NOVIKOV, Sergey M. - VOLKOV, Valentyn S. - MARKEEV, Andrey M. Thickness-Dependent Structural and Electrical Properties of WS<sub>2</sub> Nanosheets Obtained via the ALD-Grown WO<sub>3</sub> Sulfurization Technique as a Channel Material for Field-Effect Transistors. In ACS OMEGA. ISSN 2470-1343, 2021, vol., no., pp. Dostupné na: <https://doi.org/10.1021/acsomega.1c04532>., Registrované v: WOS
2. [1.1] SETHULEKSHMI, A. S. - JAYAN, Jitha S. - SARITHA, Appukuttan - JOSEPH, Kuruvilla. Insights into the reforcibility and multifarious role of WS<sub>2</sub> in polymer matrix. In JOURNAL OF ALLOYS AND COMPOUNDS. ISSN 0925-8388, 2021, vol. 876, no., pp. Dostupné na: <https://doi.org/10.1016/j.jallcom.2021.160107>., Registrované v: WOS
- ADCA164 HOTOVÝ, I. - HAŠČÍK, Štefan - GREGOR, M. - PREDANOCY, Martin - PLECENÍK, A. Dry etching characteristics of TiO<sub>2</sub> thin films using inductively coupled plasma for gas sensing. In Vacuum, 2014, vol. 107, p. 20-22. (2013: 1.426 - IF, Q2 - JCR, 0.568 - SJR, Q2 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0042-207X. Dostupné na: <https://doi.org/10.1016/j.vacuum.2014.03.025>
- Citácie:
1. [1.1] PIECHULLA, Peter M. - FUHRMANN, Bodo - SLIVINA, Evgeniia - ROCKSTUHL, Carsten - WEHRSPORN, Ralf B. - SPRAFKE, Alexander N. Tailored Light Scattering through Hyperuniform Disorder in Self-Organized Arrays of High-Index Nanodisks. In ADVANCED OPTICAL MATERIALS, 2021, vol. 9, no. 17, pp. ISSN 2195-1071. Dostupné na: <https://doi.org/10.1002/adom.202100186>., Registrované v: WOS
2. [1.1] YIN, Teng - LI, Yan - WANG, Renheng - AL-HARTOMY, Omar A. - AL-GHAMDI, Ahmed - WAGEH, Swelm - LUO, Xiaoling - TANG, Xian - ZHANG, Han. Synthesis of Ti<sub>3</sub>C<sub>2</sub>F<sub>x</sub> MXene with controllable fluorination by electrochemical etching for lithium-ion batteries applications. In CERAMICS INTERNATIONAL, 2021, vol. 47, no. 20, pp. 28642-28649. ISSN 0272-8842. Dostupné na: <https://doi.org/10.1016/j.ceramint.2021.07.023>., Registrované v: WOS
- ADCA165 HRIVNÁK, Ľubomír. Semiinsulating GaAs. In Czechoslovak Journal of Physics B, 1984, vol. 34, p. 436.
- Citácie:
1. [1.1] NIU, T.Y. - QIU, B.Q. - ZHANG, Y. - HIRAKAWA, K. Effects of substrate phonon absorption on the resonance behavior of metal-insulator-metal

- metamaterial terahertz absorbers. In APPLIED PHYSICS EXPRESS. ISSN 1882-0778, DEC 1 2021, vol. 14, no. 12., Registrované v: WOS*
- ADCA166 HRONEC, M. - FULAJTÁROVÁ, K. - VÁVRA, Ivo - SOTÁK, T. - DOBROČKA, Edmund - MIČUŠÍK, Matej. Carbon supported Pd-Cu catalysts for highly selective rearrangement of furfural to cyclopentanone. In *Applied Catalysis B: Environmental*, 2016, vol. 181, p. 210-219. (2015: 8.328 - IF, Q1 - JCR, 2.326 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents). ISSN 0926-3373. Dostupné na: <https://doi.org/10.1016/j.apcatb.2015.07.046>
- Citácie:
1. [1.1] BHARATH, G. - RAMBABU, K. - HAI, A. - BANAT, F. - RAJENDRAN, S. - DIONYSIOU, D.D. - SHOW, P.L. High-performance and stable Ru-Pd nanosphere catalyst supported on two-dimensional boron nitride nanosheets for the hydrogenation of furfural via water-mediated protonation. In *FUEL*. ISSN 0016-2361, APR 15 2021, vol. 290., Registrované v: WOS
  2. [1.1] BYUN, M.Y. - KIM, Y.E. - BAEK, J.H. - JAE, J. - LEE, M.S. Effect of surface properties of TiO<sub>2</sub> on the performance of Pt/TiO<sub>2</sub> catalysts for furfural hydrogenation. In *RSC ADVANCES*. DEC 22 2021, vol. 12, no. 2, p. 860-868., Registrované v: WOS
  3. [1.1] DUTTA, S. - BHAT, N.S. Catalytic Transformation of Biomass-Derived Furfurals to Cyclopentanones and Their Derivatives: A Review. In *ACS OMEGA*. ISSN 2470-1343, DEC 28 2021, vol. 6, no. 51, p. 35145-35172., Registrované v: WOS
  4. [1.1] FU, X.M. - REN, X.Q. - SHEN, J.C. - JIANG, Y. - WANG, Y.H. - OROOJI, Y. - XU, W.L. - LIANG, J.H. Synergistic catalytic hydrogenation of furfural to 1,2-pentanediol and 1,5-pentanediol with LDO derived from CuMgAl hydrotalcite. In *MOLECULAR CATALYSIS*. ISSN 2468-8231, JAN 2021, vol. 499., Registrované v: WOS
  5. [1.1] GAO, G.M. - SHAO, Y.W. - GAO, Y. - WEI, T. - GAO, G.G. - ZHANG, S. - WANG, Y. - CHEN, Q.F. - HU, X. Synergetic effects of hydrogenation and acidic sites in phosphorus-modified nickel catalysts for the selective conversion of furfural to cyclopentanone. In *CATALYSIS SCIENCE & TECHNOLOGY*. ISSN 2044-4753, JAN 21 2021, vol. 11, no. 2, p. 575-593., Registrované v: WOS
  6. [1.1] GHOLINEJAD, M. - KHOSRAVI, F. - AFRASI, M. - SANSANO, J.M. - NAJERA, C. Applications of bimetallic PdCu catalysts. In *CATALYSIS SCIENCE & TECHNOLOGY*. ISSN 2044-4753, APR 21 2021, vol. 11, no. 8, p. 2652-2702., Registrované v: WOS
  7. [1.1] HAO, F. - ZHENG, J.S. - HE, S.L. - ZHANG, H. - LIU, P.L. - LUO, H.A. - XIONG, W. One-step complexed preparation of nitrogen and Cu co-doped oxidative active carbon catalysts Cu-N/OAC for furfural selective hydrogenation with high yield. In *CATALYSIS COMMUNICATIONS*. ISSN 1566-7367, MAR 2021, vol. 151., Registrované v: WOS
  8. [1.1] HERRERA, C. - PINTO-NEIRA, J. - FUENTEALBA, D. - SEPULVEDA, C. - ROSENKRANZ, A. - GARCIA-FIERRO, J.L. - GONZALEZ, M. - ESCALONA, N. Effect of Ni Metal Content on Emulsifying Properties of Ni/CNTox Catalysts for Catalytic Conversion of Furfural in Pickering Emulsions. In *CHEMCATCHEM*. ISSN 1867-3880, JAN 20 2021, vol. 13, no. 2, p. 682-694., Registrované v: WOS
  9. [1.1] HUANG, L. - HAO, F. - LV, Y. - LIU, Y. - LIU, P.L. - XIONG, W. - LUO, H.A. MOF-derived well-structured bimetallic catalyst for highly selective conversion of furfural. In *FUEL*. ISSN 0016-2361, APR 1 2021, vol. 289., Registrované v: WOS
  10. [1.1] KHEMTHONG, P. - YIMSUKANAN, C. - NARKKUN, T. - SRIFA, A. -



- WITOON, T. - PONGCHAIPHOL, S. - KIATPHUENGPORN, S. - FAUNGNAWAKIJ, K. *Advances in catalytic production of value-added biochemicals and biofuels via furfural platform derived lignocellulosic biomass. In BIOMASS & BIOENERGY. ISSN 0961-9534, MAY 2021, vol. 148., Registrované v: WOS*
11. [1.1] KUMAR, A. - SHIVHARE, A. - BAL, R. - SRIVASTAVA, R. *Metal and solvent-dependent activity of spinel-based catalysts for the selective hydrogenation and rearrangement of furfural. In SUSTAINABLE ENERGY & FUELS. ISSN 2398-4902, JUN 21 2021, vol. 5, no. 12, p. 3191-3204., Registrované v: WOS*
12. [1.1] LEE, J. - SEO, J.H. - NGUYEN-HUY, C. - YANG, E. - LEE, J.G. - LEE, H. - JANG, E.J. - KWAK, J.H. - LEE, J.H. - LEE, H. - AN, K. *Cu<sub>2</sub>O(100) surface as an active site for catalytic furfural hydrogenation. In APPLIED CATALYSIS B-ENVIRONMENTAL. ISSN 0926-3373, MAR 2021, vol. 282., Registrované v: WOS*
13. [1.1] LI, D.S. - TIAN, Z.Y. - CAI, X.C. - LI, Z.Q. - ZHANG, C. - ZHANG, W. - SONG, Y.J. - WANG, H. - LI, C.Q. *Nature of polymeric condensates during furfural rearrangement to cyclopentanone and cyclopentanol over Cu-based catalysts. In NEW JOURNAL OF CHEMISTRY. ISSN 1144-0546, DEC 13 2021, vol. 45, no. 48, p. 22767-22777., Registrované v: WOS*
14. [1.1] MORALES, M.V. - CONESA, J.M. - GUERRERO-RUIZ, A. - RODRIGUEZ-RAMOS, I. *Tunable selectivity of Ni catalysts in the hydrogenation reaction of 5-hydroxymethylfurfural in aqueous media: Role of the carbon supports. In CARBON. ISSN 0008-6223, SEP 2021, vol. 182, p. 265-275., Registrované v: WOS*
15. [1.1] PINO, N. - QUINCHIA, J. - GOMEZ, S. - ESPINAL, J.F. - MONTOYA, A. - LOPEZ, D. *Selective heterogeneous hydrodeoxygenation of acetophenone over monometallic and bimetallic Pt-Co catalyst. In PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES. ISSN 1364-503X, NOV 1 2021, vol. 379, no. 2209., Registrované v: WOS*
16. [1.1] PIRMORADI, M. - KASTNER, J.R. *A kinetic model of multi-step furfural hydrogenation over a Pd-TiO<sub>2</sub> supported activated carbon catalyst. In CHEMICAL ENGINEERING JOURNAL. ISSN 1385-8947, JUN 15 2021, vol. 414., Registrované v: WOS*
17. [1.1] PREKOB, A. - VANYOREK, L. - FEJES, Z. *Hydrogenation of benzophenone by carbon-supported Pd catalysts. In MATERIALS TODAY CHEMISTRY. ISSN 2468-5194, MAR 2021, vol. 19., Registrované v: WOS*
18. [1.1] ROTAVERA, B. - TAATJES, C.A. *Influence of functional groups on low-temperature combustion chemistry of biofuels. In PROGRESS IN ENERGY AND COMBUSTION SCIENCE. ISSN 0360-1285, SEP 2021, vol. 86., Registrované v: WOS*
19. [1.1] TIAN, H.L. - GAO, G.M. - XU, Q. - GAO, Z.R. - ZHANG, S. - HU, G.Z. - XU, L.L. - HU, X. *Facilitating selective conversion of furfural to cyclopentanone via reducing availability of metallic nickel sites. In MOLECULAR CATALYSIS. ISSN 2468-8231, JUN 2021, vol. 510., Registrované v: WOS*
20. [1.1] WANG, C.H. - YU, Z.Q. - YANG, Y.H. - SUN, Z.C. - WANG, Y. - SHI, C. - LIU, Y.Y. - WANG, A.J. - LEUS, K. - VAN DER VOORT, P. *Hydrogenative Ring-Rearrangement of Furfural to Cyclopentanone over Pd/UiO-66-NO<sub>2</sub> with Tunable Missing-Linker Defects. In MOLECULES. OCT 2021, vol. 26, no. 19., Registrované v: WOS*
21. [1.1] WANG, D.D. - AL-MAMUN, M. - GONG, W.B. - LV, Y. - CHEN, C. - LIN, Y. - WANG, G.Z. - ZHANG, H.M. - ZHAO, H.J. *Converting Co<sup>2+</sup>-*

*impregnated g-C<sub>3</sub>N<sub>4</sub> into N-doped CNTs-confined Co nanoparticles for efficient hydrogenation rearrangement reactions of furanic aldehydes. In NANO RESEARCH. ISSN 1998-0124, AUG 2021, vol. 14, no. 8, p. 2846-2852.,*

*Registrované v: WOS*

22. [1.1] XIA, H.H. - LI, J. - CHEN, C.Z. - WU, D.C. - REN, J.R. - JIANG, J.C. - ZHOU, M.H. Selective aqueous-phase hydrogenation of furfural to cyclopentanol over Ni-based catalysts prepared from Ni-MOF composite. In INORGANIC CHEMISTRY COMMUNICATIONS. ISSN 1387-7003, NOV 2021, vol. 133.,

*Registrované v: WOS*

23. [1.1] ZHANG, X. - XU, S.Q. - LI, Q.F. - ZHOU, G.L. - XIA, H.A. Recent advances in the conversion of furfural into bio-chemicals through chemo- and bio-catalysis. In RSC ADVANCES. AUG 16 2021, vol. 11, no. 43, p. 27042-27058.,

24. [1.2] FUENTES, Carolina Andrea Bahamondes - HWANG, Yuhoon. Catalytic reduction of nitrate in reverse osmosis concentrate by using Pd-Cu/activated carbon felt. In Energy and Environment, 2021-02-01, 32, 1, pp. 152-167. ISSN 0958305X. Dostupné na: <https://doi.org/10.1177/0958305X20923115>.,

*Registrované v: SCOPUS*

25. [1.2] GUPTA, Jyoti - PAPADIKIS, Konstantinos - KONYSHEVA, Elena Yu - LIN, Yi - KOZHEVNIKOV, Ivan V. - LI, Jingjing. CaO catalyst for multi-route conversion of oakwood biomass to value-added chemicals and fuel precursors in fast pyrolysis. In Applied Catalysis B: Environmental, 2021-05-15, 285, 119858. ISSN 09263373. Dostupné na: <https://doi.org/10.1016/j.apcatb.2020.119858>.,

*Registrované v: SCOPUS*

ADCA167 HRUBČÍN, Ladislav - GUROV, J.B. - ZAŤKO, Bohumír - BOHÁČEK, Pavol - ROZOV, S.V.\*\* - ROZOV, I.E. - SANDUKOVSKY, V.G. - SKURATOV, V.A. The amplitude defect of SiC detectors during the recording of accelerated Xe ions. In Physics of atomic nuclei, 2019, vol. 82, p. 1682-1685. (2018: 0.458 - IF, Q4 - JCR, 0.277 - SJR, Q3 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 1063-7788. Dostupné na: <https://doi.org/10.1134/S1063778819120111>

*Citácie:*

1. [1.1] GAO, Run-Long - LIU, Lin-Yue - RUAN, Jin-Lu - JIN, Peng - OUYANG, Xiao - ZHOU, Lei-Dang - LI, Yang - ZHANG, Si-Long - ZHAO, Kuo - OUYANG, Xiao-Ping. Systematic Analysis of Reliability of Large-Area 4H-SiC Charged Particle Detector Under Harsh He Ion Irradiation. In IEEE TRANSACTIONS ON NUCLEAR SCIENCE, 2021, vol. 68, no. 5, pp. 1169-1174. ISSN 0018-9499.

*Dostupné na: https://doi.org/10.1109/TNS.2021.3069568., Registrované v: WOS*

ADCA168 HUDEC, Boris - HUŠEKOVÁ, Kristína - ROSOVÁ, Alica - ŠOLTÝS, Ján - RAMMULA, R. - KASIKOV, A. - UUSTARE, T. - MIČUŠÍK, Matej - OMASTOVÁ, Mária - AARIK, J. - FRÖHLICH, Karol. Impact of plasma treatment on electrical properties of TiO<sub>2</sub>/RuO<sub>2</sub> based DRAM capacitor. In Journal of Physics D: Applied Physics, 2013, vol. 46, 385304. (2012: 2.528 - IF, Q1 - JCR, 1.279 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0022-3727. Dostupné na: <https://doi.org/10.1088/0022-3727/46/38/385304>

*Citácie:*

1. [1.1] DOS REIS, M.N.G. - NETO, A.S.R. - VASCONCELOS, V.M. - DORIA, A.R. - SANTOS, G.O.S. - DOS SANTOS, E.A. - EGUILUZ, K.I.B. - SALAZAR-BANDA, G.R. Ti/Ru(0.7)M(0.3)O<sub>2</sub> (M = Ir or Ti) anodes made by Pechini and ionic liquid methods: Uneven catalytic activity and stability. In JOURNAL OF ELECTROANALYTICAL CHEMISTRY. ISSN 1572-6657, AUG 15 2021, vol. 895.,

*Registrované v: WOS*

2. [1.1] JUNG, E.Y. - BANG, J. - HWANG, J.H. - HAN, D.H. - KIM, Y. - KIM, H.

- JEON, W. *Chemistry of ruthenium as an electrode for metal-insulator-metal capacitor application*. In *NANOTECHNOLOGY*. ISSN 0957-4484, JAN 22 2021, vol. 32, no. 4., Registrované v: WOS
3. [1.1] PARK, H. - MAMEDA, N. - LI, C.W. - JEONG, H.W. - PARK, H. - CHOO, K.H. *Optimizing RuO<sub>x</sub>-TiO<sub>2</sub> composite anodes for enhanced durability in electrochemical water treatments*. In *CHEMOSPHERE*. ISSN 0045-6535, FEB 2021, vol. 265., Registrované v: WOS
4. [1.1] THAKUR, A.V. - LOKHANDE, B.J. *Study of RuO<sub>2</sub> incorporated PPy hybrid flexible electrodes prepared by soaking and drying technique: a novel approach*. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, DEC 2021, vol. 127, no. 12., Registrované v: WOS
- ADCA169 HUDEC, Boris - HUŠEKOVÁ, Kristína - DOBROČKA, Edmund - AARIK, J. - RAMMULA, R. - KASIKOV, A. - TARRE, A. - VINCZE, A. - FRÖHLICH, Karol. *Atomic layer deposition grown metal-insulator-metal capacitors with RuO<sub>2</sub> electrodes and Al-doped rutile TiO<sub>2</sub> dielectric layer*. In *Journal of Vacuum Science and Technology B*, 2011, vol. 29, 01AC09. (2010: 1.271 - IF, Q2 - JCR, 0.900 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 1071-1023. Dostupné na: <https://doi.org/10.1116/1.3534023>  
Citácie:  
1. [1.1] KWON, D.S. - JEON, W. - KIM, D.G. - KIM, T.K. - SEO, H. - LIM, J. - HWANG, C.S. *Improved Properties of the Atomic Layer Deposited Ru Electrode for Dynamic Random-Access Memory Capacitor Using Discrete Feeding Method*. In *ACS APPLIED MATERIALS & INTERFACES*. ISSN 1944-8244, MAY 26 2021, vol. 13, no. 20, p. 23915-23927., Registrované v: WOS
- ADCA170 HUDEC, Boris - WANG, I-T. - LAI, W.-L. - CHANG, C.-C. - JANČOVIČ, Peter - FRÖHLICH, Karol - MIČUŠÍK, Matej - OMASTOVÁ, Mária - HOU, T.-H. *Interface engineered HfO<sub>2</sub>-based 3D vertical ReRAM*. In *Journal of Physics D: Applied Physics*, 2016, vol. 49, no. 215102. (2015: 2.772 - IF, Q1 - JCR, 0.886 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 0022-3727. Dostupné na: <https://doi.org/10.1088/0022-3727/49/21/215102>  
Citácie:  
1. [1.1] BILDER, C.R. - TEBBS, J.M. - MCMAHAN, C.S. *Informative array testing with multiplex assays*. In *STATISTICS IN MEDICINE*. ISSN 0277-6715, JUN 15 2021, vol. 40, no. 13, p. 3021-3034., Registrované v: WOS  
2. [1.1] SUN, B. - RANJAN, S. - ZHOU, G. - GUO, T. - XIA, Y. - WEI, L. - ZHOU, Y. N. - WU, Y. A. *Multistate resistive switching behaviors for neuromorphic computing in memristor*. In *MATERIALS TODAY ADVANCES*, 2021, vol. 9, no., pp. ISSN 2590-0498. Dostupné na: <https://doi.org/10.1016/j.mtadv.2020.100125>., Registrované v: WOS
- ADCA171 HUDEC, Boris - HSU, C.-W. - WANG, I-T. - LAI, W.-L. - CHANG, C.-C. - WANG, T. - FRÖHLICH, Karol - HO, C.-H. - LIN, C.-H. - HOU, T.-H. *3D resistive RAM cell design for high-density storage class memory - a review*. In *Science China Information Sciences*, 2016, vol. 59, art. no. 061403. (2015: 0.885 - IF, Q3 - JCR, 0.357 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents, INSPEC, WOS, SCOPUS). ISSN 1674-733X. Dostupné na: <https://doi.org/10.1007/s11432-016-5566-0>  
Citácie:  
1. [1.1] AN, H.Y. - AN, Q.Y. - YI, Y. *Realizing Behavior Level Associative Memory Learning Through Three-Dimensional Memristor-Based Neuromorphic Circuits*. In *IEEE TRANSACTIONS ON EMERGING TOPICS IN COMPUTATIONAL INTELLIGENCE*. ISSN 2471-285X, AUG 2021, vol. 5, no. 4, p. 668-678., Registrované v: WOS



2. [1.1] CAMBOU, B. - TELESKA, D. - ASSIRI, S. - GARRETT, M. - JAIN, S. - PARTRIDGE, M. TRNGs from Pre-Formed ReRAM Arrays. In *CRYPTOGRAPHY*. MAR 2021, vol. 5, no. 1., Registrované v: WOS
3. [1.1] CHEN, Q.Y. - WANG, Z.W. - LIN, M. - QI, X. - YU, Z.Z. - WU, L.D. - BAO, L. - LING, Y.T. - QIN, Y.B. - CAI, Y.M. - HUANG, R. Homogeneous 3D Vertical Integration of Parylene-C Based Organic Flexible Resistive Memory on Standard CMOS Platform. In *ADVANCED ELECTRONIC MATERIALS*. ISSN 2199-160X, FEB 2021, vol. 7, no. 2., Registrované v: WOS
4. [1.1] DONGALE, T.D. - KAMBLE, G.U. - KANG, D.Y. - KUNDALE, S.S. - AN, H.M. - KIM, T.G. Recent Progress in Selector and Self-Rectifying Devices for Resistive Random-Access Memory Application. In *PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS*. ISSN 1862-6254, SEP 2021, vol. 15, no. 9., Registrované v: WOS
5. [1.1] FAHMY, G.A. - ZORKANY, M. Design of a Memristor-Based Digital to Analog Converter (DAC). In *ELECTRONICS*. MAR 2021, vol. 10, no. 5., Registrované v: WOS
6. [1.1] LIN, P. - XIA, Q.F. Three-dimensional hybrid circuits: the future of neuromorphic computing hardware. In *NANO EXPRESS*. SEP 1 2021, vol. 2, no. 3., Registrované v: WOS
7. [1.2] CAMBOU, Bertrand - CHEN, Ying Chen. Tamper Sensitive Ternary ReRAM-Based PUFs. In *Lecture Notes in Networks and Systems*, 2021-01-01, 285, pp. 1020-1040. ISSN 23673370. Dostupné na: [https://doi.org/10.1007/978-3-030-80129-8\\_67](https://doi.org/10.1007/978-3-030-80129-8_67)., Registrované v: SCOPUS
8. [1.2] UPADHYAY, Navnidhi K. - BLUM, Thomas - MAKSYMOWYCH, Petro - LAVRIK, Nikolay V. - DAVILA, Noraica - KATINE, Jordan A. - IEVLEV, A. V. - CHI, Miaofang - XIA, Qiangfei - YANG, J. Joshua. Engineering Tunneling Selector to Achieve High Non-linearity for 1S1R Integration. In *Frontiers in Nanotechnology*, 2021-04-15, 3, pp. Dostupné na: <https://doi.org/10.3389/fnano.2021.656026>., Registrované v: SCOPUS

ADCA172 HUDEC, Boris - HUŠEKOVÁ, Kristína - TARRE, A. - HAN, J.H. - HAN, S. - ROŠOVÁ, Alica - LEE, W. - KASIKOV, A. - SONG, S.J. - AARIK, J. - HWANG, C.S. - FRÖHLICH, Karol. Electrical properties of TiO<sub>2</sub>-based MIM capacitors deposited by TiCl<sub>4</sub> and TTIP based atomic layer deposition processes. In *Microelectronic Engineering*, 2011, vol. 88, p. 1514-1516. (2010: 1.575 - IF, Q2 - JCR, 0.934 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0167-9317. Dostupné na: <https://doi.org/10.1016/j.mee.2011.03.059>

Citácie:

1. [1.1] LEI, Jin - FANG, Chang - LIU, Chang - WU, Di - LI, Ai-Dong. Flexible Al-Ti-Zn-O MIM capacitors fabricated by room temperature atomic layer deposition and their electrical performances. In *JOURNAL OF ALLOYS AND COMPOUNDS*, 2021, vol. 870, no., pp. ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2021.159391>., Registrované v: WOS
2. [1.1] QAID, Mohammad M. - ALSALHI, Mohamad S. Leakage current and charge transport mechanism in Poly(phenylene oxide)-Conductor Schottky bilayers. In *MATERIALS CHEMISTRY AND PHYSICS*, 2021, vol. 259, no., pp. ISSN 0254-0584. Dostupné na: <https://doi.org/10.1016/j.matchemphys.2020.124054>., Registrované v: WOS

ADCA173 HUDEC, Boris - PASKALEVA, A. - JANČOVIČ, Peter - DÉRER, Ján - FEDOR, Ján - ROŠOVÁ, Alica - DOBROČKA, Edmund - FRÖHLICH, Karol. Resistive switching in TiO<sub>2</sub>-based metal-insulator-metal structures with Al<sub>2</sub>O<sub>3</sub> barrier layer at the metal/dielectric interface. In *Thin Solid Films*, 2014, vol. 563, p. 10-14. (2013: 1.867 - IF, Q2 - JCR, 0.818 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current

Contents, WOS, SCOPUS). ISSN 0040-6090. Dostupné na:

<https://doi.org/10.1016/j.tsf.2014.02.030>

Citácie:

1. [1.1] SIEGEL, Sebastian - BAEUMER, Christoph - GUTSCHE, Alexander - VON WITZLEBEN, Moritz - WASER, Rainer - MENZEL, Stephan - DITTMANN, Regina. Trade-Off Between Data Retention and Switching Speed in Resistive Switching ReRAM Devices. In *ADVANCED ELECTRONIC MATERIALS*, 2021, vol. 7, no. 1, pp. ISSN 2199-160X. Dostupné na:

<https://doi.org/10.1002/aelm.202000815>, Registrované v: WOS

ADCA174

HULMAN, Martin\*\* - SOJKOVÁ, Michaela - VÉGSO, Karol - MRKÝVKOVÁ, Nad'a, Tesařová - HAGARA, Jakub - HUTÁR, Peter - KOTRUSZ, Peter - HUDEC, Ján - TOKÁR, Kamil - MAJKOVÁ, Eva - ŠIFFALOVICH, Peter. Polarized Raman Reveals Alignment of Few-Layer MoS<sub>2</sub> Films. In *Journal of Physical Chemistry C*, 2019, vol. 123, no. 48, p. 29468-29475. (2018: 4.309 - IF, Q1 - JCR, 1.652 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 1932-7447.

Dostupné na: <https://doi.org/10.1021/acs.jpcc.9b08708> (APVV 17-0560)

Citácie:

1. [1.1] BAI, X. - LV, H. - LIU, Z. - CHEN, J.K. - WANG, J. - SUN, B.H. - ZHANG, Y. - WANG, R.H. - SHI, K.Y. Thin-layered MoS<sub>2</sub> nanoflakes vertically grown on SnO<sub>2</sub> nanotubes as highly effective room-temperature NO<sub>2</sub> gas sensor. In *JOURNAL OF HAZARDOUS MATERIALS*. ISSN 0304-3894, AUG 15 2021, vol. 416, 125830., Registrované v: WOS

2. [1.1] RAHMATI, B. - GHAYEB-ZAMHARIR, S. - KARIMZADEH, R. - MOHSENI, S.M. Nonlinear Optical Properties of Vertically-Aligned MoS<sub>2</sub> Nanosheets. In *JOURNAL OF ELECTRONIC MATERIALS*. ISSN 0361-5235, JUN 2021, vol. 50, no. 6, SI, p. 3645-3651., Registrované v: WOS

3. [1.1] ZUO, S.X. - CAO, X.M. - WANG, P.J. - LI, X.Z. - LIU, W.J. - XU, R. - YAO, C. - FU, Y.S. - LIU, X.H. Synthesis of ultrathin-layered MoS<sub>2</sub>/conductive mica composites with enhanced visible photocatalytic activity. In *MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING*. ISSN 1369-8001, JAN 2021, vol. 121, 105457., Registrované v: WOS

ADCA175

HURAN, Jozef - VALOVIČ, Albín - BOHÁČEK, Pavol - SHVETSOV, V.N. - KOBZEV, A.P. - BORZAKOV, S.B. - KLEINOVÁ, Angela - SEKÁČOVÁ, Mária - ARBET, Juraj - SASINKOVÁ, Vlasta. The effect of neutron irradiation on the properties of SiC and SiC(N) layer prepared by plasma enhanced chemical vapor deposition. In *Applied Surface Science*, 2013, vol. 269, p. 88-91. (2012: 2.112 - IF, Q1 - JCR, 0.913 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na:

<https://doi.org/10.1016/j.apsusc.2012.10.162>

Citácie:

1. [1.1] MIRZAYEV, M.N. - ABDURAKHIMOV, B.A. - DEMIR, E. - DONKOV, A.A. - POPOV, E. - TASHMETOV, M.Y. - GENOV, I.G. - THABETHE, T.T. - SIEMEK, K. - KREZHOV, K. - MAMEDOV, F. - MIRZAYEVA, D.M. - BULAVIN, M.V. - TURCHENKO, V.A. - THANG, T.X. - ABDURAKHMONOV, T.Z. - HORODEK, P. Investigation of the formation of defects under fast neutrons and gamma irradiation in 3C?SiC nano powder. In *PHYSICA B-CONDENSED MATTER*. ISSN 0921-4526, JUN 15 2021, vol. 611., Registrované v: WOS

2. [1.1] YOSHIMURA, S. - SUGIMOTO, S. - TAKEUCHI, T. - MURAI, K. - KIUCHI, M. Low-energy Ar<sup>+</sup> and N<sup>+</sup> ion beam induced chemical vapor deposition using hexamethyldisilazane for the formation of nitrogen containing SiC and carbon containing SiN films. In *PLOS ONE*. ISSN 1932-6203, OCT 27 2021, vol. 16, no. 10., Registrované v: WOS

- ADCA176 HURAN, Jozef - BOHÁČEK, Pavol - SHVETSOV, V.N. - KOBZEV, A.P. - KLEINOVÁ, Angela - BORZAKOV, S.B. - HRUBČÍN, Ladislav - SEKÁČOVÁ, Mária - BALALYKIN, Nikolay I. Neutron-irradiation effect on the electrical characteristics of amorphous silicon carbide and nitrogen-doped silicon carbide films prepared by PECVD technology. In *Physica status solidi A. Applications and materials science*, 2013, vol. 210, p. 2756-2761. (2012: 1.469 - IF, Q2 - JCR, 0.866 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 1862-6300. Dostupné na: <https://doi.org/10.1002/pssa.201330248>  
Citácie:  
1. [1.2] Zhang, X., Gao, Y., Zhang, Y., Xue, J. Construction of an in-situ radiation test system for semiconductor materials and devices based on a 4.5 MV accelerator In *4th International Conference on Radiation Effects of Electronic Devices, ICREED 2021, Registrované v: SCOPUS*
- ADCA177 HUSANÍKOVÁ, Petra - FEDOR, Ján - DÉRER, Ján - ŠOLTÝS, Ján - CAMBEL, Vladimír - IAVARONE, M. - MAY, S.J. - KARAPETROV, Goran. Magnetization properties and vortex phase diagram of Cu xTiSe2 single crystals. In *Physical Review B*, 2013, vol. 88, 174501. (2012: 3.767 - IF, Q1 - JCR, 1.779 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 1550-235X.  
Citácie:  
1. [1.1] SHOKRI, Asiye - YAZDANI, Ahmad - RAHIMI, Kourosh. Electronic and optical properties of antimonene/palladium ditelluride (Sb/ PdTe2) heterostructure with the effect of strain and external electric field: A computational study. In *PHYSICA B-CONDENSED MATTER*, 2021, vol. 612, no., pp. ISSN 0921-4526. Dostupné na: <https://doi.org/10.1016/j.physb.2021.412977>., Registrované v: WOS
- ADCA178 HUŠEK, Imrich - KOVÁČ, Pavol - MELIŠEK, Tibor - KOPERA, Ľubomír. Thermally stabilized MgB2 composite wires with different barriers. In *Cryogenics*, 2011, vol. 51, p. 550-554. (2010: 1.130 - IF, Q2 - JCR, 0.589 - SJR, Q2 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0011-2275. Dostupné na: <https://doi.org/10.1016/j.cryogenics.2011.07.006>  
Citácie:  
1. [1.1] SHAHBAZI, M. - DEHGHAN-MANSHADI, A. - HOSSAIN, M. - RAVISHANKAR, R. - MACKINNON, I. Microstructure and Superconducting Properties of Copper Sheathed MgB2 Wires With Ti Barrier Fabricated by in Situ Powder-in-Tube Method. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
- ADCA179 HUŠEK, Imrich - KOVÁČ, Pavol. Mechanical properties, interface reactions and transport current densities of multi-core MgB2/Ti/Cu/SS wire. In *Superconductor Science and Technology*, 2010, vol. 23, no. 075012. (2009: 2.694 - IF, 1.256 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/23/7/075012>  
Citácie:  
1. [1.1] SHAHBAZI, M. - DEHGHAN-MANSHADI, A. - HOSSAIN, M. - RAVISHANKAR, R. - MACKINNON, I. Microstructure and Superconducting Properties of Copper Sheathed MgB2 Wires With Ti Barrier Fabricated by in Situ Powder-in-Tube Method. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
- ADCA180 HUŠEKOVÁ, Kristína - DOBROČKA, Edmund - ROSOVÁ, Alica - ŠOLTÝS, Ján - ŠATKA, A. - FILLOT, F. - FRÖHLICH, Karol. Growth of RuO2 thin films by

liquid injection atomic layer deposition. In *Thin Solid Films*, 2010, vol. 518, p. 4701-4704. (2009: 1.727 - IF, Q1 - JCR, 1.127 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents). ISSN 0040-6090. Dostupné na: <https://doi.org/10.1016/j.tsf.2009.12.063>

Citácie:

1. [1.2] WINTER, Charles H. - UPADHYAY, Apoorva - OVERBEEK, Michael - HOLLIN, Jonathan - CWIK, Stefan. Group 7 and 8 compounds for chemical vapor deposition. In *Comprehensive Coordination Chemistry III*, 2021-07-21, 1-9, pp. 824-841. Dostupné na: <https://doi.org/10.1016/B978-0-12-409547-2.14951-0>, Registrované v: SCOPUS

ADCA181 HUŠEKOVÁ, Kristína - HUŠEK, Imrich - KOVÁČ, Pavol - KULICH, Miloslav - DOBROČKA, Edmund - ŠTRBÍK, Vladimír. Properties of MgB<sub>2</sub> superconductor chemically treated by acetic acid. In *Physica C*, 2010, vol. 470, p. 331-335. (2009: 0.723 - IF, Q3 - JCR, 0.422 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, WOS, SCOPUS). ISSN 0921-4534. Dostupné na: <https://doi.org/10.1016/j.physc.2010.02.001>

Citácie:

1. [1.1] CAPRA, M. - BOVONE, G. - LORIA, F. - BERNINI, C. - HOPKINS, S.C. - BALLARINO, A. - TROPEANO, M. - TUMINO, A. - GRASSO, G. - FERDEGHINI, C. - PUTTI, M. - VIGNOLO, M. Weak acid leaching of MgB<sub>2</sub> to purify magnesiothermic boron powder. In *MATERIALS TODAY COMMUNICATIONS*. MAR 2021, vol. 26., Registrované v: WOS

2. [1.1] OLATUNJI, S.O. - OWOLABI, T.O. Modeling superconducting transition temperature of doped MgB<sub>2</sub> superconductor from structural distortion and ambient temperature resistivity measurement using hybrid intelligent approach. In *COMPUTATIONAL MATERIALS SCIENCE*. ISSN 0927-0256, MAY 2021, vol. 192., Registrované v: WOS

ADCA182 HUTÁR, Peter\*\* - ŠPANKOVÁ, Marianna - SOJKOVÁ, Michaela - DOBROČKA, Edmund - VÉGSO, Karol - HAGARA, Jakub - HALAHOVETS, Yuriy - MAJKOVÁ, Eva - ŠIFFALOVIC, Peter - HULMAN, Martin. Highly Crystalline MoS<sub>2</sub> Thin Films Fabricated by Sulfurization. In *Physica Status Solidi B. Basic Research*, 2019, vol. 256, no. 12, 1900342. (2018: 1.454 - IF, Q3 - JCR, 0.519 - SJR, Q2 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0370-1972. Dostupné na: <https://doi.org/10.1002/pssb.201900342> (VEGA 2/0149/17. APVV 17-0560)

Citácie:

1. [1.1] JOHARI, M.H. - SIRAT, M.S. - MOHAMED, M.A. - WAKAYAMA, Y. - MOHMAD, A.R. Effects of post-annealing on MoS<sub>2</sub> thin films synthesized by multi-step chemical vapor deposition. In *NANOMATERIALS AND NANOTECHNOLOGY*. ISSN 1847-9804, FEB 9 2021, vol. 11, 1847980420981537., Registrované v: WOS

ADCA183 CHAUHAN, Prerna\*\* - HASENÖHRL, Stanislav - DOBROČKA, Edmund - CHAUVAT, M.-P. - MINJ, A. - GUCMANN, Filip - VANČO, L. - KOVÁČ, Jaroslav Jr. - KRET, S. - RUTERANA, P. - KUBALL, M. - ŠIFFALOVIC, Peter - KUZMÍK, Ján. Evidence of relationship between strain and In-incorporation: growth of N-polar In-rich InAlN buffer layer by OMCVD. In *Journal of Applied Physics*, 2019, vol. 125, no. 10, 105304. (2018: 2.328 - IF, Q2 - JCR, 0.746 - SJR, Q2 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.5079756>

Citácie:

1. [1.1] TOPRAK, A. - YILMAZ, D. - OZBAY, E. Selectively dry etched of p-GaN/InAlN heterostructures using BCl<sub>3</sub>-based plasma for normally-off HEMT



- technology. In MATERIALS RESEARCH EXPRESS. DEC 2021, vol. 8, no. 12, 126302., Registrované v: WOS*
- ADCA184 CHAUHAN, Prerna\*\* - HASENÖHRL, Stanislav - MINJ, A. - CHAUVAT, M.-P. - RUTERANA, P. - KUZMÍK, Ján. Growth evolution of N-polar Indium-rich InAlN layer on c-sapphire via strain relaxation by ultrathin AlON interlayer. In Applied Surface Science, 2020, vol. 502, no. 144086. (2019: 6.182 - IF, Q1 - JCR, 1.230 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2019.144086>
- Citácie:
1. [1.1] CHEN, L. - LIN, W. - CHEN, H.Y. - XU, H.Q. - GUO, C.Y. - LIU, Z.B. - YAN, J.C. - SUN, J. - LIU, H. - WU, J.S. - GUO, W. - KANG, J.Y. - YE, J.C. Annihilation and Regeneration of Defects in (11 $\bar{2}$ )over-bar(2) Semipolar AlN via High-Temperature Annealing and MOVPE Regrowth. In CRYSTAL GROWTH & DESIGN. ISSN 1528-7483, MAY 5 2021, vol. 21, no. 5, p. 2911-2919., Registrované v: WOS
- ADCA185 CHEN, D.-X.\*\* - PARDO, Enric - ZHU, Y.-H. - XIANG, L.-X. - DING, J.-Q. Demagnetizing correction in fluxmetric measurements of magnetization curves and hysteresis loops of ferromagnetic cylinders. In Journal of Magnetism and Magnetic Materials, 2018, vol. 449, p. 447-454. (2017: 3.046 - IF, Q2 - JCR, 0.786 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0304-8853. Dostupné na: <https://doi.org/10.1016/j.jmmm.2017.10.069>
- Citácie:
1. [1.1] SANDULYAK, A.A. - SANDULYAK, A.V. - SHKATOV, P.N. - TKACHENKO, R.Y. - SANDULYAK, D.A. - ERMOLAEV, A.A. On the requirements for determining the magnetic properties of a material based on the results of diagnostics of its rod sample. In AIP ADVANCES. SEP 1 2021, vol. 11, no. 9., Registrované v: WOS
2. [1.1] SANDULYAK, A.V. - SANDULYAK, D.A. - TKACHENKO, R.Y. - SANDULYAK, A.A. - POLISMAKOVA, M.N. - KISELEV, D.O. Magnetic Properties of Ferromagnetic Samples of Various Lengths, Approximation of the Demagnetizing Factor. In INORGANIC MATERIALS-APPLIED RESEARCH. ISSN 2075-1133, JUL 2021, vol. 12, no. 4, p. 1076-1082., Registrované v: WOS
3. [1.2] ALEXANDER, Sandulyak - ANNA, Sandulyak - VERA, Ershova - DARIA, Sandulyak - ROMAN, Tkachenko. Criterion of the relative length of the disperse magnet when determining its potential magnetic properties. In Proceedings of the 2021 1st International Conference on Advances in Electrical, Computing, Communications and Sustainable Technologies, ICAECT 2021, 2021-01-01, pp. Dostupné na: <https://doi.org/10.1109/ICAECT49130.2021.9392423>., Registrované v: SCOPUS
- ADCA186 CHROMIK, Štefan - CANNAERTS, M. - GAŽI, Štefan - HAESENDOCK, C. van - ŠPANKOVÁ, Marianna - KÚŠ, P. - BENÁČKA, Štefan. Influence of (1102) sapphire substrate on structural perfection of CeO<sub>2</sub> thin films. In Physica C, 2002, vol. 371, p. 301-308. (2001: 0.806 - IF, karentované - CCC). (2002 - Current Contents, WOS, SCOPUS). ISSN 0921-4534.
- Citácie:
1. [1.1] SOJKOVA, Michaela - DOBROCKA, Edmund - HUTAR, Peter - TASKOVA, Valeria - SLUSNA, Lenka Pribusova - STOKLAS, Roman - PIS, Igor - BONDINO, Federica - MUNNIK, Frans - HULMAN, Martin. High carrier mobility epitaxially aligned PtSe<sub>2</sub> films grown by one-zone selenization. In APPLIED SURFACE SCIENCE, 2021, vol. 538, no., pp. ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2020.147936>., Registrované v: WOS

- ADCA187 CHROMIK, Štefan - ŠTRBÍK, Vladimír - DOBROČKA, Edmund - ROCH, T. - ROSOVÁ, Alica - ŠPANKOVÁ, Marianna - LALINSKÝ, Tibor - VANKO, Gabriel - LOBOTKA, Peter - RALBOVSKÝ, M. - CHOLEVA, P. LSMO thin films with high metal-insulator transition temperature on buffered SOI substrates for uncooled microbolometers. In *Applied Surface Science*, 2014, vol. 312, p. 30-33. (2013: 2.538 - IF, Q1 - JCR, 0.965 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2014.05.051>
- Citácie:
- [1.1] GUAN, X.L. - CHU, K.L. - LI, H.J. - PU, X.R. - YU, X.H. - JIN, S.Z. - ZHU, Y. - SUN, S.H. - PENG, J.B. - LIU, X. Using spin coating method to prepare near room-temperature TCR of  $\text{La}_{0.7}\text{Ca}_{0.205}\text{Sr}_{0.095}\text{MnO}_3$  films for uncooled infrared bolometers. In *JOURNAL OF ALLOYS AND COMPOUNDS*. ISSN 0925-8388, SEP 25 2021, vol. 876., Registrované v: WOS
  - [1.1] GUAN, X.L. - LI, H.J. - JIN, S.Z. - YU, X.H. - CHU, K.L. - PU, X.R. - GU, X. - PENG, J.B. - LIU, X. TCR and MR room-temperature enhancing mechanism of  $\text{La}_{0.7}\text{K}_{0.3-x}\text{Sr}_x\text{MnO}_3$  ceramics for uncooling infrared bolometers and magnetic sensor devices. In *CERAMICS INTERNATIONAL*. ISSN 0272-8842, JUL 1 2021, vol. 47, no. 13, p. 18931-18941., Registrované v: WOS
  - [1.1] LIU, Y. - DONG, G. - ZHANG, S. - LIU, X. High-density sol-gel derived, cold-isostatically pressed  $\text{La}_{0.67}\text{Ca}_{0.27}\text{Sr}_{0.06}\text{MnO}_3$  polycrystalline ceramics and their room-temperature TCR improvement. In *CERAMICS INTERNATIONAL*. ISSN 0272-8842, MAR 15 2021, vol. 47, no. 6, p. 7674-7682., Registrované v: WOS
  - [1.1] YANG, S.A. - CHEN, Q.M. - HU, J. - YANG, Y.R. - GAO, Y. - XU, R.D. - ZHANG, H. - MA, J. Robust temperature coefficient of resistance of polycrystalline  $\text{La}_{0.6}\text{Ca}_{0.4}\text{MnO}_3$  under magnetic fields at room temperature. In *CERAMICS INTERNATIONAL*. ISSN 0272-8842, NOV 1 2021, vol. 47, no. 21, p. 29631-29637., Registrované v: WOS
  - [1.1] YU, X.H. - JIN, S.Z. - LI, H.J. - GUAN, X.L. - GU, X. - LIU, X. High room-temperature TCR and MR of  $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$  thin films for advanced uncooled infrared bolometers and magnetic sensors. In *APPLIED SURFACE SCIENCE*. ISSN 0169-4332, DEC 30 2021, vol. 570., Registrované v: WOS
  - [1.1] YU, Z.Y. - LI, H.J. - GUAN, X.L. - GU, X. - YU, X.H. - JIN, S.Z. - LI, Z.D. - ZHANG, H. - CHEN, Q.M. - LIU, X. Significantly enhanced room-temperature TCR and MR of  $\text{La}_{(0.67)}\text{K}_{(0.33-x)}\text{Sr}_x\text{MnO}_3$  ceramics by adjusting Sr content. In *CERAMICS INTERNATIONAL*. ISSN 0272-8842, DEC 1 2021, vol. 47, no. 23, p. 33202-33213., Registrované v: WOS
- ADCA188 CHROMIK, Štefan - SOJKOVÁ, Michaela - VRETENÁR, Viliam - ROSOVÁ, Alica - DOBROČKA, Edmund - HULMAN, Martin. Influence of GaN/AlGaIn/GaN (0001) and Si (100) substrates on structural properties of extremely thin  $\text{MoS}_2$  films grown by pulsed laser deposition. In *Applied Surface Science*, 2017, vol. 395, p. 232-236. (2016: 3.387 - IF, Q1 - JCR, 0.958 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2016.06.038>
- Citácie:
- [1.1] YANG, G.F. - DING, Y. - LU, N.Y. - XIE, F. - GU, Y. - YE, B.J. - YAO, Y.F. - ZHANG, X.M. - HUO, X.X. Insights Into the Two-Dimensional  $\text{MoS}_2$  Grown on AlGaIn(GaN) Substrates by CVD Method. In *IEEE PHOTONICS JOURNAL*. ISSN 1943-0655, DEC 2021, vol. 13, no. 6., Registrované v: WOS
- ADCA189 CHVÁLA, A.\*\* - NAGY, L. - MAREK, J. - PRIESOL, J. - DONOVAL, D. - BLAHO, Michal - GREGUŠOVÁ, Dagmar - KUZMÍK, Ján - ŠATKA, A.

Characterization of monolithic InAlN/GaN NAND logic cell supported by circuit and device simulations. In IEEE Transactions on Electron Devices, 2018, vol. 65, p. 2666-2669. (2017: 2.620 - IF, Q2 - JCR, 0.839 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2018.2828464>

Citácie:

1. [1.1] LV, Z.H. - XU, Z.W. - SONG, C.Y. A compact model for dual-gate GaAs PHEMT and application for power amplifier design. In IEICE ELECTRONICS EXPRESS. ISSN 1349-2543, OCT 25 2021, vol. 18, no. 20., Registrované v: WOS

ADCA190 CHVÁLA, A.\*\* - NAGY, L. - MAREK, J. - PRIESOL, J. - DONOVAL, D. - ŠATKA, A. - BLAHO, Michal - GREGUŠOVÁ, Dagmar - KUZMÍK, Ján. Device and circuit models of monolithic InAlN/GaN NAND and NOR logic cells comprising D- and E-mode HEMTs. In Journal of Circuits, Systems and Computers : Special Issue on Design, Technology, and Test of Integrated Circuits and Systems, 2019, vol. 19, no. 1940009. (2018: 0.939 - IF, Q4 - JCR, 0.220 - SJR, Q3 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0218-1266. Dostupné na: <https://doi.org/10.1142/S0218126619400097>

Citácie:

1. [1.1] LV, Z.H. - XU, Z.W. - SONG, C.Y. A compact model for dual-gate GaAs PHEMT and application for power amplifier design. In IEICE ELECTRONICS EXPRESS. ISSN 1349-2543, OCT 25 2021, vol. 18, no. 20., Registrované v: WOS

ADCA191 IAVARONE, M. - MOORE, S.A. - FEDOR, Ján - CIOCYS, S.T. - KARAPETROV, Goran - PEARSON, J.E. - NOVOSAD, V. - BADER, S.D. Visualizing domain wall and reverse domain superconductivity. In Nature Communications, 2014, vol. 5, p. 4766. (2013: 10.742 - IF, Q1 - JCR, 5.967 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 2041-1723. Dostupné na: <https://doi.org/10.1038/ncomms5766>

Citácie:

1. [1.1] ALADYSHKIN, Alexey Yu - ALADYSHKINA, Anna S. - BOZHKO, Sergey. Observation of Hidden Parts of Dislocation Loops in Thin Pb Films by Means of Scanning Tunneling Spectroscopy. In JOURNAL OF PHYSICAL CHEMISTRY C, 2021, vol. 125, no. 48, pp. 26814-26822. ISSN 1932-7447. Dostupné na: <https://doi.org/10.1021/acs.jpcc.1c07705>., Registrované v: WOS

2. [1.1] YANG, Seungmo - MOON, Kyoung-Woong - JU, Tae-Seong - KIM, Changsoo - PARK, Sungkyun - HWANG, Chanyong. Universality of stripe domain width change by an in-plane magnetic field. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, 2021, vol. 539, no., pp. ISSN 0304-8853. Dostupné na: <https://doi.org/10.1016/j.jmmm.2021.168381>., Registrované v: WOS

ADCA192 IHARAGI, T. - GENDIAR, Andrej - UEDA, H. - NISHINO, T. Phase transition of the ising model on a hyperbolic lattice. In Journal of the Physical Society of Japan, 2010, vol. 79, no. 10, 104001. (2009: 2.572 - IF, Q2 - JCR, 2.074 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents). ISSN 0031-9015. Dostupné na: <https://doi.org/10.1143/JPSJ.79.104001>

Citácie:

1. [1.1] ZHU, Xingchuan - GUO, Jiaojiao - BREUCKMANN, Nikolas P. - GUO, Huaiming - FENG, Shiping. Quantum phase transitions of interacting bosons on hyperbolic lattices. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, 2021, vol. 33, no. 33, 335602. Dostupné na: <https://doi.org/10.1088/1361-648X/ac0a1a>., Registrované v: WOS

ADCA193 IZSÁK, Tibor - VANKO, Gabriel - BABCHENKO, Oleg - POTOCKÝ, Štěpán - MARTON, M. - VOJS, M. - CHOLEVA, P. - KROMKA, A. Diamond-coated three-dimensional GaN micromembranes: Effect of nucleation and deposition techniques.



In Physica status solidi B. Basic solid state physics, 2015, vol. 252, p. 2585-2590. (2014: 1.469 - IF, Q3 - JCR, 0.805 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents, WOS, SCOPUS). ISSN 0370-1972. Dostupné na: <https://doi.org/10.1002/pssb.201552227>

Citácie:

1. [1.1] SZNAJDER, Malgorzata - HRYTSAK, Roman. *DFT-Based Studies on Carbon Adsorption on the wz-GaN Surfaces and the Influence of Point Defects on the Stability of the Diamond-GaN Interfaces*. In MATERIALS, 2021, vol. 14, no. 21, pp. Dostupné na: <https://doi.org/10.3390/ma14216532>, Registrované v: WOS

ADCA194 IZSÁK, Tibor - BABCHENKO, Oleg - JIRÁSEK, V. - VANKO, Gabriel - VALLO, Martin - VOJS, M. - KROMKA, A. Selective area deposition of diamond films on AlGaIn/GaN heterostructures. In Physica status solidi B, 2014, vol. 251, p. 2574-2580. (2013: 1.605 - IF, Q3 - JCR, 0.831 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0370-1972. Dostupné na: <https://doi.org/10.1002/pssb.201451167>

Citácie:

1. [1.1] MANDAL, Soumen. *Nucleation of diamond films on heterogeneous substrates: a review*. In RSC ADVANCES, 2021, vol. 11, no. 17, pp. 10159-10182. Dostupné na: <https://doi.org/10.1039/d1ra00397f>, Registrované v: WOS

ADCA195 JANKE, D. - HULMAN, Martin - WENISCH, R. - GEMMING, S. - RAFAJA, D. - KRAUSE, M. Influence of nickel catalyst morphology on layer-exchange-based carbon crystallisation of Ni/a-C bilayers. In Physica status solidi B. Basic solid state physics, 2017, vol. 254, no. 1700234. (2016: 1.674 - IF, Q3 - JCR, 0.960 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0370-1972. Dostupné na: <https://doi.org/10.1002/pssb.201700234>

Citácie:

1. [1.1] TOKO, K. - MURATA, H. *Layer exchange synthesis of multilayer graphene*. In NANOTECHNOLOGY. ISSN 0957-4484, NOV 19 2021, vol. 32, no. 47., Registrované v: WOS

ADCA196 JANŠÁK, Lubomil - ŽÍŽEK, F. - JELÍNEK, J. - TIMORANSKÝ, Z. - PIEL, H. - POLÁK, Milan. Loss analysis of a model transformer winding. In IEEE Transactions on Applied Superconductivity, 2003, vol. 13, p. 2352-2355.

Citácie:

1. [1.1] ZHANG, Yiyi - WEI, Xingxiao - FAN, Xianhao - WANG, Ke - ZHUO, Ran - ZHANG, Wei - LIANG, Shuo - HAO, Jian - LIU, Jiefeng. *A Prediction Model of Hot Spot Temperature for Split-Windings Traction Transformer Considering the Load Characteristics*. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, no., pp. 22605-22615. Dostupné na: <https://doi.org/10.1109/ACCESS.2021.3056529>, Registrované v: WOS

ADCA197 JERGEL, Milan - STEVENSON, R. Static heat transfer to liquid helium in open pools and narrow channels. In International Journal of Heat and Mass Transfer, 1971, vol. 14, p. 2099.

Citácie:

1. [1.1] GANESAN, Vishwanath - PATEL, Raj - HARTWIG, Jason - MUDAWAR, Issam. *Review of Databases and Correlations for Saturated Flow Boiling Heat Transfer Coefficient for Cryogenics in Uniformly Heated Tubes, and Development of New Consolidated Database and Universal Correlations*. In INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER. ISSN 0017-9310, 2021, vol. 179, no., pp. Dostupné na: <https://doi.org/10.1016/j.ijheatmasstransfer.2021.121656>, Registrované v: WOS

2. [1.1] HASEGAWA, Shin - ITO, Satoshi - NISHIJIMA, Gen - HASHIZUME, Hidetoshi. *Quench Detection Performance of Low-Temperature Superconducting*

- Quench Detectors for REBCO Tape in Magnetic Fields. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, 2021, vol. 31, no. 5, pp. Dostupné na: <https://doi.org/10.1109/TASC.2021.3063645>., Registrované v: WOS
- ADCA198 JERGEL, Milan - HLÁSNÍK, Ivan. A few remarks on the heat transfer in helium liquid-gas flow. In Cryogenics, 1973, vol. 13, p. 676. ISSN 0011-2275.  
Citácie:  
1. [1.1] GANESAN, V. - PATEL, R. - HARTWIG, J. - MUDAWAR, I. Review of Databases and Correlations for Saturated Flow Boiling Heat Transfer Coefficient for Cryogens in Uniformly Heated Tubes, and Development of New Consolidated Database and Universal Correlations. In INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER. ISSN 0017-9310, NOV 2021, vol. 179., Registrované v: WOS  
2. [1.1] GANESAN, V. - PATEL, R. - HARTWIG, J. - MUDAWAR, I. Universal Critical Heat Flux (CHF) Correlations for Cryogenic Flow Boiling in Uniformly Heated Tubes. In INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER. ISSN 0017-9310, FEB 2021, vol. 166., Registrované v: WOS
- ADCA199 JIRSA, M. - RAMEŠ, M. - DURAN, I. - MELIŠEK, Tibor - KOVÁČ, Pavol - VIERERBL, L. Electric currents in REBaCuO superconducting tapes. In Superconductor Science and Technology, 2017, vol. 30, no. 045010. (2016: 2.878 - IF, Q2 - JCR, 0.967 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/aa5bbf>  
Citácie:  
1. [1.1] KOVALEV, I.A. - KRUGLOV, S.L. - POLYAKOV, A.V. - SHUTOVA, D.I. - SHCHERBAKOV, V.I. Thermomagnetic Stability and Current-Carrying Capacity of REBCO Tapes without Copper Coating at 4.2 K. In TECHNICAL PHYSICS. ISSN 1063-7842, OCT 2021, vol. 66, no. 10, p. 1123-1130., Registrované v: WOS
- ADCA200 JURKOVIČ, Michal - GREGUŠOVÁ, Dagmar - PALANKOVSKI, V. - HAŠČÍK, Štefan - BLAHO, Michal - ČIČO, Karol - FRÖHLICH, Karol - CARLIN, J.-F. - GRANDJEAN, N. - KUZMÍK, Ján. Schottky-barrier normally off GaN/InAlN/AlN/GaN HEMT with selectively etched access region. In IEEE Electron Device Letters, 2013, vol. 34, p. 432-434. (2012: 2.789 - IF, Q1 - JCR, 1.998 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 0741-3106. Dostupné na: <https://doi.org/10.1109/LED.2013.2241388>  
Citácie:  
1. [1.1] TOPRAK, A. - YILMAZ, D. - OZBAY, E. Selectively dry etched of p-GaN/InAlN heterostructures using BCl<sub>3</sub>-based plasma for normally-off HEMT technology. In MATERIALS RESEARCH EXPRESS. DEC 2021, vol. 8, no. 12., Registrované v: WOS  
2. [1.2] JIANG, Yang - DU, Fangzhou - QIAO, Zepeng - CHENG, Wei Chih - HE, Jiaqi - TANG, Xinyi - LIU, Feifei - WEN, Lei - WANG, Qing - YU, Hongyu. InAlN/GaN HEMTs on Si with 0.18-Ω•mm Contact Resistance and 2.1-A/mm Drain Current Density. In Proceedings of International Conference on ASIC. ISSN 21627541, 2021-01-01, pp. Dostupné na: <https://doi.org/10.1109/ASICON52560.2021.9620249>., Registrované v: SCOPUS
- ADCA201 KAČMARČÍK, Jozef - PRIBULOVÁ, Zuzana - PAĽUCHOVÁ, Viktória - SZABÓ, Pavol - HUSANÍKOVÁ, Petra - KARAPETROV, Goran - SAMUELY, Peter. Heat capacity of single-crystal CuxTiSe2 superconductors. In Physical Review B, 2013, vol. 88, no. 2, art. no. R020507. (2012: 3.767 - IF, Q1 - JCR, 1.779 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.88.020507>

Citácie:

1. [1.1] KIM, Chanhee - BHOI, Dilip - SUR, Yeahan - JEON, Byung-Gu - WULFERDING, Dirk - MIN, Byeong Hun - KIM, Jeehoon - KIM, Kee Hoon. *Experimental signatures of nodeless multiband superconductivity in a 2H-Pd<sub>0.08</sub>TaSe<sub>2</sub> single crystal*. In SCIENTIFIC REPORTS. ISSN 2045-2322, 2021, vol. 11, no. 1, pp. Dostupné na: <https://doi.org/10.1038/s41598-021-92709-8>, Registrované v: WOS
2. [1.1] XU, S.X. - YANG, P.T. - CHEN, K.Y. - LIU, Z.Y. - CUI, W.W. - HU, Q. - SUN, J.P. - ANG, R. - UWATOKO, Y. - WANG, B.S. - CHENG, J.G. *Superconducting phase diagram and the evolution of electronic structure across charge density wave in underdoped 1T-Cu( $\delta$ )TiSe<sub>2</sub> under hydrostatic pressure*. In PHYSICAL REVIEW B. ISSN 2469-9950, OCT 4 2021, vol. 104, no. 13., Registrované v: WOS

ADCA202 KAČMARČÍK, Jozef - PRIBULOVÁ, Zuzana - SAMUELY, Tomáš - SZABÓ, Pavol - CAMBEL, Vladimír - ŠOLTÝS, Ján - HERRERA, E. - SUDEROW, H. - CORREA-ORELLANA, A. - PRABHAKARAN, D. - SAMUELY, Peter. *Single-gap superconductivity in  $\beta$ -Bi<sub>2</sub>Pd*. In Physical Review B, 2016, vol. 93, art. no. 144502. (2015: 3.718 - IF, Q1 - JCR, 2.377 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.93.144502>

Citácie:

1. [1.1] DAS, D. - GUPTA, R. - BAINES, C. - LUETKENS, H. - KACZOROWSKI, D. - GUGUCHIA, Z. - KHASANOV, R. *Unconventional Pressure Dependence of the Superfluid Density in the Nodeless Topological Superconductor  $\alpha$ -PdBi<sub>2</sub>*. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, NOV 16 2021, vol. 127, no. 21., Registrované v: WOS
2. [1.1] LI, H.J. - WANG, H.H. - GAO, W.S. - CHEN, Z. - HAN, Y.Y. - ZHU, X.D. - TIAN, M.L. *Thickness Dependence of Superconductivity in Layered Topological Superconductor  $\beta$ -PdBi<sub>2</sub>*. In NANOMATERIALS. NOV 2021, vol. 11, no. 11., Registrované v: WOS
3. [1.1] SODA, M. - KAGAMIDA, N. - MUHLBAUER, S. - FORGAN, E.M. - CAMPILLO, E. - KRIENER, M. - YOSHIZAWA, H. - KAWANO-FURUKAWA, H. *Field Dependence of Superfluid Density in  $\beta$ -PdBi<sub>2</sub>*. In JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN. ISSN 0031-9015, OCT 15 2021, vol. 90, no. 10., Registrované v: WOS
4. [1.1] YAN, D.Y. - YANG, M. - WANG, C.X. - SONG, P.B. - YI, C.J. - SHI, Y.G. *Superconductivity in centrosymmetric topological superconductor candidate TaC*. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAR 2021, vol. 34, no. 3., Registrované v: WOS

ADCA203 KADLEČÍKOVÁ, M. - BREZA, J. - JESENÁK, K. - PASTORKOVÁ, K. - LUPTÁKOVÁ, V. - KOLMAČKA, M. - VOJÁČKOVÁ, A. - MICHÁLKA, M. - VÁVRA, Ivo - KRIŽANOVÁ, Zuzana. *The growth of carbon nanotubes on montmorillonite and zeolite (clinoptilolite)*. In Applied Surface Science, 2008, vol. 254, p. 5073-5079. (2007: 1.406 - IF, Q2 - JCR, 0.791 - SJR, Q1 - SJR, karentované - CCC). (2008 - Current Contents). ISSN 0169-4332.

Citácie:

1. [1.1] YUAN, Xinxin - LIANG, Chen - RUAN, Chao - CHANG, Yi - XU, Lele - HUANG, Hailu - CHEN, Minghai - YONG, Zhenzhong. *Low-cost synthesis of multi-walled carbon nanotubes using red soil as catalyst*. In DIAMOND AND RELATED MATERIALS. ISSN 0925-9635, 2021, vol. 112, no., pp. Dostupné na: <https://doi.org/10.1016/j.diamond.2021.108241>, Registrované v: WOS

ADCA204 KÁLNA, Karol - CHEUNG, C.Y.L. - PIERCE, I. - SHORE, K.A. *Self-consistent*

analysis of carrier transport and carrier capture dynamics in quantum cascade intersubband semiconductor lasers. In IEEE Transactions on Microwave Theory and Techniques, 2000, vol. 48, p. 639-644. ISSN 0018-9480.

Citácie:

1. [1.1] FANG, Ming - HUANG, Zhixiang - SHA, Wei E. I. - M. SOUKOULIS, Costas. *Modelling of the Fluctuation and Coherent Dynamics in Active Metamaterial Devices*. In IEEE TRANSACTIONS ON NANOTECHNOLOGY. ISSN 1536-125X, 2021, vol. 20, no., pp. 543-551. Dostupné na:

<https://doi.org/10.1109/TNANO.2021.3092059>, Registrované v: WOS

ADCA205

KAPOLKA, Milan - ZERMONO, V. - ZOU, S. - MORANDI, A. - RIBANI, P. - PARDO, Enric - GRILLI, F.\*\*. Three-dimensional modeling of the magnetization of superconducting rectangular-based bulks and tape stacks. In IEEE Transactions on Applied Superconductivity, 2018, vol. 28, no. 8201206. (2017: 1.288 - IF, Q3 - JCR, 0.408 - SJR, Q2 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na:

<https://doi.org/10.1109/TASC.2018.2801322>

Citácie:

1. [1.1] XU, M. - CHEN, W. - SHEN, B.Y. - HAO, Q.B. - LI, C.S. - YANG, X.S. - ZHAO, Y. *Modeling of Transport Loss in Bi-2212 Round Wires: Effects of Local Defects and Non-Uniformity*. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8.,

Registrované v: WOS

ADCA206

KAPOLKA, Milan\*\* - SRPCIC, J. - ZHOU, D. - AINSLIE, M.D. - PARDO, Enric - DENNIS, Anthony R. Demagnetization of cubic Gd-Ba-Cu-O bulk superconductor by crossed-fields: measurements and three-dimensional modeling. In IEEE Transactions on Applied Superconductivity, 2018, vol. 28, no. 6801405. (2017: 1.288 - IF, Q3 - JCR, 0.408 - SJR, Q2 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na:

<https://doi.org/10.1109/TASC.2018.2808401>

Citácie:

1. [1.1] ARSENAULT, A. - SIROIS, F. - GRILLI, F. *Implementation of the H-phi Formulation in COMSOL Multiphysics for Simulating the Magnetization of Bulk Superconductors and Comparison With the H-Formulation*. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, MAR 2021, vol. 31, no. 2., Registrované v: WOS

ADCA207

KAPOLKA, Milan - PARDO, Enric\*\*. 3D modelling of macroscopic force-free effects in superconducting thin films and rectangular prisms. In Superconductor Science and Technology, 2019, vol. 32, no. 054001. (2018: 2.489 - IF, Q2 - JCR, 0.879 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab016a> (VEGA 2/0097/18)

Citácie:

1. [1.1] LAI, L.F. - GU, C. *AC loss calculation in REBCO coils or stacks by solving the equation of motion for current using an integration approach*. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JAN 2021, vol. 34, no. 1., Registrované v: WOS

2. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. *Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines*. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS

ADCA208

KAPOLKA, Milan - PARDO, Enric\*\* - GRILLI, F. - BASKYS, A. - CLIMENTE-ALARCON, V. - DADHICH, Anang - GLOWACKI, B.A. Cross-field demagnetization of stacks of tapes: 3D modeling and measurements. In



Superconductor Science and Technology, 2020, vol. 33, no. 4, no. 044019. (2019: 3.067 - IF, Q2 - JCR, 0.991 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab5aca> (VEGA 2/0097/18. H2020 ASuMED)

Citácie:

1. [1.1] HU, J.T. - MA, J. - YANG, J.B. - TIAN, M.Y. - SHAH, A. - PATEL, I. - WEI, H.G.N. - HAO, L.N. - OZTURK, Y. - SHEN, B.Y. - COOMBS, T.A. Numerical Study on Dynamic Resistance of an HTS Switch Made of Series-Connected YBCO Stacks. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
2. [1.1] SUYAMA, M. - PYON, S. - IJIMA, Y. - TAMEGAI, T. Crossed-Field Demagnetization of a EuBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> Coated Conductor with BaHfO<sub>3</sub> Nanorods. In 33RD INTERNATIONAL SYMPOSIUM ON SUPERCONDUCTIVITY (ISS2020). ISSN 1742-6588, 2021, vol. 1975., Registrované v: WOS
3. [1.1] ZHANG, H.Y. - MUELLER, M. Electromagnetic properties of curved HTS trapped field stacks under high-frequency cross fields for high-speed rotating machines. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, APR 2021, vol. 34, no. 4., Registrované v: WOS

ADCA209 KARAPETROV, Goran - FEDOR, Ján - IAVARONNE, M. - ROSENMAN, D. - KWOK, W.K. Direct observation of geometrical phase transitions in mesoscopic superconductors by scanning tunneling microscopy. In Physical Review Letters, 2005, vol. 95, p. 167002. (2004: 7.218 - IF, karentované - CCC). (2005 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] LI, Wenzhao - REICHHARDT, C. J. O. - JANKO, B. - REICHHARDT, C. Vortex dynamics, pinning, and angle-dependent motion on moire patterns. In PHYSICAL REVIEW B, 2021, vol. 104, no. 2, pp. ISSN 2469-9950. Dostupné na: <https://doi.org/10.1103/PhysRevB.104.024504>, Registrované v: WOS
2. [1.1] STOLYAROV, Vasily S. - PONS, Stephane - VLAIC, Sergio - REMIZOV, Sergey - SHAPIRO, Dmitriy S. - BRUN, Christophe - BOZHKO, Sergey - CREN, Tristan - MENSCHCHIKOVA, Tatiana - CHULKOV, Evgueni - POGOSOV, Walter - LOZOVIK, Yuriy E. - RODICHEV, Dimitri. Superconducting Long-Range Proximity Effect through the Atomically Flat Interface of a Bi<sub>2</sub>Te<sub>3</sub> Topological Insulator. In JOURNAL OF PHYSICAL CHEMISTRY LETTERS, 2021, vol. 12, no. 37, pp. 9068-9075. ISSN 1948-7185. Dostupné na: <https://doi.org/10.1021/acs.jpcllett.1c02257>, Registrované v: WOS

ADCA210 KARIO, A. - GRINENKO, V. - KAUFFMANN, A. - HAESSLER, W. - RODIG, C. - KOVÁČ, Pavol - MELIŠEK, Tibor - HOLZAPFEL, B. Isotropic behavior of critical current for MgB<sub>2</sub> ex situ tapes with 5 wt.% carbon addition. In Physica C. Superconductivity and its applications, 2012, vol. 483, p. 222-224. (2011: 1.014 - IF, Q3 - JCR, 0.694 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents, WOS, SCOPUS). ISSN 0921-4534. Dostupné na: <https://doi.org/10.1016/j.physc.2012.07.013>

Citácie:

1. [1.2] SHARMA, R. G. Practical Magnesium Diboride (MgB<sub>2</sub>) Superconductor. In Springer Series in Materials Science. ISSN 0933033X, 2021-01-01, 214, pp. 277-312. Dostupné na: [https://doi.org/10.1007/978-3-030-75672-7\\_7](https://doi.org/10.1007/978-3-030-75672-7_7), Registrované v: SCOPUS

ADCA211 KARIO, A. - HAESSLER, W. - RODIG, C. - SCHUBERT, M. - KOVÁČ, Pavol - MELIŠEK, Tibor - NAST, R. - GOLDACKER, W. - HOLZAPFEL, B. High energy milled ex situ MgB<sub>2</sub> as precursor for superconducting tapes without critical current

anisotropy. In *Journal of Superconductivity and Novel Magnetism*, 2012, vol. 25, p. 2337-2341. (2011: 0.650 - IF, Q4 - JCR, 0.443 - SJR, Q3 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 1557-1939. Dostupné na: <https://doi.org/10.1007/s10948-012-1675-1>

Citácie:

1. [1.1] FUJII, H. - KITAGUCHI, H. *Superconducting properties of sintered ex situ MgB<sub>2</sub> tapes through ball milling process as a function of crystallite size in the as-milled and sintered states. In PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, APR 15 2021, vol. 583., Registrované v: WOS*

ADCA212 KAUSHAL, P. - CHAND, S. - OSVALD, Jozef. *Current-voltage characteristics of Schottky diode simulated using semiconductor device equations. In International Journal of Electronics*, 2013, vol. 100, p. 686-698. (2012: 0.509 - IF, Q4 - JCR, 0.243 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 0020-7217. Dostupné na: <https://doi.org/10.1080/00207217.2012.720946>

Citácie:

1. [1.1] BASOV, M. *Schottky diode temperature sensor for pressure sensor. In SENSORS AND ACTUATORS A-PHYSICAL*, 2021, vol. 331, no., pp. ISSN 0924-4247. Dostupné na: <https://doi.org/10.1016/j.sna.2021.112930>., Registrované v: WOS

2. [1.1] EJDERHA, Kadir - TURUT, Abdulmecit. *Dependence of Electrical Properties of Ni/n-GaP/Al Schottky Contacts on Measurement Temperature and Thermal Annealing. In JOURNAL OF ELECTRONIC MATERIALS*, 2021, vol. 50, no. 12, pp. 6741-6747. ISSN 0361-5235. Dostupné na:

<https://doi.org/10.1007/s11664-021-08983-9>., Registrované v: WOS

3. [1.1] KUMAR, Atul - RANJAN, Pranay. *Defects signature in VOC characterization of thin-film solar cells. In SOLAR ENERGY*, 2021, vol. 220, no., pp. 35-42. ISSN 0038-092X. Dostupné na:

<https://doi.org/10.1016/j.solener.2021.03.017>., Registrované v: WOS

ADCA213 KAZIMÍROVÁ, A. - PEIKERTOVÁ, P. - BARANCOKOVÁ, M. - STARUCHOVÁ, M. - TULINSKÁ, J. - VACULÍK, M. - VÁVRA, Ivo - KUKUTSCHOVÁ, J. - FILIP, P. - DUŠINSKÁ, M. *Automotive airborne brake wear debris nanoparticles and cytokinesis-block micronucleus assay in peripheral blood lymphocytes: A pilot study. In Environmental Research*, 2016, vol. 148, p. 443-449. (2015: 3.088 - IF, Q1 - JCR, 1.424 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents). ISSN 0013-9351. Dostupné na: <https://doi.org/10.1016/j.envres.2016.04.022>

Citácie:

1. [1.1] ALVES, C. - EVTYUGINA, M. - VICENTE, A. - CONCA, E. - AMATO, F. *Organic profiles of brake wear particles. In ATMOSPHERIC RESEARCH. ISSN 0169-8095, JUN 15 2021, vol. 255., Registrované v: WOS*

2. [1.1] ORRU, H. - HAGENBJORK, A. - OLSTRUP, H. *Indoor and Outdoor Nanoparticle Concentrations in an Urban Background Area in Northern Sweden: The NanoOffice Study. In ENVIRONMENTS. AUG 2021, vol. 8, no. 8., Registrované v: WOS*

3. [1.1] PRENNER, S. - ALLESCH, A. - STAUDNER, M. - REXEIS, M. - SCHWINGSHACKL, M. - HUBER-HUMER, M. - PART, F. *Static modelling of the material flows of micro- and nanoplastic particles caused by the use of vehicle tyres. In ENVIRONMENTAL POLLUTION. ISSN 0269-7491, DEC 1 2021, vol. 290., Registrované v: WOS*

4. [1.1] ZAQUEN, N. - TEGELS, D. - KERSSEMAKERS, A. - PERSON, F. *Establishing a Correlation Between Friction Performance and Tribolayer Formation Using Engineered Mineral Fibers. In JOURNAL OF TRIBOLOGY-*

*TRANSACTIONS OF THE ASME. ISSN 0742-4787, OCT 1 2021, vol. 143, no. 10., Registrované v: WOS*

- ADCA214 KICIN, S. - KROMKA, A. - KÚDELA, Róbert - HASENÖHRL, Stanislav - SCHWARZ, A. - NOVÁK, Jozef. Micro-Raman study of InGaP composition grown on V-grooved substrates. In Materials Science and Engineering B - Solid-State Materials for Advanced Technology, 2004, vol. 113, p. 111-116. (2003: 1.070 - IF, karentované - CCC). (2004 - Current Contents, WOS, SCOPUS). ISSN 0921-5107.

Citácie:

1. [1.1] YACCUZZI, E. - DI NAPOLI, S. - DI LISCIA, E. J. - SUAREZ, S. - ALURRALDE, M. - STRITTMATTER, A. - PLA, J. - GIUDICI, P. Experimental re-evaluation of proton penetration ranges in GaAs and InGaP. In JOURNAL OF PHYSICS D-APPLIED PHYSICS, 2021, vol. 54, no. 11, pp. ISSN 0022-3727.

Dostupné na: <https://doi.org/10.1088/1361-6463/abce7d>, Registrované v: WOS

- ADCA215 KIM, J. H. - KIM, C.H. - IYYANI, G. - KVITKOVIČ, Jozef - PAMIDI, S.V. Transport AC loss measurements in superconducting coils. In IEEE Transactions on Applied Superconductivity, 2011, vol. 21, p. 3269-3272. (2010: 1.035 - IF, Q2 - JCR, 0.473 - SJR, Q2 - SJR, karentované - CCC). (2011 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na:

<https://doi.org/10.1109/TASC.2010.2089485>

Citácie:

1. [1.1] CHEN, Xiaoyuan - CHEN, Yu - GOU, Huayu - JIANG, Shan - ZHANG, Mingshun - SHEN, Boyang. A new vision of short-time and long-time AC loss measurement and modelling: A superconducting power electronic circuit. In CRYOGENICS. ISSN 0011-2275, 2021, vol. 118, no., pp. Dostupné na:

<https://doi.org/10.1016/j.cryogenics.2021.103348>, Registrované v: WOS

2. [1.1] WENG, Fangjing - ZHANG, Min - ELWAKEEL, Abdelrahman - LAN, Tian - MCNEILL, Neville - YUAN, Weijia. Transient Test and AC Loss Study of a Cryogenic Propulsion Unit for All Electric Aircraft. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, no., pp. 59628-59636. Dostupné na:

<https://doi.org/10.1109/ACCESS.2021.3073071>, Registrované v: WOS

3. [1.1] ZHANG, Hongye - WEN, Zezhao - GRILLI, Francesco - GYFTAKIS, Konstantinos - MUELLER, Markus. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES, 2021, vol. 14, no. 8, pp. Dostupné na: <https://doi.org/10.3390/en14082234>, Registrované v: WOS

- ADCA216 KITYK, Anna\*\* - PROTSENKO, V. - DANILOV, F.I. - PAVLÍK, Viliam - HNATKO, Miroslav - ŠOLTÝS, Ján. Enhancement of the surface characteristics of Ti-based biomedical alloy by electropolishing in environmentally friendly deep eutectic solvent (Ethaline). In Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, vol. 613, p. 126125-1-126125-14. (2020: 4.539 - IF, Q2 - JCR, 0.762 - SJR, Q2 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0927-7757. Dostupné na: <https://doi.org/10.1016/j.colsurfa.2020.126125>

Citácie:

1. [1.1] LEBEDEVA, Olga - KULTIN, Dmitry - ZAKHAROV, Alexandre - KUSTOV, Leonid. Advantages of Electrochemical Polishing of Metals and Alloys in Ionic Liquids. In METALS, 2021, vol. 11, no. 6, pp. Available on:

<https://doi.org/10.3390/met11060959>, Registrované v: WOS

2. [1.1] OLADOSU, Temidayo L. - AL-KAYIEM, Hussain H. - GILANI, Syed I. U. - BAHETA, Aklilu T. Dehumidification and thermal regeneration characterization of binary deep eutectic solvents in liquid desiccant air conditioning systems. In JOURNAL OF BUILDING ENGINEERING, 2021, vol. 42, no., pp. Available on: <https://doi.org/10.1016/j.jobbe.2021.103056>, Registrované v: WOS



- ADCA217 KOBZEV, A.P. - HURAN, Jozef - MACZKA, D. - TUREK, M. Investigation of light element contents in subsurface layers of silicon. In Vacuum, 2009, vol. 83, p. S124-S126. (2008: 1.114 - IF, Q3 - JCR, 0.566 - SJR, Q2 - SJR, karentované - CCC). (2009 - Current Contents). ISSN 0042-207X.
- Citácie:
1. [1.1] BYSTRITSKY, V. M. - CHUMAKOV, D. K. - DUDKIN, G. N. - FILIPOWICZ, M. - NECHAEV, B. A. - NURKIN, A. - PADALCO, V. N. - PEN'KOV, F. M. - PHILIPPOV, A. V. - TULEUSHEV, Yu. Zh. - VARLACHEV, V. A. - ZHAKANBAEV, E. A. Study of the enhancement factor and electron potential in the D (He-3, p)He-4 reaction using deuterated metal targets TiD and ZrD. In INTERNATIONAL JOURNAL OF MODERN PHYSICS E, 2021, vol. 30, no. 06, pp. ISSN 0218-3013. Dostupné na: <https://doi.org/10.1142/S0218301321500452>, Registrované v: WOS
  2. [1.2] ROBINSON, Shadow J.Q. - FAN, Castaly - HARPER, Matthew - ZAMICK, Larry. On the vibrational model of 92Pd and comparison with 48Cr. In International Journal of Modern Physics E, 2021-06-01, 30, 6, pp. ISSN 02183013. Dostupné na: <https://doi.org/10.1142/S0218301321500476>, Registrované v: SCOPUS
- ADCA218 KOLENČÍK, Marek\*\* - ERNST, D. - URÍK, Martin - ĎURIŠOVÁ, Ľuba - BUJDOŠ, M. - ŠEBESTA, M. - DOBROČKA, Edmund - KŠIŇAN, S. - ILLA, R. - QIAN, Y. - FENG, Huan - ČERNÝ, I. - HOLIŠOVÁ, V. - KRATOŠOVÁ, G. Foliar application of low concentrations of titanium dioxide and zinc oxide nanoparticles to the common sunflower under field conditions. In Nanomaterials-Basel, 2020, vol. 10, no. 1629. (2019: 4.324 - IF, Q2 - JCR, 0.858 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents, WOS, SCOPUS). ISSN 2079-4991. Dostupné na: <https://doi.org/10.3390/nano10081619>
- Citácie:
1. [1.1] BEKELE, E.T. - ZEREFFA, E.A. - GULTOM, N.S. - KUO, D.H. - GONFA, B.A. - SABIR, F.K. Biotemplated Synthesis of Titanium Oxide Nanoparticles in the Presence of Root Extract of *Kniphofia schemperi* and Its Application for Dye Sensitized Solar Cells. In INTERNATIONAL JOURNAL OF PHOTOENERGY. ISSN 1110-662X, FEB 20 2021, vol. 2021., Registrované v: WOS
  2. [1.1] ELSHAYB, O.M. - FARROH, K.Y. - AMIN, H.E. - ATTA, A.M. Green Synthesis of Zinc Oxide Nanoparticles: Fortification for Rice Grain Yield and Nutrients Uptake Enhancement. In MOLECULES. FEB 2021, vol. 26, no. 3., Registrované v: WOS
  3. [1.1] FIOL, D.F. - TERRILE, M.C. - FRIK, J. - MESAS, F.A. - ALVAREZ, V.A. - CASALONGUE, C.A. Nanotechnology in plants: recent advances and challenges. In JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY. ISSN 0268-2575, AUG 2021, vol. 96, no. 8, p. 2095-2108., Registrované v: WOS
  4. [1.1] GUTIERREZ-RAMIREZ, J.A. - BETANCOURT-GALINDO, R. - AGUIRRE-URIBE, L.A. - CERNA-CHAVEZ, E. - SANDOVAL-RANGEL, A. - CASTRO-DEL ANGEL, E. - CHACON-HERNANDEZ, J.C. - GARCIA-LOPEZ, J.I. - HERNANDEZ-JUAREZ, A. Insecticidal Effect of Zinc Oxide and Titanium Dioxide Nanoparticles against *Bactericera cockerelli* Sulc. (Hemiptera: Trioizidae) on Tomato *Solanum lycopersicum*. In AGRONOMY-BASEL. AUG 2021, vol. 11, no. 8., Registrované v: WOS
  5. [1.1] HASSANEIN, Y.Z. - ABDEL-RAHMAN, S.S.A. - SOLIMAN, W.S. - SALAHELDIN, S. Growth, yield, and quality of roselle (*Hibiscus sabdariffa* L.) plants as affected by nano zinc and bio-stimulant treatments. In

- HORTICULTURE ENVIRONMENT AND BIOTECHNOLOGY*. ISSN 2211-3452, DEC 2021, vol. 62, no. 6, p. 879-890., Registrované v: WOS
6. [1.1] HONG, J. - WANG, C. - WAGNER, D.C. - GARDEA-TORRESDEY, J.L. - HE, F. - RICO, C.M. Foliar application of nanoparticles: mechanisms of absorption, transfer, and multiple impacts. In *ENVIRONMENTAL SCIENCE-NANO*. ISSN 2051-8153, MAY 1 2021, vol. 8, no. 5, p. 1196-1210., Registrované v: WOS
7. [1.1] MUSTAFA, H. - ILYAS, N. - AKHTAR, N. - RAJA, N.I. - ZAINAB, T. - SHAH, T.R. - AHMAD, A. - AHMAD, P. Biosynthesis and characterization of titanium dioxide nanoparticles and its effects along with calcium phosphate on physicochemical attributes of wheat under drought stress. In *ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY*. ISSN 0147-6513, OCT 15 2021, vol. 223., Registrované v: WOS
8. [1.1] PACUTA, V. - RASOVSKY, M. - MICHALSKA-KLIMCZAK, B. - WYSZYNSKI, Z. Impact of Superabsorbent Polymers and Variety on Yield, Quality and Physiological Parameters of the Sugar Beet (*Beta vulgaris* prov. *Altissima Doell*). In *PLANTS-BASEL*. APR 2021, vol. 10, no. 4., Registrované v: WOS
9. [1.1] RIZWAN, Muhammad - ALI, Shafaqat - REHMAN, Muhammad Zia Ur - RIAZ, Muhammad - ADREES, Muhammad - HUSSAIN, Afzal - ZAHIR, Zahir Ahmad - RINKLEBE, Joerg. Effects of nanoparticles on trace element uptake and toxicity in plants: A review. In *ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY*, 2021, vol. 221, no., pp. ISSN 0147-6513. Dostupné na: <https://doi.org/10.1016/j.ecoenv.2021.112437>., Registrované v: WOS
10. [1.1] WANG, J.H. - LI, M.W. - FENG, J.L. - YAN, X.Y. - CHEN, H.Z. - HAN, R. Effects of TiO<sub>2</sub>-NPs pretreatment on UV-B stress tolerance in *Arabidopsis thaliana*. In *CHEMOSPHERE*. ISSN 0045-6535, OCT 2021, vol. 281., Registrované v: WOS

- ADCA219 KOLENČÍK, Marek\*\* - ERNST, D. - KOMÁR, M. - URÍK, Martin - ŠEBESTA, M. - DOBROČKA, Edmund - ČERNÝ, I. - ILLA, R. - KANIKE, R. - QIAN, Y. - FENG, Huan - ORLOVÁ, D. - KRATOŠOVÁ, G. Effect of foliar spray application of zinc oxide nanoparticles on quantitative, nutritional, and physiological parameters of foxtail millet (*Setaria italica* L.) under field conditions. In *Nanomaterials-Basel : Special Issue "Nanotech for Medicine and Pharmacy: Selected Papers from Nano Ostrava Meeting 2019"*, 2019, vol. 9, no. 11, no. 1559. (2018: 4.034 - IF, Q1 - JCR, 0.896 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents, WOS, SCOPUS). ISSN 2079-4991. Dostupné na: <https://doi.org/10.3390/nano9111559>

Citácie:

- [1.1] EHSAN, M. - RAJA, N.I. - MASHWANI, Z.U.R. - IKRAM, M. - ZOHRA, E. - ZEHRRA, S.S. - ABASI, F. - HUSSAIN, M. - IQBAL, M. - MUSTAFA, N. - ALI, A. Responses of bimetallic Ag/ZnO alloy nanoparticles and urea on morphological and physiological attributes of wheat. In *IET NANOBIOTECHNOLOGY*. ISSN 1751-8741, SEP 2021, vol. 15, no. 7, p. 602-610., Registrované v: WOS
- [1.1] FREITAS, D.C. - DE ANDRADE, A.M. - DA COSTA, L.F. - AZEVEDO, R.A. - ARRUDA, M.A.Z. There is plenty of room at the plant science: A review of nanoparticles applied to plant cultures. In *ANNALS OF APPLIED BIOLOGY*. ISSN 0003-4746, MAR 2021, vol. 178, no. 2, SI, p. 149-168., Registrované v: WOS
- [1.1] HERNANDEZ-DIAZ, J.A. - GARZA-GARCIA, J.J. - ZAMUDIO-OJEDA, A. - LEON-MORALES, J.M. - LOPEZ-VELAZQUEZ, J.C. - GARCIA-MORALES, S. Plant-mediated synthesis of nanoparticles and their antimicrobial activity against phytopathogens. In *JOURNAL OF THE SCIENCE OF FOOD AND*

- AGRICULTURE. ISSN 0022-5142, MAR 15 2021, vol. 101, no. 4, p. 1270-1287., Registrované v: WOS
4. [1.1] LANDA, P. Positive effects of metallic nanoparticles on plants: Overview of involved mechanisms. In PLANT PHYSIOLOGY AND BIOCHEMISTRY. ISSN 0981-9428, APR 2021, vol. 161, p. 12-24., Registrované v: WOS
5. [1.1] SHEORAN, P. - GREWAL, S. - KUMARI, S. - GOEL, S. Enhancement of growth and yield, leaching reduction in Triticum aestivum using biogenic synthesized zinc oxide nanofertilizer. In BIOCATALYSIS AND AGRICULTURAL BIOTECHNOLOGY. MAR 2021, vol. 32., Registrované v: WOS
6. [1.1] SWARTZWELTER, B.J. - MAYALL, C. - ALIJAGIC, A. - BARBERO, F. - FERRARI, E. - HERNADI, S. - MICHELINI, S. - PACHECO, N.I.N. - PRINELLI, A. - SWART, E. - AUGUSTE, M. Cross-Species Comparisons of Nanoparticle Interactions with Innate Immune Systems: A Methodological Review. In NANOMATERIALS. JUN 2021, vol. 11, no. 6., Registrované v: WOS
7. [1.1] THIRUVENGADAM, S. - GANESAN, M. - VARADHARAJAPERUMAL, P. Impacts on Foliar Application of Copper Nanoparticles for the Growth in Zea mays. In BIOSCIENCE BIOTECHNOLOGY RESEARCH COMMUNICATIONS. ISSN 0974-6455, JUL-SEP 2021, vol. 14, no. 3, p. 1248-1255., Registrované v: WOS
8. [1.1] TONDEY, M. - KALIA, A. - SINGH, A. - DHERI, G.S. - TAGGAR, M.S. - NEPOVIMOVA, E. - KREJCAR, O. - KUČA, K. Seed Priming and Coating by Nano-Scale Zinc Oxide Particles Improved Vegetative Growth, Yield and Quality of Fodder Maize (Zea mays). In AGRONOMY-BASEL. APR 2021, vol. 11, no. 4., Registrované v: WOS
9. [1.2] GUTIÉRREZ-MICELI, Federico Antonio - OLIVA-LLAVEN, María Ángela - LUJÁN-HIDALGO, María Celina - VELÁZQUEZ-GAMBOA, María Concepción - GONZÁLEZ-MENDOZA, Daniel - SÁNCHEZ-ROQUE, Yazmin. Zinc Oxide Phytonanoparticles'; Effects on Yield and Mineral Contents in Fruits of Tomato (Solanum lycopersicum L. cv. Cherry) under Field Conditions. In Scientific World Journal, 2021-01-01, 2021, pp. ISSN 23566140. Dostupné na: <https://doi.org/10.1155/2021/5561930>., Registrované v: SCOPUS
10. [1.2] INDIRA, M. - KRUPANIDHI, S. - VENKATESWARULU, T. C. - PALLAVI, G. - PEELE, K. Abraham. Current aspects of nanotechnology: Applications in agriculture. In Nanotechnology in the Life Sciences, 2021-01-01, pp. 73-99. ISSN 25238027. Dostupné na: [https://doi.org/10.1007/978-3-030-61985-5\\_3](https://doi.org/10.1007/978-3-030-61985-5_3)., Registrované v: SCOPUS
11. [1.2] KUMAR, Amit - SINGH, Indrakant K. - MISHRA, Rashmi - SINGH, Akanksha - RAMAWAT, Naleeni - SINGH, Archana. The Role of Zinc Oxide Nanoparticles in Plants: A Critical Appraisal. In Nanotechnology in the Life Sciences, 2021-01-01, pp. 249-267. ISSN 25238027. Dostupné na: [https://doi.org/10.1007/978-3-030-65792-5\\_10](https://doi.org/10.1007/978-3-030-65792-5_10)., Registrované v: SCOPUS
12. [1.2] MALAIKOZHUNDAN, Balasubramanian - VINODHINI, Jayaraj - VIJAYAKUMAR, Sekar. Zinc nanostructures: Toxicity, safety, and regulation in agroecosystems. In Zinc-Based Nanostructures for Environmental and Agricultural Applications, 2021-01-01, pp. 457-470. Dostupné na: <https://doi.org/10.1016/B978-0-12-822836-4.00001-X>., Registrované v: SCOPUS
13. [1.2] PAULKUMAR, K. - MANGALANAGASUNDARI, S. - REETA, T. Jesi - JEBASINGH, S. Emmanuel Joshua - MUTHU, K. - MURUGAN, K. - ABD-ELSALAM, Kamel A. Zinc nanomaterial applications in agroecosystems. In Zinc-Based Nanostructures for Environmental and Agricultural Applications, 2021-01-01, pp. 223-241. Dostupné na: <https://doi.org/10.1016/B978-0-12-822836-4.00011-2>., Registrované v: SCOPUS

14. [1.2] RAJWADE, J. M. - OAK, M. D. - PAKNIKAR, K. M. Zinc nanostructure applications in agriculture. In *Zinc-Based Nanostructures for Environmental and Agricultural Applications*, 2021-01-01, pp. 285-321. Dostupné na: <https://doi.org/10.1016/B978-0-12-822836-4.00016-1>, Registrované v: SCOPUS
  15. [1.2] T-THIENPRASERT, Nattanan Panjaworayan - T-THIENPRASERT, Jiraroj - RUANGTONG, Jittiporn - JAITHON, Thitiradsadakorn - SRIFAH HUEHNE, Pattana - PIASAI, Onuma. Large Scale Synthesis of Green Synthesized Zinc Oxide Nanoparticles from Banana Peel Extracts and Their Inhibitory Effects against Colletotrichum sp., Isolate KUFC 021, Causal Agent of Anthracnose on Dendrobium Orchid. In *Journal of Nanomaterials*, 2021-01-01, 2021, pp. ISSN 16874110. Dostupné na: <https://doi.org/10.1155/2021/5625199>, Registrované v: SCOPUS
  16. [1.2] VERMA, Amit - PRASHER, Parteek - SHARMA, Mousmee - KUMAR, Anil - MUDILA, Harish. Zinc oxide nanoparticles: Physiological and molecular responses in plants. In *Zinc-Based Nanostructures for Environmental and Agricultural Applications*, 2021-01-01, pp. 339-365. Dostupné na: <https://doi.org/10.1016/B978-0-12-822836-4.00007-0>, Registrované v: SCOPUS
- ADCA220 KOPERA, Ľubomír - KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor. Rutherford cable made of single-core MgB<sub>2</sub> wires. In *Superconductor Science and Technology*, 2013, vol. 26, 125007. (2012: 2.758 - IF, Q1 - JCR, 1.535 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/26/12/125007>  
Citácie:  
1. [1.2] SHARMA, R. G. Practical Magnesium Diboride (MgB<sub>2</sub>) Superconductor. In *Springer Series in Materials Science*. ISSN 0933033X, 2021-01-01, 214, pp. 277-312. Dostupné na: [https://doi.org/10.1007/978-3-030-75672-7\\_7](https://doi.org/10.1007/978-3-030-75672-7_7), Registrované v: SCOPUS
- ADCA221 KOPERA, Ľubomír - ŠMATKO, Vasilij - PRUSSEIT, W. - POLÁK, Milan - SEMERAD, R. - ŠTRBÍK, Vladimír - ŠOUC, Ján. In situ patterning of filamentary YBCO coated conductors. In *Physica C*, 2008, vol. 468, p. 2351-2355. (2007: 1.079 - IF, Q3 - JCR, 0.555 - SJR, Q1 - SJR, karentované - CCC). (2008 - Current Contents, WOS, SCOPUS). ISSN 0921-4534.  
Citácie:  
1. [1.1] LI, W.R. - SHENG, J. - ZHENG, J.X. - WU, Y. - GUO, C.J. - LI, Z.Y. - JIN, Z.J. Study on Reducing Magnetization Loss in CORC Cables By Laser Cutting Technology. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, JUN 2021, vol. 31, no. 4., Registrované v: WOS  
2. [1.1] WULFF, A.C. - ABRAHAMSEN, A.B. - INSINGA, A.R. Multifilamentary coated conductors for ultra-high magnetic field applications. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS
- ADCA222 KOPERA, Ľubomír\*\* - KOVÁČ, Pavol - KOVÁČ, Ján - MELIŠEK, Tibor - HUŠEK, Imrich - BEREK, Dušan. Small diameter wind and react coil made of anodised Al-sheathed MgB<sub>2</sub> wire. In *Superconductor Science and Technology*, 2019, vol. 32, no. 105003. (2018: 2.489 - IF, Q2 - JCR, 0.879 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab3301>  
Citácie:  
1. [1.1] ROSOVA, A. - MATKO, I. - DOBROCKA, E. BaZrO<sub>3</sub> dopant interactions during MgB<sub>2</sub> wire formation by modified internal magnesium diffusion process. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-



- ADCA223 *8396, FEB 2021, vol. 127, no. 2., Registrované v: WOS*  
KOPERA, Ľubomír - KOVÁČ, Pavol - HUŠEK, Imrich. Calculated and measured normal state resistivity of 19-filament MgB<sub>2</sub>/Ti/Cu/stainless steel wire. In Superconductor Science and Technology, 2012, vol. 25, no. 025021. (2011: 2.662 - IF, Q1 - JCR, 1.461 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/25/2/025021>  
 Citácie:  
 1. [1.1] *SHAHBAZI, M. - DEHGHAN-MANSHADI, A. - HOSSAIN, M. - RAVISHANKAR, R. - MACKINNON, I. Microstructure and Superconducting Properties of Copper Sheathed MgB<sub>2</sub> Wires With Ti Barrier Fabricated by in Situ Powder-in-Tube Method. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*
- ADCA224 KOPERA, Ľubomír - KOVÁČ, Pavol - KULICH, Miloslav - MELIŠEK, Tibor - RINDFLEISCH, M. - YUE, J. - HUŠEK, Imrich. Critical currents of Rutheford MgB<sub>2</sub> cables compacted by two-axial rolling. In Superconductor Science and Technology, 2017, vol. 30, no. 015002. (2016: 2.878 - IF, Q2 - JCR, 0.967 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/30/1/015002>  
 Citácie:  
 1. [1.1] *XUE, S.S. - THOMAS, A.S. - ZHU, Z.Q. - HUANG, L.R. - DUKE, A. - CLARK, R.E. - AZAR, Z. Stator Optimization of Wind Power Generators With High-Temperature Superconducting Armature Windings and Permanent Magnet Rotor. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, MAR 2021, vol. 31, no. 2., Registrované v: WOS*
- ADCA225 KORDOŠ, Peter - MIKULICS, M. - STOKLAS, Roman - ČIČO, Karol - DADGAR, A. - GRÜTZMACHER, D. - KROST, A. Thermally oxidized InAlN of different compositions for InAlN/GaN heterostructure field-effect transistors. In Journal of Electronics Materials, 2012, vol. 41, p. 3013-3016. (2011: 1.466 - IF, Q2 - JCR, 0.844 - SJR, Q1 - SJR). ISSN 0361-5235. Dostupné na: <https://doi.org/10.1007/s11664-012-2096-4>  
 Citácie:  
 1. [1.1] *PALMESE, Elia - PEART, Matthew R. - BOROVAC, Damir - SONG, Renbo - TANSU, Nelson - WIERER, Jonathan J. Thermal oxidation rates and resulting optical constants of Al<sub>0.83</sub>In<sub>0.17</sub>N films grown on GaN. In JOURNAL OF APPLIED PHYSICS, 2021, vol. 129, no. 12, pp. ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/5.0035711>., Registrované v: WOS*
- ADCA226 KORDOŠ, Peter - ŠKRINIAROVÁ, J. - CHVÁLA, A. - FLOROVÍČ, M. - KOVÁČ, Jaroslav - DONOVAN, D. Electrical and optical characterization of Ni/Al<sub>0.3</sub>Ga<sub>0.7</sub>N/GaN Schottky barrier diodes. In Journal of Electronics Materials, 2012, vol. 41, p. 3017-3020. (2011: 1.466 - IF, Q2 - JCR, 0.844 - SJR, Q1 - SJR). ISSN 0361-5235. Dostupné na: <https://doi.org/10.1007/s11664-012-2184-5>  
 Citácie:  
 1. [1.1] *TURUT, Abdulmecit - KARABULUT, Abdulkirim - EFEOGLU, Hasan. Effect of the Al<sub>2</sub>O<sub>3</sub> interfacial layer thickness on the measurement temperature-induced I-V characteristics in Au/Ti/Al<sub>2</sub>O<sub>3</sub>/n-GaAs structures. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS. ISSN 0957-4522, 2021, vol. 32, no. 17, pp. 22680-22688. Dostupné na: <https://doi.org/10.1007/s10854-021-06753-1>., Registrované v: WOS*
- ADCA227 KORDOŠ, Peter - KÚDELA, Róbert - STOKLAS, Roman - ČIČO, Karol - MIKULICS, M. - GREGUŠOVÁ, Dagmar - NOVÁK, Jozef. Aluminium oxide as

passivation and gate insulator in GaAs-based field-effect transistors prepared in situ by metal-organic vapor deposition. In *Applied Physics Letters*, 2012, vol. 100, 142113. (2011: 3.844 - IF, Q1 - JCR, 2.814 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.3701584>

Citácie:

1. [1.1] IZSAK, Tibor - VANKO, Gabriel - BABCENKO, Oleg - VINCZE, Andrej - VOJS, Marian - ZATKO, Bohumir - KROMKA, Alexander. *Influence of SiON interlayer on the diamond/GaN heterostructures studied by Raman and SIMS measurements. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS*, 2021, vol. 273, no., pp. ISSN 0921-5107. Dostupné na: <https://doi.org/10.1016/j.mseb.2021.115434>., Registrované v: WOS

2. [1.1] VIMALA, P. - SHREE, Navya - PRIYADARSHINI, U. - SAMUEL, T. S. Arun. *Improving on current using new double-material heterojunction gate all around TFET (DMHJGAA TFET): Modeling and simulation. In INTERNATIONAL JOURNAL OF COMPUTATIONAL MATERIALS SCIENCE AND ENGINEERING*, 2021, vol. 10, no. 04, pp. ISSN 2047-6841. Dostupné na: <https://doi.org/10.1142/S2047684121500214>., Registrované v: WOS

ADCA228 KORDOŠ, Peter - STOKLAS, Roman - GREGUŠOVÁ, Dagmar - HUŠEKOVÁ, Kristína - CARLIN, J.-F. - GRANDJEAN, N. Defect states characterization of non-annealed and annealed Zr<sub>2</sub>/InAlN/GaN structures by capacitance measurements. In *Applied Physics Letters*, 2013, vol. 102, 063502. (2012: 3.794 - IF, Q1 - JCR, 2.570 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.4792060>

Citácie:

1. [1.1] BORDOLOI, Sushanta - RAY, Ashok - TRIVEDI, Gaurav. *Introspection Into Reliability Aspects in AlGaIn/GaN HEMTs With Gate Geometry Modification. In IEEE ACCESS*, 2021, vol. 9, no., pp. 99828-99841. ISSN 2169-3536. Dostupné na: <https://doi.org/10.1109/ACCESS.2021.3096988>., Registrované v: WOS

ADCA229 KORDOŠ, Peter - GREGUŠOVÁ, Dagmar - STOKLAS, Roman - GAŽI, Štefan - NOVÁK, Jozef. Transport properties of AlGaIn/GaN metal-oxide-semiconductor heterostructure field-effect transistors with Al<sub>2</sub>O<sub>3</sub> different thickness. In *Solid-State Electronics*, 2008, vol. 52, p. 973-979. (2007: 1.259 - IF, Q2 - JCR, 0.974 - SJR, Q1 - SJR). ISSN 0038-1101.

Citácie:

1. [1.1] RAHMAN, Mohammad Wahidur - CHANDRASEKAR, Hareesh - RAZZAK, Towhidur - LEE, Hyunsoo - RAJAN, Siddharth. *Hybrid BaTiO<sub>3</sub>/SiN<sub>x</sub>/AlGaIn/GaN lateral Schottky barrier diodes with low turn-on and high breakdown performance. In APPLIED PHYSICS LETTERS*, 2021, vol. 119, no. 1, pp. ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/5.0055946>., Registrované v: WOS

ADCA230 KORDOŠ, Peter - MIKULICS, M. - FOX, A. - GREGUŠOVÁ, Dagmar - ČIČO, Karol - CARLIN, J.-F. - GRANDJEAN, N. - NOVÁK, Jozef - FRÖHLICH, Karol. RF performance of InAlN/GaN HFETs and MOSHFETs with fT × LG up to 21 GHz • μm. In *IEEE Electron Devices Letters*, 2010, vol. 31, p. 180-182. (2009: 2.605 - IF, 2.188 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents). ISSN 0741-3106. Dostupné na: <https://doi.org/10.1109/LED.2009.2038078>

Citácie:

1. [1.1] A., Revathy - C. S., Boopathi. *Composite-channel In<sub>0.17</sub>Al<sub>0.83</sub>N/In<sub>0.1</sub>Ga<sub>0.9</sub>N/GaN/Al<sub>0.04</sub>Ga<sub>0.96</sub>N high electron mobility*



transistors for RF applications. In *INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING*, 2021, vol. 31, no. 9, pp. ISSN 1096-4290. Dostupné na: <https://doi.org/10.1002/mmce.22775>., Registrované v: WOS

2. [1.1] THRON, Andrew M. - GAO, Jianyi - ERCAN, Burcu - LAURENT, Matthew A. - CHOWDHURY, Srabanti - VAN BENTHEM, Klaus. Oxidation Behavior of InAlN during Rapid Thermal Annealing. In *PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE*, 2021, vol. 218, no. 19, pp. ISSN 1862-6300. Dostupné na: <https://doi.org/10.1002/pssa.202100304>., Registrované v: WOS

ADCA231 KORDOŠ, Peter - STOKLAS, Roman - GREGUŠOVÁ, Dagmar - GAŽI, Štefan - NOVÁK, Jozef. Trapping effects in Al<sub>2</sub>O<sub>3</sub>/AlGa<sub>N</sub>/Ga<sub>N</sub> metal-oxide-semiconductor heterostructure field-effect transistor investigated by temperature dependent conductance measurement. In *Applied Physics Letters*, 2010, vol. 96, no. 013505. (2009: 3.554 - IF, 2.826 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, SCOPUS). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.3275754>

Citácie:

1. [1.1] HUANG, Z.W. - XIONG, S.H. - DONG, N.G. - ZHANG, L.N. - LIN, X.N. A Study of the Gate-Stack Small-Signal Model and Determination of Interface Traps in Ga<sub>N</sub>-Based MIS-HEMTs. In *IEEE TRANSACTIONS ON ELECTRON DEVICES*. ISSN 0018-9383, APR 2021, vol. 68, no. 4, p. 1507-1512.,

Registrované v: WOS

ADCA232 KORDOŠ, Peter - STOKLAS, Roman - GREGUŠOVÁ, Dagmar - NOVÁK, Jozef. Characterization of AlGa<sub>N</sub>/Ga<sub>N</sub> metal-oxide-semiconductor field-effect transistors by frequency dependent conductance analysis. In *Applied Physics Letters*, 2009, vol. 94, 223512. (2008: 3.726 - IF, Q1 - JCR, 2.894 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, SCOPUS). ISSN 0003-6951.

Citácie:

1. [1.1] AMIR, Walid - SHIN, Ju-Won - SHIN, Ki-Yong - KIM, Jae-Moo - CHO, Chu-Young - PARK, Kyung-Ho - HOSHI, Takuya - TSUTSUMI, Takuya - SUGIYAMA, Hiroki - MATSUZAKI, Hideaki - KIM, Tae-Woo. A quantitative approach for trap analysis between Al<sub>0.25</sub>Ga<sub>0.75</sub>N and Ga<sub>N</sub> in high electron mobility transistors. In *SCIENTIFIC REPORTS*, 2021, vol. 11, no. 1, pp. ISSN 2045-2322. Dostupné na: <https://doi.org/10.1038/s41598-021-01768-4>.,

Registrované v: WOS

2. [1.1] FU, Yu - XU, Rui-Min - YU, Xin-Xin - ZHOU, Jian-Jun - KONG, Yue-Chan - CHEN, Tang-Sheng - YAN, Bo - LI, Yan-Rong - MA, Zheng-Qiang - XU, Yue-Hang. Enhanced interface properties of diamond MOSFETs with Al<sub>2</sub>O<sub>3</sub> gate dielectric deposited via ALD at a high temperature\*. In *CHINESE PHYSICS B*, 2021, vol. 30, no. 5, pp. ISSN 1674-1056. Dostupné na:

<https://doi.org/10.1088/1674-1056/abd749>., Registrované v: WOS

3. [1.1] WHITESIDE, Matthew - ARULKUMARAN, Subramaniam - NG, Geok Ing. Demonstration of vertically-ordered h-BN/AlGa<sub>N</sub>/Ga<sub>N</sub> metal-insulator-semiconductor high-electron-mobility transistors on Si substrate. In *MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS*, 2021, vol. 270, no., pp. ISSN 0921-5107. Dostupné na: <https://doi.org/10.1016/j.mseb.2021.115224>., Registrované v: WOS

4. [1.1] ZHANG, Weihang - FU, Liyu - LIU, Xi - ZHANG, Jincheng - ZHAO, Shenglei - WANG, Zhizhe - HAO, Yue. In-situ-Si<sub>N</sub>/Al<sub>N</sub>/Al<sub>0.05</sub>Ga<sub>0.95</sub>N High Electron-Mobility Transistors on Si-Substrate Using Al<sub>2</sub>O<sub>3</sub>/SiO<sub>2</sub> Passivation. In *IEEE JOURNAL OF THE ELECTRON DEVICES SOCIETY*, 2021, vol. 9, no., pp.

348-352. ISSN 2168-6734. Dostupné na:

<https://doi.org/10.1109/JEDS.2021.3064557>, Registrované v: WOS

- ADCA233 KORDOŠ, Peter - GREGUŠOVÁ, Dagmar - STOKLAS, Roman - ČIČO, Karol - NOVÁK, Jozef. Improved transport properties of Al<sub>2</sub>O<sub>3</sub>/AlGa<sub>N</sub>/Ga<sub>N</sub> metal-oxide-semiconductor heterostructure field-effect transistor. In Applied Physics Letters, 2007, vol. 90, no. 123513. (2006: 3.977 - IF, Q1 - JCR, 3.459 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, SCOPUS). ISSN 0003-6951.

Citácie:

1. [1.1] HWANG, J.D. - CHU, C.M. Post oxidation in improving the Schottky-gate MgZnO/ZnO heterojunction field-effect transistors fabricated by RF sputtering. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS. ISSN 0921-5107, APR 2021, vol. 266., Registrované v: WOS
2. [1.1] LEE, J.H. - IM, K.S. - LEE, J.H. Effect of In-Situ Silicon Carbon Nitride (SiCN) Cap Layer on Performances of AlGa<sub>N</sub>/Ga<sub>N</sub> MISHFETs. In IEEE JOURNAL OF THE ELECTRON DEVICES SOCIETY. ISSN 2168-6734, 2021, vol. 9, p. 728-734., Registrované v: WOS
3. [1.1] ZHANG, J.C. - WANG, S.W. - LIU, M. - LIU, B. - WANG, J.C. An improved Ga<sub>N</sub> P-HEMT small-signal equivalent circuit with its extraction. In MICROELECTRONICS JOURNAL. ISSN 0026-2692, JUN 2021, vol. 112., Registrované v: WOS
4. [1.1] ZHANG, S. - WEI, K. - ZHANG, Y.C. - CHEN, X.J. - HUANG, S. - LIU, G.G. - ZHENG, Y.K. - YUAN, T.T. - WANG, X.H. - LI, Y.K. - NIU, J.B. - LIU, X.Y. 7.05 W/mm Power Density Millimeter-Wave Ga<sub>N</sub> MIS-HEMT With Plasma Enhanced Atomic Layer Deposition Si<sub>N</sub> Dielectric Layer. In IEEE ELECTRON DEVICE LETTERS. ISSN 0741-3106, OCT 2021, vol. 42, no. 10, p. 1436-1439., Registrované v: WOS
5. [1.2] Xue, F., Yang, N., Chen, T., Kong, Y.: Control of Gate and Drain Voltage on Electron Gas in Ga<sub>N</sub> Heterojunction Field Effect Transistor In 2021 Gutí Dianzixue Yanjiu Yu Jinzhan/Research and Progress of Solid State Electronics 41(5), pp. 337-342, Registrované v: SCOPUS

- ADCA234 KORDOŠ, Peter - BERNÁT, J. - MARSO, M. Impact of layer structure on performance of unpassivated AlGa<sub>N</sub>/Ga<sub>N</sub> HEMT. In Microelectronics Journal, 2005, vol. 36, p. 438-441.

Citácie:

1. [1.1] GODFREY, D. - NIRMAL, D. - ARIVAZHAGAN, L. - GODWINRAJ, D. - KUMAR, N. Mohan - CHEN, Yulin - YEH, Wenkuan. Current collapse degradation in Ga<sub>N</sub> High Electron Mobility Transistor by virtual gate. In MICROELECTRONICS JOURNAL. ISSN 0026-2692, 2021, vol. 118, no., pp. Dostupné na: <https://doi.org/10.1016/j.mejo.2021.105293>, Registrované v: WOS

- ADCA235 KORDOŠ, Peter - HEIDELBERG, G. - BERNÁT, J. - FOX, A. - MARSO, M. - LUTH, H. High-power SiO<sub>2</sub>/AlGa<sub>N</sub>/Ga<sub>N</sub> metal-insulator-semiconductor heterostructure field-effect transistors. In Applied Physics Letters, 2005, vol. 87, p. 143501-143504. (2004: 4.308 - IF, karentované - CCC). (2005 - Current Contents, SCOPUS). ISSN 0003-6951.

Citácie:

1. [1.1] DAS, P. - JONES, L.A.H. - GIBBON, J.T. - DHANAK, V.R. - PARTIDAMANZANERA, T. - ROBERTS, J.W. - POTTER, R. - CHALKER, P.R. - CHO, S.J. - THAYNE, I.G. - MAHAPATRA, R. - MITROVIC, I.Z. Band Line-up Investigation of Atomic Layer Deposited TiAlO and GaAlO on Ga<sub>N</sub>. In ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY. ISSN 2162-8769, JAN 8 2020, vol. 9, no. 6., Registrované v: WOS

2. [1.1] DEMIR, G.E. - YUCEDAG, I. DETERMINATION OF MAIN ELECTRICAL PARAMETERS OF Au-4H-n-SiC (MS) AND Au-Al<sub>2</sub>O<sub>3</sub>-4H-n-SiC (MIS) DEVICES. In SURFACE REVIEW AND LETTERS. ISSN 0218-625X, MAY 2021, vol. 28, no. 05., Registrované v: WOS
3. [1.1] HSU, L.H. - LAI, Y.Y. - TU, P.T. - LANGPOKLAKPAM, C. - CHANG, Y.T. - HUANG, Y.W. - LEE, W.C. - TZOU, A.J. - CHENG, Y.J. - LIN, C.H. - KUO, H.C. - CHANG, E.Y. Development of GaN HEMTs Fabricated on Silicon, Silicon-on-Insulator, and Engineered Substrates and the Heterogeneous Integration. In MICROMACHINES. OCT 2021, vol. 12, no. 10., Registrované v: WOS
4. [1.1] MEER, M. - RAWAT, A. - TAKHAR, K. - GANGULY, S. - SAHA, D. Interface dynamics in ohmic contact optimization on AlGaIn/GaN heterostructure by the formation of TiN. In MICROELECTRONIC ENGINEERING. ISSN 0167-9317, JAN 15 2020, vol. 219., Registrované v: WOS
5. [1.1] NIU, J.S. - TSAI, L.A. - SHAO, W.C. - TSAI, J.H. - LIU, W.C. Comparative Study of AlGaIn/AlN/GaN Metal-Oxide-Semiconductor High Electron Mobility Transistors with Ni/Au Gate Electrode. In ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY. ISSN 2162-8769, OCT 1 2021, vol. 10, no. 10., Registrované v: WOS
6. [1.1] RAWAT, A. - SURANA, V.K. - GANGULY, S. - SAHA, D. Tensile strain and Fermi level alignment in thermally grown TiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> based AlGaIn/GaN MOS-HEMTs. In SOLID-STATE ELECTRONICS. ISSN 0038-1101, FEB 2020, vol. 164., Registrované v: WOS
7. [1.1] TSAI, J.H. - NIU, J.S. - HUANG, X.Y. - LIU, W.C. Comparative Investigation of AlGaIn/AlN/GaN High Electron Mobility Transistors with Pd/GaN and Pd/Al<sub>2</sub>O<sub>3</sub>/GaN Gate Structures. In SCIENCE OF ADVANCED MATERIALS. ISSN 1947-2935, FEB 2021, vol. 13, no. 2, p. 289-293., Registrované v: WOS
8. [1.1] WADA, Y. - NOZAKI, M. - HOSOI, T. - SHIMURA, T. - WATANABE, H. Insight into gate dielectric reliability and stability of SiO<sub>2</sub>/GaN MOS devices. In JAPANESE JOURNAL OF APPLIED PHYSICS. ISSN 0021-4922, JUL 2020, vol. 59, SM., Registrované v: WOS
9. [1.1] WHITESIDE, M. - ARULKUMARAN, S. - DIKME, Y. - SANDUPATLA, A. - NG, G.I. Demonstration of AlGaIn/GaN MISHEMT on Si with Low-Temperature Epitaxy Grown AlN Dielectric Gate. In ELECTRONICS. NOV 2020, vol. 9, no. 11., Registrované v: WOS

ADCA236 KORDOŠ, Peter - MORVIC, Marian - BETKO, Július - NOVÁK, Jozef - FLYNN, J. - BRANDES, Georg. Conductivity and Hall effect of freestanding highly-resistive epitaxial GaN:Fe substrates. In Applied Physics Letters, 2004, vol. 85, p. 5616-5620. (2003: 4.049 - IF, karentované - CCC). (2004 - Current Contents, WOS, SCOPUS). ISSN 0003-6951.

Citácie:

1. [1.1] OISHI, T. - ITO, K. A simulation study of the impact of traps in the GaN substrate on the electrical characteristics of an AlGaIn/GaN HEMT with a thin channel layer. In JOURNAL OF COMPUTATIONAL ELECTRONICS. ISSN 1569-8025, DEC 2021, vol. 20, no. 6, SI, p. 2441-2455., Registrované v: WOS
- ADCA237 KORCHAGIN, S.A.\*\* - GATAULLIN, S.T. - OSIPOV, A.V. - SMIRNOV, M.V. - SUVOROV, S.V. - SERDECHNYI, D.V. - BUBLIKOV, Konstantin. Development of an optimal algorithm for detecting damaged and diseased potato tubers moving along a conveyor belt using computer vision systems. In Agronomy-Basel, 2021, vol. 11, no. 10, art. no. 1980. (2020: 3.417 - IF, Q1 - JCR, 0.707 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 2073-4395. Dostupné na: <https://doi.org/10.3390/agronomy11101980>

Citácie:

1. [1.1] NASIRAHMADI, Abozar - WILCZEK, Ulrike - HENSEL, Oliver. Sugar Beet Damage Detection during Harvesting Using Different Convolutional Neural Network Models. In AGRICULTURE-BASEL, 2021, vol. 11, no. 11, pp. Dostupné na: <https://doi.org/10.3390/agriculture11111111>., Registrované v: WOS

ADCA238 KORPELA, A. - KALLIOHAKA, T. - LEHTONEN, J. - MIKKONEN, R. - PITEL, Jozef - KOVÁČ, Pavol. Current-voltage characteristics of an HTS coil having a hot spot. In IEEE Transactions on Applied Superconductivity, 2002, vol. 12, p. 1438-1441.

Citácie:

1. [1.1] MESSINA, G. - YAZDANI-ASRAMI, M. - MARIGNETTI, F. - DELLA CORTE, A. Characterization of HTS Coils for Superconducting Rotating Electric Machine Applications: Challenges, Material Selection, Winding Process, and Testing. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, MAR 2021, vol. 31, no. 2, p. 1-10., Registrované v: WOS

ADCA239 KORYTÁR, Dušan - MIKULIK, P. - FERRARI, C. - HRDÝ, J. - BAUMBACH, T. - FREUND, A. - KUBĚNA, A. Two-dimensional x-ray magnification based on a monolithic beam conditioner. In Journal of Physics D: Applied Physics, 2003, vol. 36, p. A65-A68. (2003 - Current Contents, SCOPUS). ISSN 0022-3727.

Citácie:

1. [1.1] ZVEREV, D. - SNIGIREVA, I - SOROKOVIKOV, M. - YUNKIN, V - KUZNETSOV, S. - SNIGIREV, A. Coherent X-ray beam expander based on a multilens interferometer. In OPTICS EXPRESS, 2021, vol. 29, no. 22, pp. 35038-35053. ISSN 1094-4087. Dostupné na: <https://doi.org/10.1364/OE.434656>., Registrované v: WOS

ADCA240 KORYTÁR, Dušan\*\* - ZÁPRAŽNÝ, Zdenko - FERRARI, C. - FRIGERI, C. - JERGEL, Matej - MATKO, Igor - KEČKĚŠ, Jozef. Cross-sectional TEM study of subsurface damage in SPDT machining of germanium optics. In Applied Optics, 2018, vol. 57, p. 1940-1943. (2017: 1.791 - IF, Q3 - JCR, 0.715 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 0003-6935. Dostupné na: <https://doi.org/10.1364/AO.57.001940>

Citácie:

1. [1.1] GENG, Ruiwen - YANG, Xiaojing - XIE, Qiming - XIAO, Jianguo - ZHANG, Wanqing - LI, Rui. Fundamental study on material removal mechanism in single-crystal germanium. In INFRARED PHYSICS & TECHNOLOGY. ISSN 1350-4495, 2021, vol. 116, 103773. Dostupné na: <https://doi.org/10.1016/j.infrared.2021.103773>., Registrované v: WOS

ADCA241 KOŘENKOVÁ, Lucia - ŠEBESTA, M. - URÍK, Martin - KOLENČÍK, Marek - KRATOŠOVÁ, G. - BUJDOŠ, M. - VÁVRA, Ivo - DOBROČKA, Edmund. Physiological response of culture media-grown barley (Hordeum vulgare L.) to titanium oxide nanoparticles. In Acta Agriculturae Scandinavica Section B - Soil & Plant Science, 2017, vol. 67, p. 285-291. (2016: 0.340 - IF, Q4 - JCR, 0.403 - SJR, Q2 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0906-4702. Dostupné na: <https://doi.org/10.1080/09064710.2016.1267255>

Citácie:

1. [1.1] AKDEMIR, H. Evaluation of transcription factor and aquaporin gene expressions in response to Al<sub>2</sub>O<sub>3</sub> and ZnO nanoparticles during barley germination. In PLANT PHYSIOLOGY AND BIOCHEMISTRY. ISSN 0981-9428, SEP 2021, vol. 166, p. 466-476., Registrované v: WOS

2. [1.1] ALHARBY, H.F. - RIZWAN, M. - IFTIKHAR, A. - HUSSAINI, K.M. - REHMAN, M.Z.U. - BAMAGOOS, A.A. - ALHARBI, B.M. - ASRAR, M. - YASMEEN, T. - ALI, S. Effect of gibberellic acid and titanium dioxide



*nanoparticles on growth, antioxidant defense system and mineral nutrient uptake in wheat. In ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY. ISSN 0147-6513, SEP 15 2021, vol. 221., Registrované v: WOS*

3. [1.1] DE MELO, G.S.R. - CONSTANTIN, R.P. - ABRAHAO, J. - FOLETTO-FELIPE, M.D. - CONSTANTIN, R.P. - DOS SANTOS, W.D. - FERRARESE, O. - MARCHIOSI, R. Titanium Dioxide Nanoparticles Induce Root Growth Inhibition in Soybean Due to Physical Damages. In WATER AIR AND SOIL POLLUTION. ISSN 0049-6979, JAN 7 2021, vol. 232, no. 1., Registrované v: WOS

4. [1.1] SHOJA, H.M. - AHMADI, L. - KOLAH, M. - KAZEMI, E.M. Effect of TiO<sub>2</sub> NPs on the growth, anatomic features and biochemistry parameters of Baby sun rose (*Aptenia cordifolia*). In PHYSIOLOGY AND MOLECULAR BIOLOGY OF PLANTS. ISSN 0971-5894, SEP 2021, vol. 27, no. 9, p. 2071-2081., Registrované v: WOS

5. [1.1] SRIVASTAV, A. - GANJEWALA, D. - SINGHAL, R.K. - RAJPUT, V.D. - MINKINA, T. - VOLOSHINA, M. - SRIVASTAVA, S. - SHRIVASTAVA, M. Effect of ZnO Nanoparticles on Growth and Biochemical Responses of Wheat and Maize. In PLANTS-BASEL. DEC 2021, vol. 10, no. 12., Registrované v: WOS

6. [1.1] ZAKHAROVA, O.V. - GUSEV, A.A. - MURATOV, D.S. - SHUKLINOV, A.V. - STREKALOVA, N.S. - MATVEEV, S.M. Titanium Trisulfide Nanoribbons Affect the Downy Birch and Poplar x Aspen Hybrid in Plant Tissue Culture via the Emission of Hydrogen Sulfide. In FORESTS. JUN 2021, vol. 12, no. 6., Registrované v: WOS

7. [1.2] DZIERGOWSKA, Katarzyna - MICHALAK, Izabela. The role of nanoparticles in sustainable agriculture. In Smart Agrochemicals for Sustainable Agriculture, 2021-01-01, pp. 225-278. Dostupné na:

<https://doi.org/10.1016/B978-0-12-817036-6.00007-8>, Registrované v: SCOPUS

ADCA242 KOSTIUK, Dmytro - BODIK, Michal - ŠIFFALOVIČ, Peter - JERGEL, Matej - HALAHOVETS, Yuriy - HODAS, Martin - PELLETTA, Marco - PELACH, Michal - HULMAN, Martin - ŠPITÁLSKY, Zdenko - OMASTOVÁ, Mária - MAJKOVÁ, Eva. Reliable determination of the few-layer graphene oxide thickness using Raman spectroscopy. In Journal of Raman Spectroscopy, 2016, vol. 47, no. 4, p. 391-394. (2015: 2.395 - IF, Q2 - JCR, 1.020 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents). ISSN 0377-0486. Dostupné na: <https://doi.org/10.1002/jrs.4843>

Citácie:

1. [1.1] ABASZADE, R.G. - MAMEDOVA, S.A. - AGAYEV, F.H. - BUDZULYAK, S.I. - KAPUSH, O.A. - MAMEDOVA, M.A. - NABIYEV, A.M. - KOTSYUBYNSKY, V.O. Synthesis and Characterization of Graphene Oxide Flakes for Transparent Thin Films. In PHYSICS AND CHEMISTRY OF SOLID STATE. ISSN 1729-4428, 2021, vol. 22, no. 3, p. 595-601., Registrované v: WOS

2. [1.1] ALHUMAIDAN, F.S. - RANA, M.S. Determination of asphaltene structural parameters by Raman spectroscopy. In JOURNAL OF RAMAN SPECTROSCOPY. ISSN 0377-0486, NOV 2021, vol. 52, no. 11, p. 1878-1891., Registrované v: WOS

3. [1.1] ALJOHANI, T.A. - ALBELADI, M.I. - ALSHAMMARI, B.A. Improving pitting corrosion resistance of the commercial titanium through graphene oxide-titanium oxide composite. In HELIYON. JUN 2021, vol. 7, no. 6., Registrované v: WOS

4. [1.1] AUDIRA, G. - LEE, J.S. - SIREGAR, P. - MALHOTRA, N. - ROLDEN, M.J.M. - HUANG, J.C. - CHEN, K.H.C. - HSU, H.S. - HSU, Y.C. - GER, T.R. - HSIAO, C.D. Comparison of the chronic toxicities of graphene and graphene oxide toward adult zebrafish by using biochemical and phenomic approaches. In ENVIRONMENTAL POLLUTION. ISSN 0269-7491, JUN 1 2021, vol. 278.,

*Registrované v: WOS*

5. [1.1] GAO, D.H. - YANG, X.H. - LUO, M. - TENG, P.P. - ZHANG, H.X. - LIU, Z.H. - GAO, S. - LI, Z.A. - WEN, X.Y. - YUAN, L.B. - LI, K. - BOWKETT, M. - COPNER, N. Surface-Enhanced Raman Spectroscopy Detection of Cerebrospinal Fluid Glucose Based on the Optofluidic In-Fiber-Integrated Composites of Graphene Oxide, Silver Nanoparticles, and 4-Mercaptophenylboronic Acid. In ACS APPLIED NANO MATERIALS. OCT 22 2021, vol. 4, no. 10, p. 10784-10790., *Registrované v: WOS*

6. [1.1] IBARRA-GARCIA, V.G. - SANCHEZ-MENDOZA, A.V. - MENDOZA-ANAYA, D. - VAZQUEZ-GARCIA, R.A. - ALEMAN-AYALA, K. - RAMIREZ-CARDONA, M. - CASTANO-MENESES, V.M. One step mechanosynthesis of graphene oxide directly from graphite. In FULLERENES NANOTUBES AND CARBON NANOSTRUCTURES. ISSN 1536-383X, 2021, vol. 29, no. 5, p. 352-364., *Registrované v: WOS*

7. [1.1] JIN, Y. - YU, K. A review of optics-based methods for thickness and surface characterization of two-dimensional materials. In JOURNAL OF PHYSICS D-APPLIED PHYSICS. ISSN 0022-3727, SEP 30 2021, vol. 54, no. 39., *Registrované v: WOS*

8. [1.1] MANOHARAN, S. - KRISHNAMOORTHY, K. - SATHYASEELAN, A. - KIM, S.J. High-power graphene supercapacitors for the effective storage of regenerative energy during the braking and deceleration process in electric vehicles. In MATERIALS CHEMISTRY FRONTIERS. AUG 21 2021, vol. 5, no. 16, p. 6200-6211., *Registrované v: WOS*

9. [1.1] XU, X.H. - SUN, S.C. - LUO, J. - MA, R. - LIN, J.H. - FANG, L. - ZHANG, P.X. - CHEN, Y. Few-layer graphene prepared via microwave irradiation of black sesame for supercapacitor applications. In CHEMICAL ENGINEERING JOURNAL. ISSN 1385-8947, DEC 1 2021, vol. 425., *Registrované v: WOS*

ADCA243 KOVÁČ, Ján - ŠOUC, Ján - KOVÁČ, Pavol - HUŠEK, Imrich - GÖMÖRY, Fedor. Experimental study of magnetization AC loss in MgB<sub>2</sub> wires and cables with non-magnetic sheath. In Physica C, 2013, vol. 495, p. 182-186. (2012: 0.718 - IF, Q4 - JCR, 0.550 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0921-4534. Dostupné na: <https://doi.org/10.1016/j.physc.2013.09.011>

*Citácie:*

1. [1.2] Sharma, R.G.: Practical Magnesium Diboride (MgB<sub>2</sub>) Superconductor In 2021 Springer Series in Materials Science 214, pp. 277-312, *Registrované v: SCOPUS*

ADCA244 KOVÁČ, Jaroslav - ŠATKA, A. - CHVÁLA, A. - DONOVAN, D. - KORDOŠ, Peter - DELAGE, S. Gate leakage current on GaN-based mesa- and planar-type heterostructure field-effect transistors. In Microelectronics reliability, 2012, vol. 52, p. 1323-1327. (2011: 1.167 - IF, Q2 - JCR, 0.607 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0026-2714. Dostupné na: <https://doi.org/10.1016/j.microrel.2012.02.003>

*Citácie:*

1. [1.1] MOULTIF, N. - DUGUAY, S. - LATRY, O. - NDIAYE, M. - JOUBERT, E. Reliability and failure analysis in power GaN-HEMTs during S-band pulsed-RF operating. In MICROELECTRONICS RELIABILITY. ISSN 0026-2714, NOV 2021, vol. 126, SI., *Registrované v: WOS*

2. [1.1] SINGH, I.P. - MOJAVER, H.R. - VALIZADEH, P. Drain-Bias-Dependent Study of Reverse Gate-Leakage Current in AlGaIn/GaN HFETs. In IEEE TRANSACTIONS ON ELECTRON DEVICES. ISSN 0018-9383, FEB 2021, vol. 68, no. 2, p. 503-509., *Registrované v: WOS*



- ADCA245 KOVÁČ, Jaroslav Jr. - HRONEC, P. - BÚC, D. - ŠKRINIAROVÁ, J. - ŠUTTA, P. - KOVÁČ, Jaroslav - NOVÁK, Jozef. Study of ZnO nanostructures grown by a hydrothermal process on GaP/ZnO nanowires. In *Applied Surface Science*, 2015, vol. 337, p. 254-258. (2014: 2.711 - IF, Q1 - JCR, 0.948 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2014.05.229>  
Citácie:  
1. [1.1] JENA, Sandeep Kumar - SADASIVAM, Rajkumar - PACKIRISAMY, Gopinath - SARAVANAN, Pichiah. Nanoremediation: Sunlight mediated dye degradation using electrospun PAN/CuO-ZnO nanofibrous composites\*. In *ENVIRONMENTAL POLLUTION*, 2021, vol. 280, no., pp. ISSN 0269-7491. Dostupné na: <https://doi.org/10.1016/j.envpol.2021.116964>., Registrované v: WOS  
2. [1.1] LENG, Jin - HE, Ye - YUAN, Zhang - TAO, Bailong - LI, Ke - LIN, Chuanchuan - XU, Kun - CHEN, Maowen - DAI, Liangliang - LI, Xuemin - HUANG, Tony Jun - CAI, Kaiyong. Enzymatically-degradable hydrogel coatings on titanium for bacterial infection inhibition and enhanced soft tissue compatibility via a self-adaptive strategy. In *BIOACTIVE MATERIALS*, 2021, vol. 6, no. 12, pp. 4670-4685. Dostupné na: <https://doi.org/10.1016/j.bioactmat.2021.05.001>., Registrované v: WOS
- ADCA246 KOVÁČ, Pavol - HUŠEK, Imrich - KOPERA, Ľubomír - MELIŠEK, Tibor - ROŠOVÁ, Alica - DOBROČKA, Edmund. Properties of in situ made MgB<sub>2</sub> in Nb or Ti sheath. In *Superconductor Science and Technology*, 2013, vol. 26, 025007. (2012: 2.758 - IF, Q1 - JCR, 1.535 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/26/2/025007>  
Citácie:  
1. [1.1] AHMAD, I. - SARUN, P.M. Theoretical study of electrical current transport in various metal sheathed MgB<sub>2</sub> superconducting wires. In *PHYSICA B-CONDENSED MATTER*. ISSN 0921-4526, FEB 15 2021, vol. 603., Registrované v: WOS
- ADCA247 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor - KOPERA, Ľubomír. Current densities of thin filament MgB<sub>2</sub>/Ti/GlilCop® wire. In *Superconductor Science and Technology*, 2011, vol. 24, 105006. (2010: 2.402 - IF, Q1 - JCR, 1.480 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/24/10/105006>  
Citácie:  
1. [1.1] SHAHBAZI, M. - DEHGHAN-MANSHADI, A. - HOSSAIN, M. - RAVISHANKAR, R. - MACKINNON, I. Microstructure and Superconducting Properties of Copper Sheathed MgB<sub>2</sub> Wires With Ti Barrier Fabricated by in Situ Powder-in-Tube Method. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
- ADCA248 KOVÁČ, Pavol - HUŠEK, Imrich - ROŠOVÁ, Alica - MELIŠEK, Tibor - KOPERA, Ľubomír. Fine-filamentary in situ MgB<sub>2</sub> wires. In *Superconductor Science and Technology*, 2010, vol. 23, 105006. (2009: 2.694 - IF, 1.256 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/23/10/105006>  
Citácie:  
1. [1.1] SHAHBAZI, M. - DEHGHAN-MANSHADI, A. - HOSSAIN, M. - RAVISHANKAR, R. - MACKINNON, I. Microstructure and Superconducting Properties of Copper Sheathed MgB<sub>2</sub> Wires With Ti Barrier Fabricated by in Situ

*Powder-in-Tube Method. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*

- ADCA249 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor - KULICH, Miloslav - KOPERA, Ľubomír. Bending strain tolerance of a MgB2 superconducting wires. In Superconductor Science and Technology, 2016, vol. 29, no. 045002. (2015: 2.717 - IF, Q1 - JCR, 1.130 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/29/4/045002>

Citácie:

1. [1.1] *AVCI, D. - YETIS, H. - KARABOGA, F. - AKDOGAN, M. - BELENLI, I. Effects of Mg-Coating and Boron Type on Electromechanical Properties of IMD MgB2/Fe Wires. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, AUG 2021, vol. 34, no. 8, p. 2121-2129., Registrované v: WOS*

Registrované v: WOS

2. [1.1] *BAGNI, T. - BOVONE, G. - RACK, A. - MAURO, D. - BARTH, C. - MATERA, D. - BUTA, F. - SENATORE, C. Machine learning applied to X-ray tomography as a new tool to analyze the voids in RRP Nb3Sn wires. In SCIENTIFIC REPORTS. ISSN 2045-2322, APR 8 2021, vol. 11, no. 1., Registrované v: WOS*

Registrované v: WOS

- ADCA250 KOVÁČ, Pavol - HUŠEK, Imrich - KOVÁČ, Ján - MELIŠEK, Tibor - KULICH, Miloslav - KOPERA, Ľubomír. Filamentary MgB2 wires with low magnetization AC losses. In IEEE Transactions on Applied Superconductivity, 2016, vol. 26, art. no. 6200705. (2015: 1.092 - IF, Q3 - JCR, 0.403 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2544825>

Citácie:

1. [1.1] *XUE, S.S. - THOMAS, A.S. - ZHU, Z.Q. - HUANG, L.R. - DUKE, A. - CLARK, R.E. - AZAR, Z. Influence of Coil Location and Current Angle in Permanent Magnet Wind Power Generators With High-Temperature Superconducting Armature Windings. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS*

Registrované v: WOS

- ADCA251 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor - KOPERA, Ľubomír - REISSNER, M. Cu stabilized MgB2 composite wire with an NbTi barrier. In Superconductor Science and Technology, 2010, vol. 23, no., no. 025014. (2009: 2.694 - IF, 1.256 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/23/2/025014>

Citácie:

1. [1.1] *KODAMA, M. - KOTAKI, H. - OHARA, S. - ICHIKI, Y. - FUJITA, S. - SUZUKI, T. - TANAKA, H. - AOKI, M. Feasibility study of novel rapid ramp-down procedure in MgB2 MRI magnet using persistent current switch with high off-resistivity. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUL 2021, vol. 34, no. 7., Registrované v: WOS*

Registrované v: WOS

- ADCA252 KOVÁČ, Pavol\*\* - KOPERA, Ľubomír - KOVÁČ, Ján - HAIN, Miroslav - MELIŠEK, Tibor - KULICH, Miloslav - HUŠEK, Imrich. Rutherford cable made of internal magnesium diffusion MgB2 wires sheathed with Al-Al2O3 particulate metal matrix composite. In Superconductor Science and Technology, 2018, vol. 31, no. 015015. (2017: 2.861 - IF, Q2 - JCR, 1.036 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/aa9539>

Citácie:

1. [1.2] Sharma R.G. (2021) Practical Magnesium Diboride (MgB<sub>2</sub>) Superconductor. In: Superconductivity. Springer Series in Materials Science, vol 214. Springer, pp. 277-312 Cham. [https://doi.org/10.1007/978-3-030-75672-7\\_7](https://doi.org/10.1007/978-3-030-75672-7_7), Registrované v: SCOPUS

- ADCA253 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor - KULICH, Miloslav - ŠTRBÍK, Vladimír. MgB<sub>2</sub> composite wires with Fe, Nb, and Ta sheaths. In Superconductor Science and Technology. - Bristol : IOP Publishing, 2006, vol. 19, p. 600-605. (2005: 1.896 - IF, Q1 - JCR, 1.409 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] FAREED, M.U. - RUIZ, H.S. Critical State Theory for the Magnetic Coupling between Soft Ferromagnetic Materials and Type-II Superconductors. In MATERIALS. OCT 2021, vol. 14, no. 20., Registrované v: WOS

- ADCA254 KOVÁČ, Pavol. Ic anisotropy of flat composite superconductors. In IEEE Transactions on Applied Superconductivity, 2006, vol. 16, p. 1453-1456. (2005: 1.071 - IF, Q2 - JCR, 0.652 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, SCOPUS).

Citácie:

1. [1.1] YANG, T.H. - LI, W.X. - XIN, Y. - CHEN, X.G. - YANG, C. - TANG, C.Z. - JIN, H. - HONG, W. - XIONG, J.L. - XU, J.J. - LI, G.Y. - ZHANG, Y. - LU, J.N. Research on current carrying capacity of Bi-2223/Ag superconducting tape in the temperature range of 75-105 K. In PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, MAR 15 2021, vol. 582., Registrované v: WOS

- ADCA255 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor. Aspect ratio and temperature effect on the Ic anisotropy in situ MgB<sub>2</sub> tapes. In Superconductor Science and Technology, 2006, vol. 19, p. 470-472. (2005: 1.896 - IF, Q1 - JCR, 1.409 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] IWANAKA, T. - KUSUNOKI, T. - KOTAKI, H. - KODAMA, M. - TANAKA, H. - MATSUMOTO, A. - HORII, S. - KAWAYAMA, I. - DOI, T. High-temperature post-annealing to improve J(c) -B-T properties of MgB<sub>2</sub> thin film synthesized via hybrid deposition combining thermal evaporation of magnesium and sputtering of boron. In JAPANESE JOURNAL OF APPLIED PHYSICS. ISSN 0021-4922, DEC 1 2021, vol. 60, no. 12., Registrované v: WOS

- ADCA256 KOVÁČ, Pavol - MELIŠEK, Tibor - HUŠEK, Imrich. Ic anisotropy of in situ made MgB<sub>2</sub> tapes. In Superconductor Science and Technology, 2005, vol. 18, p. L45-L48. (2004: 1.556 - IF, karentované - CCC). (2005 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] MELONE, M. - MORAN, M. - MALAMUD, F. - MALACHEVSKY, M.T. - SERQUIS, A. Crystallographic Texture Study of Nano-SiC-Doped MgB<sub>2</sub> Wires. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

- ADCA257 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor - HOLÚBEK, Tomáš. Properties of stabilized MgB<sub>2</sub> composite wire with Ti barrier. In Superconductor Science and Technology, 2007, vol. 20, p. 771-776. (2006: 1.440 - IF, Q2 - JCR, 1.403 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] AHMAD, I. - SARUN, P.M. Theoretical study of electrical current transport in various metal sheathed MgB<sub>2</sub> superconducting wires. In *PHYSICA B-CONDENSED MATTER*. ISSN 0921-4526, FEB 15 2021, vol. 603., Registrované v: WOS
  2. [1.1] SHAHBAZI, M. - DEHGHAN-MANSHADI, A. - HOSSAIN, M. - RAVISHANKAR, R. - MACKINNON, I. Microstructure and Superconducting Properties of Copper Sheathed MgB<sub>2</sub> Wires With Ti Barrier Fabricated by in Situ Powder-in-Tube Method. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
- ADCA258 KOVÁČ, Pavol - HUŠEK, Imrich - SKÁKALOVÁ, V. - MEYER, J. - DOBROČKA, Edmund - HIRSCHER, M. - ROTH, S. Transport current improvements of in-situ MgB<sub>2</sub> tapes by the addition of carbon nanotubes, silicon carbide or graphite. In *Superconductor Science and Technology*, 2007, vol. 20, p. 105-111. (2006: 1.440 - IF, Q2 - JCR, 1.403 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, SCOPUS). ISSN 0953-2048.
- Citácie:
1. [1.2] MIKHAILOVA, A. - MIKHAILOV, B. - BOROVITSKAYA, I. - NIKULIN, V. - ERISKIN, A. - SILIN, P. - PEREGUDOVA, E. Development of an attachment for continuous step-by-step shock-wave irradiation of long-length superconducting tapes in the Plasma Focus setup. In *Journal of Physics: Conference Series*, 2021-02-03, 1758, 1, pp. ISSN 17426588. Dostupné na: <https://doi.org/10.1088/1742-6596/1758/1/012026>, Registrované v: SCOPUS
- ADCA259 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor - GROVENOR, C.R.M. - HAIGH, S. - JONES, H. Improvement of the current carrying capability of ex situ MgB<sub>2</sub> wires by normal particle additions. In *Superconductor Science and Technology*. - Bristol : IOP Publishing, 2004, vol. 17, p. 1225-1230. (2003: 2.247 - IF, karentované - CCC). (2004 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.
- Citácie:
1. [1.1] FUJII, H. - KATO, T. Improved critical current density property in ex situ processed MgB<sub>2</sub> tapes using filling powders with metallic particle addition. In *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*. ISSN 0921-4534, DEC 15 2021, vol. 591., Registrované v: WOS
- ADCA260 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor - GRIVEL, J.C. - PACHLA, W. - ŠTRBÍK, Vladimír - DIDUSZKO, R. - HOMEYER, J. - ANDERSEN, N.H. The role of MgO content in ex situ MgB<sub>2</sub> wires. In *Superconductor Science and Technology*, 2004, vol. 17, p. L41-L46. (2003: 2.247 - IF, karentované - CCC). (2004 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.
- Citácie:
1. [1.1] CAPRA, M. - BOVONE, G. - LORIA, F. - BERNINI, C. - TROPEANO, M. - TUMINO, A. - GRASSO, G. - HOPKINS, S.C. - BALLARINO, A. - FERDEGHINI, C. - PUTTI, M. - VIGNOLO, M. Characterization of Freeze-Dried Boron Nanopowders and Parameter Optimization in Ex Situ MgB<sub>2</sub> Wire Production. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS
  2. [1.1] CAPRA, M. - BOVONE, G. - LORIA, F. - BERNINI, C. - TROPEANO, M. - TUMINO, A. - GRASSO, G. - HOPKINS, S.C. - BALLARINO, A. - FERDEGHINI, C. - PUTTI, M. - VIGNOLO, M. Electrical Insulation Characteristics of LN<sub>2</sub>/CF<sub>4</sub> Mixture at Cryogenic Temperatures. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS



3. [1.1] YU, X. - LI, G.W. - HU, Y.B. - CHEN, M. - YU, Z. - LIU, L. - CHEN, Y.L. - ZHANG, Y. - ZHAO, Y. *Effect of Cu doping on properties of RHQT processed powder in tube Nb<sub>3</sub>Al wires. In INTERMETALLICS. ISSN 0966-9795, APR 2021, vol. 131., Registrované v: WOS*
- ADCA261 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor - AHORANTA, M. - ŠOUC, Ján - LEHTONEN, J. - GÖMÖRY, Fedor. Magnetic interaction of iron sheath with superconductor. In Superconductor Science and Technology, 2003, vol. 16, p. 1195-1201. (2002: 2.138 - IF, karentované - CCC). (2003 - Current Contents, WOS, SCOPUS).  
Citácie:  
1. [1.1] FAREED, M.U. - RUIZ, H.S. *Critical State Theory for the Magnetic Coupling between Soft Ferromagnetic Materials and Type-II Superconductors. In MATERIALS. OCT 2021, vol. 14, no. 20., Registrované v: WOS*
- ADCA262 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor. Transport currents of two-axially rolled and postannealed MgB<sub>2</sub>/Fe wires at 4.2K. In Superconductor Science and Technology, 2002, vol. 15, p. 1340-1344. (2001: 1.511 - IF, karentované - CCC). (2002 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.  
Citácie:  
1. [1.1] ERDEM, U. *Homovalent Ho/Bi substitution effect on characteristic properties of Bi-2212 superconducting ceramics. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS. ISSN 0957-4522, DEC 2021, vol. 32, no. 24, p. 28587-28604., Registrované v: WOS*
- ADCA263 KOVÁČ, Pavol - MELIŠEK, Tibor - MEER, O. van der - METZ, A. - HAKEN, B. ten - HUŠEK, Imrich - KVITKOVIČ, Jozef - POLÁK, Milan. Transversal and longitudinal current distribution in Bi(2223)/Ag tapes with high filament aspect ratio. In Physica C, 2002, vol. 372-376, p. 916-918. (2001: 0.806 - IF, karentované - CCC). (2002 - Current Contents, WOS, SCOPUS). ISSN 0921-4534.  
Citácie:  
1. [1.1] TALANTSEV, E.F. - MATAIRA, R.C. *Cooper pair trajectories in superconducting slab at self-field conditions. In MODERN PHYSICS LETTERS B. ISSN 0217-9849, MAY 10 2021, vol. 35, no. 13., Registrované v: WOS*
- ADCA264 KOVÁČ, Pavol\*\* - HUŠEK, Imrich - PEREZ, N. - ROSOVÁ, Alica - BEREK, Dušan - GELUŠIAKOVÁ, Bronislava - KOPERA, Ľubomír - MELIŠEK, Tibor - NIELSCH, K. Structure and properties of barrier-free MgB<sub>2</sub> composite wires made by internal magnesium diffusion process. In Journal of Alloys and Compounds, 2020, vol. 829, no. 154543. (2019: 4.650 - IF, Q1 - JCR, 1.055 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents, WOS, SCOPUS). ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2020.154543> (VEGA 2/0140/19. APVV 18-0271)  
Citácie:  
1. [1.1] CHOI, S. - PATEL, D. - KIM, J.H. - KUMAKURA, H. - MATSUMOTO, A. - NISHIJIMA, G. - KIM, S.H. - JOO, J. - MAEDA, M. *Evaluation and control of residual amorphous phases in carbon-doped MgB<sub>2</sub> superconductors. In JOURNAL OF ALLOYS AND COMPOUNDS. ISSN 0925-8388, MAY 25 2021, vol. 864., Registrované v: WOS*  
2. [1.1] KAMBE, H. - KAWAYAMA, I. - KITAMURA, N. - ICHINOSE, A. - IWANAKA, T. - KUSUNOKI, T. - DOI, T. *Increase in the in-field critical current density of MgB<sub>2</sub> thin films by high-temperature post-annealing. In APPLIED PHYSICS EXPRESS. ISSN 1882-0778, FEB 1 2021, vol. 14, no. 2., Registrované v: WOS*  
3. [3.1] Khan, R.K., Imaduddin, A., Nugraha, H., Hattori, R., Pramono, A.W.: *Study on the Sintering and Mg Composition Effect on MgB<sub>2</sub> Superconducting*

- Bulks and Wires Synthesized by Powder-in-Sealed-Tube Method In Advanced Materials Research Vol. 1166 (2021) 1. Dostupne na <https://doi.org/10.4028/www.scientific.net/AMR.1166.1>*
- ADCA265 KOVÁČ, Pavol - HUŠEK, Imrich - PACHLA, W. - MELIŠEK, Tibor - DIDUSZKO, R. - FRÖHLICH, Karol - MORAWSKI, A. - PRESZ, A. - MACHAJDÍK, Daniel. Structure, grain connectivity and pinning of as-deformed commercial MgB<sub>2</sub> powder in Cu and Fe/Cu sheaths. In Superconductor Science and Technology, 2002, vol. 15, p. 1127-1132. (2001: 1.511 - IF, karentované - CCC). (2002 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.
- Citácie:
1. [1.2] ERDEM, Umit. Homovalent Ho/Bi substitution effect on characteristic properties of Bi-2212 superconducting ceramics. In Journal of Materials Science: Materials in Electronics, 2021-12-01, 32, 24, pp. 28587-28604. ISSN 09574522. Dostupné na: <https://doi.org/10.1007/s10854-021-07236-z>, Registrované v: SCOPUS
- ADCA266 KOVÁČ, Pavol - CAMBEL, Vladimír - BUKVA, Peter. Measuring the homogeneity of Bi(2223)/Ag tapes by four probe method and Hall probe array. In Superconductor Science and Technology, 1999, vol. 12, p. 465-471. (1998: 2.050 - IF, karentované - CCC). (1999 - Current Contents, SCOPUS). ISSN 0953-2048.
- Citácie:
1. [1.1] TALANTSEV, E.F. - MATAIRA, R.C. Cooper pair trajectories in superconducting slab at self-field conditions. In MODERN PHYSICS LETTERS B. ISSN 0217-9849, MAY 10 2021, vol. 35, no. 13., Registrované v: WOS
- ADCA267 KOVÁČ, Pavol - KOPERA, Ľubomír - MELIŠEK, Tibor - KULICH, Miloslav - HUŠEK, Imrich - LIN, H. - YAO, C. - ZHANG, X. - MA, Y. Electromechanical properties of iron and silver sheathed Sr<sub>0.6</sub>K<sub>0.4</sub>Fe<sub>2</sub>As<sub>2</sub> tapes. In Superconductor Science and Technology, 2015, vol. 28, no. 035007. (2014: 2.325 - IF, Q2 - JCR, 1.196 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/28/3/035007>
- Citácie:
1. [1.2] Sharma R.G. (2021) Iron-Based Practical Superconductors. In: Superconductivity. Springer Series in Materials Science, vol 214. Springer, pp. 313-353 Cham. [https://doi.org/10.1007/978-3-030-75672-7\\_8](https://doi.org/10.1007/978-3-030-75672-7_8), Registrované v: SCOPUS
- ADCA268 KOVÁČ, Pavol - KOPERA, Ľubomír - MELIŠEK, Tibor - SARMIENTO, G. - SANZ CASTILLO, S. - BRISIGOTTI, S. - NARDELLI, D. - TROPEANO, M. Tensile and bending strain tolerance of ex-situ MgB<sub>2</sub>/Ni/Cu superconductor tape. In IEEE Transactions on Applied Superconductivity, 2015, vol. 25, 6200607. (2014: 1.235 - IF, Q3 - JCR, 0.478 - SJR, Q2 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2014.2379723>
- Citácie:
1. [1.1] PATEL, D. - MATSUMOTO, A. - KUMAKURA, H. - MAEDA, M. - KIM, S.H. - LIANG, H. - YAMAUCHI, Y. - CHOI, S. - KIM, J.H. - HOSSAIN, M.S.A. Superconducting joints using multifilament MgB<sub>2</sub> wires for MRI application. In SCRIPTA MATERIALIA. ISSN 1359-6462, NOV 2021, vol. 204., Registrované v: WOS
- ADCA269 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor - KULICH, Miloslav - ROŠOVÁ, Alica - KOVÁČ, Ján - KOPERA, Ľubomír - BALOG, Martin - KRÍŽIK, Peter - OROVČÍK, Ľubomír. Lightweight Al-stabilized MgB<sub>2</sub> conductor made by the IMD process. In Superconductor Science and Technology, 2017, vol. 30, no. 115001. (2016: 2.878 - IF, Q2 - JCR, 0.967 - SJR, Q1 - SJR, karentované - CCC).



(2017 - Current Contents). ISSN 0953-2048. Dostupné na:

<https://doi.org/10.1088/1361-6668/aa8244>

Citácie:

1. [1.2] Fujii, H., Kato, T. Improved critical current density property in ex situ processed MgB2 tapes using filling powders with metallic particle addition 2021 *Physica C: Superconductivity and its Applications Volume 591*, Registrované v: SCOPUS

ADCA270 KOVÁČ, Pavol\*\* - HUŠEK, Imrich - ROSOVÁ, Alica - KULICH, Miloslav - KOVÁČ, Ján - MELIŠEK, Tibor - KOPERA, Ľubomír - BALOG, Martin - KRÍŽIK, Peter. Ultra-lightweight superconducting wire based on Mg, B, Ti and Al. In Scientific Reports, 2018, vol. 8, no. 11229. (2017: 4.122 - IF, Q1 - JCR, 1.533 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 2045-2322. Dostupné na: <https://doi.org/10.1038/s41598-018-29354-1>

Citácie:

1. [1.1] PATEL, D. - MATSUMOTO, A. - KUMAKURA, H. - MORONAGA, T. - HARA, Y. - HARA, T. - MAEDA, M. - HOSSAIN, M.S.A. - YAMAUCHI, Y. - CHOI, S. - KIM, J.H. Superconducting Joining Concept for Internal Magnesium Diffusion-Processed Magnesium Diboride Wires. In ACS APPLIED MATERIALS & INTERFACES. ISSN 1944-8244, JAN 20 2021, vol. 13, no. 2, p. 3349-3357., Registrované v: WOS

2. [1.1] PRIKHNA, T. - KASATKIN, A. - EISTERER, M. - MOSHCHIL, V. - SHAPOVALOV, A. - RABIER, J. - JOULINE, A. - CHAUD, X. - RINDFLEISCH, M. - TOMSIC, M. - PONOMARYOV, S. Critical Current Density, Pinning and Nanostructure of MT-YBCO and MgB2-based Materials. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

3. [1.2] FUJII, Hiroki - KATO, Takeshi. Improved critical current density property in ex situ processed MgB<sub>2</sub>/inf tapes using filling powders with metallic particle addition. In Physica C: Superconductivity and its Applications, 2021-12-15, 591, pp. ISSN 09214534. Dostupné na:

<https://doi.org/10.1016/j.physc.2021.1353972>., Registrované v: SCOPUS

ADCA271 KOVÁČ, Pavol\*\* - HUŠEK, Imrich - KULICH, Miloslav - KOVÁČ, Ján - MELIŠEK, Tibor - KOPERA, Ľubomír - PACHLA, W. Multi-core MgB2 wire with a Ti barrier and a reinforced Al+Al<sub>2</sub>O<sub>3</sub> sheath. In Superconductor Science and Technology, 2018, vol. 31, no. 095006. (2017: 2.861 - IF, Q2 - JCR, 1.036 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/aad30d>

Citácie:

1. [1.1] BATTISTON, R. - BERTUCCI, B. - ADRIANI, O. - AMBROSI, G. - BAUDOUY, B. - BLASI, P. - BOEZIO, M. - CAMPANA, D. - DEROME, L. - DE MITRI, I. - DI FELICE, V. - DONATO, F. - DURANTI, M. - FORMATO, V. - GRASSO, D. - GEBAUER, I. - IUPPA, R. - MASI, N. - MAURIN, D. - MAZZIOTTA, M.N. - MUSENICH, R. - NOZZOLI, F. - PAPINI, P. - PICOZZA, P. - PEARCE, M. - POSPISIL, S. - ROSSI, L. - TOMASSETTI, N. - VAGELLI, V. - WU, X. High precision particle astrophysics as a new window on the universe with an Antimatter Large Acceptance Detector In Orbit (ALADInO). In EXPERIMENTAL ASTRONOMY. ISSN 0922-6435, JUN 2021, vol. 51, no. 3, SI, p. 1299-1330., Registrované v: WOS

ADCA272 KOVÁČ, Pavol - HUŠEK, Imrich - KULICH, Miloslav - MELIŠEK, Tibor - KOVÁČ, Ján - KOPERA, Ľubomír. MgB2 wires with Ti and NbTi barrier made by IMD process. In Cryogenics, 2016, vol. 79, p. 74-78. (2015: 1.026 - IF, Q3 - JCR, 0.474 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents). ISSN 0011-

2275. Dostupné na: <https://doi.org/10.1016/j.cryogenics.2016.08.002>

Citácie:

1. [1.1] SHAHBAZI, M. - DEHGHAN-MANSHADI, A. - HOSSAIN, M. - RAVISHANKAR, R. - MACKINNON, I. *Microstructure and Superconducting Properties of Copper Sheathed MgB<sub>2</sub> Wires With Ti Barrier Fabricated by in Situ Powder-in-Tube Method*. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

ADCA273 KOVÁČ, Pavol - HUŠEK, Imrich - MELIŠEK, Tibor - KOPERA, Ľubomír - KULICH, Miloslav. Fast creation of dense MgB<sub>2</sub> phase in wires made by IMD process. In *Superconductor Science and Technology*, 2016, vol. 26, no. 10LT01. (2015: 2.717 - IF, Q1 - JCR, 1.130 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/29/10/10LT01>

Citácie:

1. [1.1] ROŠOVA, A. - MATKO, I. - DOBROČKA, E. *BaZrO<sub>3</sub> dopant interactions during MgB<sub>2</sub> wire formation by modified internal magnesium diffusion process*. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, FEB 2021, vol. 127, no. 2., Registrované v: WOS

ADCA274 KOVÁČ, Pavol\*\* - KOPERA, Ľubomír - HAIN, Miroslav - MARTINEZ, E. - KOVÁČ, Ján - MELIŠEK, Tibor - BEREK, Dušan - HUŠEK, Imrich. MgB<sub>2</sub> cables made of thin wires manufactured by IMD process. In *Superconductor Science and Technology*, 2020, vol. 33, no. 8, no. 085004. (2019: 3.067 - IF, Q2 - JCR, 0.991 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab9520> (APVV 18-0271. VEGA 2/0140/19)

Citácie:

1. [1.1] ROŠOVA, A. - MATKO, I. - DOBROČKA, E. *BaZrO<sub>3</sub> dopant interactions during MgB<sub>2</sub> wire formation by modified internal magnesium diffusion process*. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, 2021, vol. 127, no. 2. Dostupné na: <https://doi.org/10.1007/s00339-021-04301-6>., Registrované v: WOS

2. [1.1] SHAHBAZI, M. - DEHGHAN-MANSHADI, A. - HOSSAIN, M. - RAVISHANKAR, R. - MACKINNON, I. *Microstructure and Superconducting Properties of Copper Sheathed MgB<sub>2</sub> Wires With Ti Barrier Fabricated by in Situ Powder-in-Tube Method*. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, 2021, vol. 31, no. 5. Dostupné na: <https://doi.org/10.1109/TASC.2021.3065634>., Registrované v: WOS

3. [3.1] KUMAKURA, H. - MATSUMOTO, A. - NISHIJIMA, G. - HIGASHIKAWA, K. - KISS, T. *Improvement of J<sub>c</sub> for MgB<sub>2</sub> wires - Densification of the MgB<sub>2</sub> core and impurity additions-MgB<sub>2</sub>*. In *JOURNAL OF CRYOGENICS AND SUPERCONDUCTIVITY SOCIETY OF JAPAN*. ISSN 0389-2441, 2021, vol. 56, no. 6, p. 317-326. Dostupné na: <http://dx.doi.org/10.2221/jcsj.56.317>.

ADCA275 KOVÁČOVÁ, Zuzana\*\* - OROVČÍK, Ľubomír - SEDLÁČEK, Jaroslav - BAČA, Ľuboš - DOBROČKA, Edmund - KITZMANTEL, M. - NEUBAUER, Erich. The effect of YB<sub>4</sub> addition in ZrB<sub>2</sub>-SiC composites on the mechanical properties and oxidation performance tested up to 2000 °C. In *Journal of the European Ceramic Society*, 2020, vol. 40, p. 3829-3843. (2019: 4.495 - IF, Q1 - JCR, 1.164 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0955-2219. Dostupné na: <https://doi.org/10.1016/j.jeurceramsoc.2020.03.060>

Citácie:

1. [1.1] LIN, J. - JIN, H. - GE, X.H. - YANG, Y.H. - HUANG, G.M. - WANG, J.H.

- LI, F.Q. - LI, H. - WANG, S. Comparison of carbon nanotube deposition on HfB<sub>2</sub>, ZrB<sub>2</sub>, and TiB<sub>2</sub> by chemical vapor decomposition. In MATERIALS TODAY COMMUNICATIONS. SEP 2021, vol. 28., Registrované v: WOS
2. [1.1] MONTEVERDE, F. - SARAGA, F. - REIMER, T. - SCITI, D. Thermally stimulated self-healing capabilities of ZrB<sub>2</sub>-SiC ceramics. In JOURNAL OF THE EUROPEAN CERAMIC SOCIETY. ISSN 0955-2219, DEC 2021, vol. 41, no. 15, p. 7423-7433., Registrované v: WOS
3. [1.1] SIMONENKO, E.P. - SIMONENKO, N.P. - GORDEEV, A.N. - KOLESNIKOV, A.F. - CHAPLYGIN, A.V. - LYSENKOV, A.S. - NAGORNOV, I.A. - SEVASTYANOV, V.G. - KUZNETSOV, N.T. Oxidation of HfB<sub>2</sub>-SiC-Ta<sub>4</sub>HfC<sub>5</sub> ceramic material by a supersonic flow of dissociated air. In JOURNAL OF THE EUROPEAN CERAMIC SOCIETY. ISSN 0955-2219, FEB 2021, vol. 41, no. 2, p. 1088-1098., Registrované v: WOS
- ADCA276 KREISEL, J. - LUCAZEAU, G. - DUBOURDIEU, C. - ROSINA, Milan - WEISS, F. Raman scattering study of La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3</sub>/SrTiO multilayers. In Journal of Physics: Condensed Matter, 2002, vol. 14, p. 5201-5210. (2001: 1.611 - IF, karentované - CCC). (2002 - Current Contents, WOS, SCOPUS). ISSN 0953-8984.
- Citácie:
1. [1.1] KUMARI, K. - KUMAR, A. - THAKUR, A.D. - RAY, S.J. Charge transport and resistive switching in a 2D hybrid interface. In MATERIALS RESEARCH BULLETIN. ISSN 0025-5408, JUL 2021, vol. 139., Registrované v: WOS
2. [1.1] RODRIGUEZ-LAMAS, R. - PIROVANO, C. - STANGL, A. - PLA, D. - JONSSON, R. - RAPENNE, L. - SARIGIANNIDOU, E. - NUNS, N. - ROUSSEL, H. - CHAIX-PLUCHERY, O. - BOUDARD, M. - JIMENEZ, C. - VANNIER, R.N. - BURRIEL, M. Epitaxial LaMnO<sub>3</sub> films with remarkably fast oxygen transport properties at low temperature. In JOURNAL OF MATERIALS CHEMISTRY A. ISSN 2050-7488, JUN 7 2021, vol. 9, no. 21, p. 12721-12733., Registrované v: WOS
- ADCA277 KREMPASKÝ, Ľudovít - SCHMIDT, C. Time constant measurement in technical superconductors. In Cryogenics, 1998, vol. 38, p. 1017-1030. (1997: 0.575 - IF, karentované - CCC). (1998 - Current Contents, WOS, SCOPUS).
- Citácie:
1. [1.1] WULFF, A. C. - ABRAHAMSEN, A. B. - INSINGA, A. R. Multifilamentary coated conductors for ultra-high magnetic field applications. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, 2021, vol. 34, no. 5, pp. Dostupné na: <https://doi.org/10.1088/1361-6668/abee2b>., Registrované v: WOS
- ADCA278 KREMPASKÝ, Ľudovít - SCHMIDT, C. Time constant measurement in technical superconductors, a theoretical solution of the problem. In Journal of Applied Physics, 1994, vol. 75, p. 4264.
- Citácie:
1. [1.1] WULFF, A. C. - ABRAHAMSEN, A. B. - INSINGA, A. R. Multifilamentary coated conductors for ultra-high magnetic field applications. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, 2021, vol. 34, no. 5, pp. Dostupné na: <https://doi.org/10.1088/1361-6668/abee2b>., Registrované v: WOS
- ADCA279 KRUPA, Igor - CECEN, Volkan - BOUDENNE, Abderrahim - KRIŽANOVÁ, Zuzana - VÁVRA, Ivo - SRNÁNEK, Rudolf - RADNÓCZI, Gyorgy. Mechanical properties and morphology of composites based on the EVA copolymer filled with expanded graphite. In Polymer - Plastics Technology and Engineering, 2012, vol. 51, p. 1388-1393. (2011: 1.279 - IF, Q3 - JCR, 0.466 - SJR, Q2 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0360-2559. Dostupné na:

<https://doi.org/10.1080/03602559.2012.704114>

Citácie:

1. [1.1] BLANCHARD, Anthony - GOUANVE, Fabrice - ESPUCHE, Eliane. Influence of the Graphene Filler Nature on the Morphology and Properties of Melt Blended EVOH Based Nanocomposites. In POLYMERS, 2021, vol. 13, no. 20, pp. Dostupné na: <https://doi.org/10.3390/polym13203546>., Registrované v: WOS
2. [1.1] TONG, Jun - ZHANG, Haichen - LI, Wei - CHEN, Haichu - WANG, Daoyong - HU, Manfeng - WANG, Zhifeng. Simultaneously improving thermal conductivity and dielectric properties of poly(vinylidene fluoride)/expanded graphite via melt blending with polyamide 6. In JOURNAL OF APPLIED POLYMER SCIENCE. ISSN 0021-8995, 2021, vol. 138, no. 46, pp. Dostupné na: <https://doi.org/10.1002/app.51354>., Registrované v: WOS
3. [1.1] WANG, Zhifeng - TONG, Jun - LI, Wei - ZHANG, Haichen - HU, Manfeng - CHEN, Haichu - HE, Hui. Highly Enhancing Electrical, Thermal, and Mechanical Properties of Polypropylene/Graphite Intercalation Compound Composites by In Situ Expansion during Melt Mixing. In POLYMERS, 2021, vol. 13, no. 18, pp. Dostupné na: <https://doi.org/10.3390/polym13183095>., Registrované v: WOS

- ADCA280 KUCHARÍK, Marián - KORENKO, Michal - JANIČKOVIČ, Dušan - KADLEČÍKOVÁ, M. - BOČA, Miroslav - OBOŇA, Jozef Vincenc. Rapid solidification of cryolite and cryolite-alumina melts. In Monatshefte für Chemie, 2010, vol. 141, no. 1, p. 7-13. (2009: 1.312 - IF, Q2 - JCR, 0.479 - SJR, Q2 - SJR, karentované - CCC). (2010 - Current Contents). ISSN 0026-9247. Dostupné na: <https://doi.org/10.1007/s00706-009-0229-0>

Citácie:

1. [1.1] BUMAJDAD, Ali - NAHAR, Shamsun - ZAKI, Mohamed I. Na-Influenced Bulk and Surface Properties of the So-Called Iota(iota)-Alumina: Spectroscopy and Microscopy Studies. In FRONTIERS IN CHEMISTRY. ISSN 2296-2646, 2021, vol. 9, 633877. Dostupné na: <https://doi.org/10.3389/fchem.2021.633877>., Registrované v: WOS

- ADCA281 KUJOVIČ, Tomáš\*\* - GÖMÖRY, Fedor. Impact of local geometrical irregularities on critical currents of REBCO tapes in round cables. In Superconductor Science and Technology, 2020, vol. 33, no. 115008. (2019: 3.067 - IF, Q2 - JCR, 0.991 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/abb441> (APVV 16-0418)

Citácie:

1. [1.1] DE OLIVEIRA, R.A.H. - PINA, J.M. - DE SOUSA, W.T.B. - NAST, R. - PRONTO, A.G. - VILHENA, N. Optimized Shape of Short-Circuited HTS Coils by Cutting Process for Superconducting Fault Current Limiters. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, DEC 2021, vol. 31, no. 9., Registrované v: WOS
2. [1.1] WANG, K.Y. - GAO, Y.W. - LUO, W. - ZHOU, Y.H. - NIJHUIS, A. Nonlinear contact behavior of HTS tapes during pancake coiling and CORC cabling. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUL 2021, vol. 34, no. 7., Registrované v: WOS

- ADCA282 KUKLI, K. - KEMELI, M. - VEHKAMÄKI, M. - HEIKKILÄ, M.J. - MIZOHATA, K. - KALAM, K. - RITALA, M. - LESKELÄ, M. - KUNDRATA, Ivan - FRÖHLICH, Karol. Atomic layer deposition and properties of mixed Ta<sub>2</sub>O<sub>5</sub> ZrO<sub>2</sub> films. In AIP Advances, 2017, vol. 7, no. 025001. (2016: 1.568 - IF, Q3 - JCR, 0.957 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 2158-3226. Dostupné na: <https://doi.org/10.1063/1.4975928>



Citácie:

1. [1.1] CAI, Chengxuan - WEI, Shengsheng - YIN, Zhipeng - BAI, Jiao - XIE, Weiwei - LI, Yue - QIN, Fuwen - SU, Yan - WANG, Dejun. Oxygen vacancy formation and uniformity of conductive filaments in Si-doped Ta<sub>2</sub>O<sub>5</sub> RRAM. In *APPLIED SURFACE SCIENCE*, 2021, vol. 560, no., pp. ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2021.149960>., Registrované v: WOS
2. [1.1] FEDOROV, Pavel - NAZAROV, Denis - MEDVEDEV, Oleg - KOSHTYAL, Yury - RUMYANTSEV, Aleksander - TOLMACHEV, Vladimir - POPOVICH, Anatoly - MAXIMOV, Maxim Yu. Plasma Enhanced Atomic Layer Deposition of Tantalum (V) Oxide. In *COATINGS*, 2021, vol. 11, no. 10, pp. Dostupné na: <https://doi.org/10.3390/coatings11101206>., Registrované v: WOS
3. [1.1] MUNESHWAR, Triratna - BARLAGE, Doug - CADIEN, Ken. Stoichiometry controlled homogeneous ternary oxide growth in showerhead atomic layer deposition reactor and application for Zr<sub>x</sub>Hf<sub>1-x</sub>O<sub>2</sub>. In *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*, 2021, vol. 39, no. 3, pp. ISSN 0734-2101. Dostupné na: <https://doi.org/10.1116/6.0000856>., Registrované v: WOS
4. [1.1] SOSNOV, E. A. - MALKOV, A. A. - MALYGIN, A. A. Nanotechnology of Molecular Layering in Production of Inorganic and Hybrid Materials for Various Functional Purposes: II. Molecular Layering Technology and Prospects for Its Commercialization and Development in the XXI Century. In *RUSSIAN JOURNAL OF APPLIED CHEMISTRY*, 2021, vol. 94, no. 9, pp. 1189-1215. ISSN 1070-4272. Dostupné na: <https://doi.org/10.1134/S1070427221090020>., Registrované v: WOS
5. [1.2] MALODE, Shweta J. - SHETTI, Nagaraj P. ZrO<sub>2</sub>/In<sub>2</sub>O<sub>3</sub> in biomedical applications. In *Metal Oxides for Biomedical and Biosensor Applications*, 2021-12-03, pp. 471-501. Dostupné na: <https://doi.org/10.1016/B978-0-12-823033-6.00016-8>., Registrované v: SCOPUS

- ADCA283 KULIFFAYOVÁ, Marta - KRAJČI, Ľudovít - JANOTKA, Ivan - ŠMATKO, Vasilij. Thermal behaviour and characterization of cement composites with burnt kaolin sand. In *Journal of Thermal Analysis and Calorimetry*, 2012, vol. 108, p. 425-432. (2011: 1.604 - IF, Q3 - JCR, 0.532 - SJR, Q2 - SJR). ISSN 1388-6150. Dostupné na: <https://doi.org/10.1007/s10973-011-1964-0>

Citácie:

1. [1.1] SONG, Zijian - LU, Zhongyuan - LAI, Zhenyu. The effect of lithium silicate impregnation on the compressive strength and pore structure of foam concrete. In *CONSTRUCTION AND BUILDING MATERIALS*. ISSN 0950-0618, 2021, vol. 277, art. no. 122316. Dostupné na: <https://doi.org/10.1016/j.conbuildmat.2021.122316>., Registrované v: WOS

- ADCA284 KULICH, Miloslav - KOVÁČ, Pavol - HAIN, Miroslav - ROSOVÁ, Alica - DOBROČKA, Edmund. High density and connectivity of a MgB<sub>2</sub> filament made using the internal magnesium diffusion technique. In *Superconductor Science and Technology*, 2016, vol. 29, art. no. 035004. (2015: 2.717 - IF, Q1 - JCR, 1.130 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/29/3/035004>

Citácie:

1. [1.1] OH, S.H. - OH, Y.S. - JANG, S.H. - MONN, Y.H. - CHUNG, K.C. - KANG, S.H. Fabrication of MgB<sub>2</sub> superconducting wires with advanced Mg-Powder-Compaction process. In *PROGRESS IN SUPERCONDUCTIVITY AND CRYOGENICS*. ISSN 1229-3008, DEC 2021, vol. 23, no. 4, p. 14-18. Dostupné na: <https://doi.org/10.9714/psac.2021.23.4.014>., Registrované v: WOS

2. [1.1] OH, Y.-S. - LEE, H.W. - CHUNG, K.-C. - HWANG, D.-Y. - KANG, S.-H. - YOON, J.W. Superconducting MgB<sub>2</sub> Wire Drawing Considering Anisotropic Hardening Behavior and Hydrostatic Effect. In METALS AND MATERIALS INTERNATIONAL. ISSN 1598-9623, 2021. Dostupné na: <https://doi.org/10.1007/s12540-021-01023-5>, Registrované v: WOS
  3. [1.1] YETIS, H. - KARABOGA, F. - AVCI, D. - BELENLI, I. Nano-sized amorphous/semi-crystalline boron ratio and external Mg effects on transport and structural properties in MgB<sub>2</sub> IMD wires. In PHYSICA C- SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, FEB 15 2021, vol. 581. Dostupné na: <https://doi.org/10.1016/j.physc.2020.1353807>, Registrované v: WOS
- ADCA285 KUNDRATA, Ivan\*\* - FRÖHLICH, Karol - VANČO, L. - MIČUŠÍK, Matej - BACHMANN, J. Growth of lithium hybriide thin films from solutions: Towards solution atomic layer deposition of lithiated films. In Beilstein Journal of Nanotechnology, 2019, vol. 10, p. 1443-1451. (2018: 2.269 - IF, Q2 - JCR, 0.769 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 2190-4286. Dostupné na: <https://doi.org/10.3762/bjnano.10.142> (VEGA 2/0136/18)
- Citácie:
1. [1.1] CAO, Yuanyuan - ZHU, Sha - BACHMANN, Julien. HfS<sub>2</sub> thin films deposited at room temperature by an emerging technique, solution atomic layer deposition. In DALTON TRANSACTIONS, 2021, vol. 50, no. 37, pp. 13066-13072. ISSN 1477-9226. Dostupné na: <https://doi.org/10.1039/d1dt01232k>, Registrované v: WOS
  2. [1.1] YUAN, Guangjie - LIU, Zhenhua - CAO, Zhipeng - XIE, Jiefei - LI, Haohao - LI, Long - SUN, Yueli - TIAN, Yingzhong. Direct growth of vertically well-aligned carbon nanotube arrays on atomic layer deposition of ZnO films. In CHEMICAL PHYSICS LETTERS, 2021, vol. 773, no., pp. ISSN 0009-2614. Dostupné na: <https://doi.org/10.1016/j.cplett.2021.138602>, Registrované v: WOS
- ADCA286 KUNZO, Pavol - LOBOTKA, Peter - MIČUŠÍK, Matej - KOVÁČOVÁ, Eva. Palladium-free hydrogen sensor based on oxygen-plasma-treated polyaniline. In Sensors and Actuators B-Chemical, 2012, vol. B171 - 172, p. 838 - 845. (2011: 3.898 - IF, Q1 - JCR, 1.485 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0925-4005. Dostupné na: <https://doi.org/10.1016/j.snb.2012.05.080>
- Citácie:
1. [1.1] NAMI-ANA, S. F. - NASRESFAHANI, Sh - TASHKHOURLAN, J. - SHAMSIPUR, M. - ZARGARPOUR, Z. - SHEIKHI, M. H. Nanofibers of Polyaniline and Cu(II)-L-Aspartic Acid for a Room-Temperature Carbon Monoxide Gas Sensor. In ACS APPLIED MATERIALS & INTERFACES, 2021, vol. 13, no. 33, pp. 39791-39805. ISSN 1944-8244. Dostupné na: <https://doi.org/10.1021/acsami.1c07116>, Registrované v: WOS
- ADCA287 KUNZO, Pavol - LOBOTKA, Peter - KOVÁČOVÁ, Eva - CHRISSTOPOULOU, K. - PAPOUTSAKIS, L. - ANASTASIADIS, S.H. - KRIŽANOVÁ, Zuzana - VÁVRA, Ivo. Nanocomposites of polyaniline and titania nanoparticles for gas sensors. In Physica status solidi A. Applications and materials science, 2013, vol. 210, p. 2341-2347. (2012: 1.469 - IF, Q2 - JCR, 0.866 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 1862-6300. Dostupné na: <https://doi.org/10.1002/pssa.201329289>
- Citácie:
1. [1.1] LI, Xiaolong - LI, Zhejian - CHEN, Yuping - ZHAO, Kunfeng - JIANG, Yubo - DI, Youying - LIU, Yanfeng - ZHOU, Chunsheng. High-sensitivity CO electrochemical gas sensor based on a superconductive C-loaded CuO-CeO<sub>2</sub> nanocomposite sensing material. In MATERIALS SCIENCE AND



*ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS*, 2021, vol. 271, no., pp. ISSN 0921-5107. Dostupné na:

<https://doi.org/10.1016/j.mseb.2021.115272>, Registrované v: WOS

2. [1.1] RASOOL, Akhtar - RIZVI, Tasneem Zahra - NAYAB, Sana - IQBAL, Zafar. Electrical properties of Cadmium Sulfide quantum dots and polyaniline based nanocomposites. In *JOURNAL OF ALLOYS AND COMPOUNDS*, 2021, vol. 854, no., pp. ISSN 0925-8388. Dostupné na:

<https://doi.org/10.1016/j.jallcom.2020.156661>, Registrované v: WOS

3. [1.1] TSIZH, B. - HORBENKO, Yu - DZERYN, M. - AKSIMENTYEVA, O. Combined polymer sensitive elements for gas sensors. In *MOLECULAR CRYSTALS AND LIQUID CRYSTALS*, 2021, vol. 716, no. 1, pp. 112-122. ISSN 1542-1406. Dostupné na: <https://doi.org/10.1080/15421406.2020.1859701>, Registrované v: WOS

ADCA288 KÚŠ, P. - PLECENIK, Andrej - SATRAPINSKY, L. - XU, Y. - SOBOLEWSKI, R. Superconducting properties of MgB2 thin films prepared on flexible plastic substrates. In *Applied Physics Letters*, 2002, vol. 81, p. 2199-2201. ISSN 0003-6951.

Citácie:

1. [1.1] KRINITINA, T. P. - KUZNETSOVA, E. - DEGTYAREV, M. - BLINOVA, Yu. MgB2-Based Superconductors: Structure and Properties. In *PHYSICS OF METALS AND METALLOGRAPHY*. ISSN 0031-918X, 2021, vol. 122, no. 12, pp. 1183-1206. Dostupné na: <https://doi.org/10.1134/S0031918X2112005X>, Registrované v: WOS

ADCA289 KUZMA, A. - WEIS, M. - FLICKYNGEROVÁ, S. - JAKABOVIČ, J. - ŠATKA, A. - DOBROČKA, Edmund - CHLPÍK, J. - CIRÁK, J. - DONOVAL, M. - TELEK, P. - UHEREK, F. - DONOVAL, D. Influence of surface oxidation on plasmon resonance in monolayer of gold and silver nanoparticles. In *Journal of Applied Physics*, 2012, vol. 112, 103531. (2011: 2.168 - IF, Q2 - JCR, 1.374 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.4767688>

Citácie:

1. [1.1] AL-SARRAJ, A. - SAOUD, K.M. - ELMEL, A. - MANSOUR, S. - HAIK, Y. Optoelectronic properties of highly porous silver oxide thin film. In *SN APPLIED SCIENCES*. ISSN 2523-3963, JAN 7 2021, vol. 3, no. 1., Registrované v: WOS

2. [1.1] KUMARI, G. - KAMARUDHEEN, R. - ZOETHOUT, E. - BALDI, A. Photocatalytic Surface Restructuring in Individual Silver Nanoparticles. In *ACS CATALYSIS*. ISSN 2155-5435, MAR 19 2021, vol. 11, no. 6, p. 3478-3486., Registrované v: WOS

3. [1.1] LISHCHYNSKYI, O. - STETSYSHYN, Y. - RACZKOWSKA, J. - AWSIUK, K. - ORZECZOWSKA, B. - ABALYMOV, A. - SKIRTACH, A.G. - BERNASIK, A. - NASTYSHYN, S. - BUDKOWSKI, A. Fabrication and Impact of Fouling-Reducing Temperature-Responsive POEGMA Coatings with Embedded CaCO3 Nanoparticles on Different Cell Lines. In *MATERIALS*. MAR 2021, vol. 14, no. 6., Registrované v: WOS

4. [1.1] SAMAVATI, Z. - SAMAVATI, A. - ISMAIL, A.F. - YAHYA, N. - RAHMAN, M.A. - OTHMAN, M.H.D. Role of outer layer configuration on saline concentration sensitivity of optical fiber probe coated with ZnO/Ag nano-heterostructure. In *OPTICS AND LASER TECHNOLOGY*. ISSN 0030-3992, APR 2021, vol. 136., Registrované v: WOS

5. [1.1] SAO, D. - DAS, S. - PRAMANIK, S. - KUIRI, P.K. - NATH, R. Interplaying Role of Particle Size and Polymer Layer Thickness on the Large Tunable Optical Response of Polymer-coated Silver Nanostructures. In

*PLASMONICS. ISSN 1557-1955, AUG 2021, vol. 16, no. 4, p. 1319-1326.,*

*Registrované v: WOS*

6. [1.1] SWAROOP, A. - PUJARI, A. - THOMAS, T. *Modelling core-shell plasmonic nanoparticles as homogenous systems: An effective refractive index approach. In MATERIALIA. ISSN 2589-1529, SEP 2021, vol. 19., Registrované v: WOS*

7. [1.1] XUE, S. - CHEN, S.L. - LING, Q. - YUAN, Q.H. - GAN, W. *Photocatalytic redox on the surface of colloidal silver nanoparticles revealed by second harmonic generation and two-photon luminescence. In PHYSICAL CHEMISTRY CHEMICAL PHYSICS. ISSN 1463-9076, SEP 21 2021, vol. 23, no. 35, p. 19752-19759., Registrované v: WOS*

ADCA290 KUZMÍK, Ján - OSTERMAIER, C. - POZZOVIVO, G. - BASNAR, B. - SCHRENK, W. - CARLIN, J.-F. - GONSCHOREK, M. - FELTIN, E. - GRANDJEAN, N. - DOUVRY, Y. - GAQUIERE, C. - DE JAEGER, J.-C. - ČIČO, Karol - FRÖHLICH, Karol - ŠKRINIAROVÁ, J. - KOVÁČ, Ján - STRASSER, G. - POGANY, D. - GORNIK, E. *Proposal and performance analysis of normally-off n++ GaN/InAlN/AlN/GaN HEMTs with 1 nm thick InAlN barrier. In IEEE Transactions on Electron Devices, 2010, vol. 57, p. 2144-2154. (2009: 2.445 - IF, 1.768 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents). ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2010.2055292>*

*Citácie:*

1. [1.1] COZETTE, F. - HASSAN, B. - RODRIGUEZ, C. - FRAYSSINET, E. - COMYN, R. - LECOURT, F. - DEFRANCE, N. - LABAT, N. - BOONE, F. - SOLTANI, A. - JAOUAD, A. - CORDIER, Y. - MAHER, H. *New barrier layer design for the fabrication of gallium nitride-metal-insulator-semiconductor-high electron mobility transistor normally-off transistor. In SEMICONDUCTOR SCIENCE AND TECHNOLOGY. ISSN 0268-1242, MAR 2021, vol. 36, no. 3., Registrované v: WOS*

2. [1.1] PAUL, S. - MONDAL, S. - SARKAR, A. *Characterization and analysis of low-noise GaN-HEMT based inverter circuits. In MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS. ISSN 0946-7076, NOV 2021, vol. 27, no. 11, SI, p. 3957-3965., Registrované v: WOS*

ADCA291 KUZMÍK, Ján - POZZOVIVO, G. - OSTERMAIER, C. - STRASSER, G. - POGANY, D. - GORNIK, E. - CARLIN, J.-F. - GONSCHOREK, M. - FELTIN, E. - GRANDJEAN, N. *Analysis of degradation mechanisms in lattice-matched InAlN/GaN high-electron-mobility transistors. In Journal of Applied Physics, 2009, vol. 106, 124503. (2008: 2.201 - IF, Q1 - JCR, 1.644 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, WOS, SCOPUS). ISSN 0021-8979.*

*Citácie:*

1. [1.1] NGUYEN, T.H. - TAKAHASHI, T. - CHONAN, H. - VAN NGUYEN, H. - YAMADA, H. - YAMADA, T. - SHIMIZU, M. *Fabrication and analysis of InAlN/GaN metal-insulator-semiconductor high-electron-mobility transistors based on AlN/GaN superlattice channel. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, OCT 4 2021, vol. 119, no. 14., Registrované v: WOS*

2. [1.1] YANG, W.L. - YANG, L.A. - ZHANG, X.Y. - LI, Y. - MA, X.H. - HAO, Y. *Negative differential resistance characteristics of GaN-based resonant tunneling diodes with quaternary AlInGa as barrier. In SEMICONDUCTOR SCIENCE AND TECHNOLOGY. ISSN 0268-1242, JAN 2021, vol. 36, no. 1., Registrované v: WOS*

3. [1.2] CHAND, Nisarga - SWAIN, Sanjit Kumar - BISWAL, Sudhansu Mohan - SARKAR, Angsuman - ADAK, Sarosij. *Comparative study on Analog RF*

- Parameter of InAlN/AlN/GaN Normally off HEMTs with and without AlGaIn back barrier. In Proceedings of 4th International Conference on 2021 Devices for Integrated Circuit, DevIC 2021, 2021-05-19, pp. 616-620. Dostupné na: <https://doi.org/10.1109/DevIC50843.2021.9455877>., Registrované v: SCOPUS*
- ADCA292 KUZMÍK, Ján - BYCHIKHIN, S. - POGANY, D. - GAQUIERE, C. - MORVAN, E. Current conduction and saturation mechanism in AlGaIn/GaN ungated structures. In Journal of Applied Physics, 2006, vol. 99, p. 123720. (2005: 2.498 - IF, Q1 - JCR, 2.055 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 0021-8979.
- Citácie:
- [1.1] ARREOLA-PINA, A.S. - MIMILA-ARROYO, J. Thermal reliability of deuterated AlGaIn/GaN HEMTs. In MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING. ISSN 1369-8001, MAR 1 2021, vol. 123., Registrované v: WOS
  - [1.1] LIU, Y. - LV, Y.J. - GUO, S.S. - LUAN, Z.F. - CHENG, A.J. - LIN, Z.J. - YANG, Y.X. - JIANG, G.Y. - ZHOU, Y. A novel AlGaIn/GaN heterostructure field-effect transistor based on open-gate technology. In SCIENTIFIC REPORTS. ISSN 2045-2322, NOV 17 2021, vol. 11, no. 1., Registrované v: WOS
  - [1.1] SOKOLOVSKIY, R. - ZHENG, H.Z. - LI, W.M. - ZHOU, G.N. - WANG, Q. - ZHANG, G.Q. - YU, H.Y. Application of a gateless AlGaIn/GaN HEMT sensor for diesel soot particulate detection. In SENSORS AND ACTUATORS B-CHEMICAL. DEC 15 2021, vol. 349., Registrované v: WOS
  - [1.1] TAO, Q.Q. - WANG, J.Y. - ZHANG, B. - WANG, X. - LI, M.J. - CAO, Q.R. - WU, W.G. - MA, X.H. Investigation on mechanisms of current saturation in gateless AlGaIn/GaN heterostructure device. In JAPANESE JOURNAL OF APPLIED PHYSICS. ISSN 0021-4922, FEB 1 2021, vol. 60, no. 2., Registrované v: WOS
- ADCA293 KUZMÍK, Ján - BYCHIKHIN, S. - POGANY, D. - GAQUIERE, C. - PICHONAT, E. - MORVAN, E. Investigation of the thermal boundary resistance at the III-Nitride/substrate interface using optical methods. In Journal of Applied Physics. - New York : American Institute of Physics, 2007, vol. 101, p. 054508. (2006: 2.316 - IF, Q1 - JCR, 1.944 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, SCOPUS). ISSN 0021-8979.
- Citácie:
- [1.1] HSU, L.H. - LAI, Y.Y. - TU, P.T. - LANGPOKLAKPAM, C. - CHANG, Y.T. - HUANG, Y.W. - LEE, W.C. - TZOU, A.J. - CHENG, Y.J. - LIN, C.H. - KUO, H.C. - CHANG, E.Y. Development of GaN HEMTs Fabricated on Silicon, Silicon-on-Insulator, and Engineered Substrates and the Heterogeneous Integration. In MICROMACHINES. OCT 2021, vol. 12, no. 10., Registrované v: WOS
  - [1.1] WARZOHA, R.J. - WILSON, A.A. - DONOVAN, B.F. - DONMEZER, N. - GIRI, A. - HOPKINS, P.E. - CHOI, S. - PAHINKAR, D. - SHI, J.J. - GRAHAM, S. Applications and Impacts of Nanoscale Thermal Transport in Electronics Packaging. In JOURNAL OF ELECTRONIC PACKAGING. ISSN 1043-7398, JUN 1 2021, vol. 143, no. 2., Registrované v: WOS
- ADCA294 KUZMÍK, Ján - GEORGAKILAS, A. Proposal of high-electron mobility transistors with strained InN channel. In IEEE Transactions on Electron Devices, 2011, vol. 58, p. 720. (2010: 2.267 - IF, Q1 - JCR, 1.639 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0018-9383. Dostupné na: <https://doi.org/10.1088/0268-1242/29/3/035015>
- Citácie:
- [1.1] HSU, C.W. - DEMINSKYI, P. - PERSSON, A. - KARLSSON, M. - PEDERSEN, H. On the dynamics in chemical vapor deposition of InN. In

*JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, OCT 7 2021, vol. 130, no. 13., Registrované v: WOS*

2. [1.1] ODA, O. - HORI, M. Novel Epitaxy for Nitride Semiconductors Using Plasma Technology. In *PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE. ISSN 1862-6300, JAN 2021, vol. 218, no. 1, SI., Registrované v: WOS*

ADCA295 KUZMÍK, Ján - POZZOVIVO, G. - ABERMANN, S. - CARLIN, J.-F. - GONSCHOREK, M. - FELTIN, E. - GRANDJEAN, N. - BERTAGNOLLI, E. - STRASSER, G. - POGANY, D. Technology and performance of InAlN/AlN/GaN HEMTs with gate insulation and current collapse suppression using ZrO<sub>2</sub> or HfO<sub>2</sub>. In *IEEE Transactions on Electron Devices*, 2008, vol. 55, p. 937-941. (2007: 2.165 - IF, Q1 - JCR, 1.898 - SJR, Q1 - SJR, karentované - CCC). (2008 - Current Contents). ISSN 0018-9383.

Citácie:

1. [1.1] CLYMORE, C.J. - MOHANTY, S. - JIAN, Z. - KRISHNA, A. - KELLER, S. - AHMADI, E. HfO<sub>2</sub> as gate insulator on N-polar GaN-AlGa<sub>0.3</sub>N heterostructures. In *SEMICONDUCTOR SCIENCE AND TECHNOLOGY. ISSN 0268-1242, MAR 2021, vol. 36, no. 3., Registrované v: WOS*

2. [1.1] ODA, O. - HORI, M. Novel Epitaxy for Nitride Semiconductors Using Plasma Technology. In *PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE. ISSN 1862-6300, JAN 2021, vol. 218, no. 1, SI., Registrované v: WOS*

3. [1.1] SINGH, P. - KUMARI, V. - SAXENA, M. - GUPTA, M. TCAD-Based Assessment of Dual-Gate MISHEMT with Sapphire, SiC, and Silicon Substrate. In *IETE TECHNICAL REVIEW. ISSN 0256-4602, MAR 4 2021, vol. 38, no. 2, p. 197-205., Registrované v: WOS*

4. [1.1] THRON, A.M. - GAO, J.Y. - ERCAN, B. - LAURENT, M.A. - CHOWDHURY, S. - VAN BENTHEM, K. Oxidation Behavior of InAlN during Rapid Thermal Annealing. In *PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE. ISSN 1862-6300, OCT 2021, vol. 218, no. 19., Registrované v: WOS*

ADCA296 KUZMÍK, Ján - KOSTOPOULOS, T. - KONSTANTINIDIS, G. - CARLIN, J.-F. - GEORGAKILAS, A. - POGANY, D. InAlN/GaN HEMTs: A first insight into technological optimization. In *IEEE Transactions on Electron Devices*, 2006, vol. 53, p. 422-426. (2005: 2.105 - IF, Q1 - JCR, 1.738 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents). ISSN 0018-9383.

Citácie:

1. [1.1] LINGAPARTHI, R. - DHARMARASU, N. - RADHAKRISHNAN, K. - RANJAN, A. - SEAH, T.L.A. - HUO, L.L. Source of two-dimensional electron gas in unintentionally doped AlGa<sub>0.3</sub>N/GaN multichannel high-electron-mobility transistor heterostructures. In *APPLIED PHYSICS LETTERS. ISSN 0003-6951, MAR 22 2021, vol. 118, no. 12., Registrované v: WOS*

2. [1.1] YAN, D.W. - WU, J. - YAN, X.H. - LI, W.R. - YU, D.X. - CAO, Y.R. - GU, X.F. Voltage and temperature dependence of reverse leakage current of lattice-matched InAlN/GaN heterostructure Schottky contact. In *ACTA PHYSICA SINICA. ISSN 1000-3290, APR 5 2021, vol. 70, no. 7., Registrované v: WOS*

3. [1.1] YAN, G.P. - XI, K. - XU, G.B. - BI, J.S. - YIN, H.X. Analysis of Single Event Effects in Capacitor-Less 1T-DRAM Based on an InGaAs Transistor. In *IEEE TRANSACTIONS ON ELECTRON DEVICES. ISSN 0018-9383, APR 2021, vol. 68, no. 4, p. 1604-1609., Registrované v: WOS*

4. [1.2] VELIKOVSKIY, L. E. - SIM, P. E. - DEMCHENKO, O. I. - KURBANOVA, N. E. - FILIPPOV, I. A. - SAKHAROV, A. V. - LUNDIN, W. V. -



- ZAVARIN, E. E. - ZAKHEIM, D. A. - ARTEEV, D. S. - YAGOVKINA, M. A. - TSATSULNIKOV, A. F. *InAlN/GaN and AlGaIn/GaN HEMT technologies comparison for microwave applications. In IOP Conference Series: Materials Science and Engineering, 2021-01-20, 1019, 1, pp. ISSN 17578981. Dostupné na: <https://doi.org/10.1088/1757-899X/1019/1/012071>., Registrované v: SCOPUS*
- ADCA297 KUZMÍK, Ján - POGANY, D. - GORNIK, E. - JAVORKA, P. - KORDOŠ, Peter. Electrical overstress in AlGaIn/GaN HEMTs: study of degradation processes. In *Solid-State Electronics*, 2004, vol. 48, p. 271-276. ISSN 0038-1101.
- Citácie:
- [1.1] MENEGHINI, M. - DE SANTI, C. - ABID, I. - BUFFOLO, M. - CIONI, M. - KHADAR, R.A. - NELA, L. - ZAGNI, N. - CHINI, A. - MEDJDOUB, F. - MENEGHESSO, G. - VERZELLESI, G. - ZANONI, E. - MATIOLI, E. *GaN-based power devices: Physics, reliability, and perspectives. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, NOV 8 2021, vol. 130, no. 18., Registrované v: WOS*
  - [1.1] REN, Y. - CHEN, Y.Q. - LIU, C. - XU, X.B. - GAO, R. - LEI, D.Y. - LAI, P. - HUANG, Y. - HE, J. *Gate Failure Behavior and Mechanism of AlGaIn/GaN HEMTs Under Transmission Line Pulsed Stress. In IEEE JOURNAL OF THE ELECTRON DEVICES SOCIETY. ISSN 2168-6734, 2021, vol. 9, p. 628-632., Registrované v: WOS*
  - [1.1] XU, X.B. - LI, B. - CHEN, Y.Q. - WU, Z.H. - HE, Z.Y. - LIU, L. - HE, S.Z. - EN, Y.F. - HUANG, Y. *Analysis of Trap and Recovery Characteristics Based on Low-Frequency Noise for E-Mode GaN HEMTs Under Electrostatic Discharge Stress. In IEEE JOURNAL OF THE ELECTRON DEVICES SOCIETY. ISSN 2168-6734, 2021, vol. 9, p. 89-95., Registrované v: WOS*
- ADCA298 KUZMÍK, Ján - BYCHIKHIN, S. - NEUBURGER, M. - DADGAR, A. - KROST, A. - KOHN, E. - POGANY, D. Transient thermal characterization of AlGaIn/GaN HEMTs grown on silicon. In *IEEE Transactions on Electron Devices*, 2005, vol. 52, p. 1698-1705. ISSN 0018-9383.
- Citácie:
- [1.1] CAO, Y.K. - POMEROY, J.W. - UREN, M.J. - YANG, F.Y. - KUBALL, M. *Electric field mapping of wide-bandgap semiconductor devices at a submicrometre resolution. In NATURE ELECTRONICS. ISSN 2520-1131, JUL 2021, vol. 4, no. 7, p. 478-+, Registrované v: WOS*
- ADCA299 KUZMÍK, Ján - CARLIN, J.-F. - GONSCHOREK, M. - KOSTOPOULOS, A. - KONSTANTINIDIS, G. - POZZOVIVO, G. - GOLKA, S. - GEORGAKILAS, A. - GRANDJEAN, N. - STRASSER, G. - POGANY, D. Gate-lag and drain-lag effects in (GaIn)InAlN/GaN and InAlN/AlN/GaN HEMTs. In *Physica status solidi A.Applications and materials science*, 2007, vol. 204, p. 2019-2022. (2006: 1.221 - IF, 0.846 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, SCOPUS). ISSN 1862-6300.
- Citácie:
- [1.1] ARIVAZHAGAN, L. - JARNDAL, A. - NIRMAL, D. *GaN HEMT on Si substrate with diamond heat spreader for high power applications. In JOURNAL OF COMPUTATIONAL ELECTRONICS. ISSN 1569-8025, APR 2021, vol. 20, no. 2, p. 873-882., Registrované v: WOS*
  - [1.1] PAN, S.J. - FENG, S.W. - ZHENG, X. - HE, X. - LI, X. - BAI, K. *Effects of Temperature and Bias Voltage on Electron Transport Properties in GaN High-Electron-Mobility Transistors. In IEEE TRANSACTIONS ON DEVICE AND MATERIALS RELIABILITY. ISSN 1530-4388, DEC 2021, vol. 21, no. 4, p. 494-499., Registrované v: WOS*
  - [1.2] WEISER, Mathias - KALLFASS, Ingmar. *Extension of ASM HEMT Model with Trapping Effects in GaN Power Devices. In 2021 23rd European Conference*

- on Power Electronics and Applications, EPE 2021 ECCE Europe, 2021-09-06, pp., Registrované v: SCOPUS
- ADCA300 KUZMÍK, Ján - POGANY, D. - GORNIK, E. - JAVORKA, P. - KORDOŠ, Peter. Electrostatic discharge effects in AlGaIn/GaN high-electron-mobility transistors. In Applied Physics Letters. - American Institute of Physics, 2003, vol. 83, p. 4655-4657. (2003 - Current Contents, SCOPUS). ISSN 0003-6951.
- Citácie:
1. [1.1] REN, Y. - CHEN, Y.Q. - LIU, C. - XU, X.B. - GAO, R. - LEI, D.Y. - LAI, P. - HUANG, Y. - HE, J. Gate Failure Behavior and Mechanism of AlGaIn/GaN HEMTs Under Transmission Line Pulsed Stress. In IEEE JOURNAL OF THE ELECTRON DEVICES SOCIETY. ISSN 2168-6734, 2021, vol. 9, p. 628-632., Registrované v: WOS
  2. [1.1] XIN, Y.J. - CHEN, W.J. - SUN, R.Z. - WANG, F.Z. - DENG, X.C. - LI, Z.J. - ZHANG, B. Simulation Study of a High Gate-to-Source ESD Robustness Power p-GaN HEMT With Self-Triggered Discharging Channel. In IEEE TRANSACTIONS ON ELECTRON DEVICES. ISSN 0018-9383, SEP 2021, vol. 68, no. 9, p. 4536-4542., Registrované v: WOS
  3. [1.1] XU, X.B. - LI, B. - CHEN, Y.Q. - WU, Z.H. - HE, Z.Y. - LIU, L. - HE, S.Z. - EN, Y.F. - HUANG, Y. Analysis of Trap and Recovery Characteristics Based on Low-Frequency Noise for E-Mode GaN HEMTs Under Electrostatic Discharge Stress. In IEEE JOURNAL OF THE ELECTRON DEVICES SOCIETY. ISSN 2168-6734, 2021, vol. 9, p. 89-95., Registrované v: WOS
  4. [1.1] YANG, W. - STOLL, N. - YUAN, J.S. ESD Stress Effect on Failure Mechanisms in GaN-on-Si Power Device. In IEEE TRANSACTIONS ON DEVICE AND MATERIALS RELIABILITY. ISSN 1530-4388, DEC 2021, vol. 21, no. 4, p. 479-485., Registrované v: WOS
- ADCA301 KUZMÍK, Ján - JAVORKA, P. - ALAM, A. - MARSO, M. - HEUKEN, M. - KORDOŠ, Peter. Determination of channel temperature in AlGaIn/GaN HEMTs grown on sapphire and silicon substrates using DC characterization method. In IEEE Transactions on Electron Devices, 2002, vol. 49, p. 1496-1498. ISSN 0018-9383.
- Citácie:
1. [1.1] CHANG, S.J. - CHO, K.J. - LEE, S.Y. - JEONG, H.H. - LEE, J.H. - JUNG, H.W. - BAE, S.B. - CHOI, I. - KIM, H.C. - AHN, H.K. - LIM, J.W. Substrate Effects on the Electrical Properties in GaN-Based High Electron Mobility Transistors. In CRYSTALS. NOV 2021, vol. 11, no. 11., Registrované v: WOS
  2. [1.1] CHEN, L.L. - YAN, X.H. - LI, W.R. - HUANG, Y. - YAN, D.W. - GU, X.F. Accurate determination of the peak channel temperature by an electrical method combined with EL mapping technique in In<sub>0.17</sub>Al<sub>0.83</sub>N/GaN HEMTs. In MICROELECTRONICS RELIABILITY. ISSN 0026-2714, DEC 2021, vol. 127., Registrované v: WOS
  3. [1.1] CHOWDHURY, A. - ALIM, M.A. - ISLAM, S. - GAQUIERE, C. Estimation of channel temperature and thermal sensitivity for a 0.15  $\mu\text{m}$  GaN HEMT. In MICROELECTRONIC ENGINEERING. ISSN 0167-9317, JUL 15 2021, vol. 247., Registrované v: WOS
  4. [1.1] FLOROVIC, M. - JR, J.K. - CHVALA, A. - KOVAC, J. - JACQUET, J.C. - DELAGE, S.L. Theoretical and Experimental Subtractions of Device Temperature Determination Utilizing I-V Characterization Applied on AlGaIn/GaN HEMT. In ELECTRONICS. NOV 2021, vol. 10, no. 22., Registrované v: WOS
  5. [1.1] MALAKOUTIAN, M. - REN, C.H. - WOO, K. - LI, H.R. - CHOWDHURY, S. Development of Polycrystalline Diamond Compatible with the Latest N-Polar



*GaN mm-Wave Technology. In CRYSTAL GROWTH & DESIGN. ISSN 1528-7483, MAY 5 2021, vol. 21, no. 5, p. 2624-2632., Registrované v: WOS*

6. [1.1] ZHANG, Y.H. - ZUBAIR, A. - LIU, Z.H. - XIAO, M. - PEROZEK, J. - MA, Y.W. - PALACIOS, T. GaN FinFETs and trigate devices for power and RF applications: review and perspective. In SEMICONDUCTOR SCIENCE AND TECHNOLOGY. ISSN 0268-1242, MAY 2021, vol. 36, no. 5., Registrované v: WOS

ADCA302 KUZMÍK, Ján. InAlN/(In)GaN high electron mobility transistors some aspects of the quantum well heterostructure proposal. In Semiconductor Science and Technology. - Bristol : Institute of Physics, 2002, vol. 17, p. 540-544. ISSN 0268-1242.

Citácie:

1. [1.1] LI, Y. - PU, H.B. Fang-Howard wave function modelling of electron mobility in AlInGaN/AlN/InGaN/GaN double heterostructures\*. In CHINESE PHYSICS B. ISSN 1674-1056, SEP 2021, vol. 30, no. 9., Registrované v: WOS

2. [1.1] ODA, O. - HORI, M. Novel Epitaxy for Nitride Semiconductors Using Plasma Technology. In PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE. ISSN 1862-6300, JAN 2021, vol. 218, no. 1, SI., Registrované v: WOS

3. [1.1] SONMEZ, F. - ARSLAN, E. - ARDALI, S. - TIRAS, E. - OZBAY, E. Determination of scattering mechanisms in AlInGaN/GaN heterostructures grown on sapphire substrate. In JOURNAL OF ALLOYS AND COMPOUNDS. ISSN 0925-8388, MAY 25 2021, vol. 864., Registrované v: WOS

4. [1.1] TOPRAK, A. - YILMAZ, D. - OZBAY, E. Selectively dry etched of p-GaN/InAlN heterostructures using BCl<sub>3</sub>-based plasma for normally-off HEMT technology. In MATERIALS RESEARCH EXPRESS. DEC 2021, vol. 8, no. 12., Registrované v: WOS

5. [1.2] CHAND, Nisarga - SWAIN, Sanjit Kumar - BISWAL, Sudhansu Mohan - SARKAR, Angsuman - ADAK, Sarosij. Comparative study on Analog RF Parameter of InAlN/AlN/GaN Normally off HEMTs with and without AlGaIn back barrier. In Proceedings of 4th International Conference on 2021 Devices for Integrated Circuit, DevIC 2021, 2021-05-19, pp. 616-620. Dostupné na: <https://doi.org/10.1109/DevIC50843.2021.9455877>., Registrované v: SCOPUS

ADCA303 KUZMÍK, Ján. Power electronics on InAlN/(In)GaN: prospect for a record performance. In IEEE Electron Devices Letters, 2001, vol. 22, p. 510-512. (2001 - Current Contents). ISSN 0741-3106. Dostupné na: <https://doi.org/10.1109/55.962646>

Citácie:

1. [1.1] COSKUN, M.B. - RAIS-ZADEH, M. Thermal Infrared Detector Sparse Array for NASA Planetary Applications. In 2021 5TH IEEE ELECTRON DEVICES TECHNOLOGY & MANUFACTURING CONFERENCE (EDTM). 2021., Registrované v: WOS

2. [1.1] CUI, P. - JIA, M. - CHEN, H. - LIN, G.Y. - ZHANG, J. - GUNDLACH, L. - XIAO, J.Q. - ZENG, Y.P. InAlN/GaN HEMT on Si With  $f(m)(ax)( )=270$  GHz. In IEEE TRANSACTIONS ON ELECTRON DEVICES. ISSN 0018-9383, MAR 2021, vol. 68, no. 3, p. 994-999., Registrované v: WOS

3. [1.1] HSU, L.H. - LAI, Y.Y. - TU, P.T. - LANGPOKLAKPAM, C. - CHANG, Y.T. - HUANG, Y.W. - LEE, W.C. - TZOU, A.J. - CHENG, Y.J. - LIN, C.H. - KUO, H.C. - CHANG, E.Y. Development of GaN HEMTs Fabricated on Silicon, Silicon-on-Insulator, and Engineered Substrates and the Heterogeneous Integration. In MICROMACHINES. OCT 2021, vol. 12, no. 10., Registrované v: WOS

4. [1.1] KALITA, S. - DUTTA, A. - MUKHOPADHYAY, S. Comparative studies on the DC and RF performances of conventional HEMT and double quantum well

- heterostructure. In *OPTICAL AND QUANTUM ELECTRONICS*. ISSN 0306-8919, FEB 2021, vol. 53, no. 2., Registrované v: WOS
5. [1.1] LIU, A.C. - TU, P.T. - LANGPOKLAKPAM, C. - HUANG, Y.W. - CHANG, Y.T. - TZOU, A.J. - HSU, L.H. - LIN, C.H. - KUO, H.C. - CHANG, E.Y. The Evolution of Manufacturing Technology for GaN Electronic Devices. In *MICROMACHINES*. JUL 2021, vol. 12, no. 7., Registrované v: WOS
6. [1.1] MOHAMAD, R. - RUTERANA, P. Indium segregation mechanism and V-defect formation at the [0001] InAlN surface: an ab-initio investigation. In *JOURNAL OF PHYSICS D-APPLIED PHYSICS*. ISSN 0022-3727, JAN 7 2021, vol. 54, no. 1., Registrované v: WOS
7. [1.1] NGUYEN, T.H. - TAKAHASHI, T. - CHONAN, H. - VAN NGUYEN, H. - YAMADA, H. - YAMADA, T. - SHIMIZU, M. Fabrication and analysis of InAlN/GaN metal-insulator-semiconductor high-electron-mobility transistors based on AlN/GaN superlattice channel. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, OCT 4 2021, vol. 119, no. 14., Registrované v: WOS
8. [1.1] ODA, O. - HORI, M. Novel Epitaxy for Nitride Semiconductors Using Plasma Technology. In *PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE*. ISSN 1862-6300, JAN 2021, vol. 218, no. 1, SI., Registrované v: WOS
9. [1.1] SARKAR, Sujan - KHADE, Ramdas P. - DASGUPTA, Nandita - DASGUPTA, Amitava. A Simple Technique to Estimate Surface Traps from DC Transfer Characteristics of GaN-Based HEMT. In *2021 IEEE BICMOS AND COMPOUND SEMICONDUCTOR INTEGRATED CIRCUITS AND TECHNOLOGY SYMPOSIUM (BCICTS)*, 2021, vol., no., pp. Dostupné na: <https://doi.org/10.1109/BCICTS50416.2021.9682496>., Registrované v: WOS
10. [1.1] SU, C.X. - WEN, W. - FEI, W.X. - MAO, W. - CHEN, J.J. - ZHANG, W.H. - ZHAO, S.L. - ZHANG, J.C. - HAO, Y. Design and simulation of AlN-based vertical Schottky barrier diodes\*. In *CHINESE PHYSICS B*. ISSN 1674-1056, JUN 2021, vol. 30, no. 6., Registrované v: WOS
11. [1.1] YAN, D.W. - WU, J. - YAN, X.H. - LI, W.R. - YU, D.X. - CAO, Y.R. - GU, X.F. Voltage and temperature dependence of reverse leakage current of lattice-matched InAlN/GaN heterostructure Schottky contact. In *ACTA PHYSICA SINICA*. ISSN 1000-3290, APR 5 2021, vol. 70, no. 7., Registrované v: WOS
12. [1.1] ZHOU, D.J. - XU, H. - CHEN, L.L. - LU, H.L. - HUANG, W. - ZHANG, D.W. - YAN, D.W. Temperature dependent characteristics of Ti/Al/Ni/Au Ohmic contact on lattice-matched In<sub>0.17</sub>Al<sub>0.83</sub>N/GaN heterostructures. In *SOLID-STATE ELECTRONICS*. ISSN 0038-1101, SEP 2021, vol. 183., Registrované v: WOS
13. [1.2] CHAND, Nisarga - SWAIN, Sanjit Kumar - BISWAL, Sudhansu Mohan - SARKAR, Angsuman - ADAK, Sarosij. Comparative study on Analog RF Parameter of InAlN/AlN/GaN Normally off HEMTs with and without AlGaIn back barrier. In *Proceedings of 4th International Conference on 2021 Devices for Integrated Circuit, DevIC 2021*, 2021-05-19, pp. 616-620. Dostupné na: <https://doi.org/10.1109/DevIC50843.2021.9455877>., Registrované v: SCOPUS
14. [1.2] NATARAJAN, Ramkumar - PARTHASARATHY, Eswaran - MURAGAPANDIYAN, P. High-Performance  $\text{In}_{0.13}\text{Al}_{0.83}\text{N}/\text{AlN}/\text{GaIn}_{0.04}\text{N}/\text{AlN}/\text{GaIn}_{0.96}\text{N}$  HEMT for High Power Millimeter Wave Electronics. In *Proceedings of the IEEE Madras Section International Conference 2021, MASCON 2021*, 2021-01-01, pp. Dostupné na: <https://doi.org/10.1109/MASCON51689.2021.9563373>., Registrované v: SCOPUS
15. [1.2] YANG, Hui - ZHAN, Zhengbang. Progress on low temperature sintering

- of nano-silver. In 2021 IEEE 23rd Electronics Packaging Technology Conference, EPTC 2021, 2021-01-01, pp. 302-308. Dostupné na: <https://doi.org/10.1109/EPTC53413.2021.9663963>., Registrované v: SCOPUS
- ADCA304 KUZMÍK, Ján - KONSTANTINIDIS, G. - HARASEK, S. - HAŠČÍK, Štefan - BERTAGNOLLI, E. - GEORGAKILAS, A. - POGANY, D.. ZrO<sub>2</sub>/(Al)GaN metal-oxide-semiconductor structures characterization and application. In Semiconductor Science and Technology, 2004, vol. 19, p. 1364-1368. ISSN 0268-1242.
- Citácie:
1. [1.1] BAKKALOGLU, O.F. - EJDERHA, K. - EFEOGLU, H. - KARATAS, S. - TURUT, A. Temperature dependence of electrical parameters of the Cu/n-Si metal semiconductor Schottky structures. In JOURNAL OF MOLECULAR STRUCTURE. ISSN 0022-2860, JAN 15 2021, vol. 1224., Registrované v: WOS
- ADCA305 KUZMÍK, Ján - ĽAPAJNA, Milan - VÁLIK, Lukáš - MOLNÁR, M. - DONOVAL, D. - FLEURY, C. - POGANY, D. - STRASSER, G. - HILT, O. - BRUNNER, F. - WÜRFL, H.-J. Self-heating in GaN transistors designed for high-power operation. In IEEE Transactions on Electron Devices, 2014, vol. 61, p. 3429-3434. (2013: 2.358 - IF, Q1 - JCR, 1.411 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2014.2350516>
- Citácie:
1. [1.1] JARNDAL, A. - HUSAIN, S. - HASHMI, M. Genetic algorithm initialized artificial neural network based temperature dependent small-signal modeling technique for GaN high electron mobility transistors. In INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING. ISSN 1096-4290, MAR 2021, vol. 31, no. 3, SI., Registrované v: WOS
2. [1.1] JARNDAL, A. - HUSAIN, S. - HASHMI, M. On temperature-dependent small-signal modelling of GaN HEMTs using artificial neural networks and support vector regression. In IET MICROWAVES ANTENNAS & PROPAGATION. ISSN 1751-8725, JUL 2021, vol. 15, no. 8, p. 937-953., Registrované v: WOS
- ADCA306 KUZMÍK, Ján. Proposal of normally-off InN-channel high-electron mobility transistors. In Semiconductor Science and Technology, 2014, vol. 29, 035015. (2013: 2.206 - IF, Q1 - JCR, 1.173 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0268-1242. Dostupné na: <https://doi.org/10.1088/0268-1242/29/3/035015>
- Citácie:
1. [1.2] HEMAJA, V. - PANDA, D. K. Dielectric Modulated Enhancement Mode N-Polar GaN MIS-HEMT Biosensor for Label Free Detection. In ECS Journal of Solid State Science and Technology, 2021-03-01, 10, 3, pp. ISSN 21628769. Dostupné na: <https://doi.org/10.1149/2162-8777/abea5c>., Registrované v: SCOPUS
- ADCA307 KVITKOVIČ, Jozef - POLÁK, Milan - MOZOLA, Pavol. Distribution of magnetic field inside the winding of a BSCCO coil. In IEEE Transactions on Applied Superconductivity, 2008, vol. 18, p. 1621-1624. (2007: 1.551 - IF, Q1 - JCR, 0.629 - SJR, Q2 - SJR, karentované - CCC). (2008 - Current Contents, SCOPUS).
- Citácie:
1. [1.1] FANG, Xinyu - WANG, Xilian - SUN, Yueming - SONG, Wenjuan - PEI, Xiaoze - JIANG, Zhenan - BADCOCK, Rodney - LONG, Nicholas - FANG, Jin. Application of Flux Diverters in High Temperature Superconducting Transformer Windings for AC Loss Reduction. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, 2021, vol. 31, no. 8, pp. Dostupné na: <https://doi.org/10.1109/TASC.2021.3108734>., Registrované v: WOS

- ADCA308 KVITKOVIČ, Jozef - PAMIDI, S.V. - VOCCIO, J. Shielding of AC magnetic fields using comercial YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>-coated conductor tapes. In Superconductor Science and Technology, 2009, vol. 22, no. 125009. (2008: 1.847 - IF, Q2 - JCR, 1.867 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.  
Citácie:  
1. [1.1] PENG, Y.Q. - ZENG, Z.G. - ZHOU, D.F. - ZHAO, W.W. - JIA, Z.Y. - GUO, Y.Q. - BAI, C.Y. - FAN, F. - CHEN, Y.Y. - CAI, C.B. Passive Magnetic Shielding of Stacked Joint-free Superconducting Annular Disks Made of REBCO Tapes. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, OCT 2021, vol. 34, no. 10, p. 2493-2501., Registrované v: WOS
- ADCA309 LABINTSEV, A. - KHASANSIN, I. - BALASHOV, D. - BOCHAROV, M. - BUBLIKOV, Konstantin. Recognition punches in karate using acceleration sensors and convolution neural networks. In IEEE Access, 2021, vol. 9, p. 138106-138119. (2020: 3.367 - IF, Q2 - JCR, 0.587 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 2169-3536. Dostupné na: <https://doi.org/10.1109/ACCESS.2021.3118038>  
Citácie:  
1. [1.1] ECHEVERRIA, Jon - SANTOS, Olga C. Toward Modeling Psychomotor Performance in Karate Combats Using Computer Vision Pose Estimation. In SENSORS, 2021, vol. 21, no. 24, pp. Dostupné na: <https://doi.org/10.3390/s21248378>., Registrované v: WOS
- ADCA310 LAHTINEN, V. - PARDO, Enric - ŠOUC, Ján - SOLOVYOV, Mykola - STENVALL, A. Ripple field losses in direct current biased superconductors: simulations and comparison with measurements. In Journal of Applied Physics, 2014, vol. 115, 113907. (2013: 2.185 - IF, Q2 - JCR, 1.165 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents, WOS, SCOPUS). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.4868898>  
Citácie:  
1. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS  
2. [1.1] ZHONG, Z.Y. - WU, W. - JIN, Z.J. Sharp demagnetization of closed-loop HTS coil in first cycle of external AC fields induced by unexpected dynamic resistance. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, AUG 2021, vol. 34, no. 8., Registrované v: WOS  
3. [1.1] ZHONG, Z.Y. - WU, W. - WANG, L.B. - LI, X.F. - LI, Z.Y. - HONG, Z.Y. - JIN, Z.J. Study of Induced Current in Closed HTS Magnets Under AC Fields: Simulation and Experiment. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, NOV 2021, vol. 34, no. 11, p. 2809-2819., Registrované v: WOS  
4. [1.1] ZHONG, Z.Y. - WU, W. - WANG, X.L. - LI, X.F. - SHENG, J. - HONG, Z.Y. - JIN, Z.J. Behaviour prediction of closed-loop HTS coils in non-uniform AC fields. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, FEB 2021, vol. 34, no. 2., Registrované v: WOS
- ADCA311 LALIENA, C. - QUREISHY, T. - MARTINEZ, E. - NAVARRO, R. - MIKHEENKO, P. - JOHANSON, T.H. - KOVÁČ, Pavol. Effect of ball milling on the local magnetic flux distribution and microstructure of in situ Fe/MgB<sub>2</sub> conductors. In Journal of Alloys and Compounds, 2017, vol. 717, p. 164-170. (2016: 3.133 - IF, Q1 - JCR, 0.954 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0925-8388. Dostupné na:



<https://doi.org/10.1016/j.jallcom.2017.05.083>

Citácie:

1. [1.1] CHOI, S. - PATEL, D. - KIM, J.H. - KUMAKURA, H. - MATSUMOTO, A. - NISHIJIMA, G. - KIM, S.H. - JOO, J. - MAEDA, M. Evaluation and control of residual amorphous phases in carbon-doped MgB<sub>2</sub> superconductors. In *JOURNAL OF ALLOYS AND COMPOUNDS*. ISSN 0925-8388, MAY 25 2021, vol. 864., Registrované v: WOS
2. [1.1] JEONG, H. - PARK, H. - KIM, C.J. - JUN, B.H. Enhanced critical current density of MgB<sub>2</sub> superconductor using a milled MgB<sub>4</sub> precursor. In *JOURNAL OF ALLOYS AND COMPOUNDS*. ISSN 0925-8388, MAR 15 2021, vol. 857., Registrované v: WOS

ADCA312 LALINSKÝ, Tibor - HUDEK, Peter - VANKO, Gabriel - DZUBA, Jaroslav - KUTIŠ, V. - SRNÁNEK, R. - CHOLEVA, P. - VALLO, Martin - DRŽÍK, Milan - MATAY, Ladislav - KOSTIČ, Ivan. Micromachined membrane structures for pressure sensors based on AlGa<sub>N</sub>/Ga<sub>N</sub> circular HEMT sensing device. In *Microelectronic Engineering : an international journal of semiconductor manufacturing technology*, 2012, vol. 98, p. 578-581. (2011: 1.557 - IF, Q2 - JCR, 0.813 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0167-9317. Dostupné na: <https://doi.org/10.1016/j.mee.2012.06.014>

Citácie:

1. [1.1] CUENCA, Jerome A. - SMITH, Matthew D. - FIELD, Daniel E. - MASSABUAU, Fabien C-P - MANDAL, Soumen - POMEROY, James - WALLIS, David J. - OLIVER, Rachel A. - THAYNE, Iain - KUBALL, Martin - WILLIAMS, Oliver A. Thermal stress modelling of diamond on Ga<sub>N</sub>/III-Nitride membranes. In *CARBON*. ISSN 0008-6223, 2021, vol. 174, no., pp. 647-661. Dostupné na: <https://doi.org/10.1016/j.carbon.2020.11.067>, Registrované v: WOS
2. [1.1] MOSER, Matthias - PRADHAN, Mamta - ALOMARI, Mohammed - BURGHARTZ, Joachim N. Model and Simulation of Ga<sub>N</sub>-Based Pressure Sensors for High Temperature Applications-Part II: Sensor Design and Simulation. In *IEEE SENSORS JOURNAL*. ISSN 1530-437X, 2021, vol. 21, no. 18, pp. 20176-20183. Dostupné na: <https://doi.org/10.1109/JSEN.2021.3096695>, Registrované v: WOS
3. [1.1] NGUYEN, Hong-Quan - NGUYEN, Thanh - TANNER, Philip - NGUYEN, Tuan-Khoa - FOISAL, Abu Riduan Md - FASTIER-WOLLER, Jarred - NGUYEN, Tuan-Hung - PHAN, Hoang-Phuong - NGUYEN, Nam-Trung - DAO, Dzong Viet. Piezotronic effect in a normally off p-Ga<sub>N</sub>/AlGa<sub>N</sub>/Ga<sub>N</sub> HEMT toward highly sensitive pressure sensor. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, 2021, vol. 118, no. 24, pp. Dostupné na: <https://doi.org/10.1063/5.0053701>, Registrované v: WOS

ADCA313 LALINSKÝ, Tibor - DRŽÍK, Milan - VANKO, Gabriel - VALLO, Martin - KUTIŠ, V. - BRUNCKO, J. - HAŠČÍK, Štefan - JAKOVENKO, J. - HUSÁK, M. Piezoelectric response of AlGa<sub>N</sub>/Ga<sub>N</sub> based circular-HEMT structures. In *Microelectronic Engineering*, 2011, vol. 88, p. 2424-2426. (2010: 1.575 - IF, Q2 - JCR, 0.934 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0167-9317. Dostupné na: <https://doi.org/10.1016/j.mee.2010.12.013>

Citácie:

1. [1.1] KUMARI, Vandana - SAXENA, Manoj - GUPTA, Mridula. Sensitivity Assessment of RingFET Architecture for the Detection of Gas Molecules: Numerical Investigation. In *IETE TECHNICAL REVIEW*, 2021, vol. 38, no. 3, pp. 294-302. ISSN 0256-4602. Dostupné na: <https://doi.org/10.1080/02564602.2020.1726830>, Registrované v: WOS

ADCA314 LALINSKÝ, Tibor - VALLO, Martin - VANKO, Gabriel - DOBROČKA, Edmund -

VINCZE, A. - OSVALD, Jozef - RÝGER, Ivan - DZUBA, Jaroslav. Iridium oxides based gate interface of AlGaIn/GaN high electron mobility transistors formed by high temperature oxidation. In *Applied Surface Science*, 2013, vol. 283, p. 160-167. (2012: 2.112 - IF, Q1 - JCR, 0.913 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2013.06.069>

Citácie:

1. [1.1] *EISNER, S.R. - ALPERT, H.S. - CHAPIN, C.A. - YALAMARTHY, A.S. - SATTERTHWAITE, P.F. - NASIRI, A. - PORT, S. - ANG, S. - SENESKY, D.G. Extended Exposure of Gallium Nitride Heterostructure Devices to a Simulated Venus Environment. In 2021 IEEE AEROSPACE CONFERENCE (AEROCONF 2021). ISSN 1095-323X, 2021., Registrované v: WOS*

ADCA315 LALINSKÝ, Tibor - DRŽÍK, Milan - CHLPÍK, J. - KRNÁČ, M. - HAŠČÍK, Štefan - MOZOLOVÁ, Želmíra - KOSTIČ, Ivan. Thermo-mechanical characterization of micromachined GaAs-based thermal converter using contactless optical methods. In *Sensors and Actuators A*, 2005, vol. 123-124, p. 99-105. Dostupné na: <https://doi.org/10.1016/j.sna.2005.04.027>

Citácie:

1. [1.1] *PREDANOCY, Martin - HOTOVY, Ivan - ANDOK, Robert. Platinum Hotplate on Thermoisolated Polyimide Membrane as Perspective Device Used in MEMS. In APPLIED PHYSICS OF CONDENSED MATTER (APCOM 2021), 2021, vol. 2411, no., pp. ISSN 0094-243X. Dostupné na: <https://doi.org/10.1063/5.0067186>., Registrované v: WOS*

ADCA316 LALINSKÝ, Tibor - VANKO, Gabriel - VINCZE, A. - HAŠČÍK, Štefan - OSVALD, Jozef - DONOVAN, D. - TOMÁŠKA, M. - KOSTIČ, Ivan. Effect of fluorine interface redistribution on performance of AlGaIn/GaN HEMTs. In *Microelectronic Engineering*, 2011, vol. 88, p. 166-169. (2010: 1.575 - IF, Q2 - JCR, 0.934 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0167-9317. Dostupné na: <https://doi.org/10.1016/j.mee.2010.10.005>

Citácie:

1. [3.1] *FORNASIERO, Q. - DEFRANCE, N. - LESECQ, M. - FRAYSSINET, E. - CORDIER, Y. - CHEVALIER, F. - IDIR, N. - DE JAEGER, J.C. Fluorine-based plasma treatment for AlGaIn/GaN e-mode HEMTs and low on-voltage diodes. In 44th Workshop on Compound Semiconductor Devices and Integrated Circuits held in Europe (Wocsdice Exmatec 2021). 2021, pp. 50-52. HAL Id:l-03275589.*

ADCA317 LALINSKÝ, Tibor - OSVALD, Jozef - MACHAJDÍK, Daniel - MOZOLOVÁ, Želmíra - ŠIŠOLÁK, J. - CONSTANTINIDIS, G. - KOBZEV, A.P. High-temperature stable Ir-Al/n-GaAs Schottky diodes: Effect of the barrier height controlling. In *Journal of Vacuum Science and Technology B*, 1996, vol. 14, p. 657. (1996 - Current Contents). ISSN 1071-1023.

Citácie:

1. [1.1] *ZENKIN, S. - GAYDAYCHUK, A. - LINNIK, S. Effects of sputtering gas on the microstructure of Ir thin films deposited by HiPIMS and pulsed DC sputtering. In SURFACE & COATINGS TECHNOLOGY, 2021, vol. 412, no., pp. ISSN 0257-8972. Dostupné na: <https://doi.org/10.1016/j.surfcoat.2021.127038>., Registrované v: WOS*

ADCA318 LAPIN, Juraj - PELACHOVÁ, Tatiana - WITUSIEWICZ, V.T. - DOBROČKA, Edmund. Effect of long-term ageing on microstructure stability and lattice parameters of coexisting phases in intermetallic Ti-46Al-8Ta alloy. In *Intermetallics*, 2011, vol. 19, p.121-124. (2010: 2.335 - IF, Q1 - JCR, 1.573 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents, WOS, SCOPUS). ISSN 0966-9795. Dostupné na: <https://doi.org/10.1016/j.intermet.2010.09.016>



Citácie:

1. [1.1] NEUMEIER, Steffen - BRESLER, Johannes - ZENK, Carolin - HAUSSMANN, Lukas - STARK, Andreas - PYCZAK, Florian - GOEKEN, Mathias. Partitioning Behavior of Nb, Ta, and Zr in Fully Lamellar gamma/alpha(2) Titanium Aluminides and Its Effect on the Lattice Misfit and Creep Behavior. In *ADVANCED ENGINEERING MATERIALS*. ISSN 1438-1656, 2021, vol. 23, no. 11, pp. Dostupné na: <https://doi.org/10.1002/adem.202100156>., Registrované v: WOS

ADCA319 LAURENČÍKOVÁ, Agáta\*\* - ELIÁŠ, Peter - HASENÖHRL, Stanislav - KOVÁČ, Jaroslav Jr. - SZOBOLOVSZKÝ, R. - NOVÁK, Jozef. GaP nanocones covered with silver nanoparticles for surface-enhanced Raman spectroscopy. In *Applied Surface Science*, 2018, vol. 461, p. 149-153. (2017: 4.439 - IF, Q1 - JCR, 1.093 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2018.05.175> (VEGA 2/0104/17)

Citácie:

1. [1.1] LIU, Yawen - MA, Hao - HAN, Xiao Xia - ZHAO, Bing. Metal-semiconductor heterostructures for surface-enhanced Raman scattering: synergistic contribution of plasmons and charge transfer. In *MATERIALS HORIZONS*, 2021, vol. 8, no. 2, pp. 370-382. ISSN 2051-6347. Dostupné na: <https://doi.org/10.1039/d0mh01356k>., Registrované v: WOS

2. [1.1] ZENG, Y.L. - WANG, F.Y. - DU, D.X. - LIU, S. - WANG, C.B. - XU, Z.P. - WANG, H.Y. ZnO nanotower arrays decorated with cubic and tetrahedral shaped Ag-NPs as hybrid SERS-active substrates. In *APPLIED SURFACE SCIENCE*. ISSN 0169-4332, APR 1 2021, vol. 544., Registrované v: WOS

ADCA320 LE BOULBAR, E.D. - EDWARDS, M.J. - VITTOZ, S. - VANKO, Gabriel - BRINKFELDT, K. - JOHANDER, P. - LALINSKY, Tibor - BOWEN, C.R. - ALLSOPP, D.W.E. Effect of bias conditions on pressure sensors based on AlGaIn/GaN high electron mobility transistor. In *Sensors and Actuators A*, 2013, vol. 194, p. 247-251. (2012: 3.535 - IF, Q1 - JCR, 1.412 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 0925-4005. Dostupné na: <https://doi.org/10.1016/j.sna.2013.02.017>

Citácie:

1. [1.1] MOSER, Matthias - PRADHAN, Mamta - ALOMARI, Mohammed - BURGHARTZ, Joachim N. Model and Simulation of GaN-Based Pressure Sensors for High Temperature Applications-Part I: Physics Based Compact Modeling. In *IEEE SENSORS JOURNAL*, 2021, vol. 21, no. 18, pp. 20165-20175. ISSN 1530-437X. Dostupné na: <https://doi.org/10.1109/JSEN.2021.3096206>., Registrované v: WOS

2. [1.1] MOSER, Matthias - PRADHAN, Mamta - ALOMARI, Mohammed - BURGHARTZ, Joachim N. Model and Simulation of GaN-Based Pressure Sensors for High Temperature Applications-Part II: Sensor Design and Simulation. In *IEEE SENSORS JOURNAL*, 2021, vol. 21, no. 18, pp. 20176-20183. ISSN 1530-437X. Dostupné na: <https://doi.org/10.1109/JSEN.2021.3096695>., Registrované v: WOS

3. [1.1] NGUYEN, Hong-Quan - NGUYEN, Thanh - TANNER, Philip - NGUYEN, Tuan-Khoa - FOISAL, Abu Riduan Md - FASTIER-WOLLER, Jarred - NGUYEN, Tuan-Hung - PHAN, Hoang-Phuong - NGUYEN, Nam-Trung - DAO, Dzong Viet. Piezotronic effect in a normally off p-GaN/AlGaIn/GaN HEMT toward highly sensitive pressure sensor. In *APPLIED PHYSICS LETTERS*, 2021, vol. 118, no. 24, pp. ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/5.0053701>., Registrované v: WOS

4. [1.1] UPADHYAY, Kavita T. - CHATTOPADHYAY, Manju K. Sensor

*applications based on AlGaIn/GaN heterostructures. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, 2021, vol. 263, no., pp. ISSN 0921-5107. Dostupné na: <https://doi.org/10.1016/j.mseb.2020.114849>, Registrované v: WOS*

5. [1.1] WANG, Ashu - ZENG, Lingyan - WANG, Wen. Study on the GaN/AlGaIn Piezotronic Effect Applied in Pressure Sensors. In ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY, 2021, vol. 10, no. 3, pp. ISSN 2162-8769. Dostupné na: <https://doi.org/10.1149/2162-8777/abeecf>, Registrované v: WOS

6. [1.1] WANG, Rui-Rong - GUO, Hao - TANG, Jun - LIU, Jin-Ping - LIU, Li-Shuang. Research on the Force-Sensitive Characteristic of InAs QD Embedded in HEMT. In MICROMACHINES, 2021, vol. 12, no. 11, pp. Dostupné na: <https://doi.org/10.3390/mi12111413>, Registrované v: WOS

7. [1.2] MOSER, M. - SCHERJON, C. - PRADHAN, M. - ALOMARI, M. - BURGHARTZ, J. N. GaN-based pressure sensor for harsh environments with on-chip temperature compensation. In MikroSystemTechnik Kongress 2021: Mikroelektronik, Mikrosystemtechnik und ihre Anwendungen Innovative Produkte für zukunftsfähige Märkte, Proceedings, 2021-01-01, pp. 250-253., Registrované v: SCOPUS

ADCA321 LEBEDEV, O.I. - VERBEECK, J. - VAN TENDELOO, G. - DUBORDIEU, C. - ROSINA, Milan - CHAUDOUET, P. Structure and properties of artificial  $[(\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3)_m(\text{SrTiO}_3)_n]_{15}$  superlattices on (001) $\text{SrTiO}_3$ . In Journal of Applied Physics. - New York : American Institute of Physics, 2003, vol. 94, p. 7646-7656. (2002: 2.281 - IF, karentované - CCC). (2003 - Current Contents, WOS, SCOPUS). ISSN 0021-8979.

Citácie:

1. [1.1] KOOHFAR, S. - OZBEK, Y. - BLAND, H. - ZHANG, Z. - KUMAR, D.P. Interface-driven magnetic anisotropy in relaxed  $\text{La}_{0.7}\text{Sr}_{0.3}\text{CrO}_3/\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$  heterostructures on MgO. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, FEB 7 2021, vol. 129, no. 5., Registrované v: WOS

2. [1.1] WU, R.F. - LIN, Y.W. - LIU, Y.F. - CHANG, A.M. - ZHAO, P.J. - ZHANG, B. Microstructure and electrical properties of  $\text{LaMnO}_3\text{-CaCu}_3\text{Ti}_4\text{O}_{12}$  composite ceramics. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS. ISSN 0957-4522, SEP 2021, vol. 32, no. 17, p. 21923-21931., Registrované v: WOS

ADCA322 LETTRICHOVÁ, I.\*\* - LAURENČÍKOVÁ, Agáta - PUDIŠ, D. - NOVÁK, Jozef - GORAU, M. - KOVÁČ, Jaroslav Jr. - GASO, P. - NEVŘELA, J. 2D periodic structures patterned on 3D surfaces by interference lithography for SERS. In Applied Surface Science, 2018, vol. 461, p. 171-174. (2017: 4.439 - IF, Q1 - JCR, 1.093 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2018.06.162>

Citácie:

1. [1.1] CHEN LINSSEN - QIAO WEN - YE YAN - LIU YANHUA - PU DONGLIN. Critical Technologies of Micro-Nano-Manufacturing and Its Applications for Flexible Optoelectronic Devices. In ACTA OPTICA SINICA, 2021, vol. 41, no. 8, pp. ISSN 0253-2239. Dostupné na: <https://doi.org/10.3788/AOS202141.0823018>, Registrované v: WOS

2. [1.1] PANGPAIBOON, Nampueng - PHETNAM, Kawinphob - KALASUNG, Sukon - CHANANONAWATHORN, Chanunthorn - PATTHANASETTAKUL, Viyapol - HORPRATHUM, Mati - EIAMCHAI, Pitak - NUNTAWONG, Noppadon - LIMWICHEAN, Saksorn. Raman signal enhancement of low-cost metal sheet

- SERS with gold decoration. In JOURNAL OF METALS MATERIALS AND MINERALS, 2021, vol. 31, no. 4, pp. 33-39. ISSN 0857-6149. Dostupné na: <https://doi.org/10.14456/jmmm.2021.54.>, Registrované v: WOS*
- ADCA323 LI, S. - KOVÁČ, Ján - PARDO, Enric\*\*. Coupling loss at the end connections of REBCO stacks: 2D modelling and measurement. In Superconductor Science and Technology, 2020, vol. 33, no. 075014. (2019: 3.067 - IF, Q2 - JCR, 0.991 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab9027> (H2020 ASuMED. VEGA 2/0097/18)
- Citácie:
- [1.1] LI, Gengyao - LI, Chao - XIN, Ying - HONG, Wei - LI, Wenxin - YANG, Tianhui - LI, Bin. Dynamic modelling methodology for an HTS energy converter using moving mesh. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY, 2021, vol. 34, no. 10, pp. ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac1656>, Registrované v: WOS
  - [1.1] SHENG, Jie - HU, Min - LI, Wenrong - WANG, Xueilang - SHEN, Boyang - LI, Zhuyong - JIN, Zhijian. Concept Design of a Portable Superconducting Transformer Based on Conductors in Tube Cables. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, 2021, vol. 31, no. 8, pp. ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2021.3094457>, Registrované v: WOS
  - [1.1] ZHANG, Hongye - WEN, Zezhao - GRILLI, Francesco - GYFTAKIS, Konstantinos - MUELLER, Markus. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES, 2021, vol. 14, no. 8, pp. Dostupné na: <https://doi.org/10.3390/en14082234>, Registrované v: WOS
- ADCA324 LI, X. - SHEN, Lingling - BAI, Y. - WANG, J. - ZHANG, X. - XIA, J.H. - EZAWA, M. - TRETIKOV, O.A. - XU, X. - MRUCZKIEWICZ, Michał - KRAWCZYK, M. - XU, Y. - EVANS, R.F.L. - CHANTRELL, R.W. - ZHOU, You\*\*. Bimeron clusters in chiral antiferromagnets. In npj Computational Materials, 2020, vol. 6, no. 169. (2019: 9.341 - IF, Q1 - JCR, 3.440 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 2057-3960. Dostupné na: <https://doi.org/10.1038/s41524-020-00435-y>
- Citácie:
- [1.1] CUI, Q.R. - ZHU, Y.M. - JIANG, J.W. - LIANG, J.H. - YU, D.X. - CUI, P. - YANG, H.X. Ferroelectrically controlled topological magnetic phase in a Janus-magnet-based multiferroic heterostructure. In PHYSICAL REVIEW RESEARCH. OCT 5 2021, vol. 3, no. 4., Registrované v: WOS
  - [1.1] JANI, H. - LIN, J.C. - CHEN, J.H. - HARRISON, J. - MACCHEROZZI, F. - SCHAD, J. - PRAKASH, S. - EOM, C.B. - ARIANDO, A. - VENKATESAN, T. - RADAELLI, P.G. Antiferromagnetic half-skyrmions and bimerons at room temperature. In NATURE. ISSN 0028-0836, FEB 4 2021, vol. 590, no. 7844, p. 74-+, Registrované v: WOS
  - [1.1] SILVA, R.L. Antiferromagnetic-Bimeron dynamics driven by a spin-polarized current at an inhomogeneous racetrack. In PHYSICS LETTERS A. ISSN 0375-9601, JUL 9 2021, vol. 403., Registrované v: WOS
- ADCA325 LIDAY, J. - HOTOVÝ, I. - SITTER, H. - VOGRINČIČ, P. - VINCZE, A. - VÁVRA, Ivo - ŠATKA, A. - ECKE, G. - BONANNI, A. - BREZA, J. - SIMBRUNNER, C. - PLOCHBERGER, B. Investigation of NiO(x)-based contacts on p-GaN. In Journal of Materials Science. Materials in Electronics, 2010, vol. 19, p. 855-862. (2009: 1.020 - IF, Q2 - JCR, 0.623 - SJR, Q2 - SJR, karentované - CCC). (2010 - Current Contents, SCOPUS). ISSN 0957-4522. Dostupné na: <https://doi.org/10.1007/s10854-007-9520-1>

Citácie:

1. [1.1] KIRSTE, R. - SARKAR, B. - REDDY, P. - GUO, Q. - COLLAZO, R. - SITAR, Z. Status of the growth and fabrication of AlGaIn-based UV laser diodes for near and mid-UV wavelength. In JOURNAL OF MATERIALS RESEARCH. ISSN 0884-2914, DEC 2021, vol. 36, no. 23, p. 4638-4664., Registrované v: WOS
2. [1.1] LIU, T.B. - ZHOU, H.F. - ZHONG, G.X. - YAN, X.L. - SU, X.T. - LIN, Z. Synthesis of NiFeAl LDHs from electroplating sludge and Their excellent supercapacitor performance. In JOURNAL OF HAZARDOUS MATERIALS. ISSN 0304-3894, FEB 15 2021, vol. 404, B., Registrované v: WOS

ADCA326 LOBATO, B. - VRETENÁR, Viliam - KOTRUSZ, P. - HULMAN, Martin - CENTENO, T.A. Reduced graphite oxide in supercapacitor electrodes. In Journal of Colloid and Interface Science, 2015, vol. 446, p. 203-207. (2014: 3.368 - IF, Q2 - JCR, 1.167 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0021-9797. Dostupné na: <https://doi.org/10.1016/j.jcis.2015.01.037>

Citácie:

1. [1.1] ASHRAF, Muhammad - SHAH, Syed Shaheen - KHAN, Ibrahim - AZIZ, Md. Abdul - ULLAH, Nisar - KHAN, Mujeeb - ADIL, Syed Farooq - LIAQAT, Zainab - USMAN, Muhammad - TREMEL, Wolfgang - TAHIR, Muhammad Nawaz. A High-Performance Asymmetric Supercapacitor Based on Tungsten Oxide Nanoplates and Highly Reduced Graphene Oxide Electrodes. In CHEMISTRY-A EUROPEAN JOURNAL, 2021, vol. 27, no. 23, pp. 6973-6984. ISSN 0947-6539. Dostupné na: <https://doi.org/10.1002/chem.202005156>., Registrované v: WOS
2. [1.1] PRASAD, Aryal Krishna - JO, In-Rok - KANG, Soon-Hyung - AHN, Kwang-Soon. Novel method for synthesis of reduced graphene oxide-Cu<sub>2</sub>S and its application as a counter electrode in quantum-dot-sensitized solar cells. In APPLIED SURFACE SCIENCE, 2021, vol. 564, no., pp. ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2021.150393>., Registrované v: WOS

ADCA327 LOBOTKA, Peter - KUNZO, Pavol - KOVÁČOVÁ, Eva - VÁVRA, Ivo - KRIŽANOVÁ, Zuzana - ŠMATKO, Vasilij - STEJSKAL, J. - KONYUSHENKO, E.N. - OMASTOVÁ, Mária - ŠPITÁLSKY, Zdenko - MIČUŠÍK, Matej - KRUPA, Igor. Thin polyaniline and polyaniline/carbon nanocomposite films for gas sensing. In Thin Solid Films : international journal on the science and technology of Thin and Thick Films, 2011, vol. 519, p.4123 - 4127. (2010: 1.935 - IF, Q1 - JCR, 1.132 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0040-6090. Dostupné na: <https://doi.org/10.1016/j.tsf.2011.01.177>

Citácie:

1. [1.1] MATINDOUST, S. - FARZI, G. - NEJAD, M.B. - SHAHROKHABADI, M.H. Polymer-based gas sensors to detect meat spoilage: A review. In REACTIVE & FUNCTIONAL POLYMERS. ISSN 1381-5148, AUG 2021, vol. 165., Registrované v: WOS
2. [1.1] SAUDI, M. - ZAIDI, B. - ALOTAIBI, A.A. - ALTHOBAITI, M.G. - ALOSIME, E.M. - AJJEL, R. Polyaniline: Doping and Functionalization with Single Walled Carbon Nanotubes for Photovoltaic and Photocatalytic Application. In POLYMERS. AUG 2021, vol. 13, no. 16., Registrované v: WOS
3. [1.2] NELLAIAPPAN, Subramanian - SHALINI DEVI, K. S. - SELVARAJ, Stalin - KRISHNAN, Uma Maheswari - YAKHMI, Jatinder Vir. Chemical, Gas and Optical Sensors Based on Conducting Polymers. In Engineering Materials, 2021-01-01, pp. 159-200. ISSN 16121317. Dostupné na: [https://doi.org/10.1007/978-3-030-62090-5\\_8](https://doi.org/10.1007/978-3-030-62090-5_8)., Registrované v: SCOPUS

ADCA328 LÜBBERT, D. - FERRARI, C. - MIKULÍK, P. - PERNOT, P. - HELFEN, L. -



VERDI, N. - KORYTÁR, Dušan - BAUMBACH, T. Distribution and Burgers vectors of dislocations in semiconductor wafers investigated by rocking-curve imaging. In *Journal of Applied Crystallography*, 2005, vol. 38, p. 91-96. ISSN 0021-8898.

Citácie:

1. [1.1] MEDUNA, Mojmir - CAHA, Ondrej - CHOUMAS, Emanuil - BRESSAN, Franco - VON KANEL, Hans. X-ray rocking curve imaging on large arrays of extremely tall SiGe microcrystals epitaxial on Si. In *JOURNAL OF APPLIED CRYSTALLOGRAPHY*, 2021, vol. 54, no., pp. 1071-1080. Dostupné na: <https://doi.org/10.1107/S1600576721004969>, Registrované v: WOS

2. [1.1] SUZUKI, Ryo - ABE, Marina - KOJIMA, Kenichi - TACHIBANA, Masaru. Identification of grown-in dislocations in protein crystals by digital X-ray topography. In *JOURNAL OF APPLIED CRYSTALLOGRAPHY*, 2021, vol. 54, no., pp. 163-168. ISSN 0021-8898. Dostupné na: <https://doi.org/10.1107/S1600576720015356>, Registrované v: WOS

3. [1.1] YILDIRIM, Can - BALLE, Philippe - SANTAILLER, Jean-Louis - GIOTTA, Dominique - OBRECHT, Remy - THU NHI TRAN THI - BARUCHEL, Jose - BRELLIER, Delphine. Role of threading dislocations on the growth of HgCdTe epilayers investigated using monochromatic X-ray Bragg diffraction imaging. In *JOURNAL OF SYNCHROTRON RADIATION*, 2021, vol. 28, no., pp. 301-308. ISSN 0909-0495. Dostupné na: <https://doi.org/10.1107/S1600577520014149>, Registrované v: WOS

ADCA329 LUBY, Štefan\*\*. Electron paramagnetic resonance and ageing process in amorphous Ge. In *Thin Solid Films*, 1971, vol. 8, p. 333-344. ISSN 0040-6090.

Citácie:

1. [1.1] SHARMA, Y. - MURUGAVEL, S. Direct evidence for the behaviour of single and bipolarons in chalcogenide glasses. In *JOURNAL OF NON-CRYSTALLINE SOLIDS*. ISSN 0022-3093, MAY 1 2021, vol. 559., Registrované v: WOS

ADCA330 LUPTÁK, Roman - FRÖHLICH, Karol - ROSOVÁ, Alica - HUŠEKOVÁ, Kristína - ĎAPAJNA, Milan - MACHAJDÍK, Daniel - JERGEL, Matej - ESPINOS, J.P. - MANSILLA, C. Growth of gadolinium oxide films for advanced MOS structure. In *Microelectronic Engineering*, 2005, vol. 80, p. 154-157. ISSN 0167-9317. Dostupné na: <https://doi.org/10.1016/j.mee.2005.04.059>

Citácie:

1. [1.1] THILIPAN, G.A.K. - RAO, A. Influence of power on the physical and electrical properties of magnetron sputtered gadolinium oxide thin films for MOS capacitors. In *MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING*. ISSN 1369-8001, JAN 2021, vol. 121, 105408., Registrované v: WOS

ADCA331 MAGDOLENOVA, Z. - DRLIČKOVÁ, M. - HENJUM, K. - RUNDÉN-PRAN, E. - TULINSKÁ, J. - BILANICOVÁ, D. - POJANA, G. - KAZIMÍROVÁ, A. - BARANCOKOVÁ, M. - KURICOVÁ, M. - LISKOVÁ, A. - STARUCHOVÁ, M. - ČIAMPOR, Fedor - VÁVRA, Ivo - LORENZO, Y. - RINNA, A. - FJELLSBO, L. - VOLKOVÁ, K. - MARCOMINI, A. - AMIRY-MOGHADDAM, M. - DUŠINSKÁ, Mária. Coating-dependent induction of cytotoxicity and genotoxicity of iron oxide nanoparticles. In *Nanotoxicology*, 2015, vol. 9, no. S1, p. 44-56. (2014: 6.411 - IF, Q1 - JCR, 1.714 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 1743-5390. Dostupné na: <https://doi.org/10.3109/17435390.2013.847505>

Citácie:

1. [1.1] EGBUNA, Chukwuebuka - PARMAR, Vijaykumar K. - JEEVANANDAM, Jaison - EZZAT, Shahira M. - PATRICK-IWUANYANWU, Kingsley C. -

- ADETUNJI, Charles Oluwaseun - KHAN, Johra - ONYEIKE, Eugene N. - UCHE, Chukwuemelie Zedech - AKRAM, Muhammad - IBRAHIM, Mervat S. - EL MAHDY, Nihal M. - AWUCHI, Chinaza Godswill - SARAVANAN, Kaliyaperumal - TIJJANI, Habibu - ODOH, Uchenna Estella - MESSAOUDI, Mohammed - IFEMEJE, Jonathan C. - OLISAH, Michael C. - EZEFOR, Nebechi Jane - CHIKWENDU, Chukwudi Jude - IBEABUCHI, Chinwe Gloria. Toxicity of Nanoparticles in Biomedical Application: Nanotoxicology. In JOURNAL OF TOXICOLOGY. ISSN 1687-8191, 2021, vol. 2021, no., pp. Dostupné na: <https://doi.org/10.1155/2021/9954443>., Registrované v: WOS*
2. [1.1] KUMAR, Nitesh - TYEB, Suhela - VERMA, Vivek. Recent advances on Metal oxide-polymer systems in targeted therapy and diagnosis: Applications and toxicological perspective. In JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY. ISSN 1773-2247, 2021, vol. 66, no., pp. Dostupné na: <https://doi.org/10.1016/j.jddst.2021.102814>., Registrované v: WOS
- ADCA332 MAHEL, Michal - BEŇÁČKA, Štefan. Modulated microwave absorption in superconductors. In Solid State Communications, 1992, vol. 83, p. 615.  
Citácie:
1. [1.1] MODAK, Rajkumar - SRINIVASAN, Ananthakrishnan - SRINIVASU, Vallabhapurapu Vijaya. Understanding low field microwave absorption in Ni-Mn based Heusler alloy films. In MATERIALS RESEARCH BULLETIN. ISSN 0025-5408, 2021, vol. 143, no., pp. 111453 Dostupné na: <https://doi.org/10.1016/j.materresbull.2021.111453>., Registrované v: WOS
- ADCA333 MAJOROŠ, Milan - SUMPTION, M.D. - SUSNER, M.A. - COLLINGS, E.W. - ŠOUC, Ján - GÖMÖRY, Fedor - VOJENČIAK, Michal - FISHER, L.M. - KALINOV, A.V. - VOLOSHIN, I.F. AC Magnetization Loss of a YBCO Coated Conductor Measured Using Three Different Techniques. In IEEE Transactions on Applied Superconductivity, 2011, vol. 21, p. 3293-3296. (2010: 1.035 - IF, Q2 - JCR, 0.473 - SJR, Q2 - SJR, karentované - CCC). (2011 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2010.2087000>  
Citácie:
1. [1.1] WANG, X.L. - SHENG, J. - ZHONG, Z.Y. - WU, W. - LI, X.F. - JIN, Z.J. - HONG, Z.Y. Magnetization loss of no-insulation coil for an electrodynamic suspension system. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUN 2021, vol. 34, no. 6., Registrované v: WOS
- ADCA334 MAJOROŠ, Milan - GLOWACKI, B.A. - CAMPBELL, A.M. - LEVIN, C.A. - BARNES, P.N. - POLÁK, Milan. AC losses in striated YBCO coated conductors. In IEEE Transactions on Applied Superconductivity, 2005, vol. 15, p. 2819-2822.  
Citácie:
1. [1.1] LI, W.R. - SHENG, J. - ZHENG, J.X. - WU, Y. - GUO, C.J. - LI, Z.Y. - JIN, Z.J. Study on Reducing Magnetization Loss in CORC Cables By Laser Cutting Technology. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2021, vol. 31, no. 4., Registrované v: WOS
2. [1.1] WULFF, A.C. - ABRAHAMSEN, A.B. - INSINGA, A.R. Multifilamentary coated conductors for ultra-high magnetic field applications. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS
3. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS



- ADCA335 MAJOROŠ, Milan - GLOWACKI, B.A. - CAMPBELL, A.M. Magnetic screening as a possible way to decrease transport AC losses in multifilamentary superconductors — basic theoretical considerations. In *Physica C. Superconductivity and its applications*, 2000, vol. 334, p. 129-140. (1999: 1.114 - IF, karentované - CCC). (2000 - Current Contents, SCOPUS). ISSN 0921-4534.  
Citácie:  
1. [1.1] *FAREED, Muhammad U. - RUIZ, Harold S. Critical State Theory for the Magnetic Coupling between Soft Ferromagnetic Materials and Type-II Superconductors. In MATERIALS*, 2021, vol. 14, no. 20, pp. Dostupné na: <https://doi.org/10.3390/ma14206204>., Registrované v: WOS
- ADCA336 MAJOROŠ, Milan - GLOWACKI, B.A. - CAMPBELL, A.M. Transport ac losses and screening properties of Bi-2223 multifilamentary tapes covered with magnetic materials. In *Physica C. Superconductivity and its applications*, 2000, vol. 338, p. 251-262. (1999: 1.114 - IF, karentované - CCC). (2000 - Current Contents, SCOPUS). ISSN 0921-4534.  
Citácie:  
1. [1.1] *AINSLIE, M. - FUJISHIRO, H. Demagnetisation and novel, hybrid superconductor structures. In NUMERICAL MODELLING OF BULK SUPERCONDUCTOR MAGNETISATION*. 2020., Registrované v: WOS
- ADCA337 MARCIN, Miroslav - PRIBULOVÁ, Zuzana\*\* - KAČMARČÍK, Jozef - MEDVECKÁ, Zuzana - KLEIN, Thierry - VERCHENKO, Valeriy Yu. - CAMBEL, Vladimír - ŠOLTÝS, Ján - SAMUELY, Peter. One or two gaps in Mo8Ga41 superconductor? Local Hall-probe magnetometry study. In *Superconductor Science and Technology*, 2021, vol. 34, no. 3, art. no. 035017. (2020: 3.219 - IF, Q2 - JCR, 1.033 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/abd5f3>  
Citácie:  
1. [1.1] *RYZYNSKA, Zuzanna - WISNIEWSKI, Piotr - KACZOROWSKI, Dariusz - XIE, Weiwei - CAVA, Robert J. - KLIMCZUK, Tomasz - WINIARSKI, Michal J. Superconductivity in the Endohedral Ga Cluster Compound PdGa5. In JOURNAL OF PHYSICAL CHEMISTRY C*, 2021, vol. 125, no. 20, pp. 11294-11299. ISSN 1932-7447. Dostupné na: <https://doi.org/10.1021/acs.jpcc.1c03615>., Registrované v: WOS
- ADCA338 MARCIN, Miroslav\*\* - PRIBULOVÁ, Zuzana - KAČMARČÍK, Jozef - VERCHENKO, Valeriy Yu. - SHEVELKOV, Andrei V. - CAMBEL, Vladimír - ŠOLTÝS, Ján - SAMUELY, Peter. Local Magnetometry of Superconducting Mo8Ga41 and Mo7VGa41: Vortex Pinning Study. M. Marcin, Z. Pribulová, J. Kačmarčík, V.Yu. Verchenko, A.V. Shevelkov, V. Cambel, J. Šoltýs, P. Samuely. In *Acta Physica Polonica A*, 2020, vol. 137, no. 5, p. 794-796. (2019: 0.579 - IF, Q4 - JCR, 0.214 - SJR, Q3 - SJR, karentované - CCC). (2020 - Current Contents, WOS, SCOPUS). ISSN 1898-794X. Dostupné na: <https://doi.org/10.12693/APhysPolA.137.794> (CSMAG '19 : Czech and Slovak Conference on Magnetism)  
Citácie:  
1. [1.1] *RYZYNSKA, Zuzanna - WISNIEWSKI, Piotr - KACZOROWSKI, Dariusz - XIE, Weiwei - CAVA, Robert J. - KLIMCZUK, Tomasz - WINIARSKI, Michal J. Superconductivity in the Endohedral Ga Cluster Compound PdGa5. In JOURNAL OF PHYSICAL CHEMISTRY C*, 2021, vol. 125, no. 20, pp. 11294-11299. ISSN 1932-7447. Dostupné na: <https://doi.org/10.1021/acs.jpcc.1c03615>., Registrované v: WOS
- ADCA339 MARSO, M. - FOX, A. - HEIDELBERG, G. - KORDOŠ, Peter - LÜTH, Hans. Comparison of AlGaIn/GaN MSM varactor diodes based on HFET and MOSHEFT

layer structures. In IEEE Electron Devices Letters, 2006, vol. 27, p. 945-947. (2005: 2.825 - IF, Q1 - JCR, 2.432 - SJR, Q1 - SJR). ISSN 0741-3106.

Citácie:

1. [1.1] CAI, Qing - YOU, Haifan - GUO, Hui - WANG, Jin - LIU, Bin - XIE, Zili - CHEN, Dunjun - LU, Hai - ZHENG, Youdou - ZHANG, Rong. Progress on AlGaIn-based solar-blind ultraviolet photodetectors and focal plane arrays. In LIGHT-SCIENCE & APPLICATIONS. ISSN 2047-7538, 2021, vol. 10, no. 1, pp.

Dostupné na: <https://doi.org/10.1038/s41377-021-00527-4>, Registrované v: WOS

2. [1.1] MENG, Jin - ZHU, HaoTian - ZHANG, DeHai - LI, Hao - LI, YuHang - LIU, SiYu. Design of a 120GHz Doubler based on AlGaIn/GaN Schottky diode. In 2021 46TH INTERNATIONAL CONFERENCE ON INFRARED, MILLIMETER AND TERAHERTZ WAVES (IRMMW-THZ). ISSN 2162-2027, 2021, vol., no., pp.

Dostupné na: <https://doi.org/10.1109/IRMMW-THz50926.2021.9567587>,

Registrované v: WOS

ADCA340 MARTINEZ, E. - ANGUREL, L.A. - SCHLACHTER, S. - KOVÁČ, Pavol. Transport and magnetic critical currents of Cu-stabilized monofilamentary MgB<sub>2</sub> conductors. In Superconductor Science and Technology, 2009, vol. 22, 015014. (2008: 1.847 - IF, Q2 - JCR, 1.867 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] KODAMA, M. - KOTAKI, H. - SUZUKI, T. - TANAKA, H. Critical current density defined at low electric field criterion and energy margin of superconducting MgB<sub>2</sub> wires in wide temperature and magnetic field range. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, FEB 2021, vol. 34, no. 2., Registrované v: WOS

ADCA341 MARTINEZ, E. - LERA, F. - MARTÍNEZ-LÓPEZ, M. - YANG, Y. - SCHLACHTER, S. - LEZZA, P. - KOVÁČ, Pavol. Quench development and propagation in metal/MgB<sub>2</sub> conductors. In Superconductor Science and Technology, 2006, vol. 19, p. 143-150. (2005: 1.896 - IF, Q1 - JCR, 1.409 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.2] GUO, Chen - WANG, Hongzhang - CAI, Xinwei - LUO, Wenhao - HUANG, Zigeng - ZHANG, Yan - FENG, Qingrong - GAN, Zizhao. High performance superconducting joint for MgB<sub>2</sub>/In films. In Physica C: Superconductivity and its Applications, 2021-05-15, 584, pp. ISSN 09214534. Dostupné na: <https://doi.org/10.1016/j.physc.2021.1353863>, Registrované v: SCOPUS

ADCA342 MATYS, M. - STOKLAS, Roman - BLAHO, Michal - ADAMOWICZ, J.B. Origin of positive fixed charge at insulator/AlGaIn interfaces and its control by AlGaIn composition. In Applied Physics Letters, 2017, vol. 110, art. no. 243505. (2016: 3.411 - IF, Q1 - JCR, 1.673 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents, WOS, SCOPUS). ISSN 0003-6951. Dostupné na:

<https://doi.org/10.1063/1.4986482>

Citácie:

1. [1.1] HE, Jiaqi - CHENG, Wei-Chih - WANG, Qing - CHENG, Kai - YU, Hongyu - CHAI, Yang. Recent Advances in GaN-Based Power HEMT Devices. In ADVANCED ELECTRONIC MATERIALS, 2021, vol. 7, no. 4, pp. ISSN 2199-160X. Dostupné na: <https://doi.org/10.1002/aelm.202001045>, Registrované v: WOS

ADCA343 MATYS, M.\*\* - NISHIGUCHI, K. - ADAMOWICZ, J.B. - KUZMÍK, Ján - HASHIZUME, T. Enhancement of channel electric field in AlGaIn/GaN multi-nanochannel high electron mobility transistors. In Journal of Applied Physics, 2018,

vol. 124, no. 224502. (2017: 2.176 - IF, Q2 - JCR, 0.739 - SJR, Q2 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.5056194>

Citácie:

1. [1.1] GLINKOWSKI, M. - PASZKIEWICZ, B. - PASZKIEWICZ, R. Influence of High Electric Field on Operation of AlGaIn/AlN/GaN High Electron Mobility Transistor. In ACTA PHYSICA POLONICA A. ISSN 0587-4246, AUG 2021, vol. 140, no. 2, p. 192-196., Registrované v: WOS
2. [1.1] MAZUMDER, S. - WU, Z.G. - PAN, P.C. - LI, S.H. - WANG, Y.H. DC performance improvement of nanochannel AlGaIn/AlN/GaN HEMTs with reduced OFF-state leakage current by post-gate annealing modulation. In SEMICONDUCTOR SCIENCE AND TECHNOLOGY. ISSN 0268-1242, SEP 2021, vol. 36, no. 9., Registrované v: WOS
3. [1.1] SON, D.H. - THINGUJAM, T. - DAI, Q. - KIM, J.G. - CRISTOLOVEANU, S. - LEE, J.H. Fabrication and characterization of GaN-based nanostructure field effect transistors. In SOLID-STATE ELECTRONICS. ISSN 0038-1101, OCT 2021, vol. 184., Registrované v: WOS

ADCA344 MATYS, M. - ADAMOWICZ, J.B. - DOMANOWSKA, A. - MICHALEWICZ, A. - STOKLAS, Roman - AKAZAWA, M. - YATABE, Z. - HASHIZUME, T. On the origin of interface states at oxide/III-nitride heterojunction interfaces. In Journal of Applied Physics, 2016, vol. 120, no. 225305. (2015: 2.101 - IF, Q2 - JCR, 0.821 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.4971409>

Citácie:

1. [1.1] MAKSIMOWSKI, P. - NASTALA, A. Neutralization of wastewater from trinitrotoluene (TNT) production under industrial conditions. In PRZEMYSŁ CHEMICZNY. ISSN 0033-2496, MAR 2021, vol. 100, no. 3, p. 278-285., Registrované v: WOS
2. [1.1] MENEGHINI, M. - DE SANTI, C. - ABID, I. - BUFFOLO, M. - CIONI, M. - KHADAR, R.A. - NELA, L. - ZAGNI, N. - CHINI, A. - MEDJDOUB, F. - MENEGHESSO, G. - VERZELLESI, G. - ZANONI, E. - MATIOLI, E. GaN-based power devices: Physics, reliability, and perspectives. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, NOV 8 2021, vol. 130, no. 18., Registrované v: WOS
3. [1.1] NGUYEN, D.D. - ISODA, T. - DENG, Y.C. - SUZUKI, T.K. Normally-off operations in partially-gate-recessed AlTiO/AlGaIn/GaN field-effect transistors based on interface charge engineering. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, JUL 7 2021, vol. 130, no. 1., Registrované v: WOS
4. [1.1] RAJA, P.V. - SUBRAMANI, N.K. - GAILLARD, F. - BOUSLAMA, M. - SOMMET, R. - NALLATAMBY, J.C. Identification of Buffer and Surface Traps in Fe-Doped AlGaIn/GaN HEMTs Using Y-21 Frequency Dispersion Properties. In ELECTRONICS. DEC 2021, vol. 10, no. 24., Registrované v: WOS
5. [1.1] RRUSTEMI, B. - JAUD, M.A. - TRIOZON, F. - PIOTROWICZ, C. - VANDENDAELE, W. - LEROUX, C. - LE ROYER, C. - BISCARRAT, J. - GHIBAUDO, G. Investigation on interface charges in SiN/Al<sub>x</sub>Ga<sub>1-x</sub>N/GaN heterostructures by analyzing the gate-to-channel capacitance and the drain current behaviors. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, SEP 14 2021, vol. 130, no. 10., Registrované v: WOS
6. [1.1] ZHANG, L. - ZHENG, Z.Y. - CHENG, Y. - NG, Y.H. - FENG, S.R. - SONG, W.J. - CHEN, T. - CHEN, K.J. SiN/in-situ-GaON Staggered Gate Stack on p-GaN for Enhanced Stability in Buried-Channel GaN p-FETs. In 2021 IEEE INTERNATIONAL ELECTRON DEVICES MEETING (IEDM). ISSN 2380-9248, 2021., Registrované v: WOS

7. [1.1] ZHENG, Z.Y. - ZHANG, L. - SONG, W.J. - CHEN, T. - FENG, S.R. - NG, Y.H. - SUN, J.H. - XU, H. - YANG, S. - WEI, J. - CHEN, K.J. Threshold Voltage Instability of Enhancement-Mode GaN Buried p-Channel MOSFETs. In *IEEE ELECTRON DEVICE LETTERS*. ISSN 0741-3106, NOV 2021, vol. 42, no. 11, p. 1584-1587., Registrované v: WOS
- ADCA345 MATYS, M. - STOKLAS, Roman - KUZMÍK, Ján - ADAMOWICZ, J.B. - YATABE, Z. - HASHIZUME, T. Characterization of capture cross sections of interface states in dielectric/III-nitride heterojunction structures. In *Journal of Applied Physics*, 2016, vol. 119, art. no. 205304. (2015: 2.101 - IF, Q2 - JCR, 0.821 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.4952708>  
Citácie:  
1. [1.1] DENG, K.X. - WANG, X.H. - HUANG, S. - YIN, H.B. - FAN, J. - SHI, W. - GUO, F.Q. - WEI, K. - ZHENG, Y.K. - SHI, J.Y. - JIANG, H.J. - WANG, W.W. - LIU, X.Y. Suppression and characterization of interface states at low-pressure-chemical-vapor-deposited SiNx/III-nitride heterostructures. In *APPLIED SURFACE SCIENCE*. ISSN 0169-4332, MAR 15 2021, vol. 542., Registrované v: WOS  
2. [1.1] LIU, Y.B. - SHEN, J.Y. - XING, J.Y. - YAO, W.Q. - LIU, H.H. - DAI, Y.Q. - YANG, L.K. - WANG, F.G. - REN, Y. - ZHANG, M.J. - WU, Z.S. - LIU, Y. - ZHANG, B.J. Abnormal phenomenon of source-drain current of AlGaIn/GaN heterostructure device under UV/visible light irradiation\*. In *CHINESE PHYSICS B*. ISSN 1674-1056, NOV 2021, vol. 30, no. 11., Registrované v: WOS  
3. [1.1] MINETTO, A. - MODOLO, N. - SAYADI, L. - KOLLER, C. - OSTERMAIER, C. - MENEHINI, M. - ZANONI, E. - PRECHTL, G. - SICRE, S. - DEUTSCHMANN, B. - HABERLEN, O. Drain Field Plate Impact on the Hard-Switching Performance of AlGaIn/GaN HEMTs. In *IEEE TRANSACTIONS ON ELECTRON DEVICES*. ISSN 0018-9383, OCT 2021, vol. 68, no. 10, p. 5003-5008., Registrované v: WOS
- ADCA346 MEDVECKÁ, Zuzana - KLEIN, Thierry - CAMBEL, Vladimír - ŠOLTÝS, Ján - KARAPETROV, Goran - LEVY-BERTRAND, F. - MICHON, B. - MARCENAT, Christophe - PRIBULOVÁ, Zuzana - SAMUELY, Peter. Observation of a transverse Meissner effect in CuxTiSe2 single crystals. In *Physical Review B*, 2016, vol. 93, art. no. 100501 R. (2015: 3.718 - IF, Q1 - JCR, 2.377 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.93.100501>  
Citácie:  
1. [1.1] KRAJENBRINK, Alexandre - LE DOUSSAL, Pierre - O';CONNELL, Neil. Tilted elastic lines with columnar and point disorder, non-Hermitian quantum mechanics, and spiked random matrices: Pinning and localization. In *PHYSICAL REVIEW E*, 2021, vol. 103, no. 4, pp. ISSN 2470-0045. Dostupné na: <https://doi.org/10.1103/PhysRevE.103.042120>., Registrované v: WOS
- ADCA347 MENGHESSO, G. - RAMPAZZO, F. - KORDOŠ, Peter - VERZELLESI, G. - ZANONI, E. Current-collapse and hot-electron-reliability characteristics of unpassivated GaN/AlGaIn/GaN HEMTs. In *IEEE Transactions on Electron Devices*, 2006, vol. 53, p. 2932. (2005: 2.105 - IF, Q1 - JCR, 1.738 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents). ISSN 0018-9383.  
Citácie:  
1. [1.1] CHAKRABORTY, S. - KIM, T.W. Investigation of Mean-Time-to-Failure Measurements from AlGaIn/GaN High-Electron-Mobility Transistors Using Eyring Model. In *ELECTRONICS*. DEC 2021, vol. 10, no. 24., Registrované v: WOS



2. [1.1] PEREZ-MARTIN, E. - INIGUEZ-DE-LA-TORRE, I. - GAQUIERE, C. - GONZALEZ, T. - MATEOS, J. Monte Carlo analysis of the influence of surface charges on GaN asymmetric nanochannels: Bias and temperature dependence. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, SEP 14 2021, vol. 130, no. 10., Registrované v: WOS
  3. [1.1] REMESH, N. - CHANDRASEKAR, H. - VENUGOPALRAO, A. - RAGHAVAN, S. - RANGARAJAN, M. - NATH, D.N. Re-engineering transition layers in AlGaIn/GaN HEMT on Si for high voltage applications. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, AUG 21 2021, vol. 130, no. 7., Registrované v: WOS
  4. [1.1] TOBALDI, D.M. - TRIMINI, V. - CRETU, A. - LOMASCOLO, M. - DICORATO, S. - LOSURDO, M. - PASSASEO, A. - TASCIO, V. Low-Temperature and Ammonia-Free Epitaxy of the GaN/AlGaIn/GaN Heterostructure. In ACS APPLIED ELECTRONIC MATERIALS. DEC 28 2021, vol. 3, no. 12, p. 5451-5458., Registrované v: WOS
  5. [1.1] XIE, Y.H. - CHEN, R.S. - LIU, C. - CHEN, Y.Q. - REN, Y. Analysis of GaN HEMT Degradation under RF Overdrive Stress. In 2021 IEEE WORKSHOP ON WIDE BANDGAP POWER DEVICES AND APPLICATIONS IN ASIA (WIPDA ASIA 2021). 2021, p. 31-35., Registrované v: WOS
- ADCA348 MEŠKO, M. - VRETENÁR, Viliam - KOTRUSZ, P. - HULMAN, Martin - ŠOLTÝS, Ján - SKÁKALOVÁ, V. Carbon nanowalls synthesis by means of atmospheric dcPECVD method. In Physica Status Solidi B, 2012, vol. 249, no. 12, p. 2625-2628. (2011: 1.316 - IF, Q3 - JCR, 0.931 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0370-1972. Dostupné na: <https://doi.org/10.1002/pssb.201200144>  
Citácie:  
1. [1.1] SOBCZYK, Arkadiusz T. - JAWOREK, Anatol. Carbon Microstructures Synthesis in Low Temperature Plasma Generated by Microdischarges. In APPLIED SCIENCES-BASEL, 2021, vol. 11, no. 13, 5845. Dostupné na: <https://doi.org/10.3390/app11135845>, Registrované v: WOS
- ADCA349 MICHALCOVÁ, E. - GÖMÖRY, Fedor - FROLEK, Lubomír - DRIENOVSKÝ, M. - PEKARČÍKOVÁ, M. - SKARBA, M. - MIŠÍK, J. - JANOVEC, Jozef. Joining of CC tapes with lead-free solders. In IEEE Transactions on Applied Superconductivity, 2016, vol. 26, no. 8801104. (2015: 1.092 - IF, Q3 - JCR, 0.403 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2539419>  
Citácie:  
1. [1.1] YANG, G.S. - WANG, W.T. - LIU, L. - WANG, M.J. - TIAN, Z.J. - ZHENG, Q.T. - ZHAO, Y. Electromechanical Properties of Lapped Joints of Y0.5Gd0.5Ba2Cu3O7-z Coated Conductors Joined with Lead-free Solders. In RARE METAL MATERIALS AND ENGINEERING. ISSN 1002-185X, FEB 2021, vol. 50, no. 2, p. 511-518., Registrované v: WOS
- ADCA350 MIKOLÁŠEK, M.\*\* - FRÖHLICH, Karol - HUŠEKOVÁ, Kristína - RACKO, J. - REHACEK, V. - CHYMO, F. - ŤAPAJNA, Milan - HARMATHA, L. Silicon based MIS photoanode for water oxidation: a comparison of RuO2 and Ni Schottky contacts. In Applied Surface Science, 2018, vol. 461, p. 48-53. (2017: 4.439 - IF, Q1 - JCR, 1.093 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2018.04.234>  
Citácie:  
1. [1.1] BODDULA, R. - XIE, G.C. - GUO, B.D. - GONG, J.R. Role of transition-metal electrocatalysts for oxygen evolution with Si-based photoanodes. In

*CHINESE JOURNAL OF CATALYSIS*. ISSN 0253-9837, AUG 2021, vol. 42, no. 8, SI, p. 1387-1394., Registrované v: WOS

2. [1.1] HEMMERLING, J.R. - MATHUR, A. - LINIC, S. Design Principles for Efficient and Stable Water Splitting Photoelectrocatalysts. In *ACCOUNTS OF CHEMICAL RESEARCH*. ISSN 0001-4842, APR 20 2021, vol. 54, no. 8, p. 1992-2002., Registrované v: WOS

3. [1.1] KARTHIK, P.E. - JOTHI, V.R. - PITCHAIMUTHU, S. - YI, S. - ANANTHARAJ, S. Alternating Current Techniques for a Better Understanding of Photoelectrocatalysts. In *ACS CATALYSIS*. ISSN 2155-5435, OCT 15 2021, vol. 11, no. 20, p. 12763-12776., Registrované v: WOS

ADCA351 MIKULA, Marian - GRANČIČ, B. - ROCH, T. - PLECENIK, T. - VÁVRA, Ivo - DOBROČKA, Edmund - ŠATKA, A. - BURŠÍKOVÁ, Vilma - DRŽÍK, Milan - ZAHORAN, M. - PLECENIK, Andrej - KÚŠ, P. The influence of low-energy ion bombardment on the microstructure development and mechanical properties of TiBx coatings. In *Vacuum*, 2011, vol.85, no.9, p.866-870. (2010: 1.051 - IF, Q3 - JCR, 0.554 - SJR, Q2 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0042-207X. Dostupné na: <https://doi.org/10.1016/j.vacuum.2010.12.011>

Citácie:

1. [1.1] DEAMBROSIS, Silvia Maria - ZIN, Valentina - MONTAGNER, Francesco - MORTAL, Cecilia - FABRIZIO, Monica - MIORIN, Enrico. Effect of temperature and deposition technology on the microstructure, chemistry and tribo-mechanical characteristics of Ti-B based thin films by magnetron sputtering. In *SURFACE & COATINGS TECHNOLOGY*, 2021, vol. 405, no., pp. ISSN 0257-8972. Dostupné na: <https://doi.org/10.1016/j.surfcoat.2020.126556>., Registrované v: WOS

2. [1.1] HELLGREN, Niklas - GRECZYNSKI, Grzegorz - SORTICA, Mauricio A. - PETROV, Ivan - HULTMAN, Lars - ROSEN, Johanna. X-ray photoelectron spectroscopy analysis of TiBx (1.3 = x = 3.0) thin films. In *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*, 2021, vol. 39, no. 2, pp. ISSN 0734-2101. Dostupné na: <https://doi.org/10.1116/6.0000789>., Registrované v: WOS

3. [1.1] THORNBURG, Jimmy - BAKHIT, Babak - PALISAITIS, Justinas - HELLGREN, Niklas - HULTMAN, Lars - GRECZYNSKI, Grzegorz - PERSSON, Per O. A. - PETROV, Ivan - ROSEN, Johanna. Improved oxidation properties from a reduced B content in sputter-deposited TiBx thin films. In *SURFACE & COATINGS TECHNOLOGY*, 2021, vol. 420, no., pp. ISSN 0257-8972. Dostupné na: <https://doi.org/10.1016/j.surfcoat.2021.127353>., Registrované v: WOS

4. [1.1] ZHAI, Wenzheng - BAI, Lichun - ZHOU, Runhua - FAN, Xueling - KANG, Guozheng - LIU, Yong - ZHOU, Kun. Recent Progress on Wear-Resistant Materials: Designs, Properties, and Applications. In *ADVANCED SCIENCE*, 2021, vol. 8, no. 11, pp. Dostupné na: <https://doi.org/10.1002/advs.202003739>., Registrované v: WOS

ADCA352 MIKULICS, M. - HARTDEGEN, H. - GREGUŠOVÁ, Dagmar - SOFER, Z. - ŠIMEK, P. - TRELLENKAMP, St. - GRÜTZMACHER, D. - LUTH, H. - KORDOŠ, Peter - MARSO, M. Non-uniform distribution of induced strain in gate recessed AlGaIn/GaN structure evaluated by micro PL measurements. In *Semiconductor Science and Technology*, 2012, vol. 27, 105008. (2011: 1.723 - IF, Q1 - JCR, 1.008 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0268-1242. Dostupné na: <https://doi.org/10.1088/0268-1242/27/10/105008>

Citácie:

1. [1.1] YAMADA, A. - YAITA, J. - NAKAMURA, N. - KOTANI, J. Low-sheet-resistance high-electron-mobility transistor structures with strain-controlled high-Al-composition AlGaIn barrier grown by MOVPE. In *JOURNAL OF CRYSTAL*



- ADCA353 *GROWTH. ISSN 0022-0248, APR 15 2021, vol. 560., Registrované v: WOS*  
 MIKULICS, M. - MARSO, M. - MANTL, S. - LÜTH, Hans - KORDOŠ, Peter.  
 GaAs photodetectors prepared by high-energy and high-dose nitrogen implantation.  
 In Applied Physics Letters, 2006, vol. 89, 091103. (2005: 4.127 - IF, Q1 - JCR, 3.755 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, SCOPUS).  
 ISSN 0003-6951.  
 Citácie:  
 1. [1.1] KRISHNAIAH, M. - JEONG, Y.J. - MISHRA, R.K. - KIM, M.J. - SONG, J. - JIN, S.H. Temperature-Time profile effects on evolution of physical and electronic properties in visible light Cu<sub>2</sub>CoSnS<sub>4</sub> photodetectors. In MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING. ISSN 1369-8001, JAN 2021, vol. 121., Registrované v: WOS
- ADCA354 MIKULICS, M. - MICHAEL, E. - SCHIEDER, R. - STUTZKI, J. - GÜSTEN, R. - MARSO, M. - VAN DER HART, A. - BOCHEM, H.P. - LÜTH, Hans - KORDOŠ, Peter. Travelling-wave photomixer with recessed interdigitated contacts on low-temperature-grown GaAs. In Applied Physics Letters. - American Institute of Physics, 2006, vol. 88, p. 041118. (2005: 4.127 - IF, Q1 - JCR, 3.755 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, SCOPUS). ISSN 0003-6951.  
 Citácie:  
 1. [1.1] KATYBA, G.M. - ZAYTSEV, K.I. - DOLGANOVA, I.N. - CHERNOMYRDIN, N.V. - ULITKO, V.E. - ROSSOLENKO, S.N. - SHIKUNOVA, I.A. - KURLOV, V.N. Sapphire waveguides and fibers for terahertz applications. In PROGRESS IN CRYSTAL GROWTH AND CHARACTERIZATION OF MATERIALS. ISSN 0960-8974, AUG 2021, vol. 67, no. 3., Registrované v: WOS
- ADCA355 MIKULICS, M.\*\* - KORDOŠ, Peter - GREGUŠOVÁ, Dagmar - SOFER, Z. - WINDEN, A. - TRELLENKAMP, St. - MOERS, J. - MAYER, J. - HARDTDEGEN, H.\*\*. Conditioning nano-LEDs in arrays by laser-micro-annealing: the key to their performance improvement. In Applied Physics Letters, 2021, vol. 118, no. 04310. (2020: 3.791 - IF, Q2 - JCR, 1.182 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/5.0038070>  
 Citácie:  
 1. [1.1] ROKHI, M. Mahdizadeh - ASGARI, Asghar. Power improvement in ridge bent waveguide superluminescent light-emitting diodes based on GaN quantum dots. In PHYSICA SCRIPTA, 2021, vol. 96, no. 12, pp. ISSN 0031-8949. Dostupné na: <https://doi.org/10.1088/1402-4896/ac33fc>., Registrované v: WOS  
 2. [1.1] XIE, Mingyuan - JIANG, Yan - GAO, Xumin - CAI, Wei - YUAN, Jiale - ZHU, Hongbo - WANG, Yongjin - ZENG, Xuefeng - ZHANG, Zhiyu - LIU, Yuhuai - AMANO, Hiroshi. Uniting a III-Nitride Transmitter, Waveguide, Modulator, and Receiver on a Single Chip. In ADVANCED ENGINEERING MATERIALS, 2021, vol. 23, no. 12, pp. ISSN 1438-1656. Dostupné na: <https://doi.org/10.1002/adem.202100582>., Registrované v: WOS  
 3. [1.1] ZHOU, Gufan - LIN, Runze - QIAN, Zeyuan - ZHOU, Xiaojie - SHAN, Xinyi - CUI, Xugao - TIAN, Pengfei. GaN-based micro-LEDs and detectors defined by current spreading layer: size-dependent characteristics and their multifunctional applications. In JOURNAL OF PHYSICS D-APPLIED PHYSICS, 2021, vol. 54, no. 33, pp. ISSN 0022-3727. Dostupné na: <https://doi.org/10.1088/1361-6463/abfef9>., Registrované v: WOS
- ADCA356 MIKULICS, M. - ARANGO, Y.C. - WINDEN, A. - ADAM, Roman - HARDTDEGEN, A. - GRÜTZMACHER, D. - PLINSKI, E. - GREGUŠOVÁ, Dagmar - NOVÁK, Jozef - KORDOŠ, Peter - MOONSHIRAM, A. - MARSO, M. - SOFER, Z. - LUTH, H. - HARDTDEGEN, H. Direct electro-optical pumping for

hybrid CdSe nanocrystal/III-nitride based nano-light-emitting diodes. In *Applied Physics Letters*, 2016, vol. 108, art. no. 061107. (2015: 3.142 - IF, Q1 - JCR, 1.499 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.4941923>

Citácie:

1. [1.1] KHAN, M.S. - IKRAM, M. - SHI, L.J. - ZOU, B.S. - ULLAH, H. - KHAN, M.Y. *Computational insights into optoelectronic and magnetic properties of V(III)-doped GaN. In JOURNAL OF SOLID STATE CHEMISTRY. ISSN 0022-4596, DEC 2021, vol. 304., Registrované v: WOS*
2. [1.1] KLUCZYK-KORCH, K. - MORENO, S. - CANALS, J. - DIEGUEZ, A. - GULINK, J. - HARTMANN, J. - WAAG, A. - DI CARLO, A. - MAUR, M.A.D. *Individually Switchable InGaN/GaN Nano-LED Arrays as Highly Resolved Illumination Engines. In ELECTRONICS. AUG 2021, vol. 10, no. 15., Registrované v: WOS*
3. [1.1] KLUCZYK-KORCH, K. - PALAZZO, D. - WAAG, A. - DIEGUEZ, A. - PRADES, J.D. - DI CARLO, A. - MAUR, M.A.D. *Optical design of InGaN/GaN nanoLED arrays on a chip: toward: highly resolved illumination. In NANOTECHNOLOGY. ISSN 0957-4484, MAR 5 2021, vol. 32, no. 10., Registrované v: WOS*
4. [1.1] KORYAKINA, I.G. - AFONICHEVA, P.K. - ARABULI, K.V. - EVSTRAPOV, A.A. - TIMIN, A.S. - ZYUZIN, M.V. *Microfluidic synthesis of optically responsive materials for nano- and biophotonics. In ADVANCES IN COLLOID AND INTERFACE SCIENCE. ISSN 0001-8686, DEC 2021, vol. 298., Registrované v: WOS*
5. [1.1] WU, C.X. - WANG, K. - ZHANG, Y.G. - ZHOU, X.T. - GUO, T.L. *Emerging Nanopixel Light-Emitting Displays: Significance, Challenges, and Prospects. In JOURNAL OF PHYSICAL CHEMISTRY LETTERS. ISSN 1948-7185, APR 15 2021, vol. 12, no. 14, p. 3522-3527., Registrované v: WOS*

ADCA357 MIKULICS, M. - HARDTDEGEN, H. - ARANGO, Y.C. - ADAM, Roman - FOX, A. - GRÜTZMACHER, D. - GREGUŠOVÁ, Dagmar - STANČEK, S. - NOVÁK, Jozef - KORDOŠ, Peter - SOFER, Z. - JUUL, L. - MARSO, M. Reduction of skin effect losses in double-level-T-gate structure. In *Applied Physics Letters*, 2014, vol. 105, 232102. (2013: 3.515 - IF, Q1 - JCR, 2.149 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.4903468>

Citácie:

1. [1.1] MADHULIKA - MALIK, Amit - KAMBOJ, Priyanka - AWASTHI, Shivansh - THAKUR, Priyanka - JAIN, Neelu - MISHRA, Meena - KUMAR, Sanjeev - RAWAL, Dipendra S. - SINGH, Arun K. *Parameter-based modeling of nanoscale material thermal noise in gallium nitride high-electron-mobility transistors. In SEMICONDUCTOR SCIENCE AND TECHNOLOGY, 2021, vol. 36, no. 3, pp. ISSN 0268-1242. Dostupné na: https://doi.org/10.1088/1361-6641/abd265., Registrované v: WOS*

ADCA358 MIRANDA, E.\*\* - MUÑOZ-GORRIZ, J. - SUÑE, J. - FRÖHLICH, Karol. SPICE model for the current-voltage characteristic of resistive switching devices including the snapback effect. In *Microelectronic Engineering*, 2019, vol. 215, no. 110998. (2018: 1.654 - IF, Q3 - JCR, 0.561 - SJR, Q2 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0167-9317. Dostupné na: <https://doi.org/10.1016/j.mee.2019.110998>

Citácie:

1. [1.2] GONZÁLEZ, M. B. - MAESTRO-IZQUIERDO, M. - POBLADOR, S. - ZABALA, M. - CAMPABADAL, F. - GONZÁLEZ-CORDERO, G. - ALDANA, S. -

- MALDONADO, D. - JIMÉNEZ-MOLINOS, F. - ROLDÁN, J. B. Synaptic devices based on HfO<sub>2</sub>/inf memristors. In Mem-elements for Neuromorphic Circuits with Artificial Intelligence Applications, 2021-01-01, pp. 383-426. Dostupné na: <https://doi.org/10.1016/B978-0-12-821184-7.00028-1>, Registrované v: SCOPUS*
- ADCA359 MIRANDA, E.\*\* - FRÖHLICH, Karol. Compact modeling of complementary resistive switching devices using memdiodes. In IEEE Transactions on Electron Devices, 2019, vol. 66, p. 2831-2836. (2018: 2.704 - IF, Q2 - JCR, 0.853 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2019.2913322>  
Citácie:  
1. [1.1] VISHWAKARMA, Kavita - KISHORE, Rishabh - DATTA, Arnab. Eight-Level/Cell Storage by Tuning the Spatial Distribution of Dielectrics in a Tri-Layer ReRAM Cell: Electrical Characteristics and Reliability. In IEEE TRANSACTIONS ON DEVICE AND MATERIALS RELIABILITY, 2021, vol. 21, no. 4, pp. 587-593. ISSN 1530-4388. Dostupné na: <https://doi.org/10.1109/TDMR.2021.3120966>, Registrované v: WOS
- ADCA360 MISJÁK, F. - NAGY, K.H. - LOBOTKA, Peter - RADNÓCZI, G. Electron scattering mechanisms in Cu-Mn films for interconnect applications. In Journal of Applied Physics, 2014, vol. 116, 083507. (2013: 2.185 - IF, Q2 - JCR, 1.165 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents, WOS, SCOPUS). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.4893718>  
Citácie:  
1. [1.1] MALEKZADEH, Mohammad - SWIHART, Mark T. Vapor-phase production of nanomaterials. In CHEMICAL SOCIETY REVIEWS, 2021, vol. 50, no. 12, pp. 7132-7249. ISSN 0306-0012. Dostupné na: <https://doi.org/10.1039/d0cs01212b>, Registrované v: WOS
- ADCA361 MITCHELL-WILLIAMS, T.B. - BASKYS, A. - GUO, Y. - HOPKINS, S.C. - BANGERT, U. - MOLODYK, A. - PETRYKIN, V. - GÖMÖRY, Fedor - FROLEK, Lubomír - GLOWACKI, B.A. Spark-discharge plasma as a method to produce low AC loss multifilamentary (RE)Ba<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> coated conductors. In IEEE Transactions on Applied Superconductivity, 2017, vol. 27, art. no. 5900405. (2016: 1.583 - IF, Q3 - JCR, 0.398 - SJR, Q2 - SJR, karentované - CCC). (2017 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2017.2651584>  
Citácie:  
1. [1.1] WULFF, A.C. - ABRAHAMSEN, A.B. - INSINGA, A.R. Multifilamentary coated conductors for ultra-high magnetic field applications. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAY 2021, vol. 34, no. 5, Registrované v: WOS
- ADCA362 MOEREKE, J. - ĽAPAJNA, Milan - UREN, M.J. - PEI, Y. - MISHRA, Umesh K. - KUBALL, M. Effects of gate shaping and consequent process changes on AlGaIn/GaN HEMT reliability. In Physica status solidi A. Applications and materials science, 2013, vol. 209, p. 2646-2652. (2012: 1.469 - IF, Q2 - JCR, 0.866 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 1862-6300. Dostupné na: <https://doi.org/10.1002/pssa.201228395>  
Citácie:  
1. [1.1] BORDOLOI, S. - RAY, A. - TRIVEDI, G. Introspection Into Reliability Aspects in AlGaIn/GaN HEMTs With Gate Geometry Modification. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 99828-99841, Registrované v: WOS
- ADCA363 MOLNÁR, M. - DONOVAL, D. - KUZMÍK, Ján - MAREK, J. - CHVÁLA, A. - PRÍBYTNÝ, P. - MIKOLÁŠEK, M. - RENDEK, K. - PALANKOVSKI, V. Simulation study of interface traps and bulk traps in n++GaIn/InAlIn/AlIn/GaN high

electron mobility transistors. In *Applied Surface Science*, 2014, vol. 312, p. 157-161. (2013: 2.538 - IF, Q1 - JCR, 0.965 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2014.04.078>

Citácie:

1. [1.1] BOUSLAMA, M. - RAJA, P.V. - GAILLARD, F. - SOMMET, R. - NALLATAMBY, J.C. *Investigation of electron trapping in AlGaIn/GaN HEMT with Fe-doped buffer through DCT characterization and TCAD device simulations. In AIP ADVANCES. DEC 1 2021, vol. 11, no. 12., Registrované v: WOS*

- ADCA364 MOORE, S.A. - FEDOR, Ján - IAVARONE, M. Low-temperature scanning tunneling microscopy and spectroscopy measurements of ultrathin Pb films. In *Superconductor Science and Technology*, 2015, vol. 28, 045003. (2014: 2.325 - IF, Q2 - JCR, 1.196 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/28/4/045003>

Citácie:

1. [1.1] ALADYSHKIN, Alexey Yu - ALADYSHKINA, Anna S. - BOZHKO, Sergey. *Observation of Hidden Parts of Dislocation Loops in Thin Pb Films by Means of Scanning Tunneling Spectroscopy. In JOURNAL OF PHYSICAL CHEMISTRY C, 2021, vol. 125, no. 48, pp. 26814-26822. ISSN 1932-7447. Dostupné na: https://doi.org/10.1021/acs.jpcc.1c07705., Registrované v: WOS*

- ADCA365 MOORE, S.A. - PLUMMER, G. - FEDOR, Ján - PEARSON, J.E. - NOVOSAD, V. - KARAPETROV, Goran - IAVARONE, M. Doppler-scanning tunneling microscopy current imaging in superconductor-ferromagnet hybrids. In *Applied Physics Letters*, 2016, vol. 108, art. no. 042601. (2015: 3.142 - IF, Q1 - JCR, 1.499 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.4940190>

Citácie:

1. [1.1] ELEY, Serena - GLATZ, Andreas - WILLA, Roland. *Challenges and transformative opportunities in superconductor vortex physics. In JOURNAL OF APPLIED PHYSICS, 2021, vol. 130, no. 5, pp. ISSN 0021-8979. Dostupné na: https://doi.org/10.1063/5.0055611., Registrované v: WOS*

- ADCA366 MORVIC, Marian - BETKO, Július. Planar Hall effect in Hall sensors made from InP/InGaAs heterostructure. In *Sensors and Actuators A*, 2005, vol. 120, p. 130-133.

Citácie:

1. [1.1] ROY, Arnab - SAMPATHKUMAR, P. - KUMAR, P. S. Anil. *Development of a very high sensitivity magnetic field sensor based on planar Hall effect. In MEASUREMENT. ISSN 0263-2241, 2020, vol. 156, no., pp. Dostupné na: https://doi.org/10.1016/j.measurement.2020.107590., Registrované v: WOS*  
2. [1.1] WANG, Xiaolei - SUN, Xupeng - CUI, Shuainan - YANG, Qianqian - ZHAI, Tianrui - ZHAO, Jinliang - DENG, Jinxiang - RUOTOLO, Antonio. *Physical Investigations on Bias-Free, Photo-Induced Hall Sensors Based on Pt/GaAs and Pt/Si Schottky Junctions. In SENSORS, 2021, vol. 21, no. 9, pp. Dostupné na: https://doi.org/10.3390/s21093009., Registrované v: WOS*

- ADCA367 MOŠKO, Martin - MOŠKOVÁ, Antónia. Ensemble Monte Carlo simulation of electron-electron scattering: improvements of conventional methods. In *Physical Review B*, 1991, vol. 44, p. 10794-10803.

Citácie:

1. [1.1] JIRAUSCHEK, Christian - POPP, Johannes - HAIDER, Michael - FRANCKIE, Martin - FAIST, Jerome. *Ensemble Monte Carlo modeling of quantum cascade detectors. In JOURNAL OF APPLIED PHYSICS, 2021, vol. 130, no. 20, pp. ISSN 0021-8979. Dostupné na:*



- <https://doi.org/10.1063/5.0065540>, *Registrované v: WOS*
- ADCA368 MOŠKO, Martin - MOŠKOVÁ, Antónia - CAMBEL, Vladimír. Carrier-carrier scattering in photoexcited intrinsic GaAs quantum wells and its effect on femtosecond plasma thermalization. In *Physical Review B*, 1995, vol. 51, p. 16860-16866.
- Citácie:
1. [1.1] *FREEMAN, Will. Double longitudinal-optical phonon intrawell depopulated terahertz quantum cascade structures: Electron transport modeling using a density matrix method. In APPLIED PHYSICS LETTERS, 2021, vol. 118, no. 24, pp. ISSN 0003-6951. Dostupné na: https://doi.org/10.1063/5.0052598, Registrované v: WOS*
- ADCA369 MOŠKOVÁ, Antónia - MOŠKO, Martin - TÓBIK, Jaroslav. Theoretical study of persistent current in a nanoring made of a band insulator. In *Physica status solidi B. Basic solid state physics*, 2013, vol. 250, p. 147-159. (2012: 1.489 - IF, Q3 - JCR, 0.897 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 0370-1972. Dostupné na: <https://doi.org/10.1002/pssb.201248066>
- Citácie:
1. [1.1] *LAVANYA, Ch Uma - CHATTERJEE, Ashok. Persistent charge and spin currents in the 1D Holstein-Hubbard ring at half filling and at away from half filling by Bethe-ansatz approach. In PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, 2021, vol.126, no., pp. ISSN 1386-9477. Dostupné na: https://doi.org/10.1016/j.physe.2020.114500, Registrované v: WOS*
- ADCA370 MRKÝVKOVÁ, Nad'a, Tesařová\*\* - CERNESCU, A. - FUTERA, Z. - NEBOJSA, A. - DUBROKA, A. - SOJKOVÁ, Michaela - HULMAN, Martin - MAJKOVÁ, Eva - JERGEL, Matej - ŠIFFALOVÍČ, Peter - SCHREIBER, F. Nanoimaging of orientational defects in semiconducting organic films. In *Journal of Physical Chemistry C*, 2021, vol. 125, no. 17, p. 9229–9235. (2020: 4.126 - IF, Q2 - JCR, 1.401 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 1932-7447. Dostupné na: <https://doi.org/10.1021/acs.jpcc.1c00059>
- Citácie:
1. [1.1] *RAO, V.J. - QI, H.Y. - BERGER, F.J. - GRIEGER, S. - KAISER, U. - BACKES, C. - ZAUMSEIL, J. Liquid Phase Exfoliation of Rubrene Single Crystals into Nanorods and Nanobelts. In ACS NANO. ISSN 1936-0851, DEC 28 2021, vol. 15, no. 12, p. 20466-20477., Registrované v: WOS*
2. [1.1] *RIKANATI, L. - DERY, S. - GROSS, E. AFM-IR and s-SNOM-IR measurements of chemically addressable monolayers on Au nanoparticles. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, NOV 28 2021, vol. 155, no. 20, 204704., Registrované v: WOS*
- ADCA371 MRUCZKIEWICZ, Michal - GRACZYK, P. - LUPO, P. - ADEYEYE, A. - GUBBIOTTI, G. - KRAWCZYK, M. Spin-wave nonreciprocity and magnonic band structure in a thin permalloy film induced by dynamical coupling with an array of Ni stripes. In *Physical Review B*, 2017, vol. 96, art. no. 104411. (2016: 3.836 - IF, Q2 - JCR, 2.339 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.96.104411>
- Citácie:
1. [1.1] *FRIPP, K.G. - SHYTOV, A.V. - KRUGLYAK, V.V. Spin-wave control using dark modes in chiral magnonic resonators. In PHYSICAL REVIEW B. ISSN 2469-9950, AUG 26 2021, vol. 104, no. 5., Registrované v: WOS*
2. [1.1] *KRUGLYAK, V.V. Chiral magnonic resonators: Rediscovering the basic magnetic chirality in magnonics. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, NOV 15 2021, vol. 119, no. 20., Registrované v: WOS*

- ADCA372 MRUCZKIEWICZ, Michal\*\* - GRUSZECKI, P. - KRAWCZYK, M. - GUSLIENKO, K.Y. Azimuthal spin-wave excitations in magnetic nanodots over the soliton background: Vortex, Bloch, and Néel-like skyrmions. In *Physical Review B*, 2018, vol. 97, no. 064418. (2017: 3.813 - IF, Q2 - JCR, 1.176 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.97.064418>
- Citácie:
1. [1.1] BO, L. - JI, L.Z. - HU, C.L. - ZHAO, R.Z. - LI, Y.X. - ZHANG, J. - ZHANG, X.F. Spin excitation spectrum of a magnetic hopfion. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, NOV 22 2021, vol. 119, no. 21., Registrované v: WOS
  2. [1.1] SAAVEDRA, E. - TEJO, F. - VIDAL-SILVA, N. - ESCRIG, J. Magnonic key based on skyrmion clusters. In *SCIENTIFIC REPORTS*. ISSN 2045-2322, NOV 26 2021, vol. 11, no. 1., Registrované v: WOS
  3. [1.1] YANG, J. - ABERT, C. - SUESS, D. - KIM, S.K. Intrinsic DMI-free skyrmion formation and robust dynamic behaviors in magnetic hemispherical shells. In *SCIENTIFIC REPORTS*. ISSN 2045-2322, FEB 16 2021, vol. 11, no. 1., Registrované v: WOS
  4. [1.1] YANG, J. - PARK, H.K. - PARK, G. - ABERT, C. - SUESS, D. - KIM, S.K. Robust formation of skyrmion and skyrmionium in magnetic hemispherical shells and their dynamic switching. In *PHYSICAL REVIEW B*. ISSN 2469-9950, OCT 25 2021, vol. 104, no. 13., Registrované v: WOS
- ADCA373 MRUCZKIEWICZ, Michal - KRAWCZYK, M. - GUSLIENKO, K.Y. Spin excitation spectrum in a magnetic nanodot with continuous transitions between the vortex, Bloch-type skyrmion, and Néel-type skyrmion states. In *Physical Review B*, 2017, vol. 95, art. no. 094414. (2016: 3.836 - IF, Q2 - JCR, 2.339 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.95.094414>
- Citácie:
1. [1.1] BO, L. - HU, C.L. - JI, L.Z. - KONG, L.W. - ZHAO, R.Z. - ZHANG, X.F. Tailoring Helicity Angle of Twisted Skyrmions in Multilayered Nanostructures. In *PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS*. ISSN 1862-6254, JUL 2021, vol. 15, no. 7., Registrované v: WOS
  2. [1.1] BO, L. - JI, L.Z. - HU, C.L. - ZHAO, R.Z. - LI, Y.X. - ZHANG, J. - ZHANG, X.F. Spin excitation spectrum of a magnetic hopfion. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, NOV 22 2021, vol. 119, no. 21., Registrované v: WOS
  3. [1.1] MOURKAS, A. - MARKOU, A. - SWEKIS, P. - PANAGIOTOPOULOS, I. Topological hall effect in Pt/Co/W multilayers with different anisotropies. In *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*. ISSN 0304-8853, JUL 15 2021, vol. 530., Registrované v: WOS
  4. [1.1] SAAVEDRA, E. - TEJO, F. - VIDAL-SILVA, N. - ESCRIG, J. Magnonic key based on skyrmion clusters. In *SCIENTIFIC REPORTS*. ISSN 2045-2322, NOV 26 2021, vol. 11, no. 1., Registrované v: WOS
  5. [1.1] YANG, J. - ABERT, C. - SUESS, D. - KIM, S.K. Intrinsic DMI-free skyrmion formation and robust dynamic behaviors in magnetic hemispherical shells. In *SCIENTIFIC REPORTS*. ISSN 2045-2322, FEB 16 2021, vol. 11, no. 1., Registrované v: WOS
  6. [1.1] YANG, J. - PARK, H.K. - PARK, G. - ABERT, C. - SUESS, D. - KIM, S.K. Robust formation of skyrmion and skyrmionium in magnetic hemispherical shells and their dynamic switching. In *PHYSICAL REVIEW B*. ISSN 2469-9950, OCT 25 2021, vol. 104, no. 13., Registrované v: WOS



- ADCA374 MRUCZKIEWICZ, Michal - KRAWCZYK, M. Influence of the Dzyaloshinskii-Moriya interaction on the FMR spectrum of magnonic crystals and confined structures. In *Physical Review B*, 2016, vol. 94, no. 024434. (2015: 3.718 - IF, Q1 - JCR, 2.377 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.94.024434>
- Citácie:
- [1.1] *SILVANI, R. - ALUNNI, M. - TACCHI, S. - CARLOTTI, G. Effect of the Interfacial Dzyaloshinskii-Moriya Interaction on the Spin Waves Eigenmodes of Isolated Stripes and Dots Magnetized In-Plane: A Micromagnetic Study. In APPLIED SCIENCES-BASEL. APR 2021, vol. 11, no. 7., Registrované v: WOS*
  - [1.1] *SILVANI, R. - KUEPFERLING, M. - TACCHI, S. - CARLOTTI, G. Impact of the interfacial Dzyaloshinskii-Moriya interaction on the band structure of one-dimensional artificial magnonic crystals: A micromagnetic study. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. ISSN 0304-8853, DEC 1 2021, vol. 539., Registrované v: WOS*
- ADCA375 MRUCZKIEWICZ, Michal - GRUSZECKI, P. - ZELEN, M. - KRAWCZYK, M. Collective dynamical skyrmion excitations in a magnonic crystal. In *Physical Review B*, 2016, vol. 93, no. 174429. (2015: 3.718 - IF, Q1 - JCR, 2.377 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.93.174429>
- Citácie:
- [1.1] *CHEN, Z.D. - MA, F.S. Skyrmion based magnonic crystals. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, SEP 7 2021, vol. 130, no. 9., Registrované v: WOS*
  - [1.1] *LI, Z.X. - CAO, Y.S. - YAN, P. Topological Dynamics of Spin Texture Based Metamaterials. In CHIRALITY, MAGNETISM AND MAGNETOELECTRICITY: SEPARATE PHENOMENA AND JOINT EFFECTS IN METAMATERIAL STRUCTURES. ISSN 0303-4216, 2021, vol. 138, p. 405-440., Registrované v: WOS*
  - [1.1] *LI, Z.X. - CAO, Y.S. - YAN, P. Topological insulators and semimetals in classical magnetic systems. In PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS. ISSN 0370-1573, JUN 8 2021, vol. 915, p. 1-64., Registrované v: WOS*
  - [1.1] *XIE, K.L. - ZHANG, L.F. - MA, F.S. Magnonic topological insulator realized in 2D magnetic skyrmion crystals. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, OCT 21 2021, vol. 130, no. 15., Registrované v: WOS*
- ADCA376 MURAKAMI, K. - ROMMEL, M. - HUDEK, Boris - ROSOVÁ, Alica - HUŠEKOVÁ, Kristína - DOBROČKA, Edmund - RAMMULA, R. - KASIKOV, A. - HAN, J.H. - LEE, W. - SONG, S.J. - PASKALEVA, A. - BAUER, A.J. - FREY, L. - FRÖHLICH, Karol - AARIK, J. - HWANG, C.S. Nanoscale characterization of TiO<sub>2</sub> films grown by atomic layer deposition on RuO<sub>2</sub> electrodes. In *ACS Applied Materials & Interfaces*, 2014, vol. 6, p. 2486. (2013: 5.900 - IF, Q1 - JCR, 1.979 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 1944-8244. Dostupné na: <https://doi.org/10.1021/am4049139>
- Citácie:
- [1.1] *MIQUELOT, A. - YOUSSEF, L. - VILLENEUVE-FAURE, C. - PRUD'HOME, N. - DRAGOE, N. - NADA, A. - ROUESSAC, V. - ROUALDES, S. - BASSIL, J. - ZAKHOUR, M. - NAKHL, M. - VAHLAS, C. In- and out-plane transport properties of chemical vapor deposited TiO<sub>2</sub> anatase films. In JOURNAL OF MATERIALS SCIENCE. ISSN 0022-2461, JUN 2021, vol. 56, no. 17, p. 10458-10476., Registrované v: WOS*

2. [1.1] MITRONIKA, M. - VILLENEUVE-FAURE, C. - MASSOL, F. - BOUDOU, L. - RAVISY, W. - BESLAND, M.P. - GOULLET, A. - RICHARD-POUET, M. *TiO<sub>2</sub>-SiO<sub>2</sub> mixed oxide deposited by low pressure PECVD: Insights on optical and nanoscale electrical properties.* In *APPLIED SURFACE SCIENCE*. ISSN 0169-4332, MAR 1 2021, vol. 541., Registrované v: WOS
  3. [1.1] RUIZ, A. - CLARAMUNT, S. - CRESPO-YEPES, A. - PORTI, M. - NAFRIA, M. - XU, H. - LIU, C. - WU, Q. *Exploiting the KPFM capabilities to analyze at the nanoscale the impact of electrical stresses on OTFTs properties.* In *SOLID-STATE ELECTRONICS*. ISSN 0038-1101, DEC 2021, vol. 186., Registrované v: WOS
  4. [1.1] RUIZ, A. - COUSO, C. - SEOANE, N. - PORTI, M. - GARCIA-LOUREIRO, A.J. - NAFRIA, M. *Methodology for the Simulation of the Variability of MOSFETs With Polycrystalline High-k Dielectrics Using CAFM Input Data.* In *IEEE ACCESS*. ISSN 2169-3536, 2021, vol. 9, p. 90568-90576., Registrované v: WOS
- ADCA377 MURPHY, J. - MULLINS, J.M. - BARNES, P.N. - HAUGAN, T.J. - LEVIN, G.A. - MAJOROŠ, Milan - SUMPTION, M.D. - COLLINGS, E.W. - POLÁK, Milan - MOZOLA, Pavol. Experiment setup for calorimetric measurements of losses in HTS coils due to AC current and external magnetic fields. In *IEEE Transactions on Applied Superconductivity*, 2013, vol. 23, p. 4701505. (2012: 1.199 - IF, Q2 - JCR, 0.575 - SJR, karentované - CCC). (2013 - Current Contents, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2013.2237939>  
Citácie:  
1. [1.1] ZHANG, Hongye - WEN, Zezhao - GRILLI, Francesco - GYFTAKIS, Konstantinos - MUELLER, Markus. *Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines.* In *ENERGIES*, 2021, vol. 14, no. 8, pp. Dostupné na: <https://doi.org/10.3390/en14082234>., Registrované v: WOS
- ADCA378 NAGASAKI, Y.\*\* - SOLOVYOV, Mykola - GÖMÖRY, Fedor. Experimental and numerical investigation of shielding performance of superconducting magnetic shields using coated conductor tapes. In *IEEE Transactions on Applied Superconductivity*, 2018, vol. 28, no. 6601905. (2017: 1.288 - IF, Q3 - JCR, 0.408 - SJR, Q2 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2018.2808374>  
Citácie:  
1. [1.2] SUN, Yening - WEI, Yao - TIAN, Yi. *Phenomenon analysis and improvement of magnetic shield fringe effect on wireless power transmission of EV.* In *World Electric Vehicle Journal*, 2021-12-01, 12, 4, pp. ISSN 20326653. Dostupné na: <https://doi.org/10.3390/wevj12040252>., Registrované v: SCOPUS
- ADCA379 NEILINGER, Pavol\*\* - ŠČEPKA, Tomáš - MRUCZKIEWICZ, Michal - DÉRER, Ján - MANCA, Daniel - DOBROČKA, Edmund - SAMARDAK, A.S. - GRAJCAR, Miroslav - CAMBEL, Vladimír. Ferromagnetic resonance study of sputtered Pt/Co/Pt multilayers. In *Applied Surface Science*, 2018, vol. 461, p. 202-205. (2017: 4.439 - IF, Q1 - JCR, 1.093 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2018.06.172>  
Citácie:  
1. [1.1] FATTOUHI, M. - MAK, K.Y. - ZHOU, Y. - ZHANG, X.C. - LIU, X.X. - EL HAFIDI, M. *Logic Gates Based on Synthetic Antiferromagnetic Bilayer Skyrmions.* In *PHYSICAL REVIEW APPLIED*. ISSN 2331-7019, JUL 15 2021, vol. 16, no. 1, 014040., Registrované v: WOS
- ADCA380 NEMČEK, L.\*\* - ŠEBESTA, M. - URÍK, Martin - BUJDOŠ, M. - DOBROČKA,

Edmund - VÁVRA, Ivo. Impact of bulk ZnO, ZnO nanoparticles and dissolved Zn on early growth stages of barley—a pot experiment. In *Plants*, 2020, vol. 9, no. 1365. (2019: 2.762 - IF, Q1 - JCR, 0.877 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 2223-7747. Dostupné na: <https://doi.org/10.3390/plants9101365>

Citácie:

1. [1.1] ELSHOKY, H.A. - YOTSOVA, E. - FARGHALI, M.A. - FARROH, K.Y. - EL-SAYED, K. - ELZORKANY, H.E. - RASHKOV, G. - DOBRIKOVA, A. - BORISOVA, P. - STEFANOV, M. - ALI, M.A. - APOSTOLOVA, E. Impact of foliar spray of zinc oxide nanoparticles on the photosynthesis of *Pisum sativum* L. under salt stress. In *PLANT PHYSIOLOGY AND BIOCHEMISTRY*. ISSN 0981-9428, OCT 2021, vol. 167, p. 607-618., Registrované v: WOS
2. [1.1] FARADILLA, P. - SETIYANTO, H. - MANURUNG, R.V. - SARASWATY, V. Electrochemical sensor based on screen printed carbon electrode-zinc oxide nano particles/molecularly imprinted-polymer (SPCE-ZnONPs/MIP) for detection of sodium dodecyl sulfate (SDS). In *RSC ADVANCES*. DEC 22 2021, vol. 12, no. 2, p. 743-752., Registrované v: WOS
3. [1.1] KONG, I.C. - KO, K.S. - KOH, D.C. Comparisons of the Effect of Different Metal Oxide Nanoparticles on the Root and Shoot Growth under Shaking and Non-Shaking Incubation, Different Plants, and Binary Mixture Conditions. In *NANOMATERIALS*. JUL 2021, vol. 11, no. 7., Registrované v: WOS
4. [1.1] PRATO, E. - FABBROCINI, A. - LIBRALATO, G. - MIGLIORE, L. - PARLAPIANO, I. - D'ADAMO, R. - ROTINI, A. - MANFRA, L. - LOFRANO, G. - CARRATURO, F. - TRIFUOGGI, M. - BIANCOLINO, F. Comparative toxicity of ionic and nanoparticulate zinc in the species *Cymodoce truncata*, *Gammarus aequicauda* and *Paracentrotus lividus*. In *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH*. ISSN 0944-1344, AUG 2021, vol. 28, no. 31, p. 42891-42900., Registrované v: WOS
5. [1.1] RAJPUT, V.D. - MINKINA, T. - FEDORENKO, A. - CHERNIKOVA, N. - HASSAN, T. - MANDZHIEVA, S. - SUSHKOVA, S. - LYSENKO, V. - SOLDATOV, M.A. - BURACHEVSKAYA, M. Effects of Zinc Oxide Nanoparticles on Physiological and Anatomical Indices in Spring Barley Tissues. In *NANOMATERIALS*. JUL 2021, vol. 11, no. 7., Registrované v: WOS
6. [1.1] RUIZ-TORRES, N. - FLORES-NAVEDA, A. - BARRIGA-CASTRO, E.D. - CAMPOSECO-MONTEJO, N. - RAMIREZ-BARRON, S. - BORREGO-ESCALANTE, F. - NINO-MEDINA, G. - HERNANDEZ-JUAREZ, A. - GARZA-ALONSO, C. - RODRIGUEZ-SALINAS, P. - GARCIA-LOPEZ, J.I. Zinc Oxide Nanoparticles and Zinc Sulfate Impact Physiological Parameters and Boosts Lipid Peroxidation in Soil Grown Coriander Plants (*Coriandrum sativum*). In *MOLECULES*. APR 2021, vol. 26, no. 7., Registrované v: WOS

ADCA381 NIU, G.\*\* - CALKA, P. - HUANG, P. - SHARATH, S.U. - PETZOLD, S. - GLOSKOVSKII, A. - FRÖHLICH, Karol - ZHAO, Yunpeng - KANG, J. - SCHUBERT, M.A. - BÄRWOLF, F. - REN, W. - YE, Z.-G. - PEREZ, E. - WENGER, C. - ALFF, L. - SCHROEDER, T.\*\*. Operando diagnostic detection of interfacial oxygen 'breathing' of resistive random access memory by bulk-sensitive hard X-ray photoelectron spectroscopy. In *Materials Research Letters*, 2019, vol. 7, p. 117-123. (2018: 7.440 - IF, Q1 - JCR, 2.627 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 2166-3831. Dostupné na: <https://doi.org/10.1080/21663831.2018.1561535>

Citácie:

1. [1.1] DITTMANN, Regina - MENZEL, Stephan - WASER, Rainer. Nanoionic

- memristive phenomena in metal oxides: the valence change mechanism. In ADVANCES IN PHYSICS, 2021, vol. 70, no. 2, pp. 155-349. ISSN 0001-8732. Dostupné na: <https://doi.org/10.1080/00018732.2022.2084006>., Registrované v: WOS*
2. [1.1] GADDAM, Venkateswarlu - DAS, Dipjyoti - JEON, Sanghun. Insertion of HfO<sub>2</sub> Seed/Dielectric Layer to the Ferroelectric HZO Films for Heightened Remanent Polarization in MFM Capacitors. In IEEE TRANSACTIONS ON ELECTRON DEVICES, 2020, vol. 67, no. 2, pp. 745-750. ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2019.2961208>., Registrované v: WOS
3. [1.1] KIM, Jin-Ju - YOON, So-Jung - KIM, Yeriaron - MOON, Seung-Eon - YOON, Sung-Min. Device Feasibility of Ferroelectric Field-Effect Transistors Using Al-Doped HfO<sub>2</sub> Gate Insulator Deposited with H<sub>2</sub>O Oxygen Precursor during Atomic Layer Deposition Process. In PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE, 2021, vol. 218, no. 10, pp. ISSN 1862-6300. Dostupné na: <https://doi.org/10.1002/pssa.202100006>., Registrované v: WOS
- ADCA382 NOVÁK, Jozef - LAURENČÍKOVÁ, Agáta - VÁVRA, Ivo - HASENÖHRL, Stanislav - REIFFERS, Marián. Magnetic properties of InMnAs nanodots prepared by MOVPE. In Journal of Magnetism and Magnetic Materials, 2013, vol. 327, p. 20-23. (2012: 1.826 - IF, Q2 - JCR, 0.928 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0304-8853. Dostupné na: <https://doi.org/10.1016/j.jmmm.2012.09.041>  
Citácie:  
1. [1.2] SANYGIN, V. P. - PASHKOVA, O. N. - IZOTOV, A. D. Structure and chemical composition of grain boundaries in the magnetic semiconductor GaSb<math>\text{Mn}</math>; In Kondensirovannye Sredy Mezhfaznye Granitsy. ISSN 1606867X, 2021-01-01, 23, 3, pp. 413-420. Dostupné na: <https://doi.org/10.17308/kcmf.2021.23/3533>., Registrované v: SCOPUS
- ADCA383 NURGALIEV, T. - ŠTRBÍK, Vladimír - MITEVA, S. - BLAGOEV, B. - MATEEV, E. - NESHKOV, L. - BEŇAČKA, Štefan - CHROMIK, Štefan. Electrical characteristics of HTS/manganite double layers. In Central European Journal of Physics, 2007, vol. 5, p. 637-649. (2006: 0.811 - IF, Q3 - JCR, karentované - CCC). (2007 - Current Contents, WOS, SCOPUS). Dostupné na: <https://doi.org/10.2478/s11534-007-0036-3>  
Citácie:  
1. [1.1] USPENSKAYA, L. S. Kinetics of Magnetization Reversal in Superconductor-Ferromagnet Heterostructures in Longitudinal and Perpendicular Magnetic Fields. In JOURNAL OF SURFACE INVESTIGATION, 2021, vol. 15, no. 6, pp. 1159-1164. ISSN 1027-4510. Dostupné na: <https://doi.org/10.1134/S1027451021060227>., Registrované v: WOS
- ADCA384 NURGALIEV, T.\*\* - ŠTRBÍK, Vladimír - GÁL, Norbert - CHROMIK, Štefan - SOJKOVÁ, Michaela. Electrical transport effects in YBCO/LSMO bilayer junctions. In Physica B: Condensed Matter, 2018, vol. 550, p. 324-331. (2017: 1.453 - IF, Q3 - JCR, 0.417 - SJR, Q2 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0921-4526. Dostupné na: <https://doi.org/10.1016/j.physb.2018.09.021> (APVV 16-0315. VEGA 2/0117/18)  
Citácie:  
1. [1.1] BGHOUR, Mustapha - LABRAG, Abdelaziz - EL HAMIDI, Habiba - ABOU EL HASSAN, Ahmed - TAOUFIK, Ahmed. Magnetoresistance investigation in the mixed state of a high temperature superconductor. In EUROPEAN PHYSICAL JOURNAL-APPLIED PHYSICS, 2021, vol. 93, no. 1, pp. ISSN 1286-0042. Dostupné na: <https://doi.org/10.1051/epjap/2020200222>.,



*Registrované v: WOS*

- ADCA385 OGNEV, A.V. - KOLESNIKOV, A.G. - KIM, Y. J. - CHA, I.H. - SADOVNIKOV, A.V. - NIKITOV, S.A. - SOLDATOV, I.V. - TALAPATRA, A. - MOHANTY, J. - MRUCZKIEWICZ, Michal - GE, Y. - KERBER, N. - DITTRICH, F. - VIRNAU, P. - KLÄUI, M. - KIM, Y.K.\*\* - SAMARDAK, A.S.\*\*. Magnetic direct-write skyrmion nanolithography. In ACS Nano, 2020, vol. 14, p. 14960–14970. (2019: 14.588 - IF, Q1 - JCR, 6.131 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 1936-0851. Dostupné na: <https://doi.org/10.1021/acsnano.0c04748>
- Citácie:
1. [1.1] STENNING, K.D. - GARTSIDE, J.C. - DION, T. - VANSTONE, A. - ARROO, D.M. - BRANFORD, W.R. Magnonic Bending, Phase Shifting and Interferometry in a 2D Reconfigurable Nanodisk Crystal. In ACS NANO. ISSN 1936-0851, JAN 26 2021, vol. 15, no. 1, p. 674-685., *Registrované v: WOS*
- ADCA386 OSTERMAIER, C. - POZZOVIVO, G. - CARLIN, J.-F. - BASNAR, B. - SCHRENK, W. - DOUVRY, Y. - GAQUIERE, C. - ČIČO, Karol - FRÖHLICH, Karol - GONSCHOREK, M. - GRANDJEAN, N. - STRASSER, G. - POGANY, D. - KUZMÍK, Ján. Ultrathin InAlN/AlN barrier HEMT with high performance in normally off operation. In IEEE Electron Devices Letters, 2009, vol. 30, p. 1030-1032. (2008: 3.049 - IF, Q1 - JCR, 2.379 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents). ISSN 0741-3106.
- Citácie:
1. [1.1] FUKUDA, K. - HATTORI, J. - ASAI, H. - YAITA, J. - KOTANI, J. A Poisson-Schrodinger and cellular automaton coupled approach for two-dimensional electron gas transport modeling of GaN-based high mobility electron transistors. In JAPANESE JOURNAL OF APPLIED PHYSICS. ISSN 0021-4922, MAY 1 2021, vol. 60, no. SB., *Registrované v: WOS*
2. [1.1] HSU, L.H. - LAI, Y.Y. - TU, P.T. - LANGPOKLAKPAM, C. - CHANG, Y.T. - HUANG, Y.W. - LEE, W.C. - TZOU, A.J. - CHENG, Y.J. - LIN, C.H. - KUO, H.C. - CHANG, E.Y. Development of GaN HEMTs Fabricated on Silicon, Silicon-on-Insulator, and Engineered Substrates and the Heterogeneous Integration. In MICROMACHINES. OCT 2021, vol. 12, no. 10., *Registrované v: WOS*
3. [1.1] MAZUMDER, S. - WU, Z.G. - PAN, P.C. - LI, S.H. - WANG, Y.H. DC performance improvement of nanochannel AlGaIn/AlN/GaN HEMTs with reduced OFF-state leakage current by post-gate annealing modulation. In SEMICONDUCTOR SCIENCE AND TECHNOLOGY. ISSN 0268-1242, SEP 2021, vol. 36, no. 9., *Registrované v: WOS*
4. [1.1] ODA, O. - HORI, M. Novel Epitaxy for Nitride Semiconductors Using Plasma Technology. In PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE. ISSN 1862-6300, JAN 2021, vol. 218, no. 1, SI., *Registrované v: WOS*
5. [1.1] TOPRAK, A. - YILMAZ, D. - OZBAY, E. Selectively dry etched of p-GaN/InAlN heterostructures using BCl<sub>3</sub>-based plasma for normally-off HEMT technology. In MATERIALS RESEARCH EXPRESS. DEC 2021, vol. 8, no. 12., *Registrované v: WOS*
- ADCA387 OSTERMAIER, C. - POZZOVIVO, G. - BASNAR, B. - SCHRENK, W. - SCHMID, M. - TÓTH, L. - PÉCZ, B. - CARLIN, J.-F. - GONSCHOREK, M. - GRANDJEAN, N. - STRASSER, G. - POGANY, D. - KUZMÍK, Ján. Metal-related gate sinking due to interfacial oxygen layer in Ir/InAlN high electron mobility transistors. In Applied Physics Letters, 2010, vol. 96, 263515. (2009: 3.554 - IF, 2.826 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, SCOPUS). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.3458700>
- Citácie:

1. [1.1] EISNER, S.R. - ALPERT, H.S. - CHAPIN, C.A. - YALAMARTHY, A.S. - SATTERTHWAITE, P.F. - NASIRI, A. - PORT, S. - ANG, S. - SENESKY, D.G. *Extended Exposure of Gallium Nitride Heterostructure Devices to a Simulated Venus Environment. In 2021 IEEE AEROSPACE CONFERENCE (AEROCONF 2021). ISSN 1095-323X, 2021., Registrované v: WOS*
- ADCA388 OSTERMAIER, C. - POZZOVIVO, G. - BASNAR, B. - SCHRENK, W. - CARLIN, J.-F. - GONSCHOREK, M. - GRANDJEAN, N. - VINCZE, A. - TÓTH, L. - PÉCZ, B. - STRASSER, G. - POGANY, D. - KUZMÍK, Ján. Characterization of plasma-induced damage of selectively recessed GaN/InAlN/AlN/GaN heterostructures using SiCl<sub>4</sub> and SF<sub>6</sub>. In Japanese Journal of Applied Physics, 2010, vol. 49, 116506. (2009: 1.138 - IF, Q3 - JCR, 0.488 - SJR, Q1 - SJR). ISSN 0021-4922. Dostupné na: <https://doi.org/10.1143/JJAP.49.116506>
- Citácie:
1. [1.1] TOPRAK, A. - YILMAZ, D. - OZBAY, E. *Selectively dry etched of p-GaN/InAlN heterostructures using BCl<sub>3</sub>-based plasma for normally-off HEMT technology. In MATERIALS RESEARCH EXPRESS. DEC 2021, vol. 8, no. 12., Registrované v: WOS*
- ADCA389 OSVALD, Jozef. Temperature dependence of barrier height parameters of inhomogeneous Schottky diodes. In Microelectronic Engineering, 2009, vol. 86, p. 117-120. (2008: 1.583 - IF, Q2 - JCR, 1.027 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents). ISSN 0167-9317.
- Citácie:
1. [1.1] BILGILI, Ahmet Kursat - OZTURK, Mustafa Kemal - OZCELIK, Suleyman - OZER, Metin. TiO<sub>2</sub> Interface Instead of SiO<sub>2</sub> in Terms of Dielectric Coefficient. In BRAZILIAN JOURNAL OF PHYSICS, 2021, vol. 51, no. 3, pp. 527-531. ISSN 0103-9733. Dostupné na: <https://doi.org/10.1007/s13538-020-00831-1>, Registrované v: WOS
  2. [1.1] CALDIRAN, Zakir. Modification of Schottky barrier height using an inorganic compound interface layer for various contact metals in the metal/p-Si device structure. In JOURNAL OF ALLOYS AND COMPOUNDS, 2021, vol. 865, no., pp. ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2021.158856>, Registrované v: WOS
  3. [1.1] KIM, Hogyoung - LEE, Ha Young - CHOI, Byung Joon. Barrier inhomogeneity and leakage current transport mechanism in vertical Pt/Gd<sub>2</sub>O<sub>3</sub>/GaN Schottky diodes. In APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, 2021, vol. 127, no. 9, pp. ISSN 0947-8396. Dostupné na: <https://doi.org/10.1007/s00339-021-04799-w>, Registrované v: WOS
  4. [1.1] LI, Shanjie - HE, Zhiyuan - GAO, Rui - CHEN, Yiqiang - CHEN, Yuan - LIU, Chang - HUANG, Yun - LI, Guoqiang. Time-Dependent Threshold Voltage Instability Mechanisms of p-GaN Gate AlGaIn/GaN HEMTs Under High Reverse Bias Conditions. In IEEE TRANSACTIONS ON ELECTRON DEVICES, 2021, vol. 68, no. 1, pp. 443-446. ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2020.3039766>, Registrované v: WOS
  5. [1.1] MONDAL, Sanjib - GHOSH, Anupam - DWIVEDI, Shyam Murli Manohar Dhar - DALAL, Avijit - MONDAL, Aniruddha. Detailed experimental and theoretical analysis of the high-temperature current conduction properties of Er-doped TiO<sub>2</sub> thin film based diodes. In MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, 2021, vol. 130, no., pp. ISSN 1369-8001. Dostupné na: <https://doi.org/10.1016/j.mssp.2021.105834>, Registrované v: WOS
- ADCA390 OSVALD, Jozef. Influence of AlGaIn/GaN heterojunction parameters on its capacitance-voltage characteristics. In Journal of Applied Physics, 2009, vol. 106, no. 013708. (2008: 2.201 - IF, Q1 - JCR, 1.644 - SJR, Q1 - SJR, karentované -



CCC). (2009 - Current Contents, WOS, SCOPUS). ISSN 0021-8979.

Citácie:

1. [1.1] PANDIT, Bhishma - KIM, Jaeho - CHO, Jaehee. Determination of Schottky barrier height of graphene electrode on AlGaIn/GaN heterostructure. In *AIP ADVANCES*, 2021, vol. 11, no. 4, pp. Dostupné na: <https://doi.org/10.1063/5.0043981>, Registrované v: WOS

ADCA391 OSVALD, Jozef. Intersecting behaviour of nanoscale Schottky diodes I-V curves. In *Solid State Communications : an international journal*, 2006, vol. 138, p. 39-42. (2005: 1.489 - IF, Q2 - JCR, 1.114 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 0038-1098.

Citácie:

1. [1.1] AMIRI, Pari - ALTINDAL, Semsettin. On a numerical simulation of current-voltage features in wide range of temperature in metal/silicon Schottky diodes. In *JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS*, 2021, vol. 23, no. 11-12, pp. 605-611. ISSN 1454-4164., Registrované v: WOS  
2. [1.1] JABBARI, I - BAIRA, M. - MAAREF, H. - MGHAIETH, R. Schottky barrier inhomogeneity in (Pd / Au) Al<sub>0.22</sub> Ga<sub>0.78</sub>N/ GaN/SiC HEMT: Triple Gaussian distributions. In *CHINESE JOURNAL OF PHYSICS*, 2021, vol. 73, no., pp. 719-731. ISSN 0577-9073. Dostupné na: <https://doi.org/10.1016/j.cjph.2021.08.011>, Registrované v: WOS

ADCA392 OSVALD, Jozef. Series resistance influence on intersecting behaviour of inhomogeneous Schottky diodes I-V curves. In *Solid-State Electronics*, 2006, vol. 50, p. 228-231. (2005: 1.247 - IF, Q2 - JCR, 0.935 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents). ISSN 0038-1101.

Citácie:

1. [1.1] OZDEMIR, M. C. - SEVGILI, O. - ORAK, I - TURUT, A. Determining the potential barrier presented by the interfacial layer from the temperature induced I-V characteristics in Al/p-Si Structure with native oxide layer. In *MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING*, 2021, vol. 125, no., pp. ISSN 1369-8001. Dostupné na: <https://doi.org/10.1016/j.mssp.2020.105629>, Registrované v: WOS

ADCA393 OSVALD, Jozef. Influence of lateral current spreading on the apparent barrier parameters of inhomogeneous Schottky diodes. In *Journal of Applied Physics*, 2006, vol. 99, p. 033708. (2005: 2.498 - IF, Q1 - JCR, 2.055 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 0021-8979.

Citácie:

1. [1.1] AMIRI, Pari - ALTINDAL, Semsettin. On a numerical simulation of current-voltage features in wide range of temperature in metal/silicon Schottky diodes. In *JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS*, 2021, vol. 23, no. 11-12, pp. 605-611. ISSN 1454-4164., Registrované v: WOS  
2. [1.1] POLAT, O. - COSKUN, M. - EFEOGLU, H. - CAGLAR, M. - COSKUN, F. M. - CAGLAR, Y. - TURUT, A. The temperature induced current transport characteristics in the orthoferrite YbFeO<sub>3</sub>-delta thin film/p-type Si structure. In *JOURNAL OF PHYSICS-CONDENSED MATTER*, 2021, vol. 33, no. 3, pp. ISSN 0953-8984. Dostupné na: <https://doi.org/10.1088/1361-648X/abba69>, Registrované v: WOS  
3. [1.1] SPLITH, Daniel - MUELLER, Stefan - VON WENCKSTERN, Holger - GRUNDMANN, Marius. Numerical Modeling of Schottky Barrier Diode Characteristics. In *PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE*, 2021, vol. 218, no. 12, pp. ISSN 1862-6300. Dostupné na: <https://doi.org/10.1002/pssa.202100121>, Registrované v: WOS

ADCA394 OSVALD, Jozef - KUZMÍK, Ján - KONSTANTINIDIS, G. - LOBOTKA, Peter -

GEORGAKILAS, A. Temperature dependence of GaN Schottky diodes I-V characteristics. In *Microelectronic Engineering*, 2005, vol. 81, p. 181-187. ISSN 0167-9317.

Citácie:

1. [1.1] AHMED, N. - KHAN, A. - HUSSAIN, M. Numerical analysis of transport properties of ZnO based Schottky diode. In *PHYSICA SCRIPTA*. ISSN 0031-8949, JUN 2021, vol. 96, no. 6., Registrované v: WOS
2. [1.1] HELAL, H. - BENAMARA, Z. - BEN ARBIA, M. - RABEHI, A. - CHAOUICHE, A.C. - MAAREF, H. Electrical behavior of n-GaAs based Schottky diode for different contacts: Temperature dependence of current-voltage. In *INTERNATIONAL JOURNAL OF NUMERICAL MODELLING-ELECTRONIC NETWORKS DEVICES AND FIELDS*. ISSN 0894-3370, NOV 2021, vol. 34, no. 6, SI., Registrované v: WOS
3. [1.1] JADHAV, A. - DAI, Y.J. - UPADHYAY, P. - GUO, W. - SARKAR, B. Role of Interface Induced Gap States in Polar Al<sub>x</sub>Ga<sub>1-x</sub>N (0 ≤ x ≤ 1) Schottky Diodes. In *JOURNAL OF ELECTRONIC MATERIALS*. ISSN 0361-5235, JUN 2021, vol. 50, no. 6, SI, p. 3731-3738., Registrované v: WOS
4. [1.1] KHACHARIYA, D. - SZYMANSKI, D. - BRECKENRIDGE, M.H. - REDDY, P. - KOHN, E. - SITAR, Z. - COLLAZO, R. - PAVLIDIS, S. On the characteristics of N-polar GaN Schottky barrier contacts with LPCVD SiN interlayers. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, MAR 22 2021, vol. 118, no. 12., Registrované v: WOS

ADCA395 OSVALD, Jozef. Polarization effects and energy band diagram in AlGaIn/GaN heterostructures. In *Applied Physics A - Materials Science & Processing*, 2007, vol. 87, p. 679-682. (2006: 1.739 - IF, Q1 - JCR, 1.301 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents). ISSN 0947-8396.

Citácie:

1. [1.2] SHARMA, Niketa - GUPTA, Yogendra - SHARMA, Ashish - SHARMA, Harish. Thermal Modeling of the GaN HEMT Device Using Decision Tree Machine Learning Technique. In *Lecture Notes in Networks and Systems*. ISSN 23673370, 2021-01-01, 204, pp. 13-20. Dostupné na: [https://doi.org/10.1007/978-981-16-1089-9\\_2](https://doi.org/10.1007/978-981-16-1089-9_2)., Registrované v: SCOPUS

ADCA396 OSVALD, Jozef - HRICOVÍNI, K. - LE LAY, G. - ARISTOV, V.Y. Pb/Si(111)1x1-H Schottky barrier height. In *Fizika A*, 1995, vol. 4, p. 191-197.

Citácie:

1. [1.1] THEBE, M.J. - MOLOI, S.J. - MSIMANGA, M. Changes in electrical properties and conduction mechanisms of Pd/n-Si diodes due to niobium dopant. In *MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS*. ISSN 0921-5107, NOV 2021, vol. 273., Registrované v: WOS

ADCA397 OSVALD, Jozef - HORVÁTH, Zs.J. Theoretical study of the temperature dependence of electrical characteristics of Schottky diodes with an inverse near-surface layer. In *Applied Surface Science*, 2004, vol. 234, p. 349-354. ISSN 0169-4332.

Citácie:

1. [1.1] AMIRI, Pari - ALTINDAL, Semsettin. On a numerical simulation of current-voltage features in wide range of temperature in metal/silicon Schottky diodes. In *JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS*, 2021, vol. 23, no. 11-12, pp. 605-611. ISSN 1454-4164., Registrované v: WOS
2. [1.1] BISWAS, Animesh - SIL, Sayantan - DEY, Arka - DATTA, Joydeep - DAS, Dhananjay - RAY, Partha Pratim. Investigation of conduction kinetics in Al/CuInSe<sub>2</sub> Schottky device utilizing impedance spectroscopy (IS) measurement

and study of its photosensing behaviour. In JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS, 2021, vol. 150, no., pp. ISSN 0022-3697. Dostupné na: <https://doi.org/10.1016/j.jpcs.2020.109878>., Registrované v: WOS

3. [1.1] EJDERHA, Kadir - TURUT, Abdulmecit. Dependence of Electrical Properties of Ni/n-GaP/Al Schottky Contacts on Measurement Temperature and Thermal Annealing. In JOURNAL OF ELECTRONIC MATERIALS, 2021, vol. 50, no. 12, pp. 6741-6747. ISSN 0361-5235. Dostupné na:

<https://doi.org/10.1007/s11664-021-08983-9>., Registrované v: WOS

4. [1.1] HELAL, Hicham - BENAMARA, Zineb - WEDERNI, Mouhamed Amine - MOURAD, Sabrine - KHIROUNI, Kamel - MONIER, Guillaume - ROBERT-GOUMET, Christine - RABEHI, Abdelaziz - HATEM KACHA, Arslane - BAKKALI, Hicham - GONTARD, Lionel C. - DOMINGUEZ, Manuel. Conduction Mechanisms in Au/0.8 nm-GaN/n-GaAs Schottky Contacts in a Wide Temperature Range. In MATERIALS, 2021, vol. 14, no. 20, pp. Dostupné na:

<https://doi.org/10.3390/ma14205909>., Registrované v: WOS

5. [1.1] KACUS, Hatice - AYDOGAN, Sakir - INCEKARA, Umit - YILMAZ, Mehmet - BIBER, Mehmet. On thermal and optical sensor applications of chitosan molecule in the Co/Chitosan/p-Si hybrid heterojunction design. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, 2021, vol. 32, no. 5, pp. 6586-6597. ISSN 0957-4522. Dostupné na:

<https://doi.org/10.1007/s10854-021-05374-y>., Registrované v: WOS

6. [1.1] SEVGILI, Omer - ORAK, Ikram. The investigation of current condition mechanism of Al/Y2O3/p-Si Schottky barrier diodes in wide range temperature and illuminate. In MICROELECTRONICS RELIABILITY, 2021, vol. 117, no., pp. ISSN 0026-2714. Dostupné na: <https://doi.org/10.1016/j.microrel.2021.114040>., Registrované v: WOS

7. [1.1] SEVGILI, Omer. On the examination of temperature-dependent possible current-conduction mechanisms of Au/(nanocarbon-PVP)/n-Si Schottky barrier diodes in wide range of voltage. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, 2021, vol. 32, no. 8, pp. 10112-10122. ISSN 0957-4522. Dostupné na: <https://doi.org/10.1007/s10854-021-05669-0>., Registrované v: WOS

8. [1.1] TURUT, Abdulmecit - KARABULUT, Abdulkirim - EFEOGLU, Hasan. Effect of the Al2O3 interfacial layer thickness on the measurement temperature-induced I-V characteristics in Au/Ti/Al2O3/n-GaAs structures. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, 2021, vol. 32, no. 17, pp. 22680-22688. ISSN 0957-4522. Dostupné na: <https://doi.org/10.1007/s10854-021-06753-1>., Registrované v: WOS

ADCA398 OSVALD, Jozef. Self-consistent analysis of Si  $\delta$ -doped layer placed in a non-central position in GaAs structure. In Physica E, 2004, vol. 23, p. 147-151.

Citácie:

1. [1.1] RODRIGUEZ-MAGDALENO, K. A. - TURKOGLU, A. - UNGAN, F. - MORA-RAMOS, M. E. - MARTINEZ-OROZCO, J. C. Donor impurity atom effect on the inter-subband absorption coefficient for symmetric double n-type delta-doped GaAs quantum well. In SUPERLATTICES AND MICROSTRUCTURES, 2021, vol. 156, no., pp. ISSN 0749-6036. Dostupné na:

<https://doi.org/10.1016/j.spmi.2021.106988>., Registrované v: WOS

ADCA399 OSVALD, Jozef. New aspects of the temperature dependence of the current in inhomogeneous Schottky diodes. In Semiconductor Science and Technology, 2003, vol. 18, p. L24-L26. ISSN 0268-1242.

Citácie:

1. [1.1] OZDEMIR, M. C. - SEVGILI, O. - ORAK, I - TURUT, A. Determining the

*potential barrier presented by the interfacial layer from the temperature induced I-V characteristics in Al/p-Si Structure with native oxide layer. In MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, 2021, vol. 125, no., pp. ISSN 1369-8001. Dostupné na: <https://doi.org/10.1016/j.mssp.2020.105629>, Registrované v: WOS*

2. [1.1] SPLITH, Daniel - MUELLER, Stefan - VON WENCKSTERN, Holger - GRUNDMANN, Marius. Numerical Modeling of Schottky Barrier Diode Characteristics. In PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE, 2021, vol. 218, no. 12, pp. ISSN 1862-6300. Dostupné na: <https://doi.org/10.1002/pssa.202100121>, Registrované v: WOS

ADCA400 OSVALD, Jozef - DOBROČKA, Edmund. Generalized approach to the parameter extraction from Schottky diodes I-V characteristics. In Semiconductor Science and Technology, 1996, vol. 11, p. 1198-1202. (1996 - Current Contents). ISSN 0268-1242.

Citácie:

1. [1.1] FILALI, W. - AMRANI, R. - GAROUDJA, E. - OUSSALAH, S. - LEKOU, F. - OUKERIMI, Z. - SENGOUA, N. - HENINI, M. Optimal identification of Be-doped Al<sub>0.29</sub>Ga<sub>0.71</sub>As Schottky diode parameters using Dragonfly Algorithm: A thermal effect study. In SUPERLATTICES AND MICROSTRUCTURES. ISSN 0749-6036, DEC 2021, vol. 160., Registrované v: WOS

2. [1.1] SKACHKOV, D. - LIU, S.L. - WANG, Y. - ZHANG, X.G. - CHENG, H.P. First-principles theory for Schottky barrier physics. In PHYSICAL REVIEW B. ISSN 2469-9950, JUL 27 2021, vol. 104, no. 4., Registrované v: WOS

3. [1.1] TOUMI, S. - OUENNOUGH, Z. - WEISS, R. Temperature analysis of the Gaussian distribution modeling the barrier height inhomogeneity in the Tungsten/4H-SiC Schottky diode. In APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING. ISSN 0947-8396, SEP 2021, vol. 127, no. 9., Registrované v: WOS

ADCA401 OSVALD, Jozef. On the barrier height inhomogeneities at polycrystalline metal semiconductor contacts. In Solid State Electronics, 1992, vol. 35, p. 1629.

Citácie:

1. [1.1] GULNAHAR, M. - NASSER, H. - SALIMI, A. - TURAN, R. On the electrical and charge conduction properties of thermally evaporated MoO<sub>x</sub> on n- and p-type crystalline silicon. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS. ISSN 0957-4522, JAN 2021, vol. 32, no. 1, p. 1092-1104., Registrované v: WOS

ADCA402 OSVALD, Jozef. Numerical study of electrical transport in inhomogeneous Schottky diodes. In Journal of Applied Physics, 1999, vol. 85, p. 1935-1942. (1998: 1.729 - IF, karentované - CCC). (1999 - Current Contents, WOS, SCOPUS). ISSN 0021-8979.

Citácie:

1. [1.1] HE, Liang - NI, Yiqiang - LI, Liuan - HE, Zhiyuan - LI, Xiaobo - PU, Tao-Fei - AO, Jinping. Effect of geometry on the sensing mechanism of GaN Schottky barrier diode temperature sensor. In IEICE ELECTRONICS EXPRESS, 2021, vol. 18, no. 19, pp. ISSN 1349-2543. Dostupné na: <https://doi.org/10.1587/elex.18.20210332>, Registrované v: WOS

2. [1.1] LIU, Da-Ping - LI, Xiao-Bo - PU, Tao-Fei - LI, Liu-An - CHENG, Shao-Heng - WANG, Qi-Liang. Vertical GaN Schottky barrier diode with thermally stable TiN anode\*. In CHINESE PHYSICS B, 2021, vol. 30, no. 3, pp. ISSN 1674-1056. Dostupné na: <https://doi.org/10.1088/1674-1056/abc547>, Registrované v: WOS

3. [1.1] OZDEMIR, M. C. - SEVGILI, O. - ORAK, I - TURUT, A. Determining the



*potential barrier presented by the interfacial layer from the temperature induced I-V characteristics in Al/p-Si Structure with native oxide layer. In MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, 2021, vol. 125, no., pp. ISSN 1369-8001. Dostupné na: <https://doi.org/10.1016/j.mssp.2020.105629>, Registrované v: WOS*

- ADCA403 OSVALD, Jozef\*\* - LALINSKÝ, Tibor - VANKO, Gabriel. High temperature current transport in gate oxides based (GaN)/AlGaN/GaN Schottky diodes. In Applied Surface Science, 2018, vol. 461, p. 206-211. (2017: 4.439 - IF, Q1 - JCR, 1.093 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2018.06.113>

Citácie:

1. [1.1] OZDEMIR, M. C. - SEVGILI, O. - ORAK, I - TURUT, A. Determining the potential barrier presented by the interfacial layer from the temperature induced I-V characteristics in Al/p-Si Structure with native oxide layer. In MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, 2021, vol. 125, no., pp. ISSN 1369-8001. Dostupné na: <https://doi.org/10.1016/j.mssp.2020.105629>, Registrované v: WOS

2. [1.1] TURUT, Abdulmecit - EFEOGLU, Hasan. Thermal sensitivity from current-voltage-measurement temperature characteristics in Au/n-GaAs Schottky contacts. In TURKISH JOURNAL OF PHYSICS, 2021, vol. 45, no. 5, pp. 268-280. ISSN 1300-0101. Dostupné na: <https://doi.org/10.3906/fiz-2108-15>, Registrované v: WOS

- ADCA404 OSVALD, Jozef. Back-to-back connected asymmetric Schottky diodes with series resistance as a single diode. In Physica Status Solidi A : applications and materials science, 2015, vol. 212, p. 2754-2758. (2014: 1.616 - IF, Q2 - JCR, 0.688 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 1862-6300. Dostupné na: <https://doi.org/10.1002/pssa.201532374>

Citácie:

1. [1.1] BANERJEE, Abhijit. Methyl red/lead sulphide/indium tin oxide hybrid organic/inorganic diode: An electrical and optoelectronic study. In PHYSICA B-CONDENSED MATTER, 2021, vol. 618, no., pp. ISSN 0921-4526. Dostupné na: <https://doi.org/10.1016/j.physb.2021.413142>, Registrované v: WOS

2. [1.1] LI, Sifan - LI, Bochang - FENG, Xuewei - CHEN, Li - LI, Yesheng - HUANG, Li - FONG, Xuanyao - ANG, Kah-Wee. Electron-beam-irradiated rhenium disulfide memristors with low variability for neuromorphic computing. In NPJ 2D MATERIALS AND APPLICATIONS, 2021, vol. 5, no. 1, pp. Dostupné na: <https://doi.org/10.1038/s41699-020-00190-0>, Registrované v: WOS

3. [1.1] MAO, Shujuan - ZHAO, Chao - LIU, Jinbiao - WANG, Guilei - ZHANG, Yongkui - WANG, Yao - CUI, Hengwei - LIU, Weibing - LI, Menghua - LIU, Yaodong - ZHANG, Dan - XU, Jing - GAO, Jianfeng - LI, Yongliang - WANG, Wenwu - CHEN, Dapeng - LI, Junfeng - YE, Tianchun - LUO, Jun. Experimental Investigation of As Preamorphization Implant on Electrical Property of Ti-Based Silicide Contacts. In IEEE TRANSACTIONS ON ELECTRON DEVICES, 2021, vol. 68, no. 4, pp. 1835-1840. ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2021.3057337>, Registrované v: WOS

4. [1.1] ORTIZ, Wilber - RAMIREZ, Nereida J. - BARRIONUEVO, Danilo - BHATTARAI, Mohan K. - FENG, Peter. Characterization of 2D boron nitride nanosheets with hysteresis effect in the Schottky junctions. In NANO EXPRESS, 2021, vol. 2, no. 1, pp. Dostupné na: <https://doi.org/10.1088/2632-959X/abdf6c>, Registrované v: WOS

5. [1.1] ZHANG, Meng - HU, Youdi - WANG, Shuaiqi - LI, Yaru - WANG,

- Chunwu - MENG, Ke - CHEN, Gang. A nanomesh electrode for self-driven perovskite photodetectors with tunable asymmetric Schottky junctions. In NANOSCALE, 2021, vol. 13, no. 40, pp. 17147-17155. ISSN 2040-3364. Dostupné na: <https://doi.org/10.1039/d1nr05975k>, Registrované v: WOS*
- ADCA405 OSVALD, Jozef\*\* - HRUBČÍN, Ladislav - ZAŤKO, Bohumír. Schottky barrier height inhomogeneity in 4H-SiC surface barrier detectors. In Applied Surface Science, 2020, vol. 533, no. 147389. (2019: 6.182 - IF, Q1 - JCR, 1.230 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2020.147389> (VEGA 2/0084/20. VEGA 2/0112/17)
- Citácie:
- [1.1] FENG, Boyuan - HE, Tao - HE, Gaohang - ZHANG, Xiaodong - WU, Ying - CHEN, Xiao - LI, Zhengcheng - ZHANG, Xinping - JIA, Zhitai - NIU, Gang - GUO, Qixin - ZENG, Zhongming - DING, Sunan. Reduction of MOS interfacial states between beta-Ga<sub>2</sub>O<sub>3</sub> and Al<sub>2</sub>O<sub>3</sub> insulator by self-reaction etching with Ga flux. In APPLIED PHYSICS LETTERS, 2021, vol. 118, no. 18, pp. ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/5.0048311>, Registrované v: WOS
  - [1.1] OZDEMIR, A. F. - GOKSU, T. - YILDIRIM, N. - TURUT, A. Effects of measurement temperature and metal thickness on Schottky diode characteristics. In PHYSICA B-CONDENSED MATTER, 2021, vol. 616, no., pp. ISSN 0921-4526. Dostupné na: <https://doi.org/10.1016/j.physb.2021.413125>, Registrované v: WOS
- ADCA406 OWENS, A. - PEACOCK, A. - BAVDAZ, M. - BRAMMERTZ, G. - DUBECKÝ, František - GOSTILO, V. - GRYAZNOV, D. - HAACK, N. - KRUMREY, M. - LOUPILOV, A. X-ray response of InP: part B, synchrotron radiation measurements. In Nuclear Instruments and Methods in Physics Research A. Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, vol. 491, p. 444-451. (2001: 1.026 - IF, karentované - CCC). (2002 - Current Contents, SCOPUS). ISSN 0168-9002.
- Citácie:
- [1.2] SUCHIKOVA, Yana - BOHDANOV, Ihor - KOVACHOV, Sergii - DANNIK, Lyudmila - MOSKINA, Aleksandra M. - POPOV, Anatoli I. Texturing of indium phosphide for improving the characteristics of space solar cells. In 2021 IEEE 12th International Conference on Electronics and Information Technologies, ELIT 2021 Proceedings, 2021-01-01, pp. 194-197. Dostupné na: <https://doi.org/10.1109/ELIT53502.2021.9501098>, Registrované v: SCOPUS
- ADCA407 PACHLA, W. - PRESZ, A. - KOVÁČ, Pavol - HUŠEK, Imrich - DIDUSZKO, R. Structural characterization of multifilament heat treated ex situ MgB<sub>2</sub> superconducting wires with Cu and Fe sheaths. In Superconductor Science and Technology. - Bristol : IOP Publishing, 2004, vol. 17, p. 1289-1294. (2003: 2.247 - IF, karentované - CCC). (2004 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.
- Citácie:
- [1.1] GUO, W.W. - YAO, C. - HUANG, H. - DONG, C.H. - LIU, S.F. - WANG, C.D. - MA, Y.W. Enhancement of transport J (c) in (Ba, K)Fe<sub>2</sub>As<sub>2</sub> HIP processed round wires. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, SEP 2021, vol. 34, no. 9., Registrované v: WOS
- ADCA408 PARDO, Enric - KOVÁČ, Ján - ŠOUC, Ján. Power loss in ReBCO racetrack coils under AC applied magnetic field and DC current. In IEEE Transactions on Applied Superconductivity, 2013, vol. 23, 4701305. (2012: 1.199 - IF, Q2 - JCR, 0.575 - SJR, karentované - CCC). (2013 - Current Contents, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2012.2235518>
- Citácie:



1. [1.1] LI, G.Y. - LI, C. - XIN, Y. - HONG, W. - LI, W.X. - YANG, T.H. - LI, B. *Dynamic modelling methodology for an HTS energy converter using moving mesh. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS*
  2. [1.1] WANG, R.C. - WANG, C. - DENG, Y.K. - GONG, T.Y. - LI, J. - ZHOU, P.B. - LIU, K. - ZHAO, Z.W. - CUI, H.B. - DENG, X. - MA, G.T. *The Underlying Mechanism of Faster Current Attenuation of HTS Magnet in Persistent Current Mode Subject to the Traveling Magnetic Fields. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, JAN 2021, vol. 34, no. 1, p. 27-36., Registrované v: WOS*
- ADCA409 PARDO, Enric - GRILLI, F. Numerical simulations of the angular dependence of magnetization AC losses: coated conductors, Roebel cables and double pancake coils. In *Superconductor Science and Technology*, 2012, vol. 25, 014008. (2011: 2.662 - IF, Q1 - JCR, 1.461 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/25/1/014008>
- Citácie:
1. [1.1] LI, X.D. - YANG, W.J. - ZHANG, H.M. - MACIAN-JUAN, R. *Numerical Study of AC Loss Characteristics in a Three-Phase Superconducting Induction Pump. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*
  2. [1.1] SUN, Y.M. - FANG, J. - PANTOJA, A.E. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. *Role of asymmetric critical current on magnetization loss characteristics of (RE)Ba<sub>2</sub>Cu<sub>3</sub>O<sub>7-d</sub> coated conductors at various temperatures. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, AUG 28 2021, vol. 130, no. 8., Registrované v: WOS*
  3. [1.1] SUN, Y.M. - FANG, J. - SIDOROV, G. - LI, Q. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. *Total loss measurement and simulation in a REBCO coated conductor carrying DC current in perpendicular AC magnetic field at various temperatures. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUN 2021, vol. 34, no. 6., Registrované v: WOS*
- ADCA410 PARDO, Enric. Calculation of AC loss in coated conductor coils with a large number of turns. In *Superconductor Science and Technology*, 2013, vol. 26, 105017. (2012: 2.758 - IF, Q1 - JCR, 1.535 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/26/10/105017>
- Citácie:
1. [1.1] INANIR, F. - TERZIOGLU, R. *AC Loss Evaluation of a Superconducting Pancake Coil with Coated Conductors using an Extended A-V Formulation. In PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, AUG 15 2021, vol. 587., Registrované v: WOS*
  2. [1.1] WANG, L. - CHEN, Y. *Hysteresis loss calculations of 2D and 3D large-scale HTS coil models: from multi-scale method to multi-dimension method. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS*
- ADCA411 PARDO, Enric - VOJENČIAK, Michal - GÖMÖRY, Fedor - ŠOUC, Ján. Low-magnetic-field dependence and anisotropy of the critical current density in coated conductors. In *Superconductor Science and Technology*, 2011, vol. 24, 065007. (2010: 2.402 - IF, Q1 - JCR, 1.480 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents, SCOPUS). ISSN 0953-2048.
- Citácie:
1. [1.1] CHENG, Y.X. - ZHENG, J. - HUANG, H. - DENG, Z.G. *A reconstructed*

- three-dimensional HTS bulk electromagnetic model considering J (c) spatial inhomogeneity and its implementation in a bulks'; combination system. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS*
2. [1.1] GRILLI, F. Calculating the full-range dynamic loss of HTS wires in an instant. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, FEB 2021, vol. 34, no. 2., Registrované v: WOS
3. [1.1] SUN, Y.M. - FANG, J. - SIDOROV, G. - LI, Q. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. Total loss measurement and simulation in a REBCO coated conductor carrying DC current in perpendicular AC magnetic field at various temperatures. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUN 2021, vol. 34, no. 6., Registrované v: WOS
4. [1.1] YAN, Y.F. - SONG, P. - XIN, C.J. - GUAN, M.Z. - LI, Y. - LIU, H.J. - QU, T.M. Screening-current-induced mechanical strains in REBCO insert coils. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, AUG 2021, vol. 34, no. 8., Registrované v: WOS
- ADCA412 PARDO, Enric - KAPOLKA, Milan - KOVÁČ, Ján - ŠOUC, Ján - GRILLI, F. - PIQUÉ, A.. Three-dimensional modeling and measurement of coupling AC loss in soldered tapes and striated coated conductors. In IEEE Transactions on Applied Superconductivity, 2016, vol. 26, art. no. 4700607. (2015: 1.092 - IF, Q3 - JCR, 0.403 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2523758>  
Citácie:  
1. [1.1] SOGABE, Y. - MIZOBATA, Y. - AMEMIYA, N. Shielding currents in multifilament coated conductors wound into pancake coils and layer-wound coils. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS
- ADCA413 PARDO, Enric. Modeling of coated conductor pancake coils with a large number of turns. In Superconductor Science and Technology, 2008, vol. 21, 065014. (2007: 2.547 - IF, Q1 - JCR, 1.430 - SJR, Q1 - SJR, karentované - CCC). (2008 - Current Contents, SCOPUS). ISSN 0953-2048.  
Citácie:  
1. [1.1] HUANG, C.G. - SONG, Z.Y. - ZHANG, T.Y. - XU, B. Electro-thermal-mechanical modeling of quench and stress evolution triggered by various factors in high-temperature superconducting coils. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, JUN 7 2021, vol. 129, no. 21., Registrované v: WOS  
2. [1.1] INANIR, F. - TERZIOGLU, R. AC Loss Evaluation of a Superconducting Pancake Coil with Coated Conductors using an Extended A-V Formulation. In PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, AUG 15 2021, vol. 587., Registrované v: WOS  
3. [1.1] WANG, K.Y. - GAO, Y.W. - LUO, W. - ZHOU, Y.H. - NIJHUIS, A. Nonlinear contact behavior of HTS tapes during pancake coiling and CORC cabling. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUL 2021, vol. 34, no. 7., Registrované v: WOS
- ADCA414 PARDO, Enric - ŠOUC, Ján - VOJENČIAK, Michal - GÖMÖRY, Fedor. AC loss and voltage signal in a pancake coil made of coated conductor with ferromagnetic substrate. In IEEE Transactions on Applied Superconductivity, 2009, vol. 19, p. 2223-2227. (2008: 0.919 - IF, Q3 - JCR, 0.884 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, SCOPUS).  
Citácie:  
1. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M.

*Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS*

- ADCA415 PARDO, Enric - GÖMÖRY, Fedor - ŠOUC, Ján - CEBALLOS, J.M. Current distribution and ac loss for a superconducting rectangular strip with in-phase alternating current and applied field. In Superconductor Science and Technology. - Bristol : IOP Publishing, 2007, vol. 20, p. 351-364. (2006: 1.440 - IF, Q2 - JCR, 1.403 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, SCOPUS). ISSN 0953-2048.

*Citácie:*

1. [1.1] BERROSPE-JUAREZ, E. - TRILLAUD, F. - ZERMENO, V.M.R. - GRILLI, F. Advanced electromagnetic modeling of large-scale high-temperature superconductor systems based on H and T-A formulations. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, APR 2021, vol. 34, no. 4., Registrované v: WOS
2. [1.1] DE OLIVEIRA, R.A.H. - MURTA-PINA, J. - RIVERA, M.B. - ALVAREZ, A. - VALTCHEV, S. - PRONTO, A.G. - SUAREZ, P. Effects of Noncharacteristic Harmonics on AC Losses of High-Temperature Superconducting Coils. In IEEE TRANSACTIONS ON POWER ELECTRONICS. ISSN 0885-8993, DEC 2021, vol. 36, no. 12, p. 13697-13705., Registrované v: WOS
3. [1.1] GRILLI, F. Calculating the full-range dynamic loss of HTS wires in an instant. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, FEB 2021, vol. 34, no. 2., Registrované v: WOS
4. [1.1] LAI, L.F. - GU, C. AC loss calculation in REBCO coils or stacks by solving the equation of motion for current using an integration approach. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JAN 2021, vol. 34, no. 1., Registrované v: WOS
5. [1.1] LI, G.Y. - LI, C. - XIN, Y. - HONG, W. - LI, W.X. - YANG, T.H. - LI, B. Dynamic modelling methodology for an HTS energy converter using moving mesh. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS
6. [1.1] MUSSO, A. - BRESCHI, M. - RIBANI, P.L. - GRILLI, F. Analysis of AC Loss Contributions From Different Layers of HTS Tapes Using the A-V Formulation Model. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, MAR 2021, vol. 31, no. 2., Registrované v: WOS
7. [1.1] SUN, Y.M. - LONG, N.J. - SIDOROV, G. - FANG, J. - BADCOCK, R.A. - JIANG, Z.N. Shielding Effect of (RE)Ba<sub>2</sub>Cu<sub>3</sub>O<sub>7-d</sub>-Coated Conductors on Eddy Current Loss of Adjacent Metal Layers Under AC Magnetic Fields With Various Orientations. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS
8. [1.1] XU, A.H. - WU, K.H. - SHI, Y. - WU, Y. - YU, X.P. - DAI, C. - HAO, Q.W. - HAN, H.X. - JIN, H. - ZHANG, Y.L. - WU, J.R. - HU, L.B. Electromagnetic and Mechanical Analysis of DC Magnet for Super X Test Facility. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS
9. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS

- ADCA416 PARDO, Enric - ŠOUC, Ján - VOJENČIAK, Michal. AC loss measurement and simulation of a coated conductor pancake coil with ferromagnetic parts. In

Superconductor Science and Technology, 2009, vol. 22, no. 075007. (2008: 1.847 - IF, Q2 - JCR, 1.867 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. *Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS*

ADCA417 PARDO, Enric - ŠOUC, Ján - KOVÁČ, Ján. AC loss in ReBCO pancake coils and stacks of them: modelling and measurement. In Superconductor Science and Technology, 2012, vol. 25, 035008. (2011: 2.662 - IF, Q1 - JCR, 1.461 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/25/3/035003>

Citácie:

1. [1.1] HUANG, C.G. - SONG, Z.Y. - ZHANG, T.Y. - XU, B. *Electro-thermal-mechanical modeling of quench and stress evolution triggered by various factors in high-temperature superconducting coils. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, JUN 7 2021, vol. 129, no. 21., Registrované v: WOS*

2. [1.1] VARGAS-LLANOS, C.R. - LENGSEFELD, S. - NOE, M. - ARNDT, T. - GRILLI, F. *Influence of Coil Position on AC Losses of Stator Superconducting Windings of a Synchronous Machine for a 10 MW Wind Turbine. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, OCT 2021, vol. 31, no. 7., Registrované v: WOS*

3. [1.1] YAN, Y.F. - QU, T.M. - GRILLI, F. *Numerical Modeling of AC Loss in HTS Coated Conductors and Roebel Cable Using T-A Formulation and Comparison With H Formulation. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 49649-49659., Registrované v: WOS*

ADCA418 PARDO, Enric - STAINES, M. - JIANG, Z. - GLASSON, N. AC loss modelling and measurement of superconducting transformers with coated-conductor Roebel-cable in low-voltage winding. In Superconductor Science and Technology, 2015, vol. 28, 114008. (2014: 2.325 - IF, Q2 - JCR, 1.196 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/28/11/114008>

Citácie:

1. [1.1] GOO, J. - HAN, J.W. - LEE, S. - KIM, W.S. - CHOI, K. - LEE, J.K. *Magnetization Loss of CORC With Various Configurations of 2G HTS Strands. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*

2. [1.1] HAN, J. - CHOI, K. - KIM, W.S. - LEE, J.K. *Measurement of magnetization loss according to the winding pitch of CORC (R). In PROGRESS IN SUPERCONDUCTIVITY AND CRYOGENICS. ISSN 1229-3008, DEC 2021, vol. 23, no. 4, p. 25-29., Registrované v: WOS*

3. [1.1] PI, W. - OU, Y.S. - MA, Y.T. - TIAN, B.Y. - SHI, Q.M. - WANG, Y.S. - DONG, J. *Current Distribution and AC Loss of BSCCO/REBCO Hybrid Tapes in Self-Magnetic Field. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*

4. [1.1] YAZDANI-ASRAMI, M. - GHOLAMIAN, S.A. - MIRIMANI, S.M. - ADABI, J. *Influence of field-dependent critical current on harmonic AC loss analysis in HTS coils for superconducting transformers supplying non-linear loads. In CRYOGENICS. ISSN 0011-2275, JAN 2021, vol. 113., Registrované v: WOS*



5. [1.1] YU, X. - XI, W.B. - PAN, J. - XU, W.W. - LIU, X.F. - WU, S.T. - LU, K. - WEI, J. - SONG, Y.T. - YAN, P.G. Quick AC Loss Evaluation for EAST Magnets Using Interaction Matrix Method. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM. ISSN 1557-1939, APR 2021, vol. 34, no. 4, p. 1277-1285., Registrované v: WOS

6. [1.2] FANG, Jianliang - JIONG, Ye - WEI, Jiang - SHANGXING, Ye - YINGJIE, Xie - HAIQING, Lu - DONG, Dawei - ZHEN, Jianfeng. Calculation of Theoretical Line Loss of Full-Voltage Power Grid Based on Multi-Source Data Fusion. In ACM International Conference Proceeding Series, 2021-01-28, partF168982, pp. Dostupné na: <https://doi.org/10.1145/3448734.3450869>., Registrované v: SCOPUS

ADCA419 PARDO, Enric - ŠOUC, Ján - FROLEK, Lubomír. Electromagnetic modelling of superconductors with a smooth current-voltage relation: variational principle and coils from a few turns to large magnets. In Superconductor Science and Technology, 2015, vol. 28, 044003. (2014: 2.325 - IF, Q2 - JCR, 1.196 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/28/4/044003>

Citácie:

1. [1.1] BERROSPE-JUAREZ, E. - TRILLAUD, F. - ZERMENO, V.M.R. - GRILLI, F. Advanced electromagnetic modeling of large-scale high-temperature superconductor systems based on H and T-A formulations. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, APR 2021, vol. 34, no. 4., Registrované v: WOS

2. [1.1] LI, G.Y. - LI, C. - XIN, Y. - HONG, W. - LI, W.X. - YANG, T.H. - LI, B. Dynamic modelling methodology for an HTS energy converter using moving mesh. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS

3. [1.1] VARGAS-LLANOS, C.R. - LENGSELD, S. - NOE, M. - ARNDT, T. - GRILLI, F. Influence of Coil Position on AC Losses of Stator Superconducting Windings of a Synchronous Machine for a 10 MW Wind Turbine. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, OCT 2021, vol. 31, no. 7., Registrované v: WOS

4. [1.1] WEN, Z.Z. - ZHANG, H.Y. - MUELLER, M. Sensitivity analysis and machine learning modelling for the output characteristics of rotary HTS flux pumps. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS

5. [1.1] WULFF, A.C. - ABRAHAMSEN, A.B. - INSINGA, A.R. Multifilamentary coated conductors for ultra-high magnetic field applications. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS

6. [1.1] XU, A.H. - WU, K.H. - SHI, Y. - WU, Y. - YU, X.P. - DAI, C. - HAO, Q.W. - HAN, H.X. - JIN, H. - ZHANG, Y.L. - WU, J.R. - HU, L.B. Electromagnetic and Mechanical Analysis of DC Magnet for Super X Test Facility. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS

7. [1.1] YAN, Y.F. - QU, T.M. - GRILLI, F. Numerical Modeling of AC Loss in HTS Coated Conductors and Roebel Cable Using T-A Formulation and Comparison With H Formulation. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 49649-49659., Registrované v: WOS

8. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v:

WOS

- ADCA420 PARDO, Enric\*\* - GRILLI, F. - LIU, Y. - WOLFTÄDLER, S. - REIS, T. AC loss modeling in superconducting coils and motors with parallel tapes as conductor. In IEEE Transactions on Applied Superconductivity, 2019, vol. 29, no. 5202505. (2018: 1.692 - IF, Q3 - JCR, 0.406 - SJR, Q2 - SJR, karentované - CCC). (2019 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2019.2899148> (VEGA 2/0097/18. H2020 ASuMED)
- Citácie:
1. [1.1] KOVALEV, K. - IVANOV, N. - ZHURAVLEV, S. - RUSANOV, D. - KUZNETSOV, G. - PODGUZOV, V. Calculation, design and test results of 3 kW fully HTS electric machine. In PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, AUG 15 2021, vol. 587., Registrované v: WOS
  2. [1.1] XU, A.H. - WU, K.H. - SHI, Y. - WU, Y. - YU, X.P. - DAI, C. - HAO, Q.W. - HAN, H.X. - JIN, H. - ZHANG, Y.L. - WU, J.R. - HU, L.B. Electromagnetic and Mechanical Analysis of DC Magnet for Super X Test Facility. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS
  3. [1.1] XUE, S.S. - THOMAS, A.S. - ZHU, Z.Q. - HUANG, L.R. - DUKE, A. - CLARK, R.E. - AZAR, Z. Stator Optimization of Wind Power Generators With High-Temperature Superconducting Armature Windings and Permanent Magnet Rotor. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, MAR 2021, vol. 31, no. 2., Registrované v: WOS
  4. [1.1] ZANEGIN, S. - IVANOV, N. - ZUBKO, V. - KOVALEV, K. - SHISHOV, I. - SHISHOV, D. - PODGUZOV, V. Measurements and Analysis of AC Losses in HTS Windings of Electrical Machine for Different Operation Modes. In APPLIED SCIENCES-BASEL. MAR 2021, vol. 11, no. 6., Registrované v: WOS
- ADCA421 PARDO, Enric. Dynamic magneto-resistance: turning a nuisance into an essential effect. In Superconductor Science and Technology, 2017, vol. 30, art. no. 060501. (2016: 2.878 - IF, Q2 - JCR, 0.967 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/aa6c97>
- Citácie:
1. [1.1] GENG, J.Z. - BADCOCK, R.A. - BUMBY, C.W. A Wireless Rectifier for Inductively Energizing High Direct-Current High-Temperature Superconducting Magnets. In IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS. ISSN 0278-0046, APR 2021, vol. 68, no. 4, p. 3273-3281., Registrované v: WOS
- ADCA422 PARDO, Enric - KAPOLKA, Milan. 3D magnetization currents, magnetization loop, and saturation field in superconducting rectangular prisms. In Superconductor Science and Technology, 2017, vol. 30, art. no. 064007. (2016: 2.878 - IF, Q2 - JCR, 0.967 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/aa69ed>
- Citácie:
1. [1.1] ZHANG, K. - AINSLIE, M. - CALVI, M. - KINJO, R. - SCHMIDT, T. Fully-staggered-array bulk Re-Ba-Cu-O short-period undulator: large-scale 3D electromagnetic modelling and design optimization using A-V and H-formulation methods. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, SEP 2021, vol. 34, no. 9., Registrované v: WOS
- ADCA423 PARDO, Enric - KAPOLKA, Milan. 3D computation of non-linear eddy currents: Variational method and superconducting cubic bulk. In Journal of Computational Physics, 2017, vol. 344, p. 339-363. (2016: 2.746 - IF, Q1 - JCR, 2.049 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0021-9991. Dostupné na: <https://doi.org/10.1016/j.jcp.2017.05.001>



Citácie:

1. [1.1] ARSENAULT, A. - SIROIS, F. - GRILLI, F. Efficient Modeling of High-Temperature Superconductors Surrounded by Magnetic Components Using a Reduced H-phi Formulation. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2021, vol. 31, no. 4., Registrované v: WOS
2. [1.1] QIAN, K.Z. - TERAQ, Y. - OHSAKI, H. Three-Dimensional Electromagnetic and Thermal Field Coupled Analysis of Different Types of REBCO Coils Under Overcurrent Conditions. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
3. [1.1] WEN, Z.Z. - ZHANG, H.Y. - MUELLER, M. Sensitivity analysis and machine learning modelling for the output characteristics of rotary HTS flux pumps. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, DEC 2021, vol. 34, no. 12., Registrované v: WOS
4. [1.1] XU, A.H. - WU, K.H. - SHI, Y. - WU, Y. - YU, X.P. - DAI, C. - HAO, Q.W. - HAN, H.X. - JIN, H. - ZHANG, Y.L. - WU, J.R. - HU, L.B. Electromagnetic and Mechanical Analysis of DC Magnet for Super X Test Facility. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS
5. [1.1] ZHANG, K. - AINSLIE, M. - CALVI, M. - KINJO, R. - SCHMIDT, T. Fully-staggered-array bulk Re-Ba-Cu-O short-period undulator: large-scale 3D electromagnetic modelling and design optimization using A-V and H-formulation methods. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, SEP 2021, vol. 34, no. 9., Registrované v: WOS
6. [1.1] ZHANG, K. - HELLMANN, S. - CALVI, M. - SCHMIDT, T. - BROUWER, L. Magnetization Current Simulation of High-Temperature Bulk Superconductors Using the ANSYS Iterative Algorithm Method. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, MAR 2021, vol. 31, no. 2, p. 1-6., Registrované v: WOS

ADCA424 PARDO, Enric. Modeling of screening currents in coated conductor magnets containing up to 40000 turns. In Superconductor Science and Technology, 2016, vol. 29, art. no. 085004. (2015: 2.717 - IF, Q1 - JCR, 1.130 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/29/8/085004>

Citácie:

1. [1.1] BERROSPE-JUAREZ, E. - TRILLAUD, F. - ZERMENO, V.M.R. - GRILLI, F. Advanced electromagnetic modeling of large-scale high-temperature superconductor systems based on H and T-A formulations. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, APR 2021, vol. 34, no. 4., Registrované v: WOS
2. [1.1] KOLB-BOND, D. - BIRD, M. - DIXON, I.R. - PAINTER, T. - LU, J. - KIM, K.L. - KIM, K.M. - WALSH, R. - GRILLI, F. Screening current rotation effects: SCIF and strain in REBCO magnets. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, SEP 2021, vol. 34, no. 9., Registrované v: WOS
3. [1.1] QIAN, K.Z. - TERAQ, Y. - OHSAKI, H. Three-Dimensional Electromagnetic and Thermal Field Coupled Analysis of Different Types of REBCO Coils Under Overcurrent Conditions. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

ADCA425 PASKALEVA, A. - ĽAPAJNA, Milan - ATANASOVA, E. - FRÖHLICH, Karol -

VINCZE, A. - DOBROČKA, Edmund. Effect of Ti doping on Ta2O5 stacks with Ru and Al gates. In Applied Surface Science, 2008, vol. 254, p. 5879-5885. (2007: 1.406 - IF, Q2 - JCR, 0.791 - SJR, Q1 - SJR, karentované - CCC). (2008 - Current Contents). ISSN 0169-4332.

Citácie:

1. [1.1] CAI, C.X. - WEI, S.S. - YIN, Z.P. - BAI, J. - XIE, W.W. - LI, Y. - QIN, F.W. - SU, Y. - WANG, D.J. Oxygen vacancy formation and uniformity of conductive filaments in Si-doped Ta2O5 RRAM. In APPLIED SURFACE SCIENCE. ISSN 0169-4332, SEP 15 2021, vol. 560., Registrované v: WOS

ADCA426 PASKALEVA, A. - ĽAPAJNA, Milan - DOBROČKA, Edmund - HUŠEKOVÁ, Kristína - ATANASSOVA, E. - FRÖHLICH, Karol. Structural and dielectric properties of Ru-based gate/Hf-doped Ta2O5 stacks. In Applied Surface Science, 2011, vol. 257, p. 7876-7880. (2010: 1.795 - IF, Q2 - JCR, 0.922 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2011.04.062>

Citácie:

1. [1.1] CAI, C.X. - WEI, S.S. - YIN, Z.P. - BAI, J. - XIE, W.W. - LI, Y. - QIN, F.W. - SU, Y. - WANG, D.J. Oxygen vacancy formation and uniformity of conductive filaments in Si-doped Ta2O5 RRAM. In APPLIED SURFACE SCIENCE. ISSN 0169-4332, SEP 15 2021, vol. 560., Registrované v: WOS

ADCA427 PATSULA, Vitalii - TULINSKÁ, J.\*\* - TRACHTOVÁ, Štěpánka - KURICOVÁ, M. - LIŠKOVÁ, A. - ŠPANOVÁ, A. - ČIAMPOR, Fedor - VÁVRA, Ivo - RITTICH, B - URSINYOVÁ, Monika - DUŠINSKÁ, Mária - ILAVSKÁ, S. - HORVÁTHOVÁ, Mira - MASANOVA, Vlasta - UHNAKOVA, Iveta - HORÁK, Daniel\*\*. Toxicity evaluation of monodisperse PEGylated magnetic nanoparticles for nanomedicine. In Nanotoxicology, 2019, vol. 13, no. 4, p. 510-526. (2018: 5.955 - IF, Q1 - JCR, 1.617 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 1743-5390. Dostupné na:

<https://doi.org/10.1080/17435390.2018.1555624> (INNOCENT : Inovatívne nanoliečivá: Nová kombinácia epigenických a protinádorových liečiv s génovou terapiou zacielená voči nádorovým kmeňovým bunkám karcinómu prsníka)

Citácie:

1. [1.1] DE, D. - UPADHYAY, P. - DAS, A. - GHOSH, A. - ADHIKARY, A. - GOSWAMI, M.M. Studies on cancer cell death through delivery of dopamine as anti-cancer drug by a newly functionalized cobalt ferrite nano-carrier. In COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS. ISSN 0927-7757, OCT 20 2021, vol. 627., Registrované v: WOS  
2. [1.1] LIU, P. - SHI, X.Y. - ZHONG, S.H. - PENG, Y. - QI, Y. - DING, J.S. - ZHOU, W.H. Metal-phenolic networks for cancer theranostics. In BIOMATERIALS SCIENCE. ISSN 2047-4830, APR 21 2021, vol. 9, no. 8, p. 2825-2849., Registrované v: WOS

ADCA428 PEKARČIKOVÁ, M.\*\* - MICHALCOVÁ, E. - FROLEK, Lubomír - ŠOUC, Ján - GOGOLA, P. - DRIENOVSKÝ, M. - SKARBA, M. - MIŠÍK, J. - GÖMÖRY, Fedor. Effect of mechanical loading on coated conductor tapes due to winding onto round cables. In IEEE Transactions on Applied Superconductivity, 2018, vol. 28, no. 8400505. (2017: 1.288 - IF, Q3 - JCR, 0.408 - SJR, Q2 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2018.2795894>

Citácie:

1. [1.1] YIN, H.N. - HUANG, X.Y. - LIU, T.K. - SONG, M.J. Effects of gas-assisted extrusion on slip in the cable coating process. In JOURNAL OF POLYMER ENGINEERING. ISSN 0334-6447, APR 2021, vol. 41, no. 4, p. 329-

- 337., *Registrované v: WOS*
- ADCA429 PEKARČIKOVÁ, M.\*\* - MIŠÍK, J. - DRIENOVSKÝ, M. - KRAJČOVIČ, J. - VOJENČIAK, Michal - BÚRAN, Marek - MOŠAŤ, Marek - HÚLAN, Tomáš - SKARBA, M. - CUNINKOVÁ, E. - GÖMÖRY, Fedor. Composite heat sink material for superconducting tape in fault current limiter applications. In *Materials*, 2020, vol. 13, art. no. 1832. (2019: 3.057 - IF, Q2 - JCR, 0.647 - SJR, Q2 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 1996-1944. Dostupné na: <https://doi.org/10.3390/ma13081832> (H2020 FASTGRID. VEGA 1/0151/17)
- Citácie:
1. [1.1] MORA, M. - AMAVEDA, H. - PORTA-VELILLA, L. - DE LA FUENTE, G.F. - MARTINEZ, E. - ANGUREL, L.A. Improved Copper-Epoxy Adhesion by Laser Micro- and Nano-Structuring of Copper Surface for Thermal Applications. In *POLYMERS*. JUN 2021, vol. 13, no. 11., *Registrované v: WOS*
- ADCA430 PETERNAI, L. - KOVÁČ, Jozef - IRMER, G. - HASENÖHRL, Stanislav - NOVÁK, Jozef - SRNÁNEK, R. Investigation of graded InxGa1-xP buffer by Raman scattering method. In *Microelectronics Journal*, 2006, vol. 37, p. 487-490. (2005: 0.350 - IF, Q3 - JCR). Dostupné na: <https://doi.org/10.1016/j.mejo.2005.09.019>
- Citácie:
1. [1.1] KUZNETSOV, Alexey S. - BOLSHAKOV, Alexey D. - CIRLIN, George E. Investigation of GaP Based Nanowires Optical Properties for Lasing Applications. In *PROCEEDINGS OF THE 2021 IEEE CONFERENCE OF RUSSIAN YOUNG RESEARCHERS IN ELECTRICAL AND ELECTRONIC ENGINEERING (ELCONRUS)*, 2021, vol., no., pp. 1325-1328. ISSN 2376-6557. Dostupné na: <https://doi.org/10.1109/ElConRus51938.2021.9396671>., *Registrované v: WOS*
- ADCA431 PIGNARD, S. - VINCENT, H. - SENATEUR, J.P. - FRÖHLICH, Karol - ŠOUC, Ján. Effect of crystallinity on the magnetoresistive properties of La0.8MnO3-δ thin films grown by chemical vapour deposition. In *Applied Physics Letters*, 1998, vol. 73, no., p. 999-1001. (1997: 3.033 - IF, karentované - CCC). (1998 - Current Contents, SCOPUS). ISSN 0003-6951.
- Citácie:
1. [1.1] SHIN, Y.J. - RONDINELLI, J.M. Strain-Induced Magnetic Transitions in SrMO2.5 (M = Mn, Fe) Thin Films with Ordered Oxygen Vacancies. In *INORGANIC CHEMISTRY*. ISSN 0020-1669, SEP 6 2021, vol. 60, no. 17, p. 13161-13167., *Registrované v: WOS*
- ADCA432 PÍSEČNÝ, Pavol - HUŠEKOVÁ, Kristína - FRÖHLICH, Karol - HARMATHA, L. - ŠOLTÝS, Ján - MACHAJDÍK, Daniel - ESPINOS, J.P. - JERGEL, Matej - JAKABOVIČ, J. Growth of lanthanum oxide films for application as a gate dielectric in CMOS technology. In *Materials science in semiconductor processing*, 2004, vol. 7, no. 4-6, p. 231-236. Dostupné na: <https://doi.org/10.1016/j.mssp.2004.09.020>
- Citácie:
1. [1.1] ARSHAD, Muhammad Fahad - WU, Ling-Nan - EL KASMI, Achraf - QIN, Wu - TIAN, Zhen-Yu. Ab Initio Calculation of Surface Thermochemistry for Popular Solid Transition Metal-Based Species. In *ACS OMEGA*. ISSN 2470-1343, 2021, vol. 6, no. 35, pp. 22525-22536. Dostupné na: <https://doi.org/10.1021/acsomega.1c02178>., *Registrované v: WOS*
- ADCA433 PITEĽ, Jozef - KOVÁČ, Pavol - MELIŠEK, Tibor - KASZTLER, A. - KIRCHMAYR, H. Influence of the winding geometry on the critical currents and magnetic fields of cylindrical coils made of Bi(2223)Ag anisotropic tapes. In *IEEE Transactions on Applied Superconductivity*, 2000, vol. 10, p. 478-481. (1999: 1.687

- IF, karentované - CCC). (2000 - Current Contents).

Citácie:

1. [1.1] CHEN, X.Y. - PANG, Z. - GOU, H.Y. - XIE, Q. - ZHAO, R.B. - SHI, Z.H. - SHEN, B.Y. *Intelligent design of large-size HTS magnets for SMES and high-field applications: using a self-programmed GUI tool. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, SEP 2021, vol. 34, no. 9,*

*Registrované v: WOS*

ADCA434 PITEL, Jozef - KOVÁČ, Pavol - KASZTLER, A. - KIRCHMAYR, H. Optimization of winding geometry of Bi(2223)Ag coils with respect to external magnetic field. In IEEE Transactions on Applied Superconductivity, 2001, vol. 11, p. 2324-2327. (2000: 0.791 - IF).

Citácie:

1. [1.1] MSEDDEI, A. - ALOUI, H. - VIDO, L. - COTY, A. *Experimentally validated model of a self-switched solar motor for pumping application. In JOURNAL OF RENEWABLE AND SUSTAINABLE ENERGY. ISSN 1941-7012, JAN 2021, vol. 13, no. 1., Registrované v: WOS*

ADCA435 PITEL, Jozef - KOVÁČ, Pavol - TROPEANO, M - GRASSO, G. Study of the potential of three different MgB<sub>2</sub> tapes for application in cylindrical coils operating at 20K. In Superconductor Science and Technology, 2015, vol. 25, 055012. (2014: 2.325 - IF, Q2 - JCR, 1.196 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/28/5/055012>

Citácie:

1. [1.1] MELONE, M. - MORAN, M. - MALAMUD, F. - MALACHEVSKY, M.T. - SERQUIS, A. *Crystallographic Texture Study of Nano-SiC-Doped MgB<sub>2</sub> Wires. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*

ADCA436 PLECENIK, Andrej - TOMASEK, M. - PLECENIK, T. - TRUCHLY, M. - NOSKOVIC, J. - ZAHORAN, M. - ROCH, T. - BELOGOLOVSKII, M. - ŠPANKOVÁ, Marianna - CHROMIK, Štefan - KÚŠ, P. Studies of resistance switching effects in metal/YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub>. In Applied Surface Science, 2010, vol. 256, p. 5684-5687. (2009: 1.616 - IF, Q2 - JCR, 0.840 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2010.03.018>

Citácie:

1. [1.1] ACHA, C. - SANCA, G. A. - BARELLA, M. - ALURRALDE, M. - MARLASCA, F. Gomez - HUHTINEN, H. - PATURI, P. - GOLMAR, F. - LEVY, P. *Proton irradiation effects on metal-YBCO interfaces. In RADIATION PHYSICS AND CHEMISTRY, 2021, vol. 183, no., pp. ISSN 0969-806X. Dostupné na: <https://doi.org/10.1016/j.radphyschem.2021.109404>., Registrované v: WOS*

2. [1.1] LANOSA, L. F. - HUHTINEN, H. - PATURI, P. - ACHA, C. *Electrical conduction mechanisms of metal/high-T<sub>c</sub> superconductor (YBCO) interfaces. In JOURNAL OF PHYSICS-CONDENSED MATTER, 2020, vol. 32, no. 17, pp. ISSN 0953-8984. Dostupné na: <https://doi.org/10.1088/1361-648X/ab6b8b>.,*

*Registrované v: WOS*

ADCA437 PLECENIK, Andrej - GRAJCAR, M. - BEŇAČKA, Štefan - SEIDEL, P. - PFUCH, A. Surface characterization of high-T<sub>c</sub> superconductors using YBa<sub>2</sub>Cu<sub>3</sub>O<sub>x</sub>/Au and Bi<sub>2</sub>Sr<sub>2</sub>CaCu<sub>2</sub>O<sub>y</sub>/Au point contacts. In Physical Review B, 1994, vol. 49, no. 14, p. 10016. (1993: 3.159 - IF, karentované - CCC). (1994 - Current Contents). ISSN 1550-235X.

Citácie:

1. [1.1] CAMARGO, B.C. - GIERLOWSKI, P. - KUZMIAK, M. - DE JESUS, R.F.



- ONUFRIENKO, O. - SZABO, P. - KOPELEVICH, Y. Macroscopic-ranged proximity effect in graphite. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, DEC 8 2021, vol. 33, no. 49., Registrované v: WOS
2. [1.1] GALDUN, L. - SZABO, P. - VEGA, V. - BARRIGA-CASTRO, E.D. - MENDOZA-RESENDEZ, R. - LUNA, C. - KOVAC, J. - MILKOVIC, O. - VARGA, R. - PRIDA, V.M. High Spin Polarization in Co<sub>2</sub>FeSn Heusler Nanowires for Spintronics. In ACS APPLIED NANO MATERIALS. ISSN 2574-0970, AUG 28 2020, vol. 3, no. 8, p. 7438-7445., Registrované v: WOS
3. [1.1] GRABECKI, G. - DABROWSKI, A. - IWANOWSKI, P. - HRUBAN, A. - KOWALSKI, B.J. - OLSZOWSKA, N. - KOLODZIEJ, J. - CHOJNACKI, M. - DYBKO, K. - LUSAKOWSKI, A. - WOJTOWICZ, T. - WOJCIECHOWSKI, T. - JAKIELA, R. - WISNIEWSKI, A. Conductance spectra of (Nb, Pb, In)/NbP superconductor/Weyl semimetal junctions. In PHYSICAL REVIEW B. ISSN 2469-9950, FEB 10 2020, vol. 101, no. 8., Registrované v: WOS
4. [1.1] GUO, L.H. - YAN, Y.D. - XU, R.G. - LI, J. - ZENG, C.G. Zero-Bias Conductance Peaks Effectively Tuned by Gating-Controlled Rashba Spin-Orbit Coupling. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, FEB 4 2021, vol. 126, no. 5., Registrované v: WOS
5. [1.1] HOU, X.Y. - CHEN, G.F. - HAO, N. - SHAN, L. Applications of point-contact spectroscopy in the study of topological materials. In SCIENTIA SINICA-PHYSICA MECHANICA & ASTRONOMICA. ISSN 1674-7275, 2021, vol. 51, no. 4., Registrované v: WOS
6. [1.1] HOWLADER, S. - SHEET, G. Tip-induced superconductivity. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, OCT 6 2021, vol. 33, no. 40., Registrované v: WOS
7. [1.1] PARAB, P. - BOSE, S. Transport across meso-junctions of highly doped Si with different superconductors. In PHYSICS LETTERS A. ISSN 0375-9601, MAR 5 2021, vol. 391., Registrované v: WOS
8. [1.1] ZHANG, J.W. - WANG, P.Y. - ZHANG, X.A. - JI, H.R. - LUO, J.W. - WANG, H. - WANG, J. Systematic electrochemical etching of various metal tips for tunneling spectroscopy and scanning probe microscopy. In REVIEW OF SCIENTIFIC INSTRUMENTS. ISSN 0034-6748, JAN 1 2021, vol. 92, no. 1., Registrované v: WOS
9. [1.1] ZHANG, M.D. - HOU, X.Y. - WANG, Q. - WANG, Y.Y. - ZHAO, L.X. - WANG, Z. - GU, Y.D. - ZHANG, F. - XIA, T.L. - REN, Z.A. - CHEN, G.F. - HAO, N. - SHAN, L. Tip-induced superconductivity on the topological semimetals TaAs<sub>2</sub> and NbAs<sub>2</sub>. In PHYSICAL REVIEW B. ISSN 2469-9950, AUG 19 2020, vol. 102, no. 8., Registrované v: WOS
10. [1.1] ZHU, W.L. - HOU, X.Y. - LI, J. - HUANG, Y.F. - ZHANG, S. - HE, J.B. - CHEN, D. - WANG, Y.Y. - DONG, Q.X. - ZHANG, M.D. - YANG, H.X. - REN, Z. - HU, J.P. - SHAN, L. - CHEN, G.F. Interfacial Superconductivity on the Topological Semimetal Tungsten Carbide Induced by Metal Deposition. In ADVANCED MATERIALS. ISSN 0935-9648, APR 2020, vol. 32, no. 16., Registrované v: WOS

ADCA438 PLECENIK, Andrej - GRAJCAR, M. - SEIDEL, P. - TAKÁCS, Silvester - MATTHES, A. - ZUZCAK, M. - BEŇAČKA, Štefan. Influence of bias voltage history on conductance properties of YBaCuO/normal metal junction. In Physica C : Superconductivity and Its Applications, 1998, vol. 301, p. 234-242. (1997: 2.199 - IF, karentované - CCC). (1998 - Current Contents, WOS, SCOPUS). ISSN 0921-4534.

Citácie:

1. [1.1] ROUCO, V - EL HAGE, R. - SANDER, A. - GRANDAL, J. - SEURRE, K. -



PALERMO, X. - BRIATICO, J. - COLLIN, S. - TRASTOY, J. - BOUZEHOUE, K. - BUZDIN, A. - SINGH, G. - BERGEAL, N. - FEUILLET-PALMA, C. - LESUEUR, J. - LEON, C. - VARELA, M. - SANTAMARIA, J. - VILLEGAS, Javier E. Quasiparticle tunnel electroresistance in superconducting junctions. In NATURE COMMUNICATIONS. ISSN 2041-1723, 2020, vol. 11, no. 1, pp. Dostupné na: <https://doi.org/10.1038/s41467-020-14379-w>, Registrované v: WOS

ADCA439 PLECENIK, Andrej - SATRAPINSKY, L. - KÚŠ, P. - GAŽI, Štefan - BEŇAČKA, Štefan - VÁVRA, Ivo - KOSTIČ, Ivan. MgB2 superconducting thin films on Si and Al2O3 substrates. In Physica C, 2001, vol. 363, p. 224-230. (2000: 1.489 - IF, karentované - CCC). (2001 - Current Contents, WOS, SCOPUS). ISSN 0921-4534. Dostupné na: [https://doi.org/10.1016/S0921-4534\(01\)01091-7](https://doi.org/10.1016/S0921-4534(01)01091-7)

Citácie:

1. [1.1] KRINITSINA, T. P. - KUZNETSOVA, E. - DEGTYAREV, M. - BLINOVA, Yu. MgB2-Based Superconductors: Structure and Properties. In PHYSICS OF METALS AND METALLOGRAPHY. ISSN 0031-918X, 2021, vol. 122, no. 12, pp. 1183-1206. Dostupné na: <https://doi.org/10.1134/S0031918X2112005X>,

Registrované v: WOS

ADCA440 PLECENIK, T. - MOŠKO, Martin - HAIDRY, A.A. - ĐURINA, P. - TRUCHLY, M. - GRANČIČ, B. - GREGOR, M. - ROCH, T. - SATRAPINSKY, L. - MOŠKOVÁ, Antónia - MIKULA, M. - KÚŠ, P. - PLECENIK, Andrej. Fast highly-sensitive room-temperature semiconductor gas sensor based on the nanoscale Pt-TiO2-Pt sandwich. In Sensors and Actuators B, 2015, vol. 207, p. 351-361. (2014: 4.097 - IF, Q1 - JCR, 1.229 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0925-4005. Dostupné na: <https://doi.org/10.1016/j.snb.2014.10.003>

Citácie:

1. [1.1] GUPTA, Vishal - PANUNZI, Giulio - KHANDELWAL, Saurabh - MARTINELLI, Eugenio - JABIR, Abusaleh - OTTAVI, Marco. Reliability Assessment of Memristor based Gas Sensor Array. In 34TH IEEE INTERNATIONAL SYMPOSIUM ON DEFECT AND FAULT TOLERANCE IN VLSI AND NANOTECHNOLOGY SYSTEMS (DFT 2021), 2021, vol., no., pp. ISSN 1550-5774. Dostupné na:

<https://doi.org/10.1109/DFT52944.2021.9568304>, Registrované v: WOS

2. [1.1] RODRIGUES, Marco S. - BORGES, Joel - LOPES, Claudia - PEREIRA, Rui M. S. - VASILEVSKIY, Mikhail - VAZ, Filipe. Gas Sensors Based on Localized Surface Plasmon Resonances: Synthesis of Oxide Films with Embedded Metal Nanoparticles, Theory and Simulation, and Sensitivity Enhancement Strategies. In APPLIED SCIENCES-BASEL, 2021, vol. 11, no. 12, pp. Dostupné na: <https://doi.org/10.3390/app11125388>, Registrované v: WOS

3. [1.1] SIMONETTI, Evelyn Alves Nunes - DE OLIVEIRA, Thais Cardoso - MACHADO, Adamo Enrico do Carmo - SILVA, Amanda Alvarenga Coutinho - DOS SANTOS, Alan Silva - CIVIDANES, Luciana de Simone. TiO2 as a gas sensor: The novel carbon structures and noble metals as new elements for enhancing sensitivity A review. In CERAMICS INTERNATIONAL, 2021, vol. 47, no. 13, pp. 17844-17876. ISSN 0272-8842. Dostupné na:

<https://doi.org/10.1016/j.ceramint.2021.03.189>, Registrované v: WOS

4. [1.1] WANG, Xiang - FENG, Huanhuan - CHEN, Tao - ZHAO, Shuang - ZHANG, Jian - ZHANG, Xiaoshuan. Gas sensor technologies and mathematical modelling for quality sensing in fruit and vegetable cold chains: A review. In TRENDS IN FOOD SCIENCE & TECHNOLOGY, 2021, vol. 110, no., pp. 483-492. ISSN 0924-2244. Dostupné na: <https://doi.org/10.1016/j.tifs.2021.01.073>, Registrované v: WOS

5. [1.2] GORUP, Luiz Fernando - SEQUINEL, Thiago - AKUCEVICIUS, Grazielle Weirich - PINTO, Alexandre Henrique - BIASOTTO, Glenda - RAMESAR, Naomi - DE ARRUDA, Eduardo Guimarães Ratier - DE ARRUDA, Eduardo José - CAMARGO, Emerson Rodrigues. Nanostructured gas sensors in smart manufacturing. In *Nanosensors for Smart Manufacturing*, 2021-01-01, pp. 445-485. Dostupné na: <https://doi.org/10.1016/B978-0-12-823358-0.00022-8>, Registrované v: SCOPUS
- ADCA441 PLECENIK, T. - TOMASEK, M. - BELOGOLOVSKII, M. - TRUCHLY, M. - GREGOR, M. - NOSKOVIC, J. - ZAHORAN, M. - ROCH, T. - BOYLO, I. - ŠPANKOVÁ, Marianna - CHROMIK, Štefan - KÚŠ, P. - PLECENÍK, A. Effect of crystallographic anisotropy on the resistance switching phenomenon in perovskites. In *Journal of Applied Physics*, 2012, vol. 111, 056106. (2011: 2.168 - IF, Q2 - JCR, 1.374 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.3691598>
- Citácie:
1. [1.1] ACHA, C. - SANCA, G. A. - BARELLA, M. - ALURRALDE, M. - MARLASCA, F. Gomez - HUHTINEN, H. - PATURI, P. - GOLMAR, F. - LEVY, P. Proton irradiation effects on metal-YBCO interfaces. In *RADIATION PHYSICS AND CHEMISTRY*, 2021, vol. 183, no., pp. ISSN 0969-806X. Dostupné na: <https://doi.org/10.1016/j.radphyschem.2021.109404>, Registrované v: WOS
  2. [1.2] SHAMAEV, V. V. - ZHITLUKHINA, E. S. - ZALUTSKA, N. M. - OCHKAN, K. O. Heterogeneous ordering of oxygen vacancies in Yttrium-Barium cuprate. In *Metallofizika i Noveishie Tekhnologii*. ISSN 10241809, 2021-01-01, 43, 6, pp. 819-830. Dostupné na: <https://doi.org/10.15407/mfint.43.06.0819>, Registrované v: SCOPUS
- ADCA442 POGANY, D. - GUILLOT, G. Random telegraph signal noise instabilities in lattice-mismatched InGaAs/InP photodiodes. In *Microelectronic Reliability*, 1999, vol. 39, p. 341-345. (1998: 0.180 - IF, karentované - CCC). (1999 - Current Contents).
- Citácie:
1. [1.1] AROUNASSALAME, Vignesh - GUENIN, Maxence - CAES, Marcel - HOGLUND, Linda - COSTARD, Eric - CHRISTOL, Philippe - RIBET-MOHAMED, Isabelle. Robust Evaluation of Long-Term Stability of an InAs/GaSb Type II Superlattice Midwave Infrared Focal Plane Array. In *IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT*. ISSN 0018-9456, 2021, vol. 70, no., pp. Dostupné na: <https://doi.org/10.1109/TIM.2020.3024406>, Registrované v: WOS
- ADCA443 POLÁK, Milan - PARDO, Enric - MOZOLA, Pavol - ŠOUC, Ján. Magnetic field in the winding of an YBCO pancake coil: experiments and calculations. In *IEEE Transactions on Applied Superconductivity*, 2012, vol. 22, 6600204. (2011: 1.041 - IF, Q2 - JCR, 0.368 - SJR, Q2 - SJR, karentované - CCC). (2012 - Current Contents, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2011.2178975>
- Citácie:
1. [1.1] FANG, X.Y. - WANG, X.L. - SUN, Y.M. - SONG, W.J. - PEI, X.Z. - JIANG, Z.A. - BADCOCK, R. - LONG, N. - FANG, J. Application of Flux Diverters in High Temperature Superconducting Transformer Windings for AC Loss Reduction. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
- ADCA444 POLÁK, Milan - BARNES, P.N. - KVITKOVIČ, Jozef - LEVIN, G.A. - MOZOLA, Pavol - UŠÁK, Pavol. Properties of an experimental coil wound with YBCO coated conductor carrying an AC current with frequencies up to 864 Hz. In *IEEE*

Transactions on Applied Superconductivity, 2008, vol. 18, p. 1240-1244. (2007: 1.551 - IF, Q1 - JCR, 0.629 - SJR, Q2 - SJR, karentované - CCC). (2008 - Current Contents, SCOPUS).

Citácie:

1. [1.1] GUO, Shuqiang - REN, Li - LI, Xin - PENG, Shuhao - XU, Ying - SHI, Jing - TANG, Yuejin - LI, Jingdong. The relationship between AC loss of YBCO superconducting coil and current waveform, amplitude, frequency and temperature. In *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*. ISSN 0921-4534, 2021, vol. 585, no., pp. Dostupné na:

<https://doi.org/10.1016/j.physc.2021.1353839>, Registrované v: WOS

ADCA445 POLÁK, Milan - BARNES, P.N. - MOZOLA, Pavol - LEVIN, G.A. Critical current in YBCO coated conductors in the presence of a macroscopic defect. In *IEEE Transactions on Applied Superconductivity*, 2009, vol. 19, p. 2921-2934. (2008: 0.919 - IF, Q3 - JCR, 0.884 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, SCOPUS).

Citácie:

1. [1.1] GOMORY, F. - SOUC, J. Stability of DC transport in HTS conductor with local critical current reduction. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, FEB 2021, vol. 34, no. 2., Registrované v: WOS

ADCA446 POLÁK, Milan - BARNES, P.N. - LEVIN, G.A. YBCO/Ag boundary resistivity in YBCO tapes with metallic substrates. In *Superconductor Science and Technology*. - Bristol : IOP Publishing, 2006, vol. 19, p. 817-820. (2005: 1.896 - IF, Q1 - JCR, 1.409 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] BAGRETS, N. - NAST, R. - FOURNIER-LUPIEN, J.H. - SIROIS, F. - CELENTANO, G. - WEISS, K.P. Current Transfer Length and Interfacial Resistance Between Superconductors and Metals in Commercial REBCO Tapes and Cables. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, SEP 2021, vol. 31, no. 6., Registrované v: WOS

2. [1.1] FOURNIER-LUPIEN, J.H. - LACROIX, C. - HUH, J. - MASSE, J.P. - BELLEMARE, J. - SIROIS, F. Effect of annealing on HTS tapes with a cerium oxide layer inserted between the REBaCuO and silver layers. In *MATERIALIA*. ISSN 2589-1529, MAR 2021, vol. 15., Registrované v: WOS

3. [1.1] FOURNIER-LUPIEN, J.H. - SIROIS, F. - LACROIX, C. Concepts of static vs. dynamic current transfer length in 2G HTS coated conductors with a current flow diverter architecture. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, AUG 2021, vol. 34, no. 8., Registrované v: WOS

4. [1.1] GIGUERE, J. - LACROIX, C. - DUPUIS-DESLOGES, F. - FOURNIER-LUPIEN, J.H. - SIROIS, F. High normal zone propagation velocity in copper-stabilized 2G HTS coated conductors. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, APR 2021, vol. 34, no. 4., Registrované v: WOS

5. [1.1] ITO, S. - TAMURA, H. - YANAGI, N. - HASHIZUME, H. Low-resistance joint development for segment-fabrication of high-temperature superconducting fusion magnets. In *NUCLEAR FUSION*. ISSN 0029-5515, NOV 2021, vol. 61, no. 11., Registrované v: WOS

6. [1.1] SKARBA, M. - PEKARCIKOVA, M. - FROLEK, L. - CUNINKOVA, E. - NECPAL, M. Thermal Cycling of (RE)BCO-Based Superconducting Tapes Joined by Lead-Free Solders. In *MATERIALS*. FEB 2021, vol. 14, no. 4., Registrované v:

WOS

- ADCA447 POLÁK, Milan - HLÁŠNIK, Ivan - KREMPASKÝ, Ludovít. Voltage-current characteristics of NbTi and Nb<sub>3</sub>Sn superconductors in the flux creep region. In Cryogenics, 1973, vol. 13, p. 702-706.  
Citácie:  
1. [1.1] GOMORY, F. - SOUC, J. Stability of DC transport in HTS conductor with local critical current reduction. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, FEB 2021, vol. 34, no. 2., Registrované v: WOS
- ADCA448 POLÁK, Milan - KREMPASKÝ, Ludovít - CHROMIK, Štefan - WEHLER, D. - MOENTER, B. Magnetic field in the vicinity of YBCO thin film strip and strip with filamentary structure. In Physica C, 2002, vol. 372-376, p. 1830-1834. (2001: 0.806 - IF, karentované - CCC). (2002 - Current Contents, WOS, SCOPUS). ISSN 0921-4534.  
Citácie:  
1. [1.1] YUSHAN, Rehevan - CHENG, Renli - HE, Xiaofeng - ZHANG, Zhenzhe - MA, Weizhe - ZHANG, Zhe. A Simulation Modeling Method Considering the Quench Characteristics of Superconducting Cable. In 2021 11TH INTERNATIONAL CONFERENCE ON POWER AND ENERGY SYSTEMS (ICPES 2021), 2021, vol., no., pp. 419-425., Registrované v: WOS
- ADCA449 POLÁK, Milan - ZHANG, W. - PARRELL, J.A. - CAI, X.Y. - POLYANSKII, A. - HELLSTROM, E.E. - LARBALESTIER, D.C. - MAJOROŠ, Milan. Current transfer lengths and the origin of linear components in the voltage-current curves of Ag-sheathed BSCCO composites. In Superconductor Science and Technology, 1997, vol. 10, p. 769. (1996: 1.447 - IF, karentované - CCC). (1997 - Current Contents, SCOPUS). ISSN 0953-2048.  
Citácie:  
1. [1.1] BAGRETS, Nadezda - NAST, Rainer - FOURNIER-LUPIEN, Jean-Hughes - SIROIS, Frederic - CELENTANO, Giuseppe - WEISS, Klaus-Peter. Current Transfer Length and Interfacial Resistance Between Superconductors and Metals in Commercial REBCO Tapes and Cables. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, 2021, vol. 31, no. 6, pp. Dostupné na: <https://doi.org/10.1109/TASC.2021.3085359>., Registrované v: WOS  
2. [1.1] FOURNIER-LUPIEN, Jean-Hughes - SIROIS, Frederic - LACROIX, Christian. Concepts of static vs. dynamic current transfer length in 2G HTS coated conductors with a current flow diverter architecture. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, 2021, vol. 34, no. 8, pp. Dostupné na: <https://doi.org/10.1088/1361-6668/abf985>., Registrované v: WOS
- ADCA450 POZZOVIVO, G. - KUZMÍK, Ján - GOLKA, S. - SCHRENK, W. - STRASSER, G. - POGANY, D. - ČIČO, Karol - ĽAPAJNA, Milan - FRÖHLICH, Karol - CARLIN, J.-F. - GONSCHOREK, M. - FELTIN, E. - GRANDJEAN, N. Gate insulation and drain current saturation mechanism in InAlN/GaN metal-oxide-semiconductor high-electron-mobility transistors. In Applied Physics Letters, 2007, vol. 91, 043509. (2006: 3.977 - IF, Q1 - JCR, 3.459 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, SCOPUS). ISSN 0003-6951.  
Citácie:  
1. [1.1] ODA, O. - HORI, M. Novel Epitaxy for Nitride Semiconductors Using Plasma Technology. In PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE. ISSN 1862-6300, JAN 2021, vol. 218, no. 1, SI., Registrované v: WOS
- ADCA451 PRECNER, Marián - POLAKOVIČ, T. - QIAO, Q. - TRAINER, D. - PUTILOV,



A.V. - DI GIORGIO, C. - CONE, I. - ZHU, Y. - XI, X.X. - IAVARONE, M. - KARAPETROV, Goran\*\*. Evolution of metastable defects and its effect on the electronic properties of MoS<sub>2</sub> films. In Scientific Reports, 2018, vol. 8, no. 6724. (2017: 4.122 - IF, Q1 - JCR, 1.533 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 2045-2322. Dostupné na: <https://doi.org/10.1038/s41598-018-24913-y>

Citácie:

1. [1.1] ABD-ELRAHIM, A.G. - ALI, M.A. Facile synthesis of nano-sized zinc-rich ZnCdS ternary alloy and UV-irradiation curing of photoluminescence emission characteristics. In OPTICAL MATERIALS. ISSN 0925-3467, DEC 2021, vol. 122, B., Registrované v: WOS
2. [1.1] BLUNDO, E. - CAPPELLUTI, E. - FELICI, M. - PETTINARI, G. - POLIMENI, A. Strain-tuning of the electronic, optical, and vibrational properties of two-dimensional crystals. In APPLIED PHYSICS REVIEWS. ISSN 1931-9401, JUN 2021, vol. 8, no. 2., Registrované v: WOS
3. [1.1] FARIGLIANO, L.M. - PAREDES-OLIVERA, P.A. - PATRITO, E.M. Oxidative etching of S-vacancy defective MoS<sub>2</sub> monolayer upon reaction with O<sub>2</sub>. In PHYSICAL CHEMISTRY CHEMICAL PHYSICS. ISSN 1463-9076, MAY 7 2021, vol. 23, no. 17, p. 10225-10235., Registrované v: WOS
4. [1.1] GRIDENCO, O. - SEBALD, K. - TESSAREK, C. - MEHRKENS, S. - EICKHOFF, M. - GUTOWSKI, J. Excitons Bound to Defect States in Two-Dimensional (2D) MoS<sub>2</sub>. In IEEE TRANSACTIONS ON NANOTECHNOLOGY. ISSN 1536-125X, 2021, vol. 20, p. 400-403., Registrované v: WOS
5. [1.1] NAVARRO-GAMARRA, K.E. - DE PAOLI, J.M. - PATRITO, E.M. Ellipsometric Investigation of Thick Vertically Oriented MoS<sub>2</sub> Films Grown on Mo Foil at High Temperatures. In JOURNAL OF PHYSICAL CHEMISTRY C. ISSN 1932-7447, JAN 28 2021, vol. 125, no. 3, p. 2005-2014., Registrované v: WOS
6. [1.1] OLESHKO, V.P. - CHANG, E.D. - SNYDER, C.R. - SOLES, C.L. - TAKEUCHI, S. - KLEINE, T.S. - DIRLAM, P.T. - PYUN, J. Elemental sulfur-molybdenum disulfide composites for high-performance cathodes for Li-S batteries: the impact of interfacial structures on electrocatalytic anchoring of polysulfides. In MRS COMMUNICATIONS. ISSN 2159-6859, JUN 2021, vol. 11, no. 3, p. 261-271., Registrované v: WOS
7. [1.1] RAO, R. - KIM, H. - PEREA-LOPEZ, N. - TERRONES, M. - MARUYAMA, B. Interaction of gases with monolayer WS<sub>2</sub>: an in situ spectroscopy study. In NANOSCALE. ISSN 2040-3364, JUL 14 2021, vol. 13, no. 26, p. 11470-11477., Registrované v: WOS
8. [1.1] RUDI, S.G. - SOLEIMANI-AMIRI, S. Modulation of electronic and optical properties of line defected armchair MoS<sub>2</sub> nanoribbon by vacancy passivation. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, MAY 5 2021, vol. 33, no. 18., Registrované v: WOS
9. [1.1] SU, W.T. - KUMAR, N. - SHU, H.B. - LANCERY, O. - CHAIGNEAU, M. In Situ Visualization of Optoelectronic Behavior of Grain Boundaries in Monolayer WSe<sub>2</sub> at the Nanoscale. In JOURNAL OF PHYSICAL CHEMISTRY C. ISSN 1932-7447, DEC 9 2021, vol. 125, no. 48, p. 26883-26891., Registrované v: WOS

ADCA452

PUDIŠ, D. - ŠUŠLIK, Ľ. - ŠKRINIAROVÁ, J. - KOVÁČ, Jaroslav - KOVÁČ, Jaroslav Jr. - KUBICOVÁ, I. - MARTINČEK, I. - HAŠČÍK, Štefan - SCHAAF, P. Effect of 2D photonic structure patterned in the LED surface on emission properties. In Applied Surface Science, 2013, vol. 269, p. 161-165. (2012: 2.112 - IF, Q1 - JCR, 0.913 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na:



<https://doi.org/10.1016/j.apsusc.2012.10.030>

Citácie:

1. [1.1] TANG, Xiansheng - HAN, Lili - MA, Ziguang - DENG, Zhen - JIANG, Yang - WANG, Wenxin - CHEN, Hong - DU, Chunhua - JIA, Haiqiang. Enhanced light extraction from AlGaInP-based red light-emitting diodes with photonic crystals. In *OPTICS EXPRESS*, 2021, vol. 29, no. 4, pp. 5993-5999. ISSN 1094-4087., Registrované v: WOS

- ADCA453 RACKO, J. - MIKOLÁŠEK, M. - HARMATHA, L. - BREZA, J. - HUDEC, Boris - FRÖHLICH, Karol - AARIK, J. - TARRE, A. - GRANZNER, R. - SCHWIERZ, F. Analysis of leakage current mechanisms in RuO<sub>2</sub>-TiO<sub>2</sub>-RuO<sub>2</sub> MIM structures. In *Journal of Vacuum Science and Technology B*, 2011, vol. 29, 01AC08. (2010: 1.271 - IF, Q2 - JCR, 0.900 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 1071-1023. Dostupné na: <https://doi.org/10.1116/1.3534022>

Citácie:

1. [1.1] MAIER, Franz Josef - SCHNEIDER, Michael - SCHRATTENHOLZER, Juergen - SCHMID, Ulrich. Electrical and Microstructural Characterization of TiO<sub>2</sub> Thin Films for Flexoelectric Devices. In *30TH MICROMECHANICS AND MICROSYSTEMS EUROPE WORKSHOP (MME) 2019*, 2021, vol. 1837, no., pp. ISSN 1742-6588. Dostupné na: <https://doi.org/10.1088/1742-6596/1837/1/012009>., Registrované v: WOS

- ADCA454 RACKO, J. - MIKOLÁŠEK, M. - GRANZNER, R. - BREZA, J. - DONOVAL, D. - GRMANOVÁ, A. - HARMATHA, L. - SCHWIERZ, F. - FRÖHLICH, Karol. Trap-assisted tunnelling current in MIM structures. In *Central European Journal of Physics*, 2011, vol. 9, p. 230-241. (2010: 0.696 - IF, Q3 - JCR, karentované - CCC). (2011 - Current Contents). ISSN 1895-1082. Dostupné na: <https://doi.org/10.2478/s11534-010-0027-7>

Citácie:

1. [1.1] ALSHEHRI, Abdullah H. - SHAHIN, Ahmed - MISTRY, Kissan - IBRAHIM, Khaled H. - YAVUZ, Mustafa - MUSSELMAN, Kevin P. Metal-Insulator-Insulator-Metal Diodes with Responsivities Greater Than 30 A W<sup>-1</sup> Based on Nitrogen-Doped TiO<sub>x</sub> and AlO<sub>x</sub> Insulator Layers. In *ADVANCED ELECTRONIC MATERIALS*, 2021, vol. 7, no. 11, pp. ISSN 2199-160X. Dostupné na: <https://doi.org/10.1002/aelm.202100467>., Registrované v: WOS

- ADCA455 RAJŇÁK, Michal - KURIMSKÝ, Juraj - DOLNÍK, Bystrík - MARTON, Karol - TOMČO, Ladislav - TACULESCU, A. - VÉKÁS, Ladislau - KOVÁČ, Jozef - VÁVRA, Ivo - TÓTHOVÁ, Jana - KOPČANSKÝ, Peter - TIMKO, Milan. Dielectric response of transformer oil based ferrofluid in low frequency range. In *Journal of Applied Physics*, 2013, vol. 114, no. 3, art. no. 034313. (2012: 2.210 - IF, Q1 - JCR, 1.312 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.4816012>

Citácie:

1. [1.1] HUANG, Zhengyong - HE, Gang - LI, Jian - WANG, Feipeng - ZHANG, Ruiqi - YAO, Degui. Exponentially reduced carrier mobility of natural ester via blocking effect of 2D hexagonal boron nitride nanosheets. In *HIGH VOLTAGE*. ISSN 2397-7264, 2021, vol. 6, no. 2, pp. 219-229. Dostupné na: <https://doi.org/10.1049/hve2.12017>., Registrované v: WOS

2. [1.1] LU, L. - ICHIMURA, S. - ROKUNOHE, T. Partial discharge observation of a complex insulation structure model and residual space charge characteristics investigation under repeated lightning impulses. In *IET SCIENCE MEASUREMENT & TECHNOLOGY*. ISSN 1751-8822, AUG 2021, vol. 15, no. 6, p. 535-543., Registrované v: WOS

3. [1.1] SOCOLIUC, V. - MARIN, C.N. The effect of long time exposure to light of

*a water-based ferrofluid on its low frequency complex magnetic permeability. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. ISSN 0304-8853, APR 1 2021, vol. 523., Registrované v: WOS*

ADCA456 RIFLIKOVÁ, Michaela - MARTOŇÁK, R. - TOSATTI, E. Pressure-induced gap closing and metallization of MoSe<sub>2</sub> and MoTe<sub>2</sub>. In Physical Review B, 2014, vol. 90, 035108. (2013: 3.664 - IF, Q1 - JCR, 2.804 - SJR, Q3 - SJR, karentované - CCC). (2014 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.90.035108>

Citácie:

1. [1.1] BHATTARAI, Romakanta - SHEN, Xiao. Pressure-Induced Insulator-Metal Transition in Silicon Telluride from First-Principles Calculations. In JOURNAL OF PHYSICAL CHEMISTRY C. ISSN 1932-7447, 2021, vol. 125, no. 21, pp. 11532-11539. Dostupné na: <https://doi.org/10.1021/acs.jpcc.1c00636>, Registrované v: WOS
2. [1.1] FULOP, Balint - MARFFY, Albin - TOVARI, Endre - KEDVES, Mate - ZIHLMANN, Simon - INDOLESE, David - KOVACS-KRAUSZ, Zoltan - WATANABE, Kenji - TANIGUCHI, Takashi - SCHOENENBERGER, Christian - KEZSMARKI, Istvan - MAKK, Peter - CSONKA, Szabolcs. New method of transport measurements on van der Waals heterostructures under pressure. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, 2021, vol. 130, no. 6, pp. Dostupné na: <https://doi.org/10.1063/5.0058583>, Registrované v: WOS
3. [1.1] LIU, Bao - LIN, Lin - GAO, Yang - MA, Yanzhang - ZHOU, Pengyu - HAN, Dandan - GAO, Chunxiao. Metallization of Molybdenum Diselenide under Nonhydrostatic Compression. In JOURNAL OF PHYSICAL CHEMISTRY C. ISSN 1932-7447, 2021, vol. 125, no. 9, pp. 5412-5416. Dostupné na: <https://doi.org/10.1021/acs.jpcc.1c00279>, Registrované v: WOS
4. [1.1] LIU, Yan - ZHOU, Qiang - YAN, Yalan - LI, Liang - ZHU, Jian - ZHENG, YuLu - HUANG, Xiaoli - HUANG, Yanping - LI, Fangfei - CUI, Tian. Wrinkle and near-resonance effects on the vibrational and electronic properties in compressed monolayer MoSe<sub>2</sub>. In PHYSICAL CHEMISTRY CHEMICAL PHYSICS. ISSN 1463-9076, 2021, vol. 23, no. 20, pp. 11709-11716. Dostupné na: <https://doi.org/10.1039/d0cp06283a>, Registrované v: WOS
5. [1.1] SHEN, Pengfei - YANG, Xigui - DU, Mingrun - ZHANG, Huafang. Temperature and laser-power dependent Raman spectra of MoS<sub>2</sub>/RGO hybrid and few-layered MoS<sub>2</sub>. In PHYSICA B-CONDENSED MATTER. ISSN 0921-4526, 2021, vol. 604, no., pp. Dostupné na: <https://doi.org/10.1016/j.physb.2020.412693>, Registrované v: WOS
6. [1.1] THOMAS, Anoop - VIKRAM, Kunwar - MUTHU, D. V. S. - SOOD, A. K. Structural phase transition from 1H to 1T'; at low pressure in supported monolayer WS<sub>2</sub>: Raman study. In SOLID STATE COMMUNICATIONS. ISSN 0038-1098, 2021, vol. 336, no., pp. Dostupné na: <https://doi.org/10.1016/j.ssc.2021.114412>, Registrované v: WOS

ADCA457 RODIÈRE, P. - KLEIN, Thierry - LEMBERGER, L. - HASSELBACH, K. - DEMUER, A. - KAČMARČÍK, Jozef - WANG, Z.S. - LUO, H.Q. - LU, X.Y. - WEN, H. - GUCMANN, Filip - MARCENAT, Christophe. Scaling of the physical properties in Ba(Fe,Ni)<sub>2</sub>As<sub>2</sub> single crystals: Evidence for quantum fluctuations. In Physical Review B, 2012, vol. 85, no. 21, art. no. 214506. (2011: 3.691 - IF, Q1 - JCR, 3.326 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.85.214506>

Citácie:

1. [1.1] KUROKAWA, Hodaka - NAKAMURA, Sota - ZHAO, Jiahui - SHIKAMA,

*Naoki - SAKISHITA, Yuki - SUN, Yue - NABESHIMA, Fuyuki - IMAI, Yoshinori - KITANO, Haruhisa - MAEDA, Atsutaka. Relationship between superconductivity and nematicity in FeSe<sub>1-x</sub>Tex (x=0-0.5) films studied by complex conductivity measurements. In PHYSICAL REVIEW B, 2021, vol. 104, no. 1, pp. ISSN 2469-9950. Dostupné na: <https://doi.org/10.1103/PhysRevB.104.014505>., Registrované v: WOS*

- ADCA458 ROCH, T. - DOBROČKA, Edmund - MIKULA, M. - PIDÍK, A. - ĎURINA, P. - HAIDRY, A.A. - PLECENIK, T. - TRUCHLY, M. - GRANČIČ, B. - PLECENÍK, A. - KÚŠ, P. Strong biaxial texture and polymorph nature in TiO<sub>2</sub> thin film formed by ex-situ annealing on c-plane Al<sub>2</sub>O<sub>3</sub> surface. In Journal of Crystal Growth, 2012, vol. 338, 118-124. (2011: 1.726 - IF, Q2 - JCR, 0.962 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents, WOS, SCOPUS). ISSN 0022-0248. Dostupné na: <https://doi.org/10.1016/j.jcrysgro.2011.10.053>

Citácie:

1. [1.1] EZEMAGU, I.G. - EJIMOFOR, M.I. - MENKITI, M.C. Instrumental and thermal characterization of the sludge generated after bio-coagulation treatment (GSABT) of petroleum produced water (PW). In RESULTS IN ENGINEERING. ISSN 2590-1230, MAR 2021, vol. 9., Registrované v: WOS
2. [1.1] MOELS, K. - AARIK, L. - MAENDAR, H. - KASIKOV, A. - JOGIAAS, T. - TARRE, A. - AARIK, J. Influence of alpha-Al<sub>2</sub>O<sub>3</sub> Template and Process Parameters on Atomic Layer Deposition and Properties of Thin Films Containing High-Density TiO<sub>2</sub> Phases. In COATINGS. NOV 2021, vol. 11, no. 11., Registrované v: WOS

- ADCA459 ROLLEROVA, Eva - JURČOVIČOVÁ, Jana - MLYNARČÍKOVÁ, Alžbeta - SADLONOVÁ, Irina - BILANICOVA, Dagmar - WSOLOVA, Ladislava - KISS, Alexander - KOVRIZNYCH, Jevgenij - KRONEK, Juraj - ČIAMPOR, Fedor - VÁVRA, Ivo - SCSUKOVÁ, Soňa. Delayed adverse effects of neonatal exposure to polymeric nanoparticle poly (ethylene glycol)-block-poly lactide methyl ether on hypothalamic-pituitary-ovarian axis development and function in Wistar rats. In Reproductive Toxicology : official journal of the European Teratology Society, 2015, vol. 57, p. 165-175. (2014: 3.227 - IF, Q1 - JCR, 1.274 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0890-6238. Dostupné na: <https://doi.org/10.1016/j.reprotox.2015.07.072>

Citácie:

1. [1.1] IFTIKHAR, M. - NOUREEN, A. - UZAIR, M. - JABEEN, F. - DAIM, M.A. - CAPPELLO, T. Perspectives of Nanoparticles in Male Infertility: Evidence for Induced Abnormalities in Sperm Production. In INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. FEB 2021, vol. 18, no. 4. Dostupné na: <https://doi.org/10.3390/ijerph18041758>., Registrované v: WOS
2. [1.1] MORTENSEN, N.P. - CAFFARO, M.M. - PATEL, P.R. - SNYDER, R.W. - WATSON, S.L. - ARAVAMUDHAN, S. - MONTGOMERY, S.A. - LEFEVER, T. - SUMNER, S.J. - FENNELL, T.R. Biodistribution, cardiac and neurobehavioral assessments, and neurotransmitter quantification in juvenile rats following oral administration of aluminum oxide nanoparticles. In JOURNAL OF APPLIED TOXICOLOGY. ISSN 0260-437X, AUG 2021, vol. 41, no. 8, p. 1316-1329. Dostupné na: <https://doi.org/10.1002/jat.4122>., Registrované v: WOS

- ADCA460 ROSOVÁ, Alica - KOVÁČ, Pavol - HUŠEK, Imrich - KOPERA, Ľubomír. EDX and ion beam treatment studies of filamentary in situ MgB<sub>2</sub> wires with Ti barrier. In Journal of Alloys and Compounds, 2011, vol. 509, p. 7961-7967. (2010: 2.138 - IF, Q1 - JCR, 1.073 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2011.05.049>

Citácie:

1. [1.1] SHAHBAZI, Mahboobeh - DEHGHAN-MANSHADI, Ali - HOSSAIN, Md. - RAVISHANKAR, Ramkumar - MACKINNON, Ian. Microstructure and Superconducting Properties of Copper Sheathed MgB<sub>2</sub> Wires With Ti Barrier Fabricated by in Situ Powder-in-Tube Method. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, 2021, vol. 31, no. 5, pp. ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2021.3065634>., Registrované v: WOS
- ADCA461 ROSOVÁ, Alica\*\* - HUŠEK, Imrich - KULICH, Miloslav - MELIŠEK, Tibor - KOVÁČ, Pavol - DOBROČKA, Edmund - KOPERA, Ľubomír - SCHEITER, J. - HAESSLER, W. Microstructure of undoped and C-doped MgB<sub>2</sub> wires prepared by an internal magnesium diffusion technique using different B powders. In Journal of Alloys and Compounds, 2018, vol. 764, p. 437-e445. (2017: 3.779 - IF, Q1 - JCR, 1.020 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2018.06.108>
- Citácie:
1. [1.1] GUAN, D.D. - WANG, D.L. - MA, Y.W. Homogeneity of SiC distribution in IMD MgB<sub>2</sub> wires. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, NOV 2021, vol. 34, no. 11., Registrované v: WOS
2. [1.1] OLATUNJI, S.O. - OWOLABI, T.O. Modeling superconducting transition temperature of doped MgB<sub>2</sub> superconductor from structural distortion and ambient temperature resistivity measurement using hybrid intelligent approach. In COMPUTATIONAL MATERIALS SCIENCE. ISSN 0927-0256, MAY 2021, vol. 192., Registrované v: WOS
- ADCA462 ROSOVÁ, Alica - KULICH, Miloslav - KOVÁČ, Pavol - BRUNNER, Boris - SCHEITER, J. - HAESSLER, W. The effect of boron powder on the microstructure of MgB<sub>2</sub> filaments prepared by the modified internal magnesium diffusion technique. In Superconductor Science and Technology, 2017, vol. 30, no. 055001. (2016: 2.878 - IF, Q2 - JCR, 0.967 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/aa60f5>
- Citácie:
1. [1.1] ARVAPALLI, S. S. - MIRYALA, M. - SUNSANEE, P. - JIRSA, M. - MURAKAMI, M. Superconducting properties of sintered bulk MgB<sub>2</sub> prepared from hexane-mediated high-energy-ultra-sonicated boron. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, 2021, vol. 265, no., pp. ISSN 0921-5107. Dostupné na: <https://doi.org/10.1016/j.mseb.2020.115030>., Registrované v: WOS
2. [1.1] GUAN, Dandan - WANG, Dongliang - MA, Yanwei. Homogeneity of SiC distribution in IMD MgB<sub>2</sub> wires. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY, 2021, vol. 34, no. 11, pp. ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac1953>., Registrované v: WOS
3. [1.1] YANG, Liangqun - SUO, Hongli - MA, Lin - LIU, Min - ZHAO, Wanli - LIU, Jianhua - WANG, Lei - ZHANG, Zili - WANG, Qiuliang. Exploration of the Effect of Oxygen on Superconductivity in MgB<sub>2</sub> Bulk by Using Boron Powder with Different Particle and Purification. In CRYSTALS, 2021, vol. 11, no. 3, pp. ISSN 2073-4352. Dostupné na: <https://doi.org/10.3390/cryst11030278>., Registrované v: WOS
- ADCA463 ROSTILA, L. - LEHTONEN, J. - MASTI, M. - LALLOUET, N. - SAUGRAIN, J.-M. - ALLAIS, A. - SCHIPPL, K. - SCHMIDT, Fritz - BALOG, G. - MAROT, G. - RAVEX, A. - USOV, A.I. - GÖMÖRY, Fedor - KLINČOK, Boris - ŠOUC, Ján - FREYHARDT, H.C. Design of a 30 m long 1 kA 10 kV YBCO cable. In Superconductor Science and Technology, 2006, vol. 19, p. 418-422. (2005: 1.896 -



IF, Q1 - JCR, 1.409 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] MATSUSHITA, T. - KIUCHI, M. - NISHIJIMA, G. - MASUDA, T. - MUKOYAMA, S. - AOKI, Y. Measurement of critical current of superconducting cable. In JAPANESE JOURNAL OF APPLIED PHYSICS. ISSN 0021-4922, DEC 1 2021, vol. 60, no. 12., Registrované v: WOS

ADCA464 ROSTILA, L. - LEHTONEN, J. - MIKKONEN, R. - ŠOUC, Ján - SEILER, Eugen - MELIŠEK, Tibor - VOJENČIAK, Michal. How to determine critical current density in YBCO tapes from voltage-current measurements at low magnetic fields. In Superconductor Science and Technology, 2007, vol. 20, p. 1097-1100. (2006: 1.440 - IF, Q2 - JCR, 1.403 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] CAVALLUCCI, L. - BRESCHI, M. - RIBANI, P.L. - ZHANG, Q.B. - YANG, Y.F. Quench in a pancake coil wound with REBCO Roebel cable: model and validation. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS

2. [1.1] SADEGHI, A. - SEYYEDBARZEGAR, S.M. - YAZDANI-ASRAMI, M. Transient analysis of a 22.9 kV/2 kA HTS cable under short circuit using equivalent circuit model considering different fault parameters. In PHYSICA C- SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, OCT 15 2021, vol. 589., Registrované v: WOS

3. [1.1] WU, W. - GAO, Y.S. - JIN, Z.J. Magnetic Field Saturation of Non-Insulation High-Temperature Superconducting Coils during Overcurrent. In ELECTRONICS. NOV 2021, vol. 10, no. 22., Registrované v: WOS

ADCA465 RÝGER, Ivan - VANKO, Gabriel - LALINSKÝ, Tibor - HAŠČÍK, Štefan - BENČUROVÁ, Anna - NEMEC, Pavol - ANDOK, Robert - TOMÁŠKA, M. GaN/SiC based surface acoustic wave structures for hydrogen sensors with enhanced sensitivity. In Sensors and Actuators A: Physical, 2015, vol. 227, p. 55-62. (2014: 1.903 - IF, Q1 - JCR, 0.866 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0924-4247. Dostupné na: <https://doi.org/10.1016/j.sna.2015.02.041>

Citácie:

1. [1.1] GHOSH, Sukanya - RAJAN, Lintu. Room Temperature Hydrogen Sensor Using Schottky Contacted Zinc Oxide Thin-Film Transistor: A Comprehensive Investigation. In IEEE TRANSACTIONS ON ELECTRON DEVICES. ISSN 0018-9383, 2021, vol. 68, no. 9, pp. 4637-4643. Dostupné na: <https://doi.org/10.1109/TED.2021.3097013>., Registrované v: WOS

2. [1.1] GHOSH, Sukanya - RAJAN, Lintu. Zinc Oxide Thin-Film Transistor with Catalytic Electrodes for Hydrogen Sensing at Room Temperature. In IEEE TRANSACTIONS ON NANOTECHNOLOGY. ISSN 1536-125X, 2021, vol. 20, no., pp. 303-310., Registrované v: WOS

3. [1.1] UPADHYAY, Kavita T. - CHATTOPADHYAY, Manju K. Sensor applications based on AlGaIn/GaN heterostructures. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS. ISSN 0921-5107, 2021, vol. 263, no., pp., Registrované v: WOS

ADCA466 RÝGER, Ivan\*\* - LOBOTKA, Peter - STEIGER, A. - CHROMIK, Štefan - LALINSKÝ, Tibor - RAIDÁ, Z. - PÍTRA, K. - ZEHETNER, J. - ŠPANKOVÁ, Marianna - GAŽI, Štefan - SOJKOVÁ, Michaela - VANKO, Gabriel. Uncooled antenna-coupled microbolometer for detection of terahertz radiation. In Journal of Infrared, Millimeter, and Terahertz Waves, 2021, vol. 42, p. 462-478. (2020: 1.768 - IF, Q3 - JCR, 0.615 - SJR, Q2 - SJR, karentované - CCC). (2021 - Current



Contents). ISSN 1866-6892. Dostupné na: <https://doi.org/10.1007/s10762-021-00781-y>

Citácie:

1. [1.1] YU, Xiaohan - JIN, Shuaizhao - LI, Hongjiang - GUAN, Xiaoli - GU, Xin - LIU, Xiang. High room-temperature TCR and MR of  $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$  thin films for advanced uncooled infrared bolometers and magnetic sensors. In *APPLIED SURFACE SCIENCE*, 2021, vol. 570, no., pp. ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2021.151221>., Registrované v: WOS

ADCA467 SAFRAN, Serap - GÖMÖRY, Fedor - GENCER, A. AC loss in stacks of Bi-2223/Ag tapes modified with ferromagnetic covers at the edges. In *Superconductor Science and Technology*, 2010, vol. 23, 105003. (2009: 2.694 - IF, 1.256 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/23/10/105003>

Citácie:

1. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In *ENERGIES. APR 2021*, vol. 14, no. 8., Registrované v: WOS

ADCA468 SAHA, S.\*\* - ZELEN, M.\*\* - FINIZIO, S. - MRUCZKIEWICZ, Michal - TACCHI, S. - SUSZKA, A.K. - WINTZ, S. - BINGHAM, N.S. - RAABE, J. - KRAWCZYK, M. - HEYDERMAN, L.J. Formation of Néel-type skyrmions in an antidot lattice with perpendicular magnetic anisotropy. In *Physical Review B*, 2019, vol. 100, no. 144435. (2018: 3.736 - IF, Q1 - JCR, 1.502 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.100.144435>

Citácie:

1. [1.1] VIZARIM, N.P. - REICHHARDT, C. - VENEGAS, P.A. - REICHHARDT, C.J.O. Guided skyrmion motion along pinning array interfaces. In *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*. ISSN 0304-8853, JUN 15 2021, vol. 528., Registrované v: WOS  
2. [1.1] VIZARIM, N.P. - SOUZA, J.C.B. - REICHHARDT, C. - REICHHARDT, C.J.O. - VENEGAS, P.A. Directional locking and the influence of obstacle density on skyrmion dynamics in triangular and honeycomb arrays. In *JOURNAL OF PHYSICS-CONDENSED MATTER*. ISSN 0953-8984, JUL 28 2021, vol. 33, no. 30., Registrované v: WOS

ADCA469 SEDLAČKOVÁ, K.\*\* - ZAŤKO, Bohumír - ŠAGÁTOVÁ, A. - NEČAS, V. - BOHÁČEK, Pavol - SEKÁČOVÁ, Mária. Comparison of semi-insulating GaAs and 4H-SiC-based semiconductor detector covered by LiF film for thermal neutron detection. In *Applied Surface Science*, 2018, vol. 461, p. 242-248. (2017: 4.439 - IF, Q1 - JCR, 1.093 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2018.05.121>

Citácie:

1. [1.1] BERNAT, Robert - BAKRAC, Luka - RADULOVIC, Vladimir - SNOJ, Luka - MAKINO, Takahiro - OHSHIMA, Takeshi - PASTUOVIC, Zeljko - CAPAN, Ivana. 4H-SiC Schottky Barrier Diodes for Efficient Thermal Neutron Detection. In *MATERIALS*, 2021, vol. 14, no. 17, pp. Dostupné na: <https://doi.org/10.3390/ma14175105>., Registrované v: WOS  
2. [1.1] PENG, Junbo - ZOU, Jijun - TANG, Bin - ZHU, Zhifu - CHEN, Dahong - DENG, Wenjuan - PENG, Xincun. Effects of electron irradiation and thermal annealing on characteristics of semiinsulating galliumarsenide alphaparticle

*detectors. In NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, 2020, vol. 969, no., pp. ISSN 0168-9002. Dostupné na: <https://doi.org/10.1016/j.nima.2020.164017>., Registrované v: WOS*

3. [1.1] ZHANG, Lilong - WANG, Ying - GUO, Haomin - HU, Haifan - LIU, Yuntao - CHEN, Size. Monte Carlo Analysis of Silicon Carbide Neutron Detector With Double Conversion Layer. In IEEE SENSORS JOURNAL, 2021, vol. 21, no. 18, pp. 20145-20155. ISSN 1530-437X. Dostupné na:

<https://doi.org/10.1109/JSEN.2021.3094803>., Registrované v: WOS

ADCA470

SEDLAK, K.\*\* - ANVAR, V.A. - BAGRETS, N. - BIANCOLINI, M.E. - BONIFETTO, R. - BONNE, F. - BOSO, D. - BRIGHENTI, A. - BRUZZONE, P.L. - CELENTANO, G. - CHIAPPA, A. - D'AURIA, V. - DAN, M. - DECOOL, P. - DELLA CORTE, A. - DEMBKOWSKA, A. - DICUONZO, O. - DURAN, I. - EISTERER, M. - FERRO, Antonino - FIAMOZZI ZIGNANI, C. - FIETZ, W.H. - FRITTITTA, C. - GIAO, E. - GIANNINI, L. - GIORGETTI, F. - GÖMÖRY, Fedor - GRANADOS, X. - GUARINO, Riccardo - HELLER, R. - HOA, C. - IVASHOV, I. - JIOLAT, G. - JIRSA, M. - JOSE, B. - KEMBLETON, R. - KUMAR, M. - LACROIX, B. - LE COZ, Q. - LEWANDOWSKA, Marta - MAISTRELLO, A. - MISIARA, N. - MORICI, L. - MUZZI, L. - NICOLLET, S. - NIJHUIS, A. - NUNIO, F. - PORTAFAIX, C. - ROMANELLI, G. - SARASOLA, X. - SAVOLDI, L. - STEPANOV, B.Ja. - TISEANU, I. - TOMASSETTI, G. - TORRE, A. - TURTÚ, S. - UGLIETTI, D. - VALLCORBA, R. - VIERERBL, L. - VOJENČIAK, Michal - VORPAHL, C. - WEISS, K.-P. - WESCHE, R. - WOLF, Mark J. P. - ZANI, L. - ZANINO, R. - ZAPPATORE, A. - CORATO, V. Advance in the conceptual design of the European DEMO magnet system. In Superconductor Science and Technology, 2020, vol. 33, no. 044013. (2019: 3.067 - IF, Q2 - JCR, 0.991 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab75a9>

Citácie:

1. [1.1] LI, S. - KOVAC, J. - PARDO, E. Dependence of Resistance and Number of Tapes on the Coupling AC Loss of Soldered REBCO Stacks. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS

2. [1.1] ZHAI, Y.H. - BERLINGER, B. - BARTH, C. - SENATORE, C. Design, construction, and testing of no-insulation small subscale solenoids for compact tokamaks. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS

3. [1.1] ZHAI, Y.H. - OTTO, A. - KESSELS, C. Conceptual Design of High Field Central Solenoid for Fusion Nuclear Science Facility. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

4. [1.1] ZHAI, Y.H. - VAN DER LAAN, D. - CONNOLLY, P. - KESSEL, C. Conceptual design of HTS magnets for fusion nuclear science facility. In FUSION ENGINEERING AND DESIGN. ISSN 0920-3796, JUL 2021, vol. 168., Registrované v: WOS

ADCA471

SEIDEL, P. - GRAJCAR, M. - PLECENIK, Andrej. Tunneling and point contact spectroscopy of high-Tc superconducting thin films. In Acta Physica Polonica A, 1998, vol. 93, p. 355-363. (1997: 0.311 - IF, karentované - CCC). (1998 - Current Contents, WOS, SCOPUS).

Citácie:

1. [1.1] JI, Hao-Ran - LIU, Yan-Zhao - WANG, He - LUO, Jia-Wei - LI, Jia-Heng - LI, Hao - WU, Yang - XU, Yong - WANG, Jian. Detection of Magnetic Gap in

*Topological Surface States of MnBi<sub>2</sub>Te<sub>4</sub>. In CHINESE PHYSICS LETTERS. ISSN 0256-307X, 2021, vol. 38, no. 10, pp. Dostupné na: <https://doi.org/10.1088/0256-307X/38/10/107404>., Registrované v: WOS*

- ADCA472 SEILER, Eugen - RICHTER, D. - BORDINI, B. - BOTTURA, L. - BESSETTE, D. - VOSTNER, A. - DEVRED, A. Hysteresis losses and effective  $J_c(B)$  scaling law for ITER Nb<sub>3</sub>Sn strands. In IEEE Transactions on Applied Superconductivity, 2016, vol. 26, art. no. 8200307. (2015: 1.092 - IF, Q3 - JCR, 0.403 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2517200>

Citácie:

1. [1.1] *DUCHATEAU, Jean-Luc - TURCK, Bernard - TORRE, Alexandre - ZANI, Louis. An analytical model for coupling losses in large conductors for magnetic fusion. In CRYOGENICS, 2021, vol. 120, no., pp. ISSN 0011-2275. Dostupné na: <https://doi.org/10.1016/j.cryogenics.2021.103374>., Registrované v: WOS*

- ADCA473 SEILER, Eugen\*\* - GÖMÖRY, Fedor - RIES, Rastislav - VOJENČIAK, Michal. Analysis of critical current anisotropy in commercial coated conductors in terms of the maximum entropy approach. In Superconductor Science and Technology, 2019, vol. 32, no. 095004. (2018: 2.489 - IF, Q2 - JCR, 0.879 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab24ad>

Citácie:

1. [1.2] *GURYEV, V. V. - SHAVKIN, S. V. - KRUGLOV, V. S. Method for critical current angular dependencies analysis of superconducting tapes. In Journal of Physics: Conference Series, 2021-12-14, 2103, 1, pp. ISSN 17426588. Dostupné na: <https://doi.org/10.1088/1742-6596/2103/1/012096>., Registrované v: SCOPUS*

- ADCA474 SHENG, J. - VOJENČIAK, Michal - TERZIOGLU, R. - FROLEK, Lubomír - GÖMÖRY, Fedor. Numerical study on magnetization characteristics of superconducting conductor on round core cables. In IEEE Transactions on Applied Superconductivity, 2017, vol. 27, art. no. 4800305. (2016: 1.583 - IF, Q3 - JCR, 0.398 - SJR, Q2 - SJR, karentované - CCC). (2017 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2632901>

Citácie:

1. [1.1] *LI, X.H. - REN, L. - XU, Y. - LONG, J.J. - SHI, J. - CHEN, G.L. - YUE, Y. - TANG, Y.J. Study on the Influence of Thermal and Magnetic Field on CORC Cable Properties by a 2D Model. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS*
2. [1.1] *YAN, Y.F. - QU, T.M. - GRILLI, F. Numerical Modeling of AC Loss in HTS Coated Conductors and Roebel Cable Using T-A Formulation and Comparison With H Formulation. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 49649-49659., Registrované v: WOS*
3. [1.1] *YANG, J.B. - TIAN, M.Y. - MA, J. - OZTURK, Y. - LI, C. - HU, J.T. - GAWITH, J. - SHAH, A. - PATEL, I. - WEI, H.G.N. - HAO, L.N. - SHEN, B.Y. - COOMBS, T. Numerical Study on AC Loss Characteristics of Conductor on Round Core Cables Under Transport Current and Magnetic Field. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS*
4. [1.1] *ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v:*

WOS

5. [1.2] LI, Ke - XUE, Wenbo - ZHANG, Shenxi - JIANG, Kaihua - LU, Zhen - HONG, Zhiyong - JIN, Zhijian. Fast AC Loss Calculation for Superconducting High Capacity Power Transmission Line. In 2021 IEEE IAS Industrial and Commercial Power System Asia, I and CPS Asia 2021, 2021-01-01, pp. 551-555. Dostupné na: <https://doi.org/10.1109/ICPSAsia52756.2021.9621379>.

Registrované v: SCOPUS

- ADCA475 SCHLUCK, J.\*\* - FEILHAUER, Juraj - PIERZ, K. - SCHUMACHER, H.W. - KAZAZIS, D. - GENNSER, U. - HEINZEL, Thomas. Quantum signatures of competing electron trajectories in antidot superlattices. In Physical Review B, 2018, vol. 98, no. 165415. (2017: 3.813 - IF, Q2 - JCR, 1.176 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.98.165415> (VEGA 2/0162/18)

Citácie:

1. [1.1] HUANG, Botsz - MOGHADDAM, Ali G. - FACIO, Jorge - CHANG, Ching-Hao. Resonant nonlinear Hall effect in two-dimensional electron systems. In PHYSICAL REVIEW B, 2021, vol. 104, no. 16, pp. ISSN 2469-9950. Dostupné na: <https://doi.org/10.1103/PhysRevB.104.165303>. Registrované v: WOS

- ADCA476 SCHRÖFEL, A. - KRATOŠOVÁ, G. - BOHUNICKÁ, M. - DOBROČKA, Edmund - VÁVRA, Ivo. Biosynthesis of gold nanoparticles using diatoms-silica-gold and EPS-gold bionanocomposite formation. In Journal of Nanoparticle Research, 2011, vol. 13, p. 3207-3216. (2010: 3.253 - IF, Q1 - JCR, 0.974 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 1388-0764. Dostupné na: <https://doi.org/10.1007/s11051-011-0221-6>

Citácie:

1. [1.1] BAHRULOLUM, H. - NOORAEI, S. - JAVANSHIR, N. - TARRAHIMOFRAD, H. - MIRBAGHERI, V.S. - EASTON, A.J. - AHMADIAN, G. Green synthesis of metal nanoparticles using microorganisms and their application in the agrifood sector. In JOURNAL OF NANOBIO TECHNOLOGY. MAR 26 2021, vol. 19, no. 1., Registrované v: WOS

2. [1.1] BISWAS, R.K. - CHOUDHURY, A.K. Diatoms: Miniscule biological entities with immense importance in synthesis of targeted novel bioparticles and biomonitoring. In JOURNAL OF BIOSCIENCES. ISSN 0250-5991, DEC 2021, vol. 46, no. 4., Registrované v: WOS

3. [1.1] BOSE, R. - ROYCHOUDHURY, P. - PAL, R. In-situ green synthesis of fluorescent silica-silver conjugate nanodendrites using nanoporous frustules of diatoms: an unprecedented approach. In BIOPROCESS AND BIOSYSTEMS ENGINEERING. ISSN 1615-7591, JUN 2021, vol. 44, no. 6, p. 1263-1273., Registrované v: WOS

4. [1.1] FALASCO, E. - ECTOR, L. - WETZEL, C.E. - BADINO, G. - BONA, F. Looking back, looking forward: a review of the new literature on diatom teratological forms (2010-2020). In HYDROBIOLOGIA. ISSN 0018-8158, MAY 2021, vol. 848, no. 8, p. 1675-1753., Registrované v: WOS

5. [1.1] KAPOOR, R.T. - SALVADORI, M.R. - RAFATULLAH, M. - SIDDIQUI, M.R. - KHAN, M.A. - ALSHAREEF, S.A. Exploration of Microbial Factories for Synthesis of Nanoparticles - A Sustainable Approach for Bioremediation of Environmental Contaminants. In FRONTIERS IN MICROBIOLOGY. ISSN 1664-302X, JUN 4 2021, vol. 12., Registrované v: WOS

6. [1.1] KOYANDE, A.K. - CHEW, K.W. - MANICKAM, S. - CHANG, J.S. - SHOW, P.L. Emerging algal nanotechnology for high-value compounds: A direction to future food production. In TRENDS IN FOOD SCIENCE & TECHNOLOGY. ISSN 0924-2244, OCT 2021, vol. 116, p. 290-302., Registrované



v: WOS

7. [1.1] LI, S.N. - WANG, R.P. - HO, S.H. Algae-mediated biosystems for metallic nanoparticle production: From synthetic mechanisms to aquatic environmental applications. In JOURNAL OF HAZARDOUS MATERIALS. ISSN 0304-3894, OCT 15 2021, vol. 420., Registrované v: WOS
8. [1.1] MORAES, L.C. - FIGUEIREDO, R.C. - RIBEIRO-ANDRADE, R. - PONTES-SILVA, A.V. - ARANTES, M.L. - GIANI, A. - FIGUEREDO, C.C. High diversity of microalgae as a tool for the synthesis of different silver nanoparticles: A species-specific green synthesis. In COLLOID AND INTERFACE SCIENCE COMMUNICATIONS. ISSN 2215-0382, MAY 2021, vol. 42., Registrované v: WOS
9. [1.1] PATEL, A. - ENMAN, J. - GULKOVA, A. - GUNTORO, P.I. - DUTKIEWICZ, A. - GHORBANI, Y. - ROVA, U. - CHRISTAKOPOULOS, P. - MATSAKAS, L. Integrating biometallurgical recovery of metals with biogenic synthesis of nanoparticles. In CHEMOSPHERE. ISSN 0045-6535, JAN 2021, vol. 263., Registrované v: WOS
10. [1.1] RABIEE, N. - KHATAMI, M. - SOUFI, G.J. - FATAHI, Y. - IRAVANI, S. - VARMA, R.S. Diatoms with Invaluable Applications in Nanotechnology, Biotechnology, and Biomedicine: Recent Advances. In ACS BIOMATERIALS SCIENCE & ENGINEERING. ISSN 2373-9878, JUL 12 2021, vol. 7, no. 7, p. 3053-3068., Registrované v: WOS
11. [1.1] ROYCHOUDHURY, P. - DABEK, P. - GLOC, M. - GOLUBEVA, A. - DOBRUCKA, R. - KURZYDŁOWSKI, K. - WITKOWSKI, A. Reducing Efficiency of Fucoxanthin in Diatom Mediated Biofabrication of Gold Nanoparticles. In MATERIALS. AUG 2021, vol. 14, no. 15., Registrované v: WOS
12. [1.1] ROYCHOUDHURY, P. - GOLUBEVA, A. - DABEK, P. - GLOC, M. - DOBRUCKA, R. - KURZYDŁOWSKI, K. - WITKOWSKI, A. Diatom Mediated Production of Fluorescent Flower Shaped Silver-Silica Nanohybrid. In MATERIALS. DEC 2021, vol. 14, no. 23., Registrované v: WOS
13. [1.1] SHINY, K.S. - SUNDARARAJ, R. BIOLOGICALLY SYNTHESISED COPPER OXIDE AND ZINC OXIDE NANOPARTICLE FORMULATION AS AN ENVIRONMENTALLY FRIENDLY WOOD PROTECTANT FOR THE MANAGEMENT OF WOOD BORER, *Lyctus africanus*. In MADERAS-CIENCIA Y TECNOLOGIA. ISSN 0717-3644, 2021, vol. 23., Registrované v: WOS
14. [1.1] TAGHIZADEH, S.M. - MOROWVAT, M.H. - NEGAHDARIPOUR, M. - EBRAHIMINEZHAD, A. - GHASEMI, Y. Biosynthesis of Metals and Metal Oxide Nanoparticles Through Microalgal Nanobiotechnology: Quality Control Aspects. In BIONANOSCIENCE. ISSN 2191-1630, MAR 2021, vol. 11, no. 1, p. 209-226., Registrované v: WOS
15. [1.1] YASSIN, M.A. - ELGORBAN, A.M. - EL-SAMAWATY, A.M.A. - ALMUNQEDHI, B.M.A. Biosynthesis of silver nanoparticles using *Penicillium verrucosum* and analysis of their antifungal activity. In SAUDI JOURNAL OF BIOLOGICAL SCIENCES. ISSN 1319-562X, APR 2021, vol. 28, no. 4, p. 2123-2127., Registrované v: WOS
16. [1.2] BACHHETI, Rakesh Kumar - ABATE, Limenew - DEEPTI - BACHHETI, Archana - MADHUSUDHAN, Alle - HUSEN, Azamal. Algae-, fungi-, and yeast-mediated biological synthesis of nanoparticles and their various biomedical applications. In Handbook of Greener Synthesis of Nanomaterials and Compounds: Volume 1: Fundamental Principles and Methods, 2021-01-01, pp. 701-734. Dostupné na: <https://doi.org/10.1016/B978-0-12-821938-6.00022-0>, Registrované v: SCOPUS
17. [1.2] THAKUR, Mansee - POOJARY, Smital - SWAIN, Niharika. Green



*Synthesis of Iron Oxide Nanoparticles and Its Biomedical Applications. In Nanotechnology in the Life Sciences, 2021-01-01, pp. 83-109. ISSN 25238027. Dostupné na: [https://doi.org/10.1007/978-3-030-64410-9\\_5](https://doi.org/10.1007/978-3-030-64410-9_5), Registrované v: SCOPUS*

- ADCA477 SKÁKALOVÁ, V. - VRETENÁR, Viliam - KOPERA, Ľubomír - KOTRUSZ, P. - MANGLER, C. - MEŠKO, M. - MEYER, J.C. - HULMAN, Martin. Electronic transport in composites of graphite oxide with carbon nanotubes. In Carbon, 2014, vol. 72, p. 224-232. (2013: 6.160 - IF, Q1 - JCR, 2.292 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0008-6223. Dostupné na: <https://doi.org/10.1016/j.carbon.2014.02.006>

Citácie:

1. [1.1] ASHRAF, Muhammad - SHAH, Syed Shaheen - KHAN, Ibrahim - AZIZ, Md. Abdul - ULLAH, Nisar - KHAN, Mujeeb - ADIL, Syed Farooq - LIAQAT, Zainab - USMAN, Muhammad - TREMEL, Wolfgang - TAHIR, Muhammad Nawaz. A High-Performance Asymmetric Supercapacitor Based on Tungsten Oxide Nanoplates and Highly Reduced Graphene Oxide Electrodes. In CHEMISTRY-A EUROPEAN JOURNAL. ISSN 0947-6539, 2021, vol. 27, no. 23, pp. 6973-6984. Dostupné na: <https://doi.org/10.1002/chem.202005156>, Registrované v: WOS

- ADCA478 SKÁKALOVÁ, Viera\*\* - KOTRUSZ, Peter - JERGEL, Matej - SUSI, Toma - MITTELBERGER, Andreas - VRETENÁR, Viliam - ŠIFFALOVÍČ, Peter - KOTAKOSKI, Jani - MEYER, Jannik C. - HULMAN, Martin. Chemical oxidation of graphite: Evolution of the structure and properties. In Journal of Physical Chemistry C, 2018, vol. 122, no. 1, p. 929-935. (2017: 4.484 - IF, Q1 - JCR, 2.135 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 1932-7447. Dostupné na: <https://doi.org/10.1021/acs.jpcc.7b10912>

Citácie:

1. [1.1] AZIZ, Nur'; Afifah Abdul - AHMAD, Fauzan - LOKMAN, Muhammad Quisar - HARUN, Sulaiman Wadi - HANAFI, Effariza. Generation of Passive Q-switched by using Graphene Oxide in Erbium Doped Fiber Laser. In 19TH IEEE STUDENT CONFERENCE ON RESEARCH AND DEVELOPMENT (SCORED 2021), 2021, vol., no., pp. 300-304. ISSN 2643-2439. Dostupné na: <https://doi.org/10.1109/SCORED53546.2021.9652758>, Registrované v: WOS
2. [1.1] KASHIF, M. - JAAFAR, E. - BHADJA, P. - LOW, F.W. - SAHARI, S.K. - HUSSAIN, S. - LOONG, F.K. - AHMAD, A. - ALGARNI, T.S. - SHAFA, M. - ASGHAR, H. - AL-TAMRAH, S.A. Effect of potassium permanganate on morphological, structural and electro-optical properties of graphene oxide thin films. In ARABIAN JOURNAL OF CHEMISTRY. ISSN 1878-5352, FEB 2021, vol. 14, no. 2., Registrované v: WOS
3. [1.1] MACKENZIE, D.M.A. - GALBIATI, M. - DE CERIO, X.D. - SAHALIANOV, I.Y. - RADCHENKO, T.M. - SUN, J.B. - PENA, D. - GAMMELGAARD, L. - JESSEN, B.S. - THOMSEN, J.D. - BOGGILD, P. - GARCIA-LEKUE, A. - CAMILLI, L. - CARIDAD, J.M. Unraveling the electronic properties of graphene with substitutional oxygen. In 2D MATERIALS. ISSN 2053-1583, OCT 2021, vol. 8, no. 4., Registrované v: WOS
4. [1.1] MINTZ, K.J. - BARTOLI, M. - ROVERE, M. - ZHOU, Y.Q. - HETTIARACHCHI, S.D. - PAUDYAL, S. - CHEN, J.Y. - DOMENA, J.B. - LIYANAGE, P.Y. - SAMPSON, R. - KHADKA, D. - PANDEY, R.R. - HUANG, S.X. - CHUSUEI, C.C. - TAGLIAFERRO, A. - LEBLANC, R.M. A deep investigation into the structure of carbon dots. In CARBON. ISSN 0008-6223, MAR 2021, vol. 173, p. 433-447., Registrované v: WOS
5. [1.1] MITTAL, H. - AL ALILI, A. - MORAJKAR, P.P. - ALHASSAN, S.M.

*Graphene oxide crosslinked hydrogel nanocomposites of xanthan gum for the adsorption of crystal violet dye. In JOURNAL OF MOLECULAR LIQUIDS. ISSN 0167-7322, FEB 1 2021, vol. 323., Registrované v: WOS*

6. [1.1] OSTYN, N.R. - SREE, S.P. - LI, J. - FENG, J.Y. - ROEFFAERS, M.B.J. - DE FEYTER, S. - DENDOOVEN, J. - DETAVERNIER, C. - MARTENS, J.A.

*Covalent graphite modification by low-temperature photocatalytic oxidation using a titanium dioxide thin film prepared by atomic layer deposition. In CATALYSIS SCIENCE & TECHNOLOGY. ISSN 2044-4753, OCT 18 2021, vol. 11, no. 20, p. 6724-6731., Registrované v: WOS*

7. [1.2] FATMAWATI, D. A. - TRIYONO - TRISUNARYANTI, W. - OKTAVIANO, H. S. - CHASANA, U. *The study of partially and fully oxidized graphene oxide prepared by green synthesis for wide-scale fabrication. In Rasayan Journal of Chemistry. ISSN 09741496, 2021-07-01, 14, 3, pp. 2129-2135. Dostupné na: <https://doi.org/10.31788/RJC.2021.1436004>., Registrované v: SCOPUS*

8. [1.2] SINGH, Rasmeet. *Advancements in Energy Storage Through Graphene. In Lecture Notes in Mechanical Engineering. ISSN 21954356, 2021-01-01, pp. 165-173. Dostupné na: [https://doi.org/10.1007/978-981-16-0909-1\\_17](https://doi.org/10.1007/978-981-16-0909-1_17)., Registrované v: SCOPUS*

ADCA479 SOJKOVÁ, Michaela\*\* - VÉGSO, Karol - MRKÝVKOVÁ, Nad'a, Tesařová - HAGARA, Jakub - HUTÁR, Peter - ROSOVÁ, Alica - ČAPLOVIČOVÁ, M. - LUDACKA, U. - SKÁKALOVÁ, V. - MAJKOVÁ, Eva - ŠIFFALOVÍČ, Peter - HULMAN, Martin. Tuning the orientation of few-layer MoS<sub>2</sub> films using one-zone sulfurization. In RSC Advances, 2019, vol. 9, no. 51, p. 29645-29651. (2018: 3.049 - IF, Q2 - JCR, 0.807 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 2046-2069. Dostupné na: <https://doi.org/10.1039/c9ra06770a> (VEGA 2/0149/17. APVV 17-0560)

Citácie:

1. [1.1] NAVARRO-GAMARRA, K.E. - DE PAOLI, J.M. - PATRITO, E.M. *Ellipsometric Investigation of Thick Vertically Oriented MoS<sub>2</sub> Films Grown on Mo Foil at High Temperatures. In JOURNAL OF PHYSICAL CHEMISTRY C. ISSN 1932-7447, JAN 28 2021, vol. 125, no. 3, p. 2005-2014., Registrované v: WOS*

ADCA480 SOJKOVÁ, Michaela\*\* - ŠIFFALOVÍČ, Peter - BABCHENKO, Oleg - VANKO, Gabriel - DOBROČKA, Edmund - HAGARA, Jakub - MRKÝVKOVÁ, Nad'a, Tesařová - MAJKOVÁ, Eva - IZSÁK, Tibor - KROMKA, A. - HULMAN, Martin. Carbide-free one-zone sulfurization method grows thin MoS<sub>2</sub> layers on polycrystalline CVD diamond. In Scientific Reports, 2019, vol. 9, no. 2001. (2018: 4.011 - IF, Q1 - JCR, 1.414 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents, WOS, SCOPUS). ISSN 2045-2322. Dostupné na: <https://doi.org/10.1038/s41598-018-38472-9> (VEGA 2/0149/17)

Citácie:

1. [1.1] GOEL, N. - KUMAR, R. - KUMAR, M. *Visualization of band offsets at few-layer MoS<sub>2</sub>/Ge heterojunction. In NANOTECHNOLOGY. ISSN 0957-4484, SEP 10 2021, vol. 32, no. 37., Registrované v: WOS*

2. [1.1] MOULOUA, D. - KOTBI, A. - DEOKAR, G. - KAJA, K. - EL MARSSI, M. - EL KHAKANI, M.A. - JOUIAD, M. *Recent Progress in the Synthesis of MoS<sub>2</sub> Thin Films for Sensing, Photovoltaic and Plasmonic Applications: A Review. In MATERIALS. JUN 2021, vol. 14, no. 12., Registrované v: WOS*

ADCA481 SOJKOVÁ, Michaela\*\* - DOBROČKA, Edmund - HUTÁR, Peter - TAŠKOVÁ, Valéria - PRIBUSOVÁ SLUŠNÁ, Lenka - STOKLAS, Roman - PÍŠ, I. - BONDONI, F. - MUNNIK, F. - HULMAN, Martin. High carrier mobility epitaxially aligned PtSe<sub>2</sub> films grown by one-zone selenization. In Applied Surface Science,

2021, vol. 538, no. 147936. (2020: 6.707 - IF, Q1 - JCR, 1.295 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2020.147936>

Citácie:

1. [1.1] LUKAS, S. - HARTWIG, O. - PRECHTL, M. - CAPRARO, G. - BOLTEN, J. - MELEDIN, A. - MAYER, J. - NEUMAIER, D. - KATARIA, S. - DUESBERG, G.S. - LEMME, M.C. Correlating Nanocrystalline Structure with Electronic Properties in 2D Platinum Diselenide. In *ADVANCED FUNCTIONAL MATERIALS*. ISSN 1616-301X, AUG 2021, vol. 31, no. 35., Registrované v: WOS
2. [1.1] NAKAZAWA, T. - KIM, D. - KATO, S. - PARK, J. - NAM, J. - KIM, H. Photocurrent Enhancement of PtSe<sub>2</sub> Photodetectors by Using Au Nanorods. In *PHOTONICS*. NOV 2021, vol. 8, no. 11., Registrované v: WOS

ADCA482

SOLOVYOV, Mykola - PARDO, Enric - ŠOUC, Ján - GÖMÖRY, Fedor - SKARBA, M. - KONOPKA, P. - PEKARČIKOVÁ, M. - JANOVEC, J. Non-uniformity of coated conductor tapes. In *Superconductor Science and Technology*, 2013, vol. 26, 115013. (2012: 2.758 - IF, Q1 - JCR, 1.535 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/26/11/115013>

Citácie:

1. [1.1] GRILLI, F. - ABRAHAM, S. - BRAMBILLA, R. AC loss calculation in high-temperature superconductor wires and windings with analytical and numerical models: influence of J(c)(B) dependence. In *33RD INTERNATIONAL SYMPOSIUM ON SUPERCONDUCTIVITY (ISS2020)*. ISSN 1742-6588, 2021, vol. 1975., Registrované v: WOS
2. [1.1] GRILLI, F. Calculating the full-range dynamic loss of HTS wires in an instant. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, FEB 2021, vol. 34, no. 2., Registrované v: WOS
3. [1.1] HAJIRI, G. - BERGER, K. - DORGET, R. - LEVEQUE, J. - CARON, H. Thermal and Electromagnetic Design of DC HTS Cables for the Future French Railway Network. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
4. [1.1] MUSSO, A. - BRESCHI, M. - RIBANI, P.L. - GRILLI, F. Analysis of AC Loss Contributions From Different Layers of HTS Tapes Using the A-V Formulation Model. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, MAR 2021, vol. 31, no. 2., Registrované v: WOS
5. [1.1] SUN, Y.M. - FANG, J. - PANTOJA, A.E. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. Role of asymmetric critical current on magnetization loss characteristics of (RE)Ba<sub>2</sub>Cu<sub>3</sub>O<sub>7-d</sub> coated conductors at various temperatures. In *JOURNAL OF APPLIED PHYSICS*. ISSN 0021-8979, AUG 28 2021, vol. 130, no. 8., Registrované v: WOS
6. [1.1] SUN, Y.M. - FANG, J. - SIDOROV, G. - LI, Q. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. Total loss measurement and simulation in a REBCO coated conductor carrying DC current in perpendicular AC magnetic field at various temperatures. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, JUN 2021, vol. 34, no. 6., Registrované v: WOS
7. [1.1] SUN, Y.M. - LONG, N.J. - SIDOROV, G. - FANG, J. - BADCOCK, R.A. - JIANG, Z.N. Shielding Effect of (RE)Ba<sub>2</sub>Cu<sub>3</sub>O<sub>7-d</sub>-Coated Conductors on Eddy Current Loss of Adjacent Metal Layers Under AC Magnetic Fields With Various Orientations. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS

- ADCA483 SOLOVYOV, Mykola\*\* - GÖMÖRY, Fedor. A–V formulation for numerical modelling of superconductor magnetization in true 3D geometry. In *Superconductor Science and Technology*, 2019, vol. 32, no. 11, no. 115001. (2018: 2.489 - IF, Q2 - JCR, 0.879 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ab3a85> (APVV 16-0418. VEGA 1/0151/17. APVV 15-0257)
- Citácie:
- [1.1] LAI, Lingfeng - GU, Chen. AC loss calculation in REBCO coils or stacks by solving the equation of motion for current using an integration approach. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*, 2021, vol. 34, no. 1, pp. ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/abc567>., Registrované v: WOS
  - [1.1] YANG, Weijie - LI, Xianglin - WANG, Yubin. Performance Analysis of a New HTS-Excitation Claw-Pole Doubly-Salient Machine. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*, 2021, vol. 31, no. 5, pp. ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2021.3058919>., Registrované v: WOS
  - [1.1] ZHANG, Hongye - WEN, Zezhao - GRILLI, Francesco - GYFTAKIS, Konstantinos - MUELLER, Markus. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In *ENERGIES*, 2021, vol. 14, no. 8, pp. Dostupné na: <https://doi.org/10.3390/en14082234>., Registrované v: WOS
  - [1.1] ZHANG, K. - AINSLIE, M. - CALVI, M. - KINJO, R. - SCHMIDT, T. Fully-staggered-array bulk Re-Ba-Cu-O short-period undulator: large-scale 3D electromagnetic modelling and design optimization using A-V and H-formulation methods. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, SEP 2021, vol. 34, no. 9., Registrované v: WOS
- ADCA484 SOLOVYOV, Mykola - ŠOUC, Ján - GÖMÖRY, Fedor. Magnetic cloak for low frequency AC magnetic field. In *IEEE Transactions on Applied Superconductivity*, 2015, vol. 25, 8800705. (2014: 1.235 - IF, Q3 - JCR, 0.478 - SJR, Q2 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2014.2376176>
- Citácie:
- [1.1] FAREED, M.U. - RUIZ, H.S. Critical State Theory for the Magnetic Coupling between Soft Ferromagnetic Materials and Type-II Superconductors. In *MATERIALS*. OCT 2021, vol. 14, no. 20., Registrované v: WOS
- ADCA485 SOLOVYOV, Mykola - ŠOUC, Ján - GÖMÖRY, Fedor - RIKEL, M.O. - MIKULÁŠOVÁ, E. - UŠÁKOVÁ, M. - UŠÁK, E. Bulk and CC-tape based superconducting shields for magnetic cloaks. In *IEEE Transactions on Applied Superconductivity*, 2017, vol. 27, art. no. 8800204. (2016: 1.583 - IF, Q3 - JCR, 0.398 - SJR, Q2 - SJR, karentované - CCC). (2017 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2627244>
- Citácie:
- [1.2] SHOMAD, M. Abdus - HIDAYAT, Fahmi Ruddin. Vertical blade fiberglass composite for wind turbine power plant application. In *Journal of Robotics and Control (JRC)*. ISSN 27155056, 2021-05-01, 2, 3, pp. 148-152. Dostupné na: <https://doi.org/10.18196/jrc.2369>., Registrované v: SCOPUS
- ADCA486 SOTÁK, T. - HRONEC, M. - GÁL, M. - DOBROČKA, Edmund - ŠKRINIAROVÁ, J. Aqueous-phase oxidation of furfural to maleic acid catalyzed by copper phosphate catalysts. In *Catalysis Letters*, 2017, vol. 147, p. 2714-2723. (2016: 2.799 - IF, Q2 - JCR, 0.755 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN



1011-372X. Dostupné na: <https://doi.org/10.1007/s10562-017-2191-5>

Citácie:

1. [1.1] FENG, Y.C. - LONG, S.S. - TANG, X. - SUN, Y. - LUQUE, R. - ZENG, X.H. - LIN, L. Earth-abundant 3d-transition-metal catalysts for lignocellulosic biomass conversion. In *CHEMICAL SOCIETY REVIEWS*. ISSN 0306-0012, MAY 21 2021, vol. 50, no. 10, p. 6042-6093., Registrované v: WOS
2. [1.1] GNANAMOORTHY, G. - YADAV, V.K. - ALI, D. - NARAYANAN, V. - KATUBI, K.M.S. - ALARIFI, S. Trigger action of copper aminophosphate (X-CuAP) nanoparticles for enhanced electrochemical, photocatalyst and biological properties. In *OPTICAL MATERIALS*. ISSN 0925-3467, JUL 2021, vol. 117., Registrované v: WOS
3. [1.1] GOMEZ-CAPIRO, O. - BRAVO, L. - LAGOS, P. - SANTANDER, P. - PECCHI, G. - KARELOVIC, A. Kinetic and structural understanding of bulk and supported vanadium-based catalysts for furfural oxidation to maleic anhydride. In *CATALYSIS SCIENCE & TECHNOLOGY*. ISSN 2044-4753, OCT 4 2021, vol. 11, no. 19, p. 6477-6489., Registrované v: WOS
4. [1.1] MALIBO, P.M. - MAKGWANE, P.R. - BAKER, P.G.L. Hetero-mixed TiO<sub>2</sub>-SnO<sub>2</sub> interfaced nano-oxide catalyst with enhanced activity for selective oxidation of furfural to maleic acid. In *INORGANIC CHEMISTRY COMMUNICATIONS*. ISSN 1387-7003, JUL 2021, vol. 129., Registrované v: WOS
5. [1.1] WAN, Y. - LEE, J.M. Toward Value-Added Dicarboxylic Acids from Biomass Derivatives via Thermocatalytic Conversion. In *ACS CATALYSIS*. ISSN 2155-5435, MAR 5 2021, vol. 11, no. 5, p. 2524-2560., Registrované v: WOS
6. [1.1] YANG, T. - LI, W.Z. - OGUNBIYI, A.T. The effect of Br- and alkali in enhancing the oxidation of furfural to maleic acid with hydrogen peroxide. In *MOLECULAR CATALYSIS*. ISSN 2468-8231, MAR 2021, vol. 504., Registrované v: WOS
7. [1.1] YU, X. - LIU, H. - WANG, Q. - JIA, W.L. - WANG, H.Q. - LI, W.L. - ZHENG, J.W. - SUN, Y. - TANG, X. - ZENG, X.H. - XU, F. - LIN, L. Selective Oxidation of Furfural to 2(5H)-Furanone and Maleic Acid over CuMoO<sub>4</sub>. In *ACS SUSTAINABLE CHEMISTRY & ENGINEERING*. ISSN 2168-0485, OCT 4 2021, vol. 9, no. 39, p. 13176-13187., Registrované v: WOS
8. [1.1] ZHANG, H.F. - WANG, S.L. - ZHANG, H.X. - CLARK, J.H. - CAO, F.H. A biomass-derived metal-free catalyst doped with phosphorus for highly efficient and selective oxidation of furfural into maleic acid. In *GREEN CHEMISTRY*. ISSN 1463-9262, FEB 7 2021, vol. 23, no. 3, p. 1370-1381., Registrované v: WOS
9. [1.1] ZHANG, X. - XU, S.Q. - LI, Q.F. - ZHOU, G.L. - XIA, H.A. Recent advances in the conversion of furfural into bio-chemicals through chemo- and bio-catalysis. In *RSC ADVANCES*. AUG 16 2021, vol. 11, no. 43, p. 27042-27058., Registrované v: WOS
10. [1.1] ZHENG, L.J. - SUN, X.N. - WANG, J. - LU, Y. - SHAO, H. Effect of CTAB on the Oxidation of Furfural to Maleic Acid over Hierarchical CoAPO-5 Catalysts. In *RUSSIAN JOURNAL OF APPLIED CHEMISTRY*. ISSN 1070-4272, FEB 2021, vol. 94, no. 2, p. 237-244., Registrované v: WOS
11. [1.1] ZHU, J.L. - YIN, G.C. Catalytic Transformation of the Furfural Platform into Bifunctionalized Monomers for Polymer Synthesis. In *ACS CATALYSIS*. ISSN 2155-5435, AUG 6 2021, vol. 11, no. 15, p. 10058-10083., Registrované v: WOS

ADCA487

SPRINGHOLZ, G. - SCHWARZL, T. - HEISS, W. - BAUER, G. - AIGLE, M. - PASCHER, H. - VÁVRA, Ivo. Midinfrared surface-emitting PbSe/PbEuTe quantum-dot lasers. In *Applied Physics Letters*, 2001, vol. 79, p. 1225. (2000: 3.906 - IF). ISSN 0003-6951.



Citácie:

1. [1.1] HAIDET, Brian B. - NORDIN, Leland - MUHOWSKI, Aaron J. - VALLEJO, Kevin D. - HUGHES, Eamonn T. - MEYER, Jarod - SIMMONDS, Paul J. - WASSERMAN, Daniel - MUKHERJEE, Kunal. Interface structure and luminescence properties of epitaxial PbSe films on InAs(111)A. In JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A. ISSN 0734-2101, 2021, vol. 39, no. 2, pp. Dostupné na: <https://doi.org/10.1116/6.0000774>., Registrované v: WOS

2. [1.1] HUGHES, Eamonn T. - HAIDET, Brian B. - BONEF, Bastien - CAI, Wei - MUKHERJEE, Kunal. Pipe-diffusion-enriched dislocations and interfaces in SnSe/PbSe heterostructures. In PHYSICAL REVIEW MATERIALS. ISSN 2475-9953, 2021, vol. 5, no. 7, pp. Dostupné na:

<https://doi.org/10.1103/PhysRevMaterials.5.073402>., Registrované v: WOS

ADCA488

STOKLAS, Roman - GREGUŠOVÁ, Dagmar - NOVÁK, Jozef - VESCAN, A. - KORDOŠ, Peter. Investigation of trapping effects in AlGaIn/GaN/Si field-effect transistors by frequency dependent capacitance and conductance analysis. In Applied Physics Letters, 2008, vol. 93, 124103. (2007: 3.596 - IF, Q1 - JCR, 3.012 - SJR, Q1 - SJR, karentované - CCC). (2008 - Current Contents, WOS, SCOPUS). ISSN 0003-6951.

Citácie:

1. [1.1] HONG, Yue-Hua - ZHENG, Xue-Feng - HE, Yun-Long - ZHANG, Fang - ZHANG, Xiang-Yu - WANG, Xi-Chen - LI, Jia-Ning - WANG, Dang-Po - LU, Xiao-Li - HAN, Hong-Bo - MA, Xiao-Hua - HAO, Yue. The optimized interface characteristics of beta-Ga<sub>2</sub>O<sub>3</sub> Schottky barrier diode with low temperature annealing. In APPLIED PHYSICS LETTERS, 2021, vol. 119, no. 13, pp. ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/5.0063458>., Registrované v: WOS

2. [1.1] LIU, Shuang - ZHANG, Weihang - ZHANG, Jincheng - SONG, Xiufeng - WU, Yinhe - CHEN, Dazheng - XU, Shengrui - ZHAO, Shenglei - HAO, Yue. AlN/GaN Superlattice Channel HEMTs on Silicon Substrate. In IEEE TRANSACTIONS ON ELECTRON DEVICES, 2021, vol. 68, no. 7, pp. 3296-3301. ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2021.3078674>., Registrované v: WOS

ADCA489

STOKLAS, Roman\*\* - GREGUŠOVÁ, Dagmar - HASENÖHRL, Stanislav - BRYTAVSKYI, E. - ĽAPAĽNA, Milan - FRÖHLICH, Karol - HAŠČÍK, Štefan - GREGOR, M. - KUZMÍK, Ján. Characterization of interface states in AlGaIn/GaN metal-oxide-semiconductor heterostructure field-effect transistors with HfO<sub>2</sub> gate dielectric grown by atomic layer deposition. In Applied Surface Science, 2018, vol. 461, p. 255-259. (2017: 4.439 - IF, Q1 - JCR, 1.093 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2018.05.191>

Citácie:

1. [1.1] AKKAYA, A. - AYYILDIZ, E. Depth profile study on Ti/Al bilayer Ohmic contacts to AlGaIn/GaN. In MATERIALS TODAY-PROCEEDINGS. ISSN 2214-7853, 2021, vol. 46, 16, p. 6939-6946., Registrované v: WOS

2. [1.1] MOHANTY, S. - SAYED, I. - JIAN, Z. - MISHRA, U. - AHMADI, E. Investigation and optimization of HfO<sub>2</sub> gate dielectric on N-polar GaN: Impact of surface treatments, deposition, and annealing conditions. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, JUL 26 2021, vol. 119, no. 4., Registrované v: WOS

ADCA490

STOKLAS, Roman - GREGUŠOVÁ, Dagmar - BLAHO, Michal - FRÖHLICH, Karol - NOVÁK, Jozef - MATYS, M. - YATABE, Z. - KORDOŠ, Peter - HASHIZUME, T. Influence of oxygen-plasma treatment on AlGaIn/GaN metal-oxide-semiconductor heterostructure field-effect transistors with HfO<sub>2</sub> by atomic

layer deposition: leakage current and density of states reduction. In *Semiconductor Science and Technology*, 2017, vol. 32, no. 045018. (2016: 2.305 - IF, Q2 - JCR, 0.793 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0268-1242. Dostupné na: <https://doi.org/10.1088/1361-6641/aa5fcb>

Citácie:

1. [1.1] AKAZAWA, Masamichi - WU, Encheng - SAKURAI, Hideki - BOCKOWSKI, Michal - NARITA, Tetsuo - KACHI, Tetsu. X-ray photoelectron spectroscopy study on effects of ultra-high-pressure annealing on surface of Mg-ion-implanted GaN. In *JAPANESE JOURNAL OF APPLIED PHYSICS*, 2021, vol. 60, no. 3, pp. ISSN 0021-4922. Dostupné na: <https://doi.org/10.35848/1347-4065/abe609>, Registrované v: WOS
2. [1.1] CHOI, Seok - ANSARI, Abu Saad - YUN, Hee Ju - KIM, Hogyoung - SHONG, Bonggeun - CHOI, Byung Joon. Growth of Al-rich AlGaIn thin films by purely thermal atomic layer deposition. In *JOURNAL OF ALLOYS AND COMPOUNDS*, 2021, vol. 854, no., pp. ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2020.157186>, Registrované v: WOS
3. [1.1] IZSAK, Tibor - VANKO, Gabriel - BABČENKO, Oleg - VINCZE, Andrej - VOJS, Marian - ZATKO, Bohumir - KROMKA, Alexander. Influence of SiON interlayer on the diamond/GaN heterostructures studied by Raman and SIMS measurements. In *MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS*, 2021, vol. 273, no., pp. ISSN 0921-5107. Dostupné na: <https://doi.org/10.1016/j.mseb.2021.115434>, Registrované v: WOS

ADCA491 STOKLAS, Roman - CHVÁLA, A. - ŠICHMAN, Peter - HASENÖHRL, Stanislav - HAŠČÍK, Štefan - PRIESOL, J. - ŠATKA, A. - KUZMÍK, Ján\*\*. Analysis and modeling of vertical current conduction and breakdown mechanisms in semi-insulating GaN grown on GaN: role of deep levels. In *IEEE Transactions on Electron Devices*, 2021, vol. 68, no. 2365. (2020: 2.917 - IF, Q2 - JCR, 0.828 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0018-9383. Dostupné na: <https://doi.org/10.1109/TED.2021.3065893>

Citácie:

1. [1.1] KIM, H. Vertical Schottky Contacts to Bulk GaN Single Crystals and Current Transport Mechanisms: A Review. In *JOURNAL OF ELECTRONIC MATERIALS*. ISSN 0361-5235, DEC 2021, vol. 50, no. 12, SI, p. 6688-6707., Registrované v: WOS

ADCA492 STOKLAS, Roman - GREGUŠOVÁ, Dagmar - HUŠEKOVÁ, Kristína - MAREK, J. - KORDOŠ, Peter. Trapped charge effects in AlGaIn/GaN metal-oxide-semiconductor structures with Al<sub>2</sub>O<sub>3</sub> and ZrO<sub>2</sub> gate insulator. In *Semiconductor Science and Technology*, 2014, vol. 29, 045003. (2013: 2.206 - IF, Q1 - JCR, 1.173 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0268-1242. Dostupné na: <https://doi.org/10.1088/0268-1242/29/4/045003>

Citácie:

1. [1.1] DUTTA GUPTA, Sayak - JOSHI, Vipin - ROY CHAUDHURI, Rajarshi - SHRIVASTAVA, Mayank. Observations regarding deep-level states causing p-type doping in AlTiO gate and positive threshold voltage shift in AlGaIn/GaN high electron mobility transistors. In *JOURNAL OF APPLIED PHYSICS*, 2021, vol. 130, no. 1, pp. ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/5.0053982>, Registrované v: WOS

ADCA493 SZULC, K.\*\* - GRACZYK, P. - MRUCZKIEWICZ, Michal - GUBBIOTTI, G. - KRAWCZYK, M. Spin-wave diode and circulator based on unidirectional coupling. In *Physical Review Applied*, 2020, vol. 14, no. 034063. (2019: 4.194 - IF, Q1 - JCR, 1.866 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 2331-

7019. Dostupné na: <https://doi.org/10.1103/PhysRevApplied.14.034063> (APVV 19-0311. APVV 16-0068)

Citácie:

1. [1.1] FRIPP, K.G. - SHYTOV, A.V. - KRUGLYAK, V.V. Spin-wave control using dark modes in chiral magnonic resonators. In *PHYSICAL REVIEW B*. ISSN 2469-9950, AUG 26 2021, vol. 104, no. 5., Registrované v: WOS
2. [1.1] KRUGLYAK, V.V. Chiral magnonic resonators: Rediscovering the basic magnetic chirality in magnonics. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, NOV 15 2021, vol. 119, no. 20., Registrované v: WOS
3. [1.1] KUSS, M. - HEIGL, M. - FLACKE, L. - HORNER, A. - WEILER, M. - WIXFORTH, A. - ALBRECHT, M. Nonreciprocal Magnetoacoustic Waves in Dipolar-Coupled Ferromagnetic Bilayers. In *PHYSICAL REVIEW APPLIED*. ISSN 2331-7019, MAR 26 2021, vol. 15, no. 3., Registrované v: WOS
4. [1.1] WANG, Q. - CHUMAK, A.V. - PIRRO, P. Inverse-design magnonic devices. In *NATURE COMMUNICATIONS*. ISSN 2041-1723, MAY 11 2021, vol. 12, no. 1., Registrované v: WOS

ADCA494 ŠAGÁTOVÁ, A.\*\* - ZATŤKO, Bohumír - NEČAS, V. - DUBECKÝ, František - LY ANH, T. - SEDLAČKOVÁ, K. - BOHÁČEK, Pavel - ZÁPRAŽNÝ, Zdenko. From single GaAs detector to sensor for radiation imaging camera. In *Applied Surface Science*, 2018, vol. 461, p. 3-9. (2017: 4.439 - IF, Q1 - JCR, 1.093 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2018.06.269>

Citácie:

1. [1.1] LEYVA-FABELO, A. - LEYVA-PERNIA, D. - RUBIERA-GIMENO, J. A. - CRUZ-INCLAN, C. M. - VALDES-ALBUERNES, Jorge L. - KOBETS, V - ABOU-EL-AZM, S. - KRUCHONAK, U. - ZHEMCHUGOV, A. - SHELKOV, G. - PAEZ-RODRIGUEZ, A. - MAYETA-AGUILERA, M. STUDY BY RAMAN SPECTROSCOPY OF THE INDUCED RADIATION DAMAGE IN GaAr:Cr EXPOSED TO 20 MeV ELECTRON BEAM. In *REVISTA CUBANA DE FISICA*, 2021, vol. 38, no. 1, pp. 4-9. ISSN 0253-9268., Registrované v: WOS

ADCA495 ŠAGÁTOVÁ, A. - ZATŤKO, Bohumír - DUBECKÝ, František - LY ANH, T. - NEČAS, V. - SEDLAČKOVÁ, K. - PAVLOVIČ, M. - FULOP, M. Radiation hardness of GaAs sensors against gamma-rays, neutrons and electrons. In *Applied Surface Science*, 2017, vol. 395, p. 66-71. (2016: 3.387 - IF, Q1 - JCR, 0.958 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2016.08.167>

Citácie:

1. [1.1] HE, Jingxuan - SHEN, Ye - LI, Bo - XIANG, Xia - LI, Sean - FANG, Xuan - XIAO, Haiyan - ZU, Xiaotao - QIAO, Liang. A comparative study of the structural and optical properties of Si-doped GaAs under different ion irradiation. In *OPTICAL MATERIALS*, 2021, vol. 111, no., pp. ISSN 0925-3467. Dostupné na: <https://doi.org/10.1016/j.optmat.2020.110611>., Registrované v: WOS
2. [1.1] SINGH, Christopher N. - LIU, Xiang-Yang - UBERUAGA, Blas Pedro - TOBIN, Stephen J. Reduction of bright exciton lifetimes by radiation-induced disorder. In *PHYSICAL REVIEW MATERIALS*, 2021, vol. 5, no. 7, pp. ISSN 2475-9953. Dostupné na: <https://doi.org/10.1103/PhysRevMaterials.5.073802>., Registrované v: WOS

ADCA496 ŠEBESTA, M.\*\* - NEMČEK, L. - URÍK, Martin - KOLENČÍK, Marek - BUJDOŠ, Marek - VÁVRA, Ivo - DOBROČKA, Edmund - MATÚŠ, Peter. Partitioning and stability of ionic, nano- and micro-sized zinc in natural. In *Science of the Total Environment*, 2020, vol. 700, no. 134445. (2019: 6.551 - IF, Q1 - JCR, 1.661 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0048-9697.

Dostupné na: <https://doi.org/10.1016/j.scitotenv.2019.134445>

Citácie:

1. [1.1] LI, J.M. - TANG, S.B. - CHEN, X.J. *Analysis of the Mechanical Properties and Mechanism of Zinc Ion-Contaminated Red Clay. In ADVANCES IN MATERIALS SCIENCE AND ENGINEERING. ISSN 1687-8434, JAN 25 2021, vol. 2021., Registrované v: WOS*
2. [1.1] SUN, Wenjie - DOU, Fugen - LI, Cong - MA, Xingmao - MA, Lena Q. *Impacts of metallic nanoparticles and transformed products on soil health. In CRITICAL REVIEWS IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY, 2021, vol. 51, no. 10, pp. 973-1002. ISSN 1064-3389. Dostupné na: <https://doi.org/10.1080/10643389.2020.1740546>., Registrované v: WOS*
3. [1.1] WU, P. - CUI, P.X. - DU, H. - ALVES, M.E. - ZHOU, D.M. - WANG, Y.J. *Long-term dissolution and transformation of ZnO in soils: The roles of soil pH and ZnO particle size. In JOURNAL OF HAZARDOUS MATERIALS. ISSN 0304-3894, AUG 5 2021, vol. 415., Registrované v: WOS*

ADCA497 ŠEBESTA, M.\*\* - URÍK, Martin - BUJDOŠ, M. - KOLENČÍK, Marek - VÁVRA, Ivo - DOBROČKA, Edmund - KIM, H.J. - MATÚŠ, P. *Fungus aspergillus niger processes exogenous zinc nanoparticles into a biogenic oxalate mineral. In Journal of Fungi, 2020, vol. 6, no. 210. (2019: 4.621 - IF, Q1 - JCR, 1.416 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 2309-608X. Dostupné na: <https://doi.org/10.3390/jof6040210>*

Citácie:

1. [1.1] ABD-ELSALAM, K.A. *Special Issue: Fungal Nanotechnology. In JOURNAL OF FUNGI. AUG 2021, vol. 7, no. 8., Registrované v: WOS*
2. [1.1] ES-HAGHI, A. - YAZDI, M.E.T. - SHARIFALHOSEINI, M. - BAGHANI, M. - YOUSEFI, E. - RAHDAR, A. - BAINO, F. *Application of Response Surface Methodology for Optimizing the Therapeutic Activity of ZnO Nanoparticles Biosynthesized from Aspergillus niger. In BIOMIMETICS. JUN 2021, vol. 6, no. 2., Registrované v: WOS*

ADCA498 ŠEBO, Pavol - MOSER, Zbigniew - ŠVEC, Peter - JANIČKOVIČ, Dušan - DOBROČKA, Edmund - GASIOR, Wladyslaw - PSTRUŠ, Janus. *Effect of indium on the microstructure of the interface between Sn<sub>3</sub>.13Ag<sub>0.74</sub>CuIn solder and Cu substrate. In Journal of Alloys and Compounds, 2009, vol. 480, no. 2, p. 409-415. (2008: 1.510 - IF, Q1 - JCR, 0.888 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, WOS, SCOPUS). ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2009.02.110>*

Citácie:

1. [1.1] HUANG, W. - PAN, K.L. - ZHANG, J. - GONG, Y.B. *Effect of In-Doping on Mechanical Properties of Cu<sub>6</sub>Sn<sub>5</sub>-Based Intermetallic Compounds: A First-Principles Study. In JOURNAL OF ELECTRONIC MATERIALS. ISSN 0361-5235, JUL 2021, vol. 50, no. 7, p. 4164-4171., Registrované v: WOS*

ADCA499 ŠICHMAN, Peter - HASENÖHRL, Stanislav - STOKLAS, Roman - PRIESOL, J. - DOBROČKA, Edmund - HAŠČÍK, Štefan - GUCMANN, Filip - VINCZE, A. - CHVÁLA, A. - MAREK, J. - ŠATKA, A. - KUZMÍK, Ján\*\*. *Semi-insulating GaN for vertical structures: role of substrate selection and growth pressure. In Materials science in semiconductor processing, 2020, vol. 118, no. 105203. (2019: 3.085 - IF, Q2 - JCR, 0.665 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 1369-8001. Dostupné na: <https://doi.org/10.1016/j.mssp.2020.105203> (APVV 18-0054. VEGA 2/0012/18)*

Citácie:

1. [1.1] MOCHIZUKI, K. - HORIKIRI, F. - OHTA, H. - MISHIMA, T. *Step-edge segregation model for step-velocity dependences of carbon and oxygen*



- concentrations in GaN layers grown on m-plane GaN. In JAPANESE JOURNAL OF APPLIED PHYSICS. ISSN 0021-4922, JAN 1 2021, vol. 60, no. 1., Registrované v: WOS*
2. [1.1] PAN, Y. Influence of N-vacancy on the electronic and optical properties of bulk GaN from first-principles investigations. In INTERNATIONAL JOURNAL OF ENERGY RESEARCH. ISSN 0363-907X, AUG 2021, vol. 45, no. 10, p. 15512-15520., Registrované v: WOS
- ADCA500 ŠKRINIAROVÁ, J.\*\* - HRONEC, P. - CHLPÍK, J. - LAURENČÍKOVÁ, Agáta - KOVÁČ, Jaroslav Jr. - NOVÁK, Jozef - ANDOK, Robert. Investigation of volume fraction of GaP nanowires by SEM characterization and spectroscopic ellipsometry. In Optik : International Journal for Light and Electron Optics, 2021, vol. 234, no. 166572. (2020: 2.443 - IF, Q2 - JCR, 0.482 - SJR, Q2 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0030-4026. Dostupné na: <https://doi.org/10.1016/j.ijleo.2021.166572>
- Citácie:
1. [1.1] ZHAO, Run-Ning - CHEN, Rui - LIN, Fan - HAN, CunShan. A density functional theory computational investigation on geometries and electronic properties of the inner hollow (GaP)(n) (n=1-38) nanomaterials. In JOURNAL OF NANOPARTICLE RESEARCH. ISSN 1388-0764, 2021, vol. 23, no. 12, pp. Dostupné na: <https://doi.org/10.1007/s11051-021-05380-5>, Registrované v: WOS
- ADCA501 ŠOKA, M. - UŠÁKOVÁ, M. - DOSOUDIL, R. - UŠÁK, E. - DOBROČKA, Edmund. Magnetic and structural properties of nickel zinc ferrites doped with yttrium. In IEEE Transactions on Magnetics, 2015, vol. 51, 2000504. (2014: 1.386 - IF, Q2 - JCR, 0.696 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0018-9464. Dostupné na: <https://doi.org/10.1109/TMAG.2014.2357851>
- Citácie:
1. [1.1] SATTIBABU, B. - RAO, T.D. - BHATNAGAR, A.K. - MURTHY, V.S. - CHELVANE, J.A. - RAYPROL, S. Structural and magnetic properties of Bi substituted nickel ferrite. In MATERIALS TODAY-PROCEEDINGS. ISSN 2214-7853, 2021, vol. 39, 4, p. 1482-1486., Registrované v: WOS
- ADCA502 ŠOUC, Ján - SOLOVYOV, Mykola - GÖMÖRY, Fedor - CAMPS, J.P. - NAVAU, C. - SANCHEZ, A. A quasistatic magnetic cloak. In New Journal of Physics, 2013, vol. 15, 053019. (2012: 4.063 - IF, Q1 - JCR, 3.368 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 1367-2630. Dostupné na: <https://doi.org/10.1088/1367-2630/15/5/053019>
- Citácie:
1. [1.1] ZHAN, J.J. - LI, K. - ZHOU, Y. - LIU, X.X. - MA, Y.G. Ultrathin Conformal Magnetic Invisible Cloak for Irregular Objects. In ACS APPLIED MATERIALS & INTERFACES. ISSN 1944-8244, APR 14 2021, vol. 13, no. 14, p. 17104-17109., Registrované v: WOS
- ADCA503 ŠOUC, Ján - GÖMÖRY, Fedor - KOVÁČ, Ján - NAST, R. - JUNG, A. - VOJENČIAK, Michal - GRILLI, F. - GOLDACKER, W. Low AC loss cable produced from transposed striated CC tapes. In Superconductor Science and Technology, 2013, vol. 26, no. 075020. (2012: 2.758 - IF, Q1 - JCR, 1.535 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/26/7/075020>
- Citácie:
1. [1.1] GOO, J. - HAN, J.W. - LEE, S. - KIM, W.S. - CHOI, K. - LEE, J.K. Magnetization Loss of CORC With Various Configurations of 2G HTS Strands. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS



2. [1.1] HAN, J. - CHOI, K. - KIM, W.S. - LEE, J.K. Measurement of magnetization loss according to the winding pitch of CORC (R). In *PROGRESS IN SUPERCONDUCTIVITY AND CRYOGENICS*. ISSN 1229-3008, DEC 2021, vol. 23, no. 4, p. 25-29., Registrované v: WOS
  3. [1.1] HIGASHI, Y. - MAWATARI, Y. Round-Core-Radius-Dependent Electromagnetic Coupling of Multifilament Helical Superconducting Tapes in a Swept Magnetic Field. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, SEP 2021, vol. 31, no. 6., Registrované v: WOS
  4. [1.1] SOGABE, Y. - MIZOBATA, Y. - AMEMIYA, N. Shielding currents in multifilament coated conductors wound into pancake coils and layer-wound coils. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS
  5. [1.1] WULFF, A.C. - ABRAHAMSEN, A.B. - INSINGA, A.R. Multifilamentary coated conductors for ultra-high magnetic field applications. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS
  6. [1.1] YOU, S.R. - KALSI, S.S. - AINSLIE, M.D. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. Simulation of AC Loss in the Armature Windings of a 100 kW All-HTS Motor With Various (RE)BCO Conductor Considerations. In *IEEE ACCESS*. ISSN 2169-3536, 2021, vol. 9, p. 130968-130980., Registrované v: WOS
- ADCA504 ŠOUC, Ján - GÖMÖRY, Fedor - VOJENČIAK, Michal. Coated conductor arrangement for reduced AC losses in a resistive-type superconducting fault current limiter. In *Superconductor Science and Technology*, 2012, vol. 25, no. 014005. (2011: 2.662 - IF, Q1 - JCR, 1.461 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/25/1/014005>
- Citácie:
1. [1.1] YAMAGUCHI, S. - KANDA, M. A proposal for a lightweight, large current superconducting cable for aviation. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, JAN 2021, vol. 34, no. 1., Registrované v: WOS
- ADCA505 ŠOUC, Ján - PARDO, Enric - VOJENČIAK, Michal - GÖMÖRY, Fedor. Theoretical and experimental study of AC loss in high temperature superconductor single pancake coils. In *Superconductor Science and Technology*, 2009, vol. 22, 015006. (2008: 1.847 - IF, Q2 - JCR, 1.867 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.
- Citácie:
1. [1.1] TIAN, M.Y. - YANG, J.B. - SHEN, B.Y. - OZTURK, Y. - MA, J. - LI, C. - HU, J.T. - WEI, H.G.N. - LI, J.S. - COOMBS, T. Analysis on the Effect of Superconductor Layer Thickness on the AC Loss of Conductor on Round Core (CORC) Cables. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
  2. [1.1] WENG, F.J. - ZHANG, M. - ELWAKEEL, A. - LAN, T. - MCNEILL, N. - YUAN, W.J. Transient Test and AC Loss Study of a Cryogenic Propulsion Unit for All Electric Aircraft. In *IEEE ACCESS*. ISSN 2169-3536, 2021, vol. 9, p. 59628-59636., Registrované v: WOS
  3. [1.1] YANG, H. - AHN, M. A design of multi-width HTS magnets considering both wire consumption and field homogeneity. In *PROGRESS IN SUPERCONDUCTIVITY AND CRYOGENICS*. ISSN 1229-3008, JUN 2021, vol. 23, no. 2, p. 24-27., Registrované v: WOS

4. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In *ENERGIES*. APR 2021, vol. 14, no. 8., Registrované v: WOS
  5. [1.2] DUAN, Pu - REN, Li - LI, Xianhao - XU, Ying - LI, Jingdong - SHI, Jing - TANG, Yuejin - GUO, Shuqiang. Thermal and Electrical Analysis of No-Insulation Magnet during Transient Process Based on 2D Finite Element Method. In *IEEE Transactions on Applied Superconductivity*, 2021-11-01, 31, 8, pp. 1-5. ISSN 10518223. Dostupné na: <https://doi.org/10.1109/TASC.2021.3108753>., Registrované v: SCOPUS
  6. [1.2] KALSIA, Mohit - YADAV, Mukheshwar - KAUSHIK, Rajneesh. AC Loss Assessment of 110 kV/5 kA $\sqrt{\text{rms}}$  HTS Cable for Large Scale Power Application. In *Lecture Notes in Mechanical Engineering*. ISSN 21954356, 2021-01-01, pp. 699-706. Dostupné na: [https://doi.org/10.1007/978-981-15-9956-9\\_68](https://doi.org/10.1007/978-981-15-9956-9_68)., Registrované v: SCOPUS
- ADCA506 ŠOUC, Ján - VOJENČIAK, Michal - GÖMÖRY, Fedor. Experimentally determined transport and magnetization ac losses of small cable models constructed from YBCO coated conductors. In *Superconductor Science and Technology*, 2010, vol. 23, 045029. (2009: 2.694 - IF, 1.256 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/23/4/045029>  
Citácie:  
1. [1.1] YE, H.S. - LI, W.R. - SHEN, B.Y. - HU, R. - JIN, Z.J. - SHENG, J. Numerical Study on Effect of Current Injection Methods on Terminal Resistance of Superconducting Compact Cables. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
- ADCA507 ŠOUC, Ján - GÖMÖRY, Fedor - VOJENČIAK, Michal - SOLOVYOV, Mykola - SEILER, Eugen - KOVÁČ, Ján - FROLEK, Lubomír. Superconducting HTS coil made from round cable cooled by liquid nitrogen flow. In *Superconductor Science and Technology*, 2017, vol. 30, no. 105014. (2016: 2.878 - IF, Q2 - JCR, 0.967 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/aa84ce>  
Citácie:  
1. [1.1] GERASIMENKO, A.A. - LI, H.T. - KORCHAGIN, V.O. - PENG, C. - WANG, X.B. - DENG, Z.G. Design Optimization of the Electromagnetic Turnout by Using a Compensation Coil. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
- ADCA508 ŠOUC, Ján - GÖMÖRY, Fedor - VOJENČIAK, Michal. Calibration free method for measurement of the AC magnetization loss. In *Superconductor Science and Technology*, 2005, vol. 18, p. 592-595. (2004: 1.556 - IF, karentované - CCC). (2005 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.  
Citácie:  
1. [1.1] KOVAC, J. - KAPOLKA, M. - KOVAC, P. - KOPERA, L. - PARDO, E. - ZHU, Y.C. - YAO, C. - WANG, D.L. - MA, Y.W. Magnetization AC losses of iron-based Ba-122 superconducting tapes. In *CRYOGENICS*. ISSN 0011-2275, JUN 2021, vol. 116., Registrované v: WOS  
2. [1.1] LI, S. - KOVAC, J. - PARDO, E. Dependence of Resistance and Number of Tapes on the Coupling AC Loss of Soldered REBCO Stacks. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS

3. [1.1] LI, W.R. - SHENG, J. - ZHENG, J.X. - WU, Y. - GUO, C.J. - LI, Z.Y. - JIN, Z.J. Study on Reducing Magnetization Loss in CORC Cables By Laser Cutting Technology. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2021, vol. 31, no. 4., Registrované v: WOS
  4. [1.1] SUN, Y.M. - FANG, J. - PANTOJA, A.E. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. Role of asymmetric critical current on magnetization loss characteristics of (RE)Ba<sub>2</sub>Cu<sub>3</sub>O<sub>7-d</sub> coated conductors at various temperatures. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, AUG 28 2021, vol. 130, no. 8., Registrované v: WOS
  5. [1.1] SUN, Y.M. - FANG, J. - SIDOROV, G. - LI, Q. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. Total loss measurement and simulation in a REBCO coated conductor carrying DC current in perpendicular AC magnetic field at various temperatures. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUN 2021, vol. 34, no. 6., Registrované v: WOS
  6. [1.1] SUN, Y.M. - LONG, N.J. - SIDOROV, G. - FANG, J. - BADCOCK, R.A. - JIANG, Z.N. Shielding Effect of (RE)Ba<sub>2</sub>Cu<sub>3</sub>O<sub>7-d</sub>-Coated Conductors on Eddy Current Loss of Adjacent Metal Layers Under AC Magnetic Fields With Various Orientations. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JAN 2021, vol. 31, no. 1., Registrované v: WOS
  7. [1.1] WANG, X.L. - SHENG, J. - ZHONG, Z.Y. - WU, W. - LI, X.F. - JIN, Z.J. - HONG, Z.Y. Magnetization loss of no-insulation coil for an electrodynamic suspension system. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUN 2021, vol. 34, no. 6., Registrované v: WOS
  8. [1.1] WENG, F.J. - ZHANG, M. - ELWAKEEL, A. - LAN, T. - MCNEILL, N. - YUAN, W.J. Transient Test and AC Loss Study of a Cryogenic Propulsion Unit for All Electric Aircraft. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 59628-59636., Registrované v: WOS
  9. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS
- ADCA509    ŠOUC, Ján - GÖMÖRY, Fedor. New approach to the ac loss measurement in the superconducting secondary circuit of an iron-core transformer. In Superconductor Science and Technology, 2002, vol. 15, p. 927-932. (2001: 1.511 - IF, karentované - CCC). (2002 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.  
Citácie:
1. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS
- ADCA510    ŠOUC, Ján - SOLOVYOV, Mykola - GÖMÖRY, Fedor. Hiding objects in AC magnetic fields of power grid frequency by two-shell ferromagnetic/superconducting cloak. In Applied Physics Letters, 2016, vol. 109, no. 033507. (2015: 3.142 - IF, Q1 - JCR, 1.499 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.4959581>  
Citácie:
1. [1.1] FAREED, M.U. - RUIZ, H.S. Critical State Theory for the Magnetic Coupling between Soft Ferromagnetic Materials and Type-II Superconductors. In MATERIALS. OCT 2021, vol. 14, no. 20., Registrované v: WOS
- ADCA511    ŠPANKOVÁ, A. - ŠTRBÍK, Vladimír - DOBROČKA, Edmund - CHROMIK, Štefan - SOJKOVÁ, Michaela - ZHENG, D.N. - LI, J. Characterization of epitaxial

LSMO thin films with high Curie temperature prepared on different substrates. In Vacuum, 2016, vol. 126, p. 24-28. (2015: 1.558 - IF, Q3 - JCR, 0.536 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents). ISSN 0042-207X. Dostupné na: <https://doi.org/10.1016/j.vacuum.2016.01.009>

Citácie:

1. [1.1] BALAKRISHNAN, P.P. - LINDGREN, E. - KANE, M. - WISSER, J.J. - SUZUKI, Y. Magnetic anisotropy and spin scattering in (La<sub>2</sub>/3Sr<sub>1</sub>/3)MnO<sub>3</sub>/CaRuO<sub>3</sub> bilayers. In AIP ADVANCES. FEB 1 2021, vol. 11, no. 2., Registrované v: WOS
2. [1.1] GRECULEASA, S.G. - STANCIU, A.E. - LECA, A. - KUNCSEK, A. - HRIB, L. - CHIRILA, C. - PASUK, I. - KUNCSEK, V. Influence of Thickness on the Magnetic and Magnetotransport Properties of Epitaxial La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3</sub> Films Deposited on STO (001). In NANOMATERIALS. DEC 2021, vol. 11, no. 12., Registrované v: WOS

ADCA512 ŠPANKOVÁ, Marianna - CHROMIK, Štefan - VÁVRA, Ivo - SEDLÁČKOVÁ, K. - LOBOTKA, Peter - LUCAS, S. - STANČEK, S. Epitaxial LSMO films grown on MgO single crystalline substrates. In Applied Surface Science, 2007, vol. 253, p. 7599-7603. (2006: 1.436 - IF, Q2 - JCR, 0.861 - SJR, Q1 - SJR, karentované - CCC). (2007 - Current Contents). ISSN 0169-4332.

Citácie:

1. [1.1] MANDAL, Soumya - GUPTA, Ashish Kumar - BEAVERS, Braxton Hays - SINGH, Vidit - NARAYAN, Jagdish - SACHAN, Ritesh. Atomic-Scale Insights on Large-Misfit Heterointerfaces in LSMO/MgO/c-Al<sub>2</sub>O<sub>3</sub>. In CRYSTALS, 2021, vol. 11, no. 12, pp. Dostupné na: <https://doi.org/10.3390/cryst11121493>., Registrované v: WOS

ADCA513 ŠTRBÍK, Vladimír - REIFFERS, Marián - DOBROČKA, Edmund - ŠOLTÝS, Ján - ŠPANKOVÁ, Marianna - CHROMIK, Štefan. Epitaxial LSMO thin films with correlation of electrical and magnetic properties above 400 K. In Applied Surface Science, 2014, vol. 312, p. 212-215. (2013: 2.538 - IF, Q1 - JCR, 0.965 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2014.04.045>

Citácie:

1. [1.1] MANDAL, S. - DAS, I. Microstructure dependent magnetotransport properties in polycrystalline La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3</sub> ultrathin films on thermally oxidized Si substrates. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. ISSN 0304-8853, JUN 1 2021, vol. 527., Registrované v: WOS
2. [1.1] MANDAL, S. - GUPTA, A.K. - BEAVERS, B.H. - SINGH, V. - NARAYAN, J. - SACHAN, R. Atomic-Scale Insights on Large-Misfit Heterointerfaces in LSMO/MgO/c-Al<sub>2</sub>O<sub>3</sub>. In CRYSTALS. DEC 2021, vol. 11, no. 12., Registrované v: WOS

ADCA514 ŠVANČÁREK, Peter - LENDVAYOVÁ, S. - GALUSEK, Dušan - HNATKO, Miroslav - VÁVRA, Ivo - WANG, X. Abrasive wear resistance of SiO<sub>2</sub>-doped polycrystalline alumina. In Wear : an international journal on the science and technology of friction, lubrication and wear, 2011, vol. 271, no. 5-6, p. 760-769. (2010: 1.635 - IF, Q1 - JCR, 1.475 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents). ISSN 0043-1648. Dostupné na: <https://doi.org/10.1016/j.wear.2011.03.016>

Citácie:

1. [1.1] RASHEED, I. Abdul - RAMAR, Venkadeshkumar - CHHABRA, Inder Mohan - GUPTA, Mahender Kumar - KARTHIKEYAN, B. Optical and strong blue emission properties of alumina abrasive grains mediated grinding induced SiO<sub>2</sub> glass surfaces for navigation grade sensors. In OPTICAL MATERIALS.



- ISSN 0925-3467, 2021, vol. 117, no., pp. Dostupné na:  
<https://doi.org/10.1016/j.optmat.2021.111181>., Registrované v: WOS
- ADCA515 ĽAPAJNA, Milan - KUZMÍK, Ján. Control of threshold voltage in GaN based metal-oxide-semiconductor high-electron mobility transistors towards the normally-off operation. In Japanese Journal of Applied Physics, 2013, vol. 52, 08JN08. (2012: 1.067 - IF, Q3 - JCR, 0.503 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 0021-4922. Dostupné na: <https://doi.org/10.7567/JJAP.52.08JN08>
- Citácie:
1. [1.1] BORDOLOI, S. - RAY, A. - TRIVEDI, G. Introspection Into Reliability Aspects in AlGaIn/GaN HEMTs With Gate Geometry Modification. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 99828-99841., Registrované v: WOS
- ADCA516 ĽAPAJNA, Milan - JURKOVIČ, Michal - VALIK, L. - HAŠČÍK, Štefan - GREGUŠOVÁ, Dagmar - BRUNNER, F. - CHO, E.-M. - KUZMÍK, Ján. Bulk and interface trapping in the gate dielectric of GaN based metal-oxide-semiconductor high-electron mobility transistors. In Applied Physics Letters, 2013, vol. 102, no. 243509. (2012: 3.794 - IF, Q1 - JCR, 2.570 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.4811754>
- Citácie:
1. [1.1] BORDOLOI, S. - RAY, A. - TRIVEDI, G. Introspection Into Reliability Aspects in AlGaIn/GaN HEMTs With Gate Geometry Modification. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 99828-99841., Registrované v: WOS
2. [1.1] GUPTA, S.D. - JOSHI, V. - CHAUDHURI, R.R. - SHRIVASTAVA, M. Observations regarding deep-level states causing p-type doping in AlTiO gate and positive threshold voltage shift in AlGaIn/GaN high electron mobility transistors. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, JUL 7 2021, vol. 130, no. 1., Registrované v: WOS
3. [1.1] KHADAR, R.A. - FLORIDUZ, A. - LIU, C. - SOLEIMANZADEH, R. - MATIOLI, E. Quasi-vertical GaN-on-Si reverse blocking power MOSFETs. In APPLIED PHYSICS EXPRESS. ISSN 1882-0778, APR 1 2021, vol. 14, no. 4., Registrované v: WOS
4. [1.1] MA, Q. - ANDO, Y. - WAKEJIMA, A. Dynamic characteristics after bias stress of GaN HEMTs with field plate on free-standing GaN substrate. In ELECTRONICS LETTERS. ISSN 0013-5194, JUL 2021, vol. 57, no. 15, p. 591-593., Registrované v: WOS
5. [1.1] MENEGHINI, M. - DE SANTI, C. - ABID, I. - BUFFOLO, M. - CIONI, M. - KHADAR, R.A. - NELA, L. - ZAGNI, N. - CHINI, A. - MEDJDOUB, F. - MENEGHESSO, G. - VERZELLESI, G. - ZANONI, E. - MATIOLI, E. GaN-based power devices: Physics, reliability, and perspectives. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, NOV 8 2021, vol. 130, no. 18., Registrované v: WOS
6. [1.2] KHAN, A. B. GaN High Electron Mobility Transistor Device Technology for RF and High-Power Applications. In Electrical and Electronic Devices, Circuits, and Materials: Technological Challenges and Solutions, 2021-01-01, pp. 83-100. Dostupné na: <https://doi.org/10.1002/9781119755104.ch5>., Registrované v: SCOPUS
- ADCA517 ĽAPAJNA, Milan - KUZMÍK, Ján. A comprehensive analytical model for threshold voltage calculation in GaN based metal-oxide-semiconductor high-electron-mobility transistors. In Applied Physics Letters, 2012, vol. 100, 113509. (2011: 3.844 - IF, Q1 - JCR, 2.814 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.3694768>
- Citácie:
1. [1.1] BORDOLOI, S. - RAY, A. - TRIVEDI, G. Introspection Into Reliability



- Aspects in AlGaIn/GaN HEMTs With Gate Geometry Modification. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 99828-99841., Registrované v: WOS*
2. [1.1] GUPTA, S.D. - JOSHI, V. - CHAUDHURI, R.R. - SHRIVASTAVA, M. Observations regarding deep-level states causing p-type doping in AlTiO gate and positive threshold voltage shift in AlGaIn/GaN high electron mobility transistors. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, JUL 7 2021, vol. 130, no. 1., Registrované v: WOS
3. [1.1] HE, J.Q. - CHENG, W.C. - WANG, Q. - CHENG, K. - YU, H.Y. - CHAI, Y. Recent Advances in GaN-Based Power HEMT Devices. In ADVANCED ELECTRONIC MATERIALS. ISSN 2199-160X, APR 2021, vol. 7, no. 4., Registrované v: WOS
4. [1.1] JIN, E.N. - DOWNEY, B.P. - GOKHALE, V.J. - ROUSSOS, J.A. - HARDY, M.T. - GROWDEN, T.A. - NEPAL, N. - KATZER, D.S. - CALAME, J.P. - MEYER, D.J. Electrical properties of high permittivity epitaxial SrCaTiO<sub>3</sub> grown on AlGaIn/GaN heterostructures. In APL MATERIALS. ISSN 2166-532X, NOV 1 2021, vol. 9, no. 11., Registrované v: WOS
5. [1.1] MAZUMDER, S. - LI, S.H. - WU, Z.G. - WANG, Y.H. Combined Implications of UV/O<sub>3</sub> Interface Modulation with HfSiOX Surface Passivation on AlGaIn/AlN/GaN MOS-HEMT. In CRYSTALS. ISSN 2073-4352, FEB 2021, vol. 11, no. 2., Registrované v: WOS
6. [1.1] NGUYEN, D.D. - ISODA, T. - DENG, Y.C. - SUZUKI, T.K. Normally-off operations in partially-gate-recessed AlTiO/AlGaIn/GaN field-effect transistors based on interface charge engineering. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, JUL 7 2021, vol. 130, no. 1., Registrované v: WOS
7. [1.1] PINCHBECK, J. - LEE, K.B. - JIANG, S. - HOUSTON, P. Dual metal gate AlGaIn/GaN high electron mobility transistors with improved transconductance and reduced short channel effects. In JOURNAL OF PHYSICS D-APPLIED PHYSICS. ISSN 0022-3727, MAR 11 2021, vol. 54, no. 10., Registrované v: WOS
8. [1.1] RAO, M. - RANJAN, R. - KASHYAP, N. - SARIN, R.K. Performance Analysis of Normally-on Dual Gate Algan/Gan Hemt. In TRANSACTIONS ON ELECTRICAL AND ELECTRONIC MATERIALS. ISSN 1229-7607, OCT 2021, vol. 22, no. 5, p. 691-699., Registrované v: WOS
9. [1.1] RRUSTEMI, B. - JAUD, M.A. - TRIOZON, F. - PIOTROWICZ, C. - VANDENDAELE, W. - LEROUX, C. - LE ROYER, C. - BISCARRAT, J. - GHIBAUDO, G. Investigation on interface charges in SiN/Al<sub>x</sub>Ga<sub>1-x</sub>N/GaN heterostructures by analyzing the gate-to-channel capacitance and the drain current behaviors. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, SEP 14 2021, vol. 130, no. 10., Registrované v: WOS
10. [1.1] SANDEEP, V. - PRAVIN, J.C. Influence of Graded AlGaIn sub-channel over the DC and Breakdown characteristics of a T-gated AlGaIn/GaN/AlInN MOS-HEMT. In SUPERLATTICES AND MICROSTRUCTURES. ISSN 0749-6036, AUG 2021, vol. 156., Registrované v: WOS
11. [1.1] SHIOMI, H. - UEDA, A. - TOHEI, T. - IMAI, Y. - HAMACHI, T. - SUMITANI, K. - KIMURA, S. - ANDO, Y. - HASHIZUME, T. - SAKAI, A. Analysis of inverse-piezoelectric-effect-induced lattice deformation in AlGaIn/GaN high-electron-mobility transistors by time-resolved synchrotron radiation nanobeam X-ray diffraction. In APPLIED PHYSICS EXPRESS. ISSN 1882-0778, SEP 1 2021, vol. 14, no. 9., Registrované v: WOS

ADCA518

ĽAPAĽNA, Milan - HILT, O. - BAHAT-TREIDEL, E. - WÜRFL, H.-J. - KUZMÍK, Ján. Gate reliability investigation in normally-off p-type-gan cap/AlGaIn/GaN HEMTs under forward bias stress. In IEEE Electron Device Letters, 2016, vol. 37, p.

385 - 388. (2015: 2.528 - IF, Q1 - JCR, 1.607 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents). ISSN 0741-3106. Dostupné na: <https://doi.org/10.1109/LED.2016.2535133>

Citácie:

1. [1.1] BABA, S. - BACHMAN, S. - JASINSKI, M. - ZELECHOWSKI, M. WBG-Based PEBB Module for High Reliability Power Converters. In *IEEE ACCESS*. ISSN 2169-3536, 2021, vol. 9, p. 86488-86499., Registrované v: WOS
2. [1.1] CHIU, H.C. - LIU, C.H. - HUANG, C.R. - CHIU, C.C. - WANG, H.C. - KAO, H.L. - LIN, S.Y. - CHIEN, F.T. Normally-Off p-GaN Gated AlGaIn/GaN MIS-HEMTs with ALD-Grown Al<sub>2</sub>O<sub>3</sub>/AlN Composite Gate Insulator. In *MEMBRANES*. OCT 2021, vol. 11, no. 10., Registrované v: WOS
3. [1.1] DALCANALE, S. - UREN, M.J. - CHANG, J. - NAGAMATSU, K. - PARKE, J.A. - HOWELL, R.S. - KUBALL, M. Noise Analysis of the Leakage Current in Time-Dependent Dielectric Breakdown in a GaN SLCFET. In *IEEE TRANSACTIONS ON ELECTRON DEVICES*. ISSN 0018-9383, MAY 2021, vol. 68, no. 5, p. 2220-2225., Registrované v: WOS
4. [1.1] HE, J.Q. - CHENG, W.C. - WANG, Q. - CHENG, K. - YU, H.Y. - CHAI, Y. Recent Advances in GaN-Based Power HEMT Devices. In *ADVANCED ELECTRONIC MATERIALS*. ISSN 2199-160X, APR 2021, vol. 7, no. 4., Registrované v: WOS
5. [1.1] HUA, M.Y. - WANG, C.C. - CHEN, J.T. - ZHAO, J.L. - YANG, S. - ZHANG, L. - ZHENG, Z.Y. - WEI, J. - CHEN, K.J. Gate Current Transport in Enhancement-Mode p-n Junction/AlGaIn/GaN (PNJ) HEMT. In *IEEE ELECTRON DEVICE LETTERS*. ISSN 0741-3106, MAY 2021, vol. 42, no. 5, p. 669-672., Registrované v: WOS
6. [1.1] JIANG, H.X. - ZHU, R.Q. - LYU, Q.F. - TANG, C.W. - LAU, K.M. Thin-barrier heterostructures enabled normally-OFF GaN high electron mobility transistors. In *SEMICONDUCTOR SCIENCE AND TECHNOLOGY*. ISSN 0268-1242, MAR 2021, vol. 36, no. 3., Registrované v: WOS
7. [1.1] KIM, T.H. - JANG, W.H. - YIM, J.H. - CHA, H.Y. Unidirectional Operation of p-GaN Gate AlGaIn/GaN Heterojunction FET Using Rectifying Drain Electrode. In *MICROMACHINES*. MAR 2021, vol. 12, no. 3., Registrované v: WOS
8. [1.1] LI, S. - LIU, S.Y. - ZHANG, C. - LI, N.B. - TAO, X.Y. - WEI, J.X. - ZHANG, L. - SUN, W.F. Investigations on Electrical Parameters Degradations of p-GaN HEMTs Under Repetitive UIS Stresses. In *IEEE JOURNAL OF EMERGING AND SELECTED TOPICS IN POWER ELECTRONICS*. ISSN 2168-6777, APR 2021, vol. 9, no. 2, p. 2227-2234., Registrované v: WOS
9. [1.1] LIU, C.H. - CHIU, H.C. - WANG, H.C. - KAO, H.L. - HUANG, C.R. Improved Gate Reliability Normally-Off p-GaN/AlN/AlGaIn/GaN HEMT With AlGaIn Cap-Layer. In *IEEE ELECTRON DEVICE LETTERS*. ISSN 0741-3106, OCT 2021, vol. 42, no. 10, p. 1432-1435., Registrované v: WOS
10. [1.1] MENEGHINI, Matteo - DE SANTI, Carlo - ABID, Idriss - BUFFOLO, Matteo - CIONI, Marcello - KHADAR, Riyaz Abdul - NELA, Luca - ZAGNI, Nicolo - CHINI, Alessandro - MEDJDOUB, Farid - MENEGHESSO, Gaudenzio - VERZELLESI, Giovanni - ZANONI, Enrico - MATIOLI, Elison. GaN-based power devices: Physics, reliability, and perspectives. In *JOURNAL OF APPLIED PHYSICS*, 2021, vol. 130, no. 18, pp. ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/5.0061354>., Registrované v: WOS
11. [1.1] MILLESIMO, M. - FIEGNA, C. - POSTHUMA, N. - BORGA, M. - BAKEROOT, B. - DECOUTERE, S. - TALLARICO, A.N. High-Temperature Time-Dependent Gate Breakdown of p-GaN HEMTs. In *IEEE TRANSACTIONS ON*

- ELECTRON DEVICES*. ISSN 0018-9383, NOV 2021, vol. 68, no. 11, p. 5701-5706., Registrované v: WOS
12. [1.1] SONG, S.D. - WU, S.Z. - LIU, G.Z. - ZHAO, W. - WANG, Y.Q. - WU, J.W. - HE, Q. Analysis on degradation mechanisms of normally-off p-GaN gate AlGaIn/GaN high-electron mobility transistor\*. In *CHINESE PHYSICS B*. ISSN 1674-1056, APR 2021, vol. 30, no. 4., Registrované v: WOS
13. [1.1] SONG, Y.L. - REDDY, M.K. - CHANG, L.M. - SHEU, G. Physics-Based TCAD Simulation and Calibration of 600 V GaN/AlGaIn/GaN Device Characteristics and Analysis of Interface Traps. In *MICROMACHINES*. JUL 2021, vol. 12, no. 7., Registrované v: WOS
14. [1.1] SUN, S.Y. - ZHANG, J.S. - XIA, L. - WU, W.G. - WANG, J.Y. - JIN, Y.F. Impact of E-Mode Gallium Nitride High Electron Mobility Transistor with P-Type Gate on Waveform Distortion in an AirFuel Wireless Power Transfer System. In *PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE*. ISSN 1862-6300, FEB 2021, vol. 218, no. 3, SI., Registrované v: WOS
15. [1.1] TSAI, W.S. - QIN, Z.W. - HSIN, Y.M. Design of Hybrid Schottky-Ohmic Gate in Normally-Off p-GaN Gate AlGaIn/GaN HEMTs. In *ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY*. ISSN 2162-8769, DEC 1 2021, vol. 10, no. 12., Registrované v: WOS
16. [1.1] WANG, H. - LIU, Y.H. - JI, F.W. - LI, H. - LI, B.K. - TANG, X. Investigation of the threshold voltage instability in normally-off p-GaN/AlGaIn/GaN HEMTs by optical analysis. In *JAPANESE JOURNAL OF APPLIED PHYSICS*. ISSN 0021-4922, OCT 1 2021, vol. 60, no. 10., Registrované v: WOS
17. [1.1] ZHANG, L. - ZHENG, Z.Y. - YANG, S. - SONG, W.J. - HE, J.B. - CHEN, K.J. p-GaN Gate HEMT With Surface Reinforcement for Enhanced Gate Reliability. In *IEEE ELECTRON DEVICE LETTERS*. ISSN 0741-3106, JAN 2021, vol. 42, no. 1, p. 22-25., Registrované v: WOS
18. [1.1] ZHONG, Y.Z. - SU, S. - CHEN, X. - ZHOU, Y. - GAO, H.W. - ZHAN, X.N. - GUO, X.L. - ZHANG, S.M. - SUN, Q. - YANG, H. Gate Reliability and Its Degradation Mechanism in the Normally OFF High-Electron-Mobility Transistors With Regrown p-GaN Gate. In *IEEE JOURNAL OF EMERGING AND SELECTED TOPICS IN POWER ELECTRONICS*. ISSN 2168-6777, JUN 2021, vol. 9, no. 3, p. 3715-3724., Registrované v: WOS
19. [1.1] ZHOU, G.N. - ZENG, F.M. - JIANG, Y. - WANG, Q. - JIANG, L.L. - XIA, G.R. - YU, H.Y. Determination of the Gate Breakdown Mechanisms in p-GaN Gate HEMTs by Multiple-Gate-Sweep Measurements. In *IEEE TRANSACTIONS ON ELECTRON DEVICES*. ISSN 0018-9383, APR 2021, vol. 68, no. 4, p. 1518-1523., Registrované v: WOS
20. [1.2] LIU, Chia Hao - CHIU, Hsien Chin - WANG, Hsiang Chun - KAO, Hsuan Ling - HAUNG, Chong Rong. Improved Gate Reliability Normally-Off p-GaN/AlN/AlGaIn/GaN HEMT with AlGaIn Cap-Layer. In *CS MANTECH 2021 2021 International Conference on Compound Semiconductor Manufacturing Technology, Digest of Papers, 2021-01-01*, pp. 89-92., Registrované v: SCOPUS
21. [1.2] MAO, Mao - TANG, Sha - WANG, Zhizhe - DENG, Rui - DENG, Chuanjin - CHEN, Si - REN, Yan. Effect of Temperature Cycling, High Temperature Storage and Steady-State Operation Life Test on Reliability of GaN HEMTs. In *2021 22nd International Conference on Electronic Packaging Technology, ICEPT 2021, 2021-09-14*, pp. Dostupné na: <https://doi.org/10.1109/ICEPT52650.2021.9568117>., Registrované v: SCOPUS
- ADCA519 ĽAPAJNA, Milan - HUŠEKOVÁ, Kristína - ESPINOS, J.P. - HARMATHA, L. - FRÖHLICH, Karol. Precise determination of metal effective work function and

fixed oxide charge in MOS capacitors with high- $\epsilon$  dielectric. In *Materials science in semiconductor processing*, 2006, vol. 9, p. 969-974. (2005: 0.884 - IF, Q2 - JCR, 0.554 - SJR, Q2 - SJR, karentované - CCC). (2006 - Current Contents).

Citácie:

1. [1.1] SHARMA, N. - KUMAR, R. - JAYABALAN, J. *Mapping of the electronic work function anisotropy of RF sputtered molybdenum thin film electrodes for piezoelectric devices*. In *CURRENT APPLIED PHYSICS*. ISSN 1567-1739, JAN 2021, vol. 21, p. 58-63., Registrované v: WOS

ADCA520

ĽAPAJNA, Milan - STOKLAS, Roman - GREGUŠOVÁ, Dagmar - GUCMANN, Filip - HUŠEKOVÁ, Kristína - HAŠČÍK, Štefan - FRÖHLICH, Karol - TÓTH, L. - PÉCZ, B. - BRUNNER, F. - KUZMÍK, Ján. Investigation of 'surface donors' in Al<sub>2</sub>O<sub>3</sub>/AlGaIn/GaN metal-oxide-semiconductor heterostructures: Correlation of electrical, structural, and chemical properties. In *Applied Surface Science*, 2017, vol. 426, p. 656-661. (2016: 3.387 - IF, Q1 - JCR, 0.958 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2017.07.195>

Citácie:

1. [1.1] DASHTIAN, K. - SHAHBAZI, S. - TAYEBI, M. - MASOUMI, Z. *A review on metal-organic frameworks photoelectrochemistry: A headlight for future applications*. In *COORDINATION CHEMISTRY REVIEWS*. ISSN 0010-8545, OCT 15 2021, vol. 445., Registrované v: WOS

2. [1.1] KAPLAR, R. - BACA, A. - DOUGLAS, E. - KLEIN, B. - ALLERMAN, A. - CRAWFORD, M. - REZA, S. *High-Al-content heterostructures and devices*. In *ULTRAWIDE BANDGAP SEMICONDUCTORS*. ISSN 0080-8784, 2021, vol. 107, p. 191-222., Registrované v: WOS

3. [1.1] KAUSHIK, P.K. - SINGH, S.K. - GUPTA, A. - BASU, A. - CHANG, E.Y. *Impact of Surface States and Aluminum Mole Fraction on Surface Potential and 2DEG in AlGaIn/GaN HEMTs*. In *NANOSCALE RESEARCH LETTERS*. ISSN 1931-7573, OCT 20 2021, vol. 16, no. 1., Registrované v: WOS

4. [1.1] LOW, R.S. - ASUBAR, J.T. - BARATOV, A. - KAMIYA, S. - NAGASE, I. - URANO, S. - KAWABATA, S. - TOKUDA, H. - KUZUHARA, M. - NAKAMURA, Y. - NAITO, K. - MOTOYAMA, T. - YATABE, Z. *GaN-based MIS-HEMTs with Al<sub>2</sub>O<sub>3</sub> dielectric deposited by low-cost and environmental-friendly mist-CVD technique*. In *APPLIED PHYSICS EXPRESS*. ISSN 1882-0778, MAR 1 2021, vol. 14, no. 3., Registrované v: WOS

5. [1.1] VAUCHE, L. - CHANUEL, A. - MARTINEZ, E. - ROURE, M.C. - LE ROYER, C. - BECU, S. - GWOZIECKI, R. - PLISSONNIER, M. *Study of an Al<sub>2</sub>O<sub>3</sub>/GaN Interface for Normally Off MOS-Channel High-Electron-Mobility Transistors Using XPS Characterization: The Impact of Wet Surface Treatment on Threshold Voltage V<sub>TH</sub>*. In *ACS APPLIED ELECTRONIC MATERIALS*. MAR 23 2021, vol. 3, no. 3, p. 1170-1177., Registrované v: WOS

6. [1.2] AHBAB, Sadman Sakib - SAIDUZZAMAN, S. M. - SUBRINA, Samia. *Effect of Deep Level Traps on the Performance of E-Mode Recessed Gate GaN Double-Channel MOS-HEMT*. In *Proceedings of 2021 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering, WIECON-ECE 2021, 2021-01-01*, pp. 59-63. Dostupné na: <https://doi.org/10.1109/WIECON-ECE54711.2021.9829592>., Registrované v: SCOPUS

ADCA521

ĽAPAJNA, Milan\*\*. *Current understanding of bias-temperature instabilities in GaN MIS transistors for power switching applications*. In *Crystals*, 2020, vol. 10, no. 1153. (2019: 2.404 - IF, Q2 - JCR, 0.594 - SJR, Q2 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 2073-4352. Dostupné na:



<https://doi.org/10.3390/cryst10121153> (VEGA 2/0109/17)

Citácie:

1. [1.1] BALLESTIN-FUERTES, J. - MUNOZ-CRUZADO-ALBA, J. - SANZ-OSORIO, J.F. - LAPORTA-PUYAL, E. Role of Wide Bandgap Materials in Power Electronics for Smart Grids Applications. In *ELECTRONICS*. MAR 2021, vol. 10, no. 6., Registrované v: WOS
2. [1.1] KAMMEUGNE, R. Kom - THEODOROU, C. - LEROUX, C. - MESCOT, X. - VAUCHE, L. - GWOZIECKI, R. - BECU, S. - CHARLES, M. - BANO, E. - GHIBAUDO, G. Thorough Investigation of Low Frequency Noise Mechanisms in AlGaIn/GaN and Al<sub>2</sub>O<sub>3</sub>/GaN HEMTs. In *2021 IEEE INTERNATIONAL ELECTRON DEVICES MEETING (IEDM)*, 2021, vol., no., pp. ISSN 2380-9248. Dostupné na: <https://doi.org/10.1109/IEDM19574.2021.9720522>., Registrované v: WOS
3. [1.1] MINETTO, A. - MODOLO, N. - MENEGHINI, M. - ZANONI, E. - SAYADI, L. - SICRE, S. - DEUTSCHMANN, B. - HABERLEN, O. Hot electron effects in AlGaIn/GaN HEMTs during hard-switching events. In *MICROELECTRONICS RELIABILITY*. ISSN 0026-2714, NOV 2021, vol. 126, SI., Registrované v: WOS
4. [1.1] MINETTO, A. - MODOLO, N. - SAYADI, L. - KOLLER, C. - OSTERMAIER, C. - MENEGHINI, M. - ZANONI, E. - PRECHTL, G. - SICRE, S. - DEUTSCHMANN, B. - HABERLEN, O. Drain Field Plate Impact on the Hard-Switching Performance of AlGaIn/GaN HEMTs. In *IEEE TRANSACTIONS ON ELECTRON DEVICES*. ISSN 0018-9383, OCT 2021, vol. 68, no. 10, p. 5003-5008., Registrované v: WOS
5. [1.2] ADAMOWICZ, Bogusława. Characterization of interface states at oxide/GaN(AlGaIn) interfaces using illumination. In *IMFEDK 2021 2021 International Meeting for Future of Electron Devices*, Kansai, 2021-01-01, pp. Dostupné na: <https://doi.org/10.1109/IMFEDK53601.2021.9637620>., Registrované v: SCOPUS

ADCA522 ĽAPAJNA, Milan - VÁLIK, Lukáš - GUCMANN, Filip - GREGUŠOVÁ, Dagmar - FRÖHLICH, Karol - HAŠČÍK, Štefan - DOBROČKA, Edmund - TÓTH, L. - PÉCZ, B. - KUZMÍK, Ján. Low-temperature atomic layer deposition-grown Al<sub>2</sub>O<sub>3</sub> gate dielectric for GaN/AlGaIn/GaN MOS HEMTs: Impact of deposition conditions on interface state density. In *Journal of Vacuum Science and Technology B: Microelectronics and Nanometer Structures*, 2017, vol. 35, no. 01A107. (2016: 1.573 - IF, Q3 - JCR, 0.595 - SJR, Q2 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 1071-1023. Dostupné na: <https://doi.org/10.1116/1.4972870>

Citácie:

1. [1.1] NGUYEN, D.D. - ISODA, T. - DENG, Y.C. - SUZUKI, T.K. Normally-off operations in partially-gate-recessed AlTiO/AlGaIn/GaN field-effect transistors based on interface charge engineering. In *JOURNAL OF APPLIED PHYSICS*. ISSN 0021-8979, JUL 7 2021, vol. 130, no. 1., Registrované v: WOS

ADCA523 ĽAPAJNA, Milan - KILLAT, N. - PALANKOVSKI, V. - GREGUŠOVÁ, Dagmar - ČIČO, Karol - CARLIN, J.-F. - GRANDJEAN, N. - KUBALL, M. - KUZMÍK, Ján. Hot-electron-related degradation in InAlN/GaN high-electron-mobility transistors. In *IEEE Transactions on Electron Devices*, 2014, vol. 61, p. 2793-2801. (2013: 2.358 - IF, Q1 - JCR, 1.411 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0018-9383. Dostupné na:

<https://doi.org/10.1109/TED.2014.2332235>

Citácie:

1. [1.1] CIOU, Fong-Min - LIN, Yu-Shan - LIN, Jia-Hong - KUO, Ting-Tzu - HSU, Jui-Tse - CHEN, Po-Hsun - CHANG, Ting-Chang. Analysis of Threshold



- Voltage Instability under Semi-ON Hot Electron Stress in AlGaIn/GaN High Electron Mobility Transistor. In 2021 IEEE INTERNATIONAL SYMPOSIUM ON THE PHYSICAL AND FAILURE ANALYSIS OF INTEGRATED CIRCUITS (IPFA), 2021, vol., no., pp. ISSN 1946-1550. Dostupné na: <https://doi.org/10.1109/IPFA53173.2021.9617394>., Registrované v: WOS
2. [1.1] KHADE, R.P. - SARKAR, S. - DASGUPTA, A. - DASGUPTA, N. Origin of the Kink Effect in AlInN/GaN High Electron-Mobility Transistor. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, NOV 28 2021, vol. 130, no. 20., Registrované v: WOS
3. [1.1] MODOLO, N. - DE SANTI, C. - MINETTO, A. - SAYADI, L. - SICRE, S. - PRECHTL, G. - MENEGHESSO, G. - ZANONI, E. - MENEGHINI, M. A Physics-Based Approach to Model Hot-Electron Trapping Kinetics in p-GaN HEMTs. In IEEE ELECTRON DEVICE LETTERS. ISSN 0741-3106, MAY 2021, vol. 42, no. 5, p. 673-676., Registrované v: WOS
4. [1.1] NIU, X.R. - MA, X.H. - HOU, B. - YANG, L. - LIN, Y.S. - ZHU, Q. - CIOU, F.M. - CHEN, K.H. - CHEN, Y.L. - DU, J.L. - WU, M. - ZHANG, M. - WANG, C. - CHANG, T.C. - HAO, Y. Electrical Degradation of In Situ SiN/AlGaIn/GaN MIS-HEMTs Caused by Dehydrogenation and Trap Effect Under Hot Carrier Stress. In IEEE TRANSACTIONS ON ELECTRON DEVICES. ISSN 0018-9383, SEP 2021, vol. 68, no. 9, p. 4283-4288., Registrované v: WOS
- ADCA524 ĽAPAĽNA, Milan - HILT, O. - BAHAT-TREIDEL, E. - WÜRFEL, H.-J. - KUZMÍK, Ján. Investigation of gate-diode degradation in normally-off p-GaN/AlGaIn/GaN high-electron-mobility transistors. In Applied Physics Letters, 2015, vol. 107, 193506. (2014: 3.302 - IF, Q1 - JCR, 1.861 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents, WOS, SCOPUS). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/1.4935223>
- Citácie:
1. [1.1] MENEGHINI, Matteo - DE SANTI, Carlo - ABID, Idriss - BUFFOLO, Matteo - CIONI, Marcello - KHADAR, Riyaz Abdul - NELA, Luca - ZAGNI, Nicolo - CHINI, Alessandro - MEDJDOUB, Farid - MENEGHESSO, Gaudenzio - VERZELLESI, Giovanni - ZANONI, Enrico - MATIOLI, Elison. GaN-based power devices: Physics, reliability, and perspectives. In JOURNAL OF APPLIED PHYSICS, 2021, vol. 130, no. 18, pp. ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/5.0061354>., Registrované v: WOS
2. [1.1] SUN, R.Z. - CHEN, X.H. - LIU, C. - CHEN, W.J. - ZHANG, B. Degradation mechanism of Schottky P-GaN gate stack in GaN power devices under neutron irradiation. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, SEP 27 2021, vol. 119, no. 13., Registrované v: WOS
3. [1.1] XU, H. - WEI, J. - XIE, R.L. - ZHENG, Z.Y. - HE, J.B. - CHEN, K.J. Incorporating the Dynamic Threshold Voltage Into the SPICE Model of Schottky-Type p-GaN Gate Power HEMTs. In IEEE TRANSACTIONS ON POWER ELECTRONICS. ISSN 0885-8993, MAY 2021, vol. 36, no. 5, p. 5904-5914., Registrované v: WOS
4. [1.1] ZHANG, L. - ZHENG, Z.Y. - YANG, S. - SONG, W.J. - FENG, S.R. - CHEN, K.J. Characterization of GaON as a surface reinforcement layer of p-GaN in Schottky-type p-GaN gate HEMTs. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, AUG 2 2021, vol. 119, no. 5., Registrované v: WOS
5. [1.1] ZHONG, Y.Z. - SU, S. - CHEN, X. - ZHOU, Y. - GAO, H.W. - ZHAN, X.N. - GUO, X.L. - ZHANG, S.M. - SUN, Q. - YANG, H. Gate Reliability and Its Degradation Mechanism in the Normally OFF High-Electron-Mobility Transistors With Regrown p-GaN Gate. In IEEE JOURNAL OF EMERGING AND SELECTED TOPICS IN POWER ELECTRONICS. ISSN 2168-6777, JUN

- ADCA525 2021, vol. 9, no. 3, p. 3715-3724., *Registrované v: WOS*  
ĽAPAJNA, Milan - JURKOVIČ, Michal - VÁLIK, Lukáš - HAŠČÍK, Štefan - GREGUŠOVÁ, Dagmar - BRUNNER, F. - CHO, E.-M. - HASHIZUME, T. - KUZMÍK, Ján. Impact of GaN cap on charges in Al<sub>2</sub>O<sub>3</sub>/(GaN)/AlGaIn/GaN metal-oxide-semiconductor heterostructures analyzed by means of capacitance measurements and simulations. In Journal of Applied Physics, 2014, vol. 116, 104501. (2013: 2.185 - IF, Q2 - JCR, 1.165 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents, WOS, SCOPUS). ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/1.4894703>  
*Citácie:*  
 1. [1.1] BORDOLOI, S. - RAY, A. - TRIVEDI, G. Introspection Into Reliability Aspects in AlGaIn/GaN HEMTs With Gate Geometry Modification. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 99828-99841., *Registrované v: WOS*  
 2. [1.1] JIN, E.N. - DOWNEY, B.P. - GOKHALE, V.J. - ROUSSOS, J.A. - HARDY, M.T. - GROWDEN, T.A. - NEPAL, N. - KATZER, D.S. - CALAME, J.P. - MEYER, D.J. Electrical properties of high permittivity epitaxial SrCaTiO<sub>3</sub> grown on AlGaIn/GaN heterostructures. In APL MATERIALS. ISSN 2166-532X, NOV 1 2021, vol. 9, no. 11., *Registrované v: WOS*  
 3. [1.1] NGUYEN, D.D. - ISODA, T. - DENG, Y.C. - SUZUKI, T.K. Normally-off operations in partially-gate-recessed AlTiO/AlGaIn/GaN field-effect transistors based on interface charge engineering. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, JUL 7 2021, vol. 130, no. 1., *Registrované v: WOS*  
 4. [1.1] RAJA, P.V. - SUBRAMANI, N.K. - GAILLARD, F. - BOUSLAMA, M. - SOMMET, R. - NALLATAMBY, J.C. Identification of Buffer and Surface Traps in Fe-Doped AlGaIn/GaN HEMTs Using Y-21 Frequency Dispersion Properties. In ELECTRONICS. DEC 2021, vol. 10, no. 24., *Registrované v: WOS*  
 5. [1.1] SONG, Y.L. - REDDY, M.K. - CHANG, L.M. - SHEU, G. Physics-Based TCAD Simulation and Calibration of 600 V GaN/AlGaIn/GaN Device Characteristics and Analysis of Interface Traps. In MICROMACHINES. JUL 2021, vol. 12, no. 7., *Registrované v: WOS*  
 ADCA526 TATARKO, Peter - KAŠIAROVÁ, Monika - CHLUP, Zdeněk - DUSZA, Ján - ŠAJGALÍK, Pavol - VÁVRA, Ivo. Influence of rare-earth oxide additives and SiC nanoparticles on the wear behaviour of Si<sub>3</sub>N<sub>4</sub>-based composites at temperatures up to 900 C. In Wear : an international journal on the science and technology of friction, lubrication and wear, 2013, vol. 300, p. 155-162. (2012: 1.262 - IF, Q2 - JCR, 1.345 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 0043-1648. Dostupné na: <https://doi.org/10.1016/j.wear.2013.01.030>  
*Citácie:*  
 1. [1.1] LIU, Qiang - WANG, Yang - GAO, Zhu-Qing - ZHANG, Biao - HOU, Zhao-Ping - ZHANG, Hai-Jiao - YE, Feng - WANG, Wen. Fabrication of electrically conductive barium aluminum silicate/silicon nitride composites with enhanced strength and toughness. In JOURNAL OF MATERIALS SCIENCE. ISSN 0022-2461, 2021, vol. 56, no. 2, pp. 1221-1230., *Registrované v: WOS*  
 2. [1.1] MIR, Aqib Hussain - AHMAD, S. N. A study on fabrication of silicon nitride-based advanced ceramic composite materials via spark plasma sintering. In PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART L-JOURNAL OF MATERIALS-DESIGN AND APPLICATIONS. ISSN 1464-4207, 2021, vol. 235, no. 8, pp. 1739-1756. Dostupné na: <https://doi.org/10.1177/14644207211013560>., *Registrované v: WOS*  
 ADCA527 TEBANO, R. - GÖMÖRY, Fedor. Higher harmonics in the voltage on a superconducting wire carrying AC electrical current. In Central European Journal of Physics, 2003, vol. 1, p. 246-257.

Citácie:

1. [1.1] YAZDANI-ASRAMI, M. - GHOLAMIAN, S.A. - MIRIMANI, S.M. - ADABI, J. Influence of field-dependent critical current on harmonic AC loss analysis in HTS coils for superconducting transformers supplying non-linear loads. In CRYOGENICS. ISSN 0011-2275, JAN 2021, vol. 113., Registrované v: WOS

ADCA528 TERZIEVA, S. - VOJENČIAK, Michal - GRILLI, F. - NAST, R. - ŠOUC, Ján - GOLDACKER, W. - JUNG, A. - KUDYMOW, A. - KLING, A. Investigation of the effect of striated strands on the AC losses of 2G Roebel cables. In Superconductor Science and Technology, 2011, vol. 24, 045001. (2010: 2.402 - IF, Q1 - JCR, 1.480 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/24/4/045001>

Citácie:

1. [1.1] GOO, J. - HAN, J.W. - LEE, S. - KIM, W.S. - CHOI, K. - LEE, J.K. Magnetization Loss of CORC With Various Configurations of 2G HTS Strands. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

2. [1.1] LI, W.R. - SHENG, J. - ZHENG, J.X. - WU, Y. - GUO, C.J. - LI, Z.Y. - JIN, Z.J. Study on Reducing Magnetization Loss in CORC Cables By Laser Cutting Technology. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2021, vol. 31, no. 4., Registrované v: WOS

3. [1.1] WULFF, A.C. - ABRAHAMSEN, A.B. - INSINGA, A.R. Multifilamentary coated conductors for ultra-high magnetic field applications. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS

ADCA529 TERZIEVA, S. - VOJENČIAK, Michal - PARDO, Enric - GRILLI, F. - DRECHSLER, A. - KLING, A. - KUDYMOW, A. - GÖMÖRY, Fedor - GOLDACKER, W. Transport and magnetization ac losses of ROEBEL assembled coated conductor cables: measurements and calculations. In Superconductor Science and Technology, 2010, vol. 23, 014023. (2009: 2.694 - IF, 1.256 - SJR, Q1 - SJR, karentované - CCC). (2010 - Current Contents, WOS, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/23/1/014023>

Citácie:

1. [1.1] JIANG, Z.N. - SONG, W.J. - PEI, X.Z. - FANG, J. - BADCOCK, R.A. - WIMBUSH, S.C. 15% reduction in AC loss of a 3-phase 1 MVA HTS transformer by exploiting asymmetric conductor critical current. In JOURNAL OF PHYSICS COMMUNICATIONS. ISSN 2399-6528, FEB 2021, vol. 5, no. 2., Registrované v: WOS

2. [1.1] LI, W.R. - SHENG, J. - ZHENG, J.X. - SHEN, B.Y. - HU, R. - YE, H.S. - HONG, Z.Y. - JIN, Z.J. Design, Fabrication and Performance Evaluation of Conductors in Tube Cables. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

3. [1.1] LI, W.R. - SHENG, J. - ZHENG, J.X. - WU, Y. - GUO, C.J. - LI, Z.Y. - JIN, Z.J. Study on Reducing Magnetization Loss in CORC Cables By Laser Cutting Technology. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2021, vol. 31, no. 4., Registrované v: WOS

4. [1.1] SHENG, J. - HU, M. - LI, W.R. - WANG, X.L. - SHEN, B.Y. - LI, Z.Y. - JIN, Z.J. Concept Design of a Portable Superconducting Transformer Based on Conductors in Tube Cables. In IEEE TRANSACTIONS ON APPLIED

- SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS*
5. [1.1] WANG, S.J. - YONG, H.D. - ZHOU, Y.H. Modified FFT-based method for the calculations of the thin superconductors with transport current. In AIP ADVANCES. MAR 1 2021, vol. 11, no. 3., Registrované v: WOS
6. [1.1] YOU, S.R. - KALSI, S.S. - AINSLIE, M.D. - BADCOCK, R.A. - LONG, N.J. - JIANG, Z.N. Simulation of AC Loss in the Armature Windings of a 100 kW All-HTS Motor With Various (RE)BCO Conductor Considerations. In IEEE ACCESS. ISSN 2169-3536, 2021, vol. 9, p. 130968-130980., Registrované v: WOS
- ADCA530 TERZIOGLU, R. - VOJENČIAK, Michal - SHENG, J. - GÖMÖRY, Fedor - ÇAVUŞ, T.F. - BELENLI, I. AC loss characteristics of CORC® cable with a Cu former. In Superconductor Science and Technology, 2017, vol. 30, no. 085012. (2016: 2.878 - IF, Q2 - JCR, 0.967 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/aa757d>
- Citácie:
1. [1.1] LI, X.H. - REN, L. - XU, Y. - LONG, J.J. - SHI, J. - CHEN, G.L. - YUE, Y. - TANG, Y.J. Study on the Influence of Thermal and Magnetic Field on CORC Cable Properties by a 2D Model. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
2. [1.1] MENG, Y.R. - PI, W. - LOU, X.N. - MA, Y.T. - WANG, Y.Y. - KAN, C.T. - WANG, Y.S. AC Losses of Quasi-Isotropic Conductor Carrying a DC Current in an AC Magnetic Field. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
3. [1.1] TIAN, M.Y. - YANG, J.B. - SHEN, B.Y. - OZTURK, Y. - MA, J. - LI, C. - HU, J.T. - WEI, H.G.N. - LI, J.S. - COOMBS, T. Analysis on the Effect of Superconductor Layer Thickness on the AC Loss of Conductor on Round Core (CORC) Cables. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
4. [1.1] TIAN, M.Y. - YANG, J.B. - SHEN, B.Y. - OZTURK, Y. - MA, J. - LI, C. - SHAH, A. - PATEL, I. - LI, J.S. - COOMBS, T. Magnetization Loss Characteristics in Superconducting Conductor on Round Core Cables With a Copper Former. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
5. [1.1] YANG, J.B. - TIAN, M.Y. - MA, J. - OZTURK, Y. - LI, C. - HU, J.T. - GAWITH, J. - SHAH, A. - PATEL, I. - WEI, H.G.N. - HAO, L.N. - SHEN, B.Y. - COOMBS, T. Numerical Study on AC Loss Characteristics of Conductor on Round Core Cables Under Transport Current and Magnetic Field. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
6. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS
- ADCA531 THAKUR, K.P. - RAJ, A. - BRANDT, E.H. - KVVITKOVIČ, Jozef - PAMIDI, S.V. Frequency-dependent critical current and transport ac loss of superconductor strip and Roebel cable. In Superconductor Science and Technology, 2011, vol. 24, 065024. (2010: 2.402 - IF, Q1 - JCR, 1.480 - SJR, Q1 - SJR, karentované - CCC).



(2011 - Current Contents, SCOPUS). ISSN 0953-2048. Dostupné na:

<https://doi.org/10.1088/0953-2048/24/6/065024>

Citácie:

1. [1.1] GUO, Shuqiang - REN, Li - LI, Xin - PENG, Shuhao - XU, Ying - SHI, Jing - TANG, Yuejin - LI, Jingdong. A Method for Measuring AC Critical Current of HTS Coil Based on Thermal Stability. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, 2021, vol. 31, no. 9, pp. Dostupné na: <https://doi.org/10.1109/TASC.2021.3112193>., Registrované v: WOS

2. [1.1] PENG, Yongqiang - ZENG, Zhigang - ZHOU, Difan - ZHAO, Wenwen - JIA, Zhuoyue - GUO, Yanqun - BAI, Chuanyi - FAN, Feng - CHEN, Yangyang - CAI, Chuanbing. Passive Magnetic Shielding of Stacked Joint-free Superconducting Annular Disks Made of REBCO Tapes. In *JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM*. ISSN 1557-1939, 2021, vol. 34, no. 10, pp. 2493-2501. Dostupné na: <https://doi.org/10.1007/s10948-021-05894-y>., Registrované v: WOS

3. [1.1] ZHANG, Hongye - MUELLER, Markus. Electromagnetic properties of curved HTS trapped field stacks under high-frequency cross fields for high-speed rotating machines. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, 2021, vol. 34, no. 4, pp. Dostupné na: <https://doi.org/10.1088/1361-6668/abe4b6>., Registrované v: WOS

ADCA532

TIXADOR, Pascal\*\* - BAUER, M. - BRUZEK, C.-E. - CALLEJA, A. - DEUTSCHER, Guy - DUTOIT, B. - GÖMÖRY, Fedor - MARTINI, L. - NOE, M. - OBRADORS, X. - PEKARČÍKOVÁ, M. - SIROIS, F. Status of the European Union project FASTGRID. In *IEEE Transactions on Applied Superconductivity*, 2019, vol. 29, no. 5603305. (2018: 1.692 - IF, Q3 - JCR, 0.406 - SJR, Q2 - SJR, karentované - CCC). (2019 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2019.2908586> (H2020 FASTGRID)

Citácie:

1. [1.1] SONG, M. - DAI, S.T. - SHENG, C. - ZHONG, L.H. - DUAN, X.H. - LUO, P.D. - LI, L. - MA, T. Time-Varying Resistance Optimization for the Resistive Type Superconducting Fault Current Limiter Applied in VSC-HVDC System. In *JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM*. ISSN 1557-1939, APR 2021, vol. 34, no. 4, p. 1047-1057., Registrované v: WOS

2. [1.1] SONG, W.J. - PEI, X.Z. - ALAFNAN, H. - XI, J.W. - ZENG, X.W. - YAZDANI-ASRAMI, M. - XIANG, B. - LIU, Z.Y. Experimental and Simulation Study of Resistive Helical HTS Fault Current Limiters: Quench and Recovery Characteristics. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

3. [1.1] WANG, C.Q. - LI, B. - HONG, W. - XIN, Y. - LI, W.X. - LI, C. - YANG, S. Study on Sustainable Current-Limiting Capability of a Saturation-Based dc I-SFCL Prototype. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

4. [1.1] XI, J.W. - PEI, X.Z. - SONG, W.J. - XIANG, B. - LIU, Z.Y. - ZENG, X.W. Experimental Tests of DC SFCL Under Low Impedance and High Impedance Fault Conditions. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

5. [1.2] WANG, Changqi - LI, Bin - XIN, Ying - SHENG, Chao - SONG, Meng. Review on Research and Application of High-temperature Superconducting DC Fault Current Limiter. In *Dianli Xitong Zidonghua/Automation of Electric Power*



- Systems. ISSN 10001026, 2021-09-25, 45, 18, pp. 179-191. Dostupné na: <https://doi.org/10.7500/AEPS20200827001>., Registrované v: SCOPUS*
- ADCA533 TÓBIK, Jaroslav - CAMBEL, Vladimír - KARAPETROV, Goran. Dynamics of vortex nucleation in nanomagnets with broken symmetry. In *Physical Review B*, 2012, vol. 86, 134433. (2011: 3.691 - IF, Q1 - JCR, 3.326 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.86.134433>
- Citácie:
- [1.1] ALDULAIMI, W. A. S. - AKAOGLU, C. - SENDUR, K. - OKATAN, M. B. - MISIRLIOGLU, I. B. Chirality Switching in Ferromagnetic Nanostructures Via Nanosecond Electric Pulses. In *ANNALEN DER PHYSIK*, 2021, vol. 533, no. 10, pp. ISSN 0003-3804. Dostupné na: <https://doi.org/10.1002/andp.202100167>., Registrované v: WOS
  - [1.1] MA, Xiao-Ping - YANG, Hongguo - LI, Changfeng - SONG, Cheng - PIAO, Hong-Guang. Nanocavity-Mediated Fast Magnetic Vortex Core In-Situ Switching by Local Magnetic Field. In *CHINESE PHYSICS LETTERS*, 2021, vol. 38, no. 12, pp. ISSN 0256-307X. Dostupné na: <https://doi.org/10.1088/0256-307X/38/12/127501>., Registrované v: WOS
- ADCA534 TÓBIK, Jaroslav - MARTOŇÁK, R. - CAMBEL, Vladimír. Free-energy landscapes in magnetic systems from metadynamics. In *Physical Review B*, 2017, vol. 96, art. no. R140413. (2016: 3.836 - IF, Q2 - JCR, 2.339 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.96.140413>
- Citácie:
- [1.1] BAUSE, Marius - BEREAU, Tristan. Reweighting non-equilibrium steady-state dynamics along collective variables. In *JOURNAL OF CHEMICAL PHYSICS*, 2021, vol. 154, no. 13, pp. ISSN 0021-9606. Dostupné na: <https://doi.org/10.1063/5.0042972>., Registrované v: WOS
  - [1.1] MRUCZKIEWICZ, Michal - GRUSZECKI, Pawel. The 2021 roadmap for noncollinear magnonics. In *SOLID STATE PHYSICS, VOL 72*, 2021, vol. 72, no., pp. 1-27. ISSN 0081-1947. Dostupné na: <https://doi.org/10.1016/bs.ssp.2021.09.001>., Registrované v: WOS
- ADCA535 TRGALA, M. - ŽEMLIČKA, M. - NEILINGER, Pavol - REHÁK, M. - LEPORIS, M. - GAŽI, Štefan - GREGUŠ, J. - PLECENIK, T. - ROCH, T. - DOBROČKA, Edmund - GRAJCAR, M. Superconducting MoC thin films with enhanced sheet resistance. In *Applied Surface Science*, 2014, vol. 312, p. 216-219. (2013: 2.538 - IF, Q1 - JCR, 0.965 - SJR, Q1 - SJR, karentované - CCC). (2014 - Current Contents). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2014.05.200>
- Citácie:
- [1.1] FANG, P.J. - WANG, B.W. - GALL, D. Epitaxial MoCx: Competition between cubic delta-MoCy (111) and hexagonal beta-Mo2C(0001). In *SURFACE & COATINGS TECHNOLOGY*. ISSN 0257-8972, AUG 25 2021, vol. 420., Registrované v: WOS
  - [1.1] SHAPOVALOV, A.P. - BELOGOLOVSKII, M.O. - BOLIASOVA, O.O. - KORDYUK, O.A. BINARY MOLYBDENUM COMPOUNDS: PROMISING MATERIALS FOR NOVEL PHYSICS OF SUPERCONDUCTIVITY AND PRACTICAL APPLICATIONS. In *USPEKHI FIZIKI METALLOV-PROGRESS IN PHYSICS OF METALS*. ISSN 1608-1021, 2021, vol. 22, no. 3, p. 352-381., Registrované v: WOS
- ADCA536 TRNOVCOVÁ, Viera - FEDOROV, P.P. - BUCHINSKAYA, I.I. - ŠMATKO, Vasilij - HANIC, František. Fast ionic conductivity of Pb<sub>2</sub>MF<sub>2</sub> (M=Mg, Ba, Cd) and PbF<sub>2</sub>: ScF<sub>3</sub> single crystals and composites. In *Solid State Ionics*, 1999, vol. 119,

p. 181-189. (1998: 1.080 - IF, karentované - CCC). (1999 - Current Contents).

Citácie:

1. [1.1] NOWROOZI, M.A. - MOHAMMAD, I. - MOLAIYAN, P. - WISSEL, K. - MUNNANGI, A.R. - CLEMENS, O. Fluoride ion batteries - past, present, and future. In JOURNAL OF MATERIALS CHEMISTRY A. ISSN 2050-7488, MAR 14 2021, vol. 9, no. 10, p. 5980-6012., Registrované v: WOS

ADCA537 TRUCHLY, M. - PLECENIK, T. - KRŠKO, O. - GREGOR, M. - SATRAPINSKY, L. - ROCH, T. - GRANČIČ, B. - MIKULA, M. - LAURENČÍKOVÁ, Agáta - CHROMIK, Štefan - KÚŠ, P. - PLECENIK, Andrej. Studies of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>6+x</sub> degradation and surface conductivity properties by scanning spreading resistance microscopy. In Physica C. Superconductivity and its applications, 2012, vol. 483, p. 61-68. (2011: 1.014 - IF, Q3 - JCR, 0.694 - SJR, Q1 - SJR, karentované - CCC). (2012 - Current Contents, WOS, SCOPUS). ISSN 0921-4534. Dostupné na: <https://doi.org/10.1016/j.physc.2012.07.004>

Citácie:

1. [1.1] SANDER, A. - ORFILA, G. - SANCHEZ-MANZANO, D. - REYREN, N. - MAWASS, M. A. - GALLEGO, F. - COLLIN, S. - BOUZEHOUE, K. - HOEFLICH, K. - KRONAST, F. - GRILLI, F. - RIVERA-CALZADA, A. - SANTAMARIA, J. - VILLEGAS, J. E. - VALENCIA, S. Superconducting imprint of magnetic textures in ferromagnets with perpendicular magnetic anisotropy. In SCIENTIFIC REPORTS, 2021, vol. 11, no. 1, pp. ISSN 2045-2322. Dostupné na: <https://doi.org/10.1038/s41598-021-99963-w>, Registrované v: WOS

ADCA538 TULINSKÁ, J. - KAŽIMÍROVÁ, Alena - KURICOVÁ, M. - BARANCOKOVÁ, M. - LIŠKOVÁ, A. - NEUBAUEROVÁ, E. - DRLIČKOVÁ, M. - ČIAMPOR, Fedor - VÁVRA, I. - BILANICOVÁ, D. - POJANA, G. - STARUCHOVÁ, M. - HORVÁTHOVÁ, M. - JAHNOVÁ, E. - VOLKOVÁ, K. - BARTUSOVÁ, M. - CAGALINEC, M. - DUŠINSKÁ, M. Immunotoxicity and genotoxicity testing of PLGA-PEO nanoparticles in human blood cell model. In Nanotoxicology, 2015, vol. 9, no. S1, p. 33 - 43. (2014: 6.411 - IF, Q1 - JCR, 1.714 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 1743-5390. Dostupné na: <https://doi.org/10.3109/17435390.2013.816798>

Citácie:

1. [1.1] DONINI, Marta - GAGLIO, Salvatore Calogero - LAUDANNA, Carlo - PERDUCA, Massimiliano - DUSI, Stefano. Oxyresveratrol-Loaded PLGA Nanoparticles Inhibit Oxygen Free Radical Production by Human Monocytes: Role in Nanoparticle Biocompatibility. In MOLECULES, 2021, vol. 26, no. 14, pp. Dostupné na: <https://doi.org/10.3390/molecules26144351>, Registrované v: WOS

2. [1.1] ESSA, Divesha - KONDIAH, Pierre P. D. - CHOONARA, Yahya E. - PILLAY, Viness. The Design of Poly(lactide-co-glycolide) Nanocarriers for Medical Applications. In FRONTIERS IN BIOENGINEERING AND BIOTECHNOLOGY. ISSN 2296-4185, 2020, vol. 8, no., pp. Dostupné na: <https://doi.org/10.3389/fbioe.2020.00048>, Registrované v: WOS

3. [1.1] KIK, Kinga - BUKOWSKA, Bozena - KROKOSZ, Anita - SICINSKA, Paulina. Oxidative Properties of Polystyrene Nanoparticles with Different Diameters in Human Peripheral Blood Mononuclear Cells (In Vitro Study). In INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, 2021, vol. 22, no. 9, pp. Dostupné na: <https://doi.org/10.3390/ijms22094406>, Registrované v: WOS

4. [1.1] MUTALIK, Sadhana P. - PANDEY, Abhijeet - MUTALIK, Srinivas. Nanoarchitectonics: A versatile tool for deciphering nanoparticle interaction with cellular proteins, nucleic acids and phospholipids at biological interfaces. In INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES. ISSN

0141-8130, 2020, vol. 151, no., pp. 136-158. Dostupné na: <https://doi.org/10.1016/j.ijbiomac.2020.02.150>., Registrované v: WOS  
5. [1.1] PANDEY, Avaneesh Kumar - KUMAR, Rajendra - SHAFIQ, Nusrat - KONDEL, Ritika - GARG, Shanky - NEGI, Harish - ARORA, Sunil Kumar - VARMA, Neelam - MALHOTRA, Samir. In vitro and in vivo evaluation of clastogenicity of second-line antitubercular drug loaded PLGA nanoparticles. In HUMAN & EXPERIMENTAL TOXICOLOGY. ISSN 0960-3271, 2021, vol. 40, no. 7, pp. 1064-1073. Dostupné na: <https://doi.org/10.1177/0960327120979345>., Registrované v: WOS

ADCA539 ULBRICHT, A. - DUCHATEAU, J.L. - FIETZ, W.H. - CIAZYNSKI, D. - FILLUNGER, H. - FINK, S. - HELLER, R. - MAIX, R. - NICOLLET, S. - RAFF, S. - RICCI, M. - SALPIETRO, E. - ZAHN, G. - ZANINO, R. - BAGNASCO, M. - BESETTE, D. - BOBROV, E. - BONICELLI, T. - BRUZZONE, P.L. - DARWESCHSAD, M.S. - DECOOL, P. - DOLGETTA, N. - DELLA CORTE, A. - FORMISANO, A. - GRÜNHAGEN, A. - HERTOUT, P. - HERZ, W. - HUGUET, M. - HURD, F. - ILYIN, Yu. - KOMAREK, P. - LIBEYRE, P. - MARCHESE, V. - MARINUCCI, C. - MARTINEZ, A. - MARTONE, R. - MARTOVETSKY, N.N. - MICHAEL, P. - MITCHELL, N. - NIJHUIS, A. - NÖTHER, G. - NUNOYA, Y. - POLÁK, Milan - PORTONE, A. - SAVOLDI RICHARD, L. - SPADONI, M. - SÜBER, M. - TURTÚ, S. - VOSTNER, A. - TAKAHASHI, Y. - WUCHNER, F. - ZANI, L. The ITER toroidal field model coil project. In Fusion Engineering and Design, 2005, vol. 73, p. 189-327.

Citácie:

1. [1.1] DIXIT, S. - STEFANSKA, A. - MUSIUK, A. - SINGH, P. Study of enabling factors affecting the adoption of ICT in the Indian built environment sector. In AIN SHAMS ENGINEERING JOURNAL. ISSN 2090-4479, JUN 2021, vol. 12, no. 2, p. 2313-2319., Registrované v: WOS
2. [1.1] KWON, S.P. Examination of design parameters affecting Nb3Sn CICC current sharing temperature using necessary condition analysis. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUL 2021, vol. 34, no. 8., Registrované v: WOS

ADCA540 UŠÁK, E.\*\* - UŠÁKOVÁ, M. - DOSOUDIL, R. - ŠOKA, M. - DOBROČKA, Edmund. Influence of iron substitution by selected rare-earth ions on the properties of NiZn ferrite fillers and PVC magneto-polymer composites. In AIP Advances, 2018, vol. 8, no. 047805. (2017: 1.653 - IF, Q3 - JCR, 0.472 - SJR, Q2 - SJR, karentované - CCC). (2018 - Current Contents, WOS, SCOPUS). ISSN 2158-3226. Dostupné na: <https://doi.org/10.1063/1.4993547>

Citácie:

1. [1.1] FU, Z.G. - LIN, C.C. - MENG, X.F. Three dimension Ni0.5Zn0.5Fe2O4/BaFe12O19@carbon composite for light and broadband microwave absorbents. In CERAMICS INTERNATIONAL. ISSN 0272-8842, JUN 1 2021, vol. 47, no. 11, p. 16070-16078., Registrované v: WOS

ADCA541 UŠÁK, Pavol - MOZOLA, Pavol. How to speed up Y-Ba-Cu-O tape recovery. In IEEE Transactions on Applied Superconductivity, 2013, vol. 23, 4701011. (2012: 1.199 - IF, Q2 - JCR, 0.575 - SJR, karentované - CCC). (2013 - Current Contents, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2012.2232912>

Citácie:

1. [1.1] CHEN, Wei - SONG, Peng - JIANG, Hao - ZHU, Jiahui - ZOU, Shengnan - QU, Timing. Investigations on Quench Recovery Characteristics of High-Temperature Superconducting Coated Conductors for Superconducting Fault Current Limiters. In ELECTRONICS, 2021, vol. 10, no. 3, pp. Dostupné na:

- <https://doi.org/10.3390/electronics10030259>, Registrované v: WOS
- ADCA542 UŠÁK, Pavol - POLÁK, Milan - MOZOLA, Pavol. Measurement of the lateral transport current distribution in YBCO tape. In IEEE Transactions on Applied Superconductivity, 2009, vol. 19, p. 2839-2842. (2008: 0.919 - IF, Q3 - JCR, 0.884 - SJR, Q1 - SJR, karentované - CCC). (2009 - Current Contents, SCOPUS).  
Citácie:  
1. [1.1] BANDINI, Gabriele - MARRACCI, Mirko - CAPOSCIUTTI, Gianluca - DELMOTE, Philippe - TELLINI, Bernardo. Current Distribution in Railgun Rails Through Barycenter Filament Model. In IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT. ISSN 0018-9456, 2021, vol. 70, no., pp. Dostupné na: <https://doi.org/10.1109/TIM.2021.3094245>, Registrované v: WOS
- ADCA543 UTSCHICK, C.\*\* - SOM, C. - ŠOUC, Ján - GROSSE, V. - GÖMÖRY, Fedor - GROSS, R. Superconducting wireless power transfer beyond 5 kW at high power density for industrial applications and fast battery charging. In IEEE Transactions on Applied Superconductivity, 2021, vol. 31, no. 5500110. (2020: 1.704 - IF, Q3 - JCR, 0.467 - SJR, Q2 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2021.3056195>  
Citácie:  
1. [1.1] HAO, Xiang - ZHANG, Huan - SONG, Jibin - LIU, Ming - MA, Chengbin. Optimal Coil Design and Control Strategy for a High-power and Medium-frequency Wireless Power Transfer System. In IECON 2021 47TH ANNUAL CONFERENCE OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY, 2021, vol., no., pp. ISSN 1553-572X. Dostupné na: <https://doi.org/10.1109/IECON48115.2021.9589400>, Registrované v: WOS  
2. [1.1] INANIR, F. - TERZIOGLU, R. AC Loss Evaluation of a Superconducting Pancake Coil with Coated Conductors using an Extended A-V Formulation. In PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS. ISSN 0921-4534, AUG 15 2021, vol. 587., Registrované v: WOS  
3. [1.1] WEN, F. - CHU, X.H. - LI, Q. - ZHAO, W.H. - ZHU, X.Q. - WU, Y.W. Receiver Localization Strategy of Wireless Charging System Based on Mutual Inductance Disturbance. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
- ADCA544 VAGOVIČ, Patrik - KORYTÁR, Dušan - CECILIA, A. - HAMANN, E. - ŠVÉDA, L. - PELLICCIA, D. - HÄRTWIG, J. - ZÁPRAŽNÝ, Zdenko - OBERTA, P. - DOLBANYA, I. - SHAWNEY, K. - FLESHIG, U. - FIEDERLE, M. - BAUMBACH, T. High-resolution high-efficiency X-ray imaging system based on the in-line Bragg magnifier and the Medipix detector. In Journal of Synchrotron Radiation, 2013, vol. 20, p. 153-159. (2012: 2.186 - IF, Q1 - JCR, 1.465 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 1600-5775. Dostupné na: <https://doi.org/10.1107/S0909049512044366>  
Citácie:  
1. [1.1] HUANG, Panpan - DU, Ming - HAMMER, Mike - MICELI, Antonino - JACOBSEN, Chris. Fast digital lossy compression for X-ray ptychographic data. In JOURNAL OF SYNCHROTRON RADIATION, 2021, vol. 28, no., pp. 292-300. ISSN 0909-0495. Dostupné na: <https://doi.org/10.1107/S1600577520013326>, Registrované v: WOS
- ADCA545 VANKO, Gabriel - LALINSKÝ, Tibor - MOZOLOVÁ, Želmíra - LIDAY, J. - VOGRINČIČ, P. - VINCZE, A. - UHEREK, F. - HASČÍK, Štefan - KOSTIČ, Ivan. Nb-Ti/Al/Ni/Au based ohmic contacts to AlGaIn/GaN. In Vacuum, 2007, vol. 82, pp. 193-196. (2006: 0.834 - IF, Q3 - JCR, 0.464 - SJR, Q2 - SJR). Dostupné na:



<https://doi.org/10.1016/j.vacuum.2007.07.020>

Citácie:

1. [1.1] DANG, Phillip - KHALSA, Guru - CHANG, Celesta S. - KATZER, D. Scott - NEPAL, Neeraj - DOWNEY, Brian P. - WHEELER, Virginia D. - SUS, Alexey - XIE, Andy - BEAM, Edward - CAO, Yu - LEE, Cathy - MULLER, David A. - XING, Huili Grace - MEYER, David J. - JENA, Debdeep. An all-epitaxial nitride heterostructure with concurrent quantum Hall effect and superconductivity. In *SCIENCE ADVANCES*. ISSN 2375-2548, 2021, vol. 7, no. 8, pp., Registrované v: WOS

ADCA546 VANKO, Gabriel - DRŽÍK, Milan - VALLO, Martin - LALINSKÝ, Tibor - KUTIŠ, V. - STANČÍK, S. - RÝGER, Ivan - BENČUROVÁ, Anna. AlGaIn/GaN C-HEMT structures for dynamic stress detection. In *Sensors and Actuators A*, 2011, vol. 172, p. 98-102. (2010: 3.370 - IF, Q1 - JCR, 1.434 - SJR, Q1 - SJR). ISSN 0925-4005. Dostupné na: <https://doi.org/10.1016/j.sna.2011.02.049>

Citácie:

1. [1.1] UPADHYAY, Kavita T. - CHATTOPADHYAY, Manju K. Sensor applications based on AlGaIn/GaN heterostructures. In *MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS*. ISSN 0921-5107, 2021, vol. 263, no., pp., Registrované v: WOS

ADCA547 VANKO, Gabriel - HUDEK, Peter - ZEHETNER, J. - DZUBA, Jaroslav - CHOLEVA, P. - KUTIŠ, V. - VALLO, Martin - RÝGER, Ivan - LALINSKÝ, Tibor. Bulk micromachining of SiC substrate for MEMS sensor applications. In *Microelectronic Engineering*, 2013, vol. 110, p. 260-264. (2012: 1.224 - IF, Q2 - JCR, 0.737 - SJR, Q1 - SJR, karentované - CCC). (2013 - Current Contents). ISSN 0167-9317. Dostupné na: <https://doi.org/10.1016/j.mee.2013.01.046>

Citácie:

1. [1.1] CHEN, Zhaojie - ZHAN, Shunda - ZHAO, Yonghua. Electrochemical jet-assisted precision grinding of single-crystal SiC using soft abrasive wheel. In *INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES*. ISSN 0020-7403, 2021, vol. 195, no., pp. Dostupné na:

<https://doi.org/10.1016/j.ijmecsci.2020.106239>, Registrované v: WOS

2. [1.1] WANG, Lukang - ZHAO, You - YANG, Zixuan - ZHAO, Yulong - YANG, Xinwan - GONG, Taobo - LI, Cun. Femtosecond laser micromachining in combination with ICP etching for 4H-SiC pressure sensor membranes. In *CERAMICS INTERNATIONAL*. ISSN 0272-8842, 2021, vol. 47, no. 5, pp. 6397-6408. Dostupné na: <https://doi.org/10.1016/j.ceramint.2020.10.220>, Registrované v: WOS

3. [1.1] ZHAN, Shunda - DONG, Bangyan - WANG, Hongqiang - ZHAO, Yonghua. A novel approach for bulk micromachining of 4H-SiC by tool-based electrolytic plasma etching in HF-free aqueous solution. In *JOURNAL OF THE EUROPEAN CERAMIC SOCIETY*. ISSN 0955-2219, 2021, vol. 41, no. 10, pp. 5075-5087. Dostupné na: <https://doi.org/10.1016/j.jeurceramsoc.2021.04.012>, Registrované v: WOS

4. [1.2] HAJARE, Raju - REDDY, Vishnuvardhan - SRIKANTH, R. MEMS based sensors – A comprehensive review of commonly used fabrication techniques. In *Materials Today: Proceedings*, 2021-01-01, 49, pp. 720-730. Dostupné na: <https://doi.org/10.1016/j.matpr.2021.05.223>, Registrované v: SCOPUS

5. [1.2] WANG, Hongjian - YANG, Tao - LIAO, Runqian - SONG, Chang. Research Progress on Laser Drilling of Silicon Carbide and Its Power Devices. In *Bandaoti Guangdong/Semiconductor Optoelectronics*. ISSN 10015868, 2021-08-01, 42, 4, pp. 458-463 and 478 Dostupné na: <https://doi.org/10.16818/j.issn1001-5868.2021.04.002>, Registrované v: SCOPUS



6. [3.1] CAO, Z. - WEN, Q. - WANG, X. - YANG, Q. - JIANG, F. An overview of the miniaturization and endurance for wearable devices. In *Journal on Internet of Things*. 2021, vol. 3, no. 1, pp. 11-17. doi: 10.32604/jiot.2021.010404.
- ADCA548 VARGA, M. - IZSÁK, Tibor - VRETENÁR, Viliam - KOZAK, H. - HOLOVSKY, J. - ARTEMENKO, A. - HULMAN, Martin - SKÁKALOVÁ, V. - LEE, D.S. - KROMKA, A. Diamond/carbon nanotube composites: Raman, FTIR, and XPS spectroscopic studies. In *Carbon*, 2017, vol. 111, p. 54-61. (2016: 6.337 - IF, Q1 - JCR, 2.091 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 0008-6223. Dostupné na: <https://doi.org/10.1016/j.carbon.2016.09.064>
- Citácie:
- [1.1] BA, T.L. - BOHUS, M. - LUKACS, I.E. - WONGWISES, S. - GROF, G. - HERNADI, K. - SZILAGYI, I.M. Comparative Study of Carbon Nanosphere and Carbon Nanopowder on Viscosity and Thermal Conductivity of Nanofluids. In *NANOMATERIALS*. MAR 2021, vol. 11, no. 3., Registrované v: WOS
  - [1.1] BURUNGALÉ, V. - BAE, H. - MANE, P. - RHO, H. - RYU, S.W. - KANG, S.H. - HA, J.S. Improved performance of CNT-Pd modified Cu<sub>2</sub>O supported on Nickel foam for hydrogen evolution reaction in basic media. In *JOURNAL OF MOLECULAR LIQUIDS*. ISSN 0167-7322, DEC 1 2021, vol. 343., Registrované v: WOS
  - [1.1] DONG, Y.H. - XUE, F.J. - WEI, Y.P. Magnetic nanoparticles supported N-heterocyclic palladium complex: Synthesis and catalytic evaluations in Suzuki cross-coupling reaction. In *JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS*. ISSN 0022-3697, JUN 2021, vol. 153., Registrované v: WOS
  - [1.1] FAN, S.S. - SHEN, L. - DONG, Y. - TIAN, G. - WU, S.M. - CHANG, G.G. - JANIÁK, C. - WEI, P. - WU, J.S. - YANG, X.Y. sp<sup>3</sup>-like defect structure of hetero graphene-carbon nanotubes for promoting carrier transfer and stability. In *JOURNAL OF ENERGY CHEMISTRY*. ISSN 2095-4956, JUN 2021, vol. 57, p. 189-197., Registrované v: WOS
  - [1.1] FANG, S. - CAI, Z.H. - WANG, Y.K. - LU, Z.Y. - FANG, C. - ZHAO, Z.D. - MA, H.G. - CHEN, L.C. - JIA, X.P. Growth and characterization of diamond single crystals grown in the Fe-S-C system by the temperature gradient method. In *CRYSTENGCOMM*. MAR 14 2021, vol. 23, no. 10, p. 2063-2070., Registrované v: WOS
  - [1.1] HE, X.D. - SATHISHKUMAR, G. - GOPINATH, K. - ZHANG, K. - LU, Z.S. - LI, C.M. - KANG, E.T. - XU, L.Q. One-step self-assembly of biogenic Au NPs/PEG-based universal coatings for antifouling and photothermal killing of bacterial pathogens. In *CHEMICAL ENGINEERING JOURNAL*. ISSN 1385-8947, OCT 1 2021, vol. 421, 1., Registrované v: WOS
  - [1.1] HONG, J.H. - KIM, J.H. - PARK, G.D. - LEE, J.Y. - LEE, J.K. - KANG, Y.C. A strategy for fabricating three-dimensional porous architecture comprising metal oxides/CNT as highly active and durable bifunctional oxygen electrocatalysts and their application in rechargeable Zn-air batteries. In *CHEMICAL ENGINEERING JOURNAL*. ISSN 1385-8947, JUN 15 2021, vol. 414., Registrované v: WOS
  - [1.1] HUSSAIN, S. - LIU, H.L. - VIKRAMAN, D. - HUSSAIN, M. - JAFFERY, S.H.A. - ALI, A. - KIM, H.S. - KANG, J.W. - JUNG, J.W. Characteristics of Mo<sub>2</sub>C-CNTs hybrid blended hole transport layer in the perovskite solar cells and X-ray detectors. In *JOURNAL OF ALLOYS AND COMPOUNDS*. ISSN 0925-8388, DEC 10 2021, vol. 885., Registrované v: WOS
  - [1.1] JIANG, M.R. - CHENG, X.H. Effect of carbon nanotubes modified with different concentrations of rare earth lanthanum on the mechanical and tribological properties of epoxy composites. In *JOURNAL OF COMPOSITE*

- MATERIALS*. ISSN 0021-9983, JUL 2021, vol. 55, no. 16, p. 2197-2210.,  
Registrované v: WOS
10. [1.1] JIAO, Y. - LU, K.Y. - LU, Y. - YUE, Y.Y. - XU, X.W. - XIAO, H.N. - LI, J. - HAN, J.Q. Highly viscoelastic, stretchable, conductive, and self-healing strain sensors based on cellulose nanofiber-reinforced polyacrylic acid hydrogel. In *CELLULOSE*. ISSN 0969-0239, MAY 2021, vol. 28, no. 7, p. 4295-4311.,  
Registrované v: WOS
11. [1.1] JOSEPH, S. - LEE, J.M. - BENZIGAR, M.R. - YI, J.B. - KARAKOTI, A. - VINU, A. Milk derived highly ordered mesoporous carbon with CaF<sub>2</sub> nanoclusters as an efficient electrode for supercapacitors. In *CARBON*. ISSN 0008-6223, AUG 15 2021, vol. 180, p. 101-109.,  
Registrované v: WOS
12. [1.1] KIM, J.H. - PARK, G.D. - YANG, S.H. - HONG, J.H. - KIM, J.K. - KANG, Y.C. Uniquely structured iron hydroxide-carbon nanospheres with yolk-shell and hollow structures and their excellent lithium-ion storage performances. In *APPLIED SURFACE SCIENCE*. ISSN 0169-4332, MAR 15 2021, vol. 542.,  
Registrované v: WOS
13. [1.1] KUMAR, U. - WU, J. - SHARMA, N. - SAHAJWALLA, V. Biomass Derived High Areal and Specific Capacity Hard Carbon Anodes for Sodium-Ion Batteries. In *ENERGY & FUELS*. ISSN 0887-0624, JAN 21 2021, vol. 35, no. 2, SI, p. 1820-1830.,  
Registrované v: WOS
14. [1.1] LIANG, Y.T. - JIANG, Z. - SHANGGUAN, W.F. Photocatalytic oxidation behaviors of Di-2-ethylhexyl phthalate over Pt/TiO<sub>2</sub>. In *CATALYSIS TODAY*. ISSN 0920-5861, SEP 15 2021, vol. 376, SI, p. 104-112.,  
Registrované v: WOS
15. [1.1] LIN, Q. - CHEN, S.L. - JI, Z. - HUANG, Z.W. - ZHANG, Z.N. - SHEN, B. A novel growth model for depositing ultrananocrystalline diamond films in CH<sub>4</sub>/H<sub>2</sub> chemistry. In *SURFACE & COATINGS TECHNOLOGY*. ISSN 0257-8972, AUG 15 2021, vol. 419.,  
Registrované v: WOS
16. [1.1] LIU, D. - WANG, X.Y. - LEI, Y.Z. - SONG, X.G. - LONG, W.M. - ZHAO, J. Microstructure and properties of diamond etched by titanium powder. In *MATERIALS LETTERS*. ISSN 0167-577X, NOV 1 2021, vol. 302.,  
Registrované v: WOS
17. [1.1] LIU, W.J. - NIE, C.Y. - LI, W.L. - AO, Z.M. - WANG, S.B. - AN, T.C. Oily sludge derived carbons as peroxydisulfate activators for removing aqueous organic pollutants: Performances and the key role of carbonyl groups in electron-transfer mechanism. In *JOURNAL OF HAZARDOUS MATERIALS*. ISSN 0304-3894, JUL 15 2021, vol. 414.,  
Registrované v: WOS
18. [1.1] LU, Z.Y. - ZHAO, H.Y. - WANG, Y.K. - FANG, S. - CAI, Z.H. - WANG, Z.W. - MA, H.A. - CHEN, L.C. - JIA, H.S. - JIA, X.P. Diamond growth and characteristics in the metal-silicate-H<sub>2</sub>O-C system at HPHT conditions. In *LITHOS*. ISSN 0024-4937, DEC 1 2021, vol. 404-405.,  
Registrované v: WOS
19. [1.1] LUO, H. - AJMAL, K.M. - LIU, W. - YAMAMURA, K. - DENG, H. Atomic-scale and damage-free polishing of single crystal diamond enhanced by atmospheric pressure inductively coupled plasma. In *CARBON*. ISSN 0008-6223, SEP 2021, vol. 182, p. 175-184.,  
Registrované v: WOS
20. [1.1] MATSUNO, T. - TERASAKI, S. - KOGASHI, K. - KATSUNO, R. - ISOBE, H. A hybrid molecular peapod of sp(2)- and sp(3)-nanocarbons enabling ultrafast terahertz rotations. In *NATURE COMMUNICATIONS*. ISSN 2041-1723, AUG 25 2021, vol. 12, no. 1.,  
Registrované v: WOS
21. [1.1] MENG, X.M. - YAO, L. - JIANG, W.J. - JIANG, X. - LIU, C.J. - YANG, L. In Situ Growth Synthesis of the CNTs@AC Hybrid Material for Efficient Nitrate-Nitrogen Adsorption. In *ACS OMEGA*. ISSN 2470-1343, JAN 19 2021, vol. 6, no. 2, p. 1612-1622.,  
Registrované v: WOS

22. [1.1] MOHAN, L. - KARAKKAD, S. - KRISHNAN, S.T. Development of lightweight carbon nanotube-based epoxy nanocomposite shield for broadband electromagnetic interference shielding: estimating shielding effectiveness and experimental validation. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS. ISSN 0957-4522, FEB 2021, vol. 32, no. 4, p. 4437-4447., Registrované v: WOS
23. [1.1] MU, P.Y. - ZHOU, G.T. - CHEN, L.C. - ZHANG, Z.F. - ZHANG, Y.W. - SHEN, W.X. - WANG, Q.Q. - WAN, B.A. - FANG, C. - JIA, X.P. Effect of Ni<sub>2</sub>O<sub>3</sub> on diamond crystal growth in an Fe-Ni-C system under high temperature and high pressure. In CRYSTENGCOMM. APR 21 2021, vol. 23, no. 15, p. 2809-2815., Registrované v: WOS
24. [1.1] MUKHIYA, T. - TIWARI, A.P. - CHHETRI, K. - KIM, T. - DAHAL, B. - MUTHURASU, A. - KIM, H.Y. A metal-organic framework derived cobalt oxide/nitrogen-doped carbon nanotube nanotentacles on electrospun carbon nanofiber for electrochemical energy storage. In CHEMICAL ENGINEERING JOURNAL. ISSN 1385-8947, SEP 15 2021, vol. 420, 1., Registrované v: WOS
25. [1.1] NOOR, S. - SAJJAD, S. - LEGHARI, S.A.K. - FLOX, C. - KALLIO, T. - KAUPPINEN, E.I. - AHMAD, S. Electronic transitions of SWCNTs in comparison to GO on Mn<sub>3</sub>O<sub>4</sub>/TiO<sub>2</sub> nanocomposites for hydrogen energy generation and solar photocatalysis. In NEW JOURNAL OF CHEMISTRY. ISSN 1144-0546, FEB 7 2021, vol. 45, no. 5, p. 2431-2442., Registrované v: WOS
26. [1.1] RIBEIRO, B. - CORREDOR, J.A.R. - SANTOS, L.F.D. - GOMES, N.A.S. - REZENDE, M.C. Electrical conductivity and electromagnetic shielding performance of glass fiber-reinforced epoxy composites with multiwalled carbon nanotube buckypaper interlayer. In JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS. ISSN 0957-4522, JAN 2021, vol. 32, no. 2, p. 1962-1976., Registrované v: WOS
27. [1.1] SEDOV, V. - KUZNETSOV, S. - KAMENSKIKH, I. - MARTYANOV, A. - VAKALOV, D. - SAVIN, S. - RUBTSOVA, E. - TARALA, V. - OMELKOV, S. - KOTLOV, A. - RALCHENKO, V. - KONOV, V. Diamond composite with embedded YAG:Ce nanoparticles as a source of fast X-ray luminescence in the visible and near-IR range. In CARBON. ISSN 0008-6223, APR 15 2021, vol. 174, p. 52-58., Registrované v: WOS
28. [1.1] SUSLOVA, E.V. - EPISHEV, V.V. - MAKSIMOV, S.V. - MASLAKOV, K.I. - ISAIKINA, O.Y. - SAVILOV, S.V. Gas-Phase Oxidation of Spark Plasma Sintered Products of Covalently Crosslinked Carbon Nanotubes. In RUSSIAN JOURNAL OF PHYSICAL CHEMISTRY A. ISSN 0036-0244, JUL 2021, vol. 95, no. 7, p. 1402-1410., Registrované v: WOS
29. [1.1] VENKATESH, G. - VIGNESH, S. - SRINIVASAN, M. - PALANISAMY, G. - ELAVARASAN, N. - BHUVANESWARI, K. - RAMASAMY, P. - ALAM, M. - UBAIDULLAH, M. - RAZA, M.K. Construction and investigation on perovskite-type SrTiO<sub>3</sub>@ reduced graphene oxide hybrid nanocomposite for enhanced photocatalytic performance. In COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS. ISSN 0927-7757, NOV 20 2021, vol. 629., Registrované v: WOS
30. [1.1] WANG, T.X. - XU, L. - CHEN, Z.Q. - GUO, L.L. - ZHANG, Y.X. - LI, R.J. - PENG, T.Y. Central site regulation of cobalt porphyrin conjugated polymer to give highly active and selective CO<sub>2</sub> reduction to CO in aqueous solution. In APPLIED CATALYSIS B-ENVIRONMENTAL. ISSN 0926-3373, AUG 15 2021, vol. 291., Registrované v: WOS
31. [1.1] WANG, Y.K. - WANG, Z.W. - LU, Z.Y. - CAI, Z.H. - FANG, S. - ZHAO, H.Y. - JIA, H.S. - MA, H.A. - CHEN, L.C. - JIA, X.P. The characteristics of Ib

- diamond crystals synthesized in a Fe-Ni-C system with different SiC contents. In CRYSTENGCOMM. SEP 21 2021, vol. 23, no. 35, p. 6070-6078., Registrované v: WOS*
32. [1.1] WANG, Y.T. - ZHANG, X. - CAO, J. - HUANG, X. - ZHANG, X.X. Multifunctional E-Textiles Based on Biological Phytic Acid-Doped Polyaniline/Protein Fabric Nanocomposites. In ADVANCED MATERIALS TECHNOLOGIES. ISSN 2365-709X, JUN 2021, vol. 6, no. 6., Registrované v: WOS
33. [1.1] WANG, Y.X. - REN, N. - XI, J.X. - LIU, Y. - KONG, T. - CHEN, C.M. - XIE, Y.B. - DUAN, X.G. - WANG, S.B. Mechanistic Investigations of the Pyridinic N-Co Structures in Co Embedded N-Doped Carbon Nanotubes for Catalytic Ozonation. In ACS ES&T ENGINEERING. JAN 8 2021, vol. 1, no. 1, p. 32-45., Registrované v: WOS
34. [1.1] WU, F.H. - REN, M.J. - WANG, M. - SUN, W.B. - WU, K.L. - CHENG, Y.S. - YAN, Z.Q. One-dimensional nitrogen doped porous carbon nano-array arranged by carbon nanotubes for electrochemical sensing ascorbic acid, dopamine and uric acid simultaneously. In NANOTECHNOLOGY. ISSN 0957-4484, JUN 18 2021, vol. 32, no. 25., Registrované v: WOS
35. [1.1] WU, M.X. - WANG, L. - WANG, S.Y. - WEI, J. - WANG, W.C. - CHEN, X.H. - MITSUZAKI, N. - CHEN, Z.D. Effect of carbon chain length of chlorinated carboxylic acids on morphology of the carbon films electrodeposited from aqueous solutions\*. In COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS. ISSN 0927-7757, OCT 5 2021, vol. 626., Registrované v: WOS
36. [1.1] WU, Z.W. - SHEN, Y.Z. - TAO, J. - JIA, Z.F. - CHEN, H.F. - JIANG, J.W. - WANG, Z. Green Synthesis of Mechanical Robust Superhydrophobic CNT@PU Coatings with High Flexibility for Extensive Applications. In JOURNAL OF BIONIC ENGINEERING. ISSN 1672-6529, JAN 2021, vol. 18, no. 1, p. 40-54., Registrované v: WOS
37. [1.1] XIE, D.L. - LIN, F. - PAN, X.Y. - XIAO, L.Y. - CHEN, C. Interface Effect and Thermodynamic Behavior between Diamond Grit and Fe-Co-Cu Pre-Alloyed Powders. In JOURNAL OF SUPERHARD MATERIALS. ISSN 1063-4576, MAR 2021, vol. 43, no. 2, p. 111-118., Registrované v: WOS
38. [1.1] XU, Z.Y. - LIN, J.H. - CHEN, J.W. - LIN, J.R. - CHEN, Q.H. Synthesis, characterization and its compatibilization on polymer blends of arched Janus nanosheets. In POLYMER TESTING. ISSN 0142-9418, JUN 2021, vol. 98., Registrované v: WOS
39. [1.1] YANG, C. - WEI, B.Q. - HE, K.J. - XU, P. - XIE, X.M. - TONG, K. - ZENG, C. - WANG, Y.F. - WANG, X.D. - LIU, J.P. - ZHANG, M.Y. - SU, Z.A. - HUANG, Q.Z. Simple and rapid conversion of silicon carbide to nanodiamonds at ambient pressure. In JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY. ISSN 1005-0302, DEC 20 2021, vol. 94, p. 230-238., Registrované v: WOS
40. [1.1] YANG, M. - DING, C.L. - LIU, Y.Y. - BAI, Q.H. Enhanced electro-oxidation of urea using Ni-NiS debris via confinement in carbon derived from glucose. In COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS. ISSN 0927-7757, JUN 5 2021, vol. 618., Registrované v: WOS
41. [1.1] YANG, N. - LU, K. Effects of transition metals on the evolution of polymer-derived SiOC ceramics. In CARBON. ISSN 0008-6223, JAN 2021, vol. 171, p. 88-95., Registrované v: WOS
42. [1.1] ZHANG, L.M. - ZHANG, X. - WANG, J. - SEVENO, D. - FRANSÆR, J. - LOCQUET, J.P. - SEO, J.W. Carbon Nanotube Fibers Decorated with MnO<sub>2</sub>



for Wire-Shaped Supercapacitor. In *MOLECULES*. JUN 2021, vol. 26, no. 11., Registrované v: WOS

43. [1.1] ZHANG, Z.X. - YU, G.M. - GENG, Z.R. - TIAN, P. - REN, K.X. - WU, W.C. - GONG, Z.B. Ultra low friction of conductive carbon nanotube films and their structural evolution during sliding. In *DIAMOND AND RELATED MATERIALS*. ISSN 0925-9635, DEC 2021, vol. 120., Registrované v: WOS

44. [1.1] ZHAO, S.Y. - LONG, Y.K. - SHEN, X.H. - WANG, S.B. - SU, Y.P. - ZHANG, X.J. - ZHANG, Z.T. Regulation of electronic structures of MOF-derived carbon via ligand adjustment for enhanced Fenton-like reactions. In *SCIENCE OF THE TOTAL ENVIRONMENT*. ISSN 0048-9697, DEC 10 2021, vol. 799., Registrované v: WOS

45. [1.1] ZHOU, C. - XU, X.Y. - DAI, L. - GONG, H.M. - LIN, S.T. Chemical-mechanical polishing performance of core-shell structured polystyrene@ceria/nanodiamond ternary abrasives on sapphire wafer. In *CERAMICS INTERNATIONAL*. ISSN 0272-8842, NOV 15 2021, vol. 47, no. 22, p. 31691-31701., Registrované v: WOS

46. [1.1] ZHOU, S.C. - CHEN, Z.J. - MA, W.H. - LI, S.Y. - YANG, X. - CAO, S.J. Effects of grinding media on the material properties and strengthening mechanism of silicon production. In *JOURNAL OF CLEANER PRODUCTION*. ISSN 0959-6526, JAN 1 2021, vol. 278., Registrované v: WOS

47. [1.2] DO NASCIMENTO-DIAS, Bruno Leonardo - DE CARVALHO DOS ANJOS, Virgilio. X-Ray Photoelectron Spectroscopy: Physical concepts and experimental processes. In *Revista Brasileira de Ensino de Fisica*, 2021-01-01, 43, pp. 1-5. ISSN 01024744. Dostupné na: <https://doi.org/10.1590/1806-9126-RBEF-2021-0006>., Registrované v: SCOPUS

48. [1.2] DONG, Heming - ZHEN, Cheng - DU, Qian - LI, Dun - ZHANG, Yu - FENG, Dongdong - GAO, Jianmin - WU, Shaohua. Effects of different forms of sodium on the formation characteristics of Yimin lignite soot. In *Harbin Gongye Daxue Xuebao/Journal of Harbin Institute of Technology*. ISSN 03676234, 2021-01-30, 53, 1, pp. 37-45. Dostupné na: <https://doi.org/10.11918/202005036>., Registrované v: SCOPUS

49. [1.2] LI, Hao - GAO, Guoqiang - CHEN, Qichen - YANG, Zefeng - WEI, Wenfu - WU, Guangning. Dielectric barrier discharge plasma functionalization of carbon nanotubes surface CO<sub>2</sub> and N<sub>2</sub> treatments. In *ICEMPE 2021 3rd International Conference on Electrical Materials and Power Equipment*, 2021-04-11, pp. Dostupné na: <https://doi.org/10.1109/ICEMPE51623.2021.9509197>., Registrované v: SCOPUS

ADCA549 PRIBULOVÁ, Zuzana - MEDVECKÁ, Zuzana - KAČMARČÍK, Jozef - KOMANICKÝ, Vladimír - KLEIN, Thierry - RODIÉRE, P. - LEVY-BERTRAND, F. - MICHON, B. - MARCENAT, Christophe - HUSANÍKOVÁ, Petra - CAMBEL, Vladimír - ŠOLTÝS, Ján - KARAPETROV, Goran - BORISENKO, Serhii - EVTUSHINSKY, D.V. - BERGER, Herbert - SAMUELY, Peter. Magnetic and thermodynamic properties of CuxTiSe2 single crystals. In *Physical Review B*, 2017, vol. 95, no. 17, art. no. 174512. (2016: 3.836 - IF, Q2 - JCR, 2.339 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents, WOS, SCOPUS). ISSN 1550-235X. Dostupné na: <https://doi.org/10.1103/PhysRevB.95.174512>

Citácie:

1. [1.1] MIKITIK, G. P. Critical current in thin flat superconductors with Bean-Livingston and geometrical barriers. In *PHYSICAL REVIEW B*, 2021, vol. 104, no. 9, pp. ISSN 2469-9950. Dostupné na:

<https://doi.org/10.1103/PhysRevB.104.094526>., Registrované v: WOS

ADCA550 VÁVRA, Ondrej - GAŽI, Štefan - GOLUBOVIČ, J. - VÁVRA, Ivo - DÉRER, Ján -



VERBEECK, J. - VAN TENDELOO, G. - MOSHCHALKOV, V.V. 0 and  $\pi$  phase Josephson coupling through an insulating barrier with magnetic impurities. In *Physical Review B : condensed matter*, 2006, vol. 74, p. 020502. (2005: 3.185 - IF, Q1 - JCR, 2.126 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 1550-235X.

Citácie:

1. [1.1] MINUTILLO, M. - CAPECELATRO, R. - LUCIGNANO, P. *Realization of 0- $\pi$  states in superconductor/ferromagnetic insulator/superconductor Josephson junctions: The role of spin-orbit interaction and lattice impurities. In PHYSICAL REVIEW B. ISSN 2469-9950, 2021, vol. 104, no. 20, pp. Dostupné na:*

*https://doi.org/10.1103/PhysRevB.104.184504., Registrované v: WOS*

ADCA551 VÁVRA, Ondrej - SONI, R. - PETRARU, A. - HIMMEL, N. - VÁVRA, Ivo - FABIAN, J. - KOHLSTEDT, H. - STRUNK, Ch. Coexistence of tunneling magnetoresistance and Josephson effects in SFIS junctions. In *AIP Advances*, 2017, vol. 7, art. no. 025008. (2016: 1.568 - IF, Q3 - JCR, 0.957 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 2158-3226. Dostupné na: <https://doi.org/10.1063/1.4976822>

Citácie:

1. [1.1] KAPRAN, Olena M. - MORARI, Roman - GOLOD, Taras - BORODIANSKYI, Evgenii A. - BOIAN, Vladimir - PREPELITA, Andrei - KLENOV, Nikolay - SIDORENKO, Anatoli S. - KRASNOV, Vladimir M. *In situ transport characterization of magnetic states in Nb/Co superconductor/ferromagnet heterostructures. In BEILSTEIN JOURNAL OF NANOTECHNOLOGY. ISSN 2190-4286, 2021, vol. 12, no., pp. 913-923. Dostupné na: https://doi.org/10.3762/bjnano.12.68., Registrované v: WOS*

ADCA552 VÉGSO, Karol - JERGEL, Matej - ŠIFFALOVIC, Peter - MAJKOVÁ, Eva - KORYTÁR, Dušan - ZÁPRAŽNÝ, Zdenko - MIKULÍK, P. - VAGOVIČ, Patrik. Towards high-flux X-ray beam compressing channel-cut monochromators. In *Journal of Applied Crystallography*, 2016, vol. 49, p. 1885-1892. (2015: 2.570 - IF, Q2 - JCR, 2.271 - SJR, Q1 - SJR, karentované - CCC). (2016 - Current Contents, SCOPUS). ISSN 0021-8898. Dostupné na:

<https://doi.org/10.1107/S1600576716013376>

Citácie:

1. [1.1] JIANG, Zheng - WANG, Eryan - SONG, Ruiqiang - GUO, Siming - WU, Jinjie - HOU, Dongjie - AN, Zhenghua - ZHOU, Pengyue. *Optimization of a double crystal monochromator. In JOURNAL OF THE KOREAN PHYSICAL SOCIETY. ISSN 0374-4884, 2021, vol. 79, no. 8, pp. 697-705. Dostupné na:*

*https://doi.org/10.1007/s40042-021-00294-w., Registrované v: WOS*

ADCA553 VETROVA, Iuliia\*\* - ZELENTO, M. - ŠOLTÝS, Ján - GUBANOV, V.A. - SADOVNIKOV, A.V. - ŠČEPKA, Tomáš - DÉRER, Ján - STOKLAS, Roman - CAMBEL, Vladimír - MRUCZKIEWICZ, Michal\*\*. Investigation of self-nucleated skyrmion states in the ferromagnetic/nonmagnetic multilayer dot. In *Applied Physics Letters*, 2021, vol. 118, no. 212409. (2020: 3.791 - IF, Q2 - JCR, 1.182 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/5.0045835>

Citácie:

1. [1.1] HEYDERMAN, L.J.J. - GROLLIER, J. - MARROWS, C.H.H. - VAVASSORI, P. - GRUNDLER, D. - MAKAROV, D. - PANE, S. *Mesoscopic magnetic systems: From fundamental properties to devices. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, AUG 23 2021, vol. 119, no. 8., Registrované v: WOS*

2. [1.1] LEPADATU, S. *Micromagnetic Monte Carlo method with variable*

- magnetization length based on the Landau-Lifshitz-Bloch equation for computation of large-scale thermodynamic equilibrium states. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, OCT 28 2021, vol. 130, no. 16., Registrované v: WOS*
3. [1.1] SAAVEDRA, E. - TEJO, F. - VIDAL-SILVA, N. - ESCRIG, J. *Magnonic key based on skyrmion clusters. In SCIENTIFIC REPORTS. ISSN 2045-2322, NOV 26 2021, vol. 11, no. 1., Registrované v: WOS*
- ADCA554 VILAMOVÁ, Z. - KONVIČKOVÁ, Z.\*\* - MIKEŠ, Petr - HOLÍŠOVÁ, V. - MANČÍK, P. - DOBROČKA, Edmund - KRATOŠOVÁ, G. - SEIDLEROVÁ, J. Ag-AgCl nanoparticles fixation on electrospun PVA fibres: technological concept and progress. In Scientific Reports, 2019, vol. 9, no. 15520. (2018: 4.011 - IF, Q1 - JCR, 1.414 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents, WOS, SCOPUS). ISSN 2045-2322. Dostupné na: <https://doi.org/10.1038/s41598-019-51642-7>
- Citácie:
1. [1.1] WANG, Z. - CUI, W.G. *Two Sides of Electrospun Fiber in Promoting and Inhibiting Biomedical Processes. In ADVANCED THERAPEUTICS. JAN 2021, vol. 4, no. 1, SI., Registrované v: WOS*
2. [1.2] A. HAKIM, S. - SEMBIRING, T. - SEBAYANG, K. - SITUMORANG, M. - TARIGAN, K. - SEMBIRING, K. - MIHARDI, S. - WARUWU, E. N. Characterization of indicator electrodes using the potentiometric biosensor method as urea sensor with XRD, SEM-EDS, UV-Vis and FTIR. In Journal of Physics: Conference Series, 2021-03-08, 1816, 1, pp. ISSN 17426588. Dostupné na: <https://doi.org/10.1088/1742-6596/1816/1/012088>., Registrované v: SCOPUS
3. [1.2] JAMBALADINNI, Sahebagouda - BHAT, Jeddu Sadashiva. Enrichment a study of structural, optical and dielectric properties of mowiol 4-88 (Pva) filled zno nanocomposites. In Walailak Journal of Science and Technology. ISSN 16863933, 2021-01-01, 18, 14, pp. Dostupné na: <https://doi.org/10.48048/wjst.2021.21445>., Registrované v: SCOPUS
- ADCA555 VINCZE, A. - LUPTÁK, Roman - HUŠEKOVÁ, Kristína - DOBROČKA, Edmund - FRÖHLICH, Karol. Thermal stability of GdScO<sub>3</sub> and LaLuO<sub>3</sub> films prepared by liquid injection MOCVD. In Vacuum, 2009, vol. 84, p. 170. (2008: 1.114 - IF, Q3 - JCR, 0.566 - SJR, Q2 - SJR, karentované - CCC). (2009 - Current Contents).
- Citácie:
1. [1.1] ZHANG, L. - ZHANG, X.W. - LI, Z.A. - CHEN, D.H. - WANG, Z.Q. - PANG, S.M. - ZHOU, L. - WU, D.G. - KE, L.S. - NAN, C.B. Distribution model of lowly volatile impurity in rare earth metal purified by vacuum distillation. In SEPARATION AND PURIFICATION TECHNOLOGY. ISSN 1383-5866, MAY 1 2021, vol. 262., Registrované v: WOS
- ADCA556 VOJENČIAK, Michal - GRILLI, F. - TERZIEVA, S. - GOLDACKER, W. - KOVÁČOVÁ, M. - KLING, A. Effect of self-field on the current distribution in Roebel-assembled coated conductor cables. In Superconductor Science and Technology, 2011, vol. 24, 095002. (2010: 2.402 - IF, Q1 - JCR, 1.480 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/24/9/095002>
- Citácie:
1. [1.1] CAVALLUCCI, Lorenzo - BRESCHI, Marco - RIBANI, Pier Luigi - ZHANG, Qingbo - YANG, Yifeng. Quench in a pancake coil wound with REBCO Roebel cable: model and validation. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY, 2021, vol. 34, no. 10, pp. ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/ac1bf7>., Registrované v: WOS
- ADCA557 VOJENČIAK, Michal - ŠOUC, Ján - GÖMÖRY, Fedor. Critical current and AC loss

analysis of a superconducting power transmission cable with ferromagnetic diverters. In *Superconductor Science and Technology*, 2011, vol. 24, art. no. 075001. (2010: 2.402 - IF, Q1 - JCR, 1.480 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents, SCOPUS). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/24/7/075001>

Citácie:

1. [1.1] MATSUSHITA, T. - KIUCHI, M. - NISHIJIMA, G. - MASUDA, T. - MUKOYAMA, S. - AOKI, Y. - NAKAI, A. Round Robin Test of Critical Current of Superconducting Cable. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5.,

Registrované v: WOS

ADCA558 VOJENČIAK, Michal - ŠOUC, Ján - CEBALLOS, J.M. - GÖMÖRY, Fedor - KLINČOK, Boris - PARDO, Enric - GRILLI, F. Study of ac loss in Bi-2223/Ag tape under the simultaneous action of ac transport current and ac magnetic field shifted in phase. In *Superconductor Science and Technology*, 2006, vol. 19, p. 397-404. (2005: 1.896 - IF, Q1 - JCR, 1.409 - SJR, Q1 - SJR, karentované - CCC). (2006 - Current Contents, WOS, SCOPUS). ISSN 0953-2048.

Citácie:

1. [1.1] YAZDANI-ASRAMI, M. - SONG, W.J. - ZHANG, M. - YUAN, W.J. - PEI, X.Z. Magnetization Loss in HTS Coated Conductor Exposed to Harmonic External Magnetic Fields for Superconducting Rotating Machine Applications. In *IEEE ACCESS*. ISSN 2169-3536, 2021, vol. 9, p. 77930-77937., Registrované v: WOS

ADCA559 VOJENČIAK, Michal - KARIO, A. - RINGSDORF, B. - NAST, R. - VAN DER LAAN, D.C. - SCHEITER, J. - JUNG, A. - RUNTSCH, B. - GÖMÖRY, Fedor - GOLDACKER, W. Magnetization ac loss reduction in HTS CORC® cables made of striated coated conductors. In *Superconductor Science and Technology*, 2015, vol. 28, 104006. (2014: 2.325 - IF, Q2 - JCR, 1.196 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/28/10/104006>

Citácie:

1. [1.1] GOO, J. - HAN, J.W. - LEE, S. - KIM, W.S. - CHOI, K. - LEE, J.K. Magnetization Loss of CORC With Various Configurations of 2G HTS Strands. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS

2. [1.1] HAN, J. - CHOI, K. - KIM, W.S. - LEE, J.K. Measurement of magnetization loss according to the winding pitch of CORC (R). In *PROGRESS IN SUPERCONDUCTIVITY AND CRYOGENICS*. ISSN 1229-3008, DEC 2021, vol. 23, no. 4, p. 25-29., Registrované v: WOS

3. [1.1] HIGASHI, Y. - MAWATARI, Y. Round-Core-Radius-Dependent Electromagnetic Coupling of Multifilament Helical Superconducting Tapes in a Swept Magnetic Field. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, SEP 2021, vol. 31, no. 6., Registrované v: WOS

4. [1.1] JEONG, S. - KIM, B. - WEIJERS, H.W. - BADCOCK, R.A. - JIANG, Z.N. - HUNZE, A. - LUMSDEN, G. - GSCHWENDTNER, M. - SINGAMNENI, S. - CAUGHLEY, A. - GLASSON, N. Holistic approach for cryogenic cooling system design of 3 MW electrical aircraft motors. In *2021 AIAA/IEEE ELECTRIC AIRCRAFT TECHNOLOGIES SYMPOSIUM (EATS)*. 2021., Registrované v: WOS

5. [1.1] LI, W.R. - SHENG, J. - ZHENG, J.X. - WU, Y. - GUO, C.J. - LI, Z.Y. - JIN, Z.J. Study on Reducing Magnetization Loss in CORC Cables By Laser

*Cutting Technology. In IEEE TRANSACTIONS ON APPLIED*

*SUPERCONDUCTIVITY. ISSN 1051-8223, JUN 2021, vol. 31, no. 4.,*

*Registrované v: WOS*

6. [1.1] MACMANUS-DRISCOLL, J.L. - WIMBUSH, S.C. Processing and application of high-temperature superconducting coated conductors. In *NATURE REVIEWS MATERIALS. ISSN 2058-8437, JUL 2021, vol. 6, no. 7, p. 587-604.,*

*Registrované v: WOS*

7. [1.1] SOGABE, Y. - MIZOBATA, Y. - AMEMIYA, N. Shielding currents in multifilament coated conductors wound into pancake coils and layer-wound coils. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS*

8. [1.1] WULFF, A.C. - ABRAHAMSEN, A.B. - INSINGA, A.R. Multifilamentary coated conductors for ultra-high magnetic field applications. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, MAY 2021, vol. 34, no. 5., Registrované v: WOS*

9. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In *ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS*

10. [1.2] LI, Ke - XUE, Wenbo - ZHANG, Shenxi - JIANG, Kaihua - LU, Zhen - HONG, Zhiyong - JIN, Zhijian. Fast AC Loss Calculation for Superconducting High Capacity Power Transmission Line. In *2021 IEEE IAS Industrial and Commercial Power System Asia, I and CPS Asia 2021, 2021-01-01, pp. 551-555., Registrované v: SCOPUS*

11. [1.2] TIAN, Mengyuan - YANG, Jiabin - SHEN, Boyang - OZTURK, Yavuz - MA, Jun - LI, Chao - SHAH, Adil - PATEL, Ismail - LI, Junshi - COOMBS, Tim. Magnetization Loss Characteristics in Superconducting Conductor on Round Core Cables with a Copper Former. In *IEEE Transactions on Applied Superconductivity, 2021-11-01, 31, 8, pp. ISSN 10518223. Dostupné na: <https://doi.org/10.1109/TASC.2021.3089110>., Registrované v: SCOPUS*

ADCA560

WANG, Y.\*\* - WENG, F. - LI, J. - ŠOUC, Ján - GÖMÖRY, Fedor - ZOU, S. - ZHANG, M. - YUAN, W. No-insulation high-temperature superconductor winding technique for electrical aircraft propulsion. In *IEEE Transactions on Transportation Electrification, 2020, vol. 6, p. 1613 – 1624. (2019: 5.444 - IF, Q1 - JCR, 1.895 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 2332-7782. Dostupné na: <https://doi.org/10.1109/TTE.2020.3000598> (VEGA 1/0151/17)*

*Citácie:*

1. [1.1] BONG, U. - IM, C. - YOON, J. - AN, S. - JUNG, S.W. - HAN, K.J. - HAHN, S. Investigation on Key Parameters of NI HTS Field Coils for High Power Density Synchronous Motors. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*

2. [1.1] CHEN, W. - SONG, P. - JIANG, H. - ZHU, J.H. - ZOU, S.N. - QU, T.M. Investigations on Quench Recovery Characteristics of High-Temperature Superconducting Coated Conductors for Superconducting Fault Current Limiters. In *ELECTRONICS. FEB 2021, vol. 10, no. 3., Registrované v: WOS*

3. [1.1] GAO, P.F. - ZHANG, H.Y. - WANG, X.Z. Mechanical Behavior of Impregnated REBCO Pancake Winding Based on Electromagnetic-Thermoelastic Analysis. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*

4. [1.1] LIU, L.Y. - ZOU, S.N. - DENG, S.T. - LAI, L.F. - GU, C. Optimization of Kiloampere Peltier Current Lead Using Orthogonal Experimental Design



- Method. In ELECTRONICS. MAY 2021, vol. 10, no. 9., Registrované v: WOS*
5. [1.1] MATAIRA, R. - AINSLIE, M.D. - BADCOCK, R. - BUMBY, C.W. *Modelling Parallel-Connected, No-Insulation High-T-c Superconducting Magnets. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*
6. [1.1] SONG, W.J. - PEI, X.Z. - ALAFNAN, H. - XI, J.W. - ZENG, X.W. - YAZDANI-ASRAMI, M. - XIANG, B. - LIU, Z.Y. *Experimental and Simulation Study of Resistive Helical HTS Fault Current Limiters: Quench and Recovery Characteristics. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*
7. [1.1] YANG, P. - DAI, S.T. - MA, T. - HU, L. - WANG, B.Z. - ZHANG, T. - CHANG, T.X. - WANG, H.T.M.L.B. - LI, F.X. - TAN, Y.H. - HUANG, A. - JIANG, G.Z. - HONG, Z.Y. - JIN, Z.J. *Heating Characteristics of TC4 Titanium Alloy in an HTS DC Induction Heater. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS*
8. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. *Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS*
9. [1.1] ZHANG, Y. - XU, X.J. *Machine learning bioactive compound solubilities in supercritical carbon dioxide. In CHEMICAL PHYSICS. ISSN 0301-0104, OCT 1 2021, vol. 550., Registrované v: WOS*
10. [1.1] ZHANG, Y. - XU, X.J. *Machine learning the lattice constant of cubic pyrochlore compounds. In INTERNATIONAL JOURNAL OF APPLIED CERAMIC TECHNOLOGY. ISSN 1546-542X, MAY 2021, vol. 18, no. 3, p. 661-676., Registrované v: WOS*
11. [1.1] ZHANG, Y. - XU, X.J. *Predicting the delamination factor in carbon fibre reinforced plastic composites during drilling through the Gaussian process regression. In JOURNAL OF COMPOSITE MATERIALS. ISSN 0021-9983, JUN 2021, vol. 55, no. 15., Registrované v: WOS*
12. [1.2] LI, Ke - XUE, Wenbo - ZHANG, Shenxi - JIANG, Kaihua - LU, Zhen - HONG, Zhiyong - JIN, Zhijian. *Fast AC Loss Calculation for Superconducting High Capacity Power Transmission Line. In 2021 IEEE IAS Industrial and Commercial Power System Asia, I and CPS Asia 2021, 2021-01-01, pp. 551-555. Dostupné na: <https://doi.org/10.1109/ICPSAsia52756.2021.9621379>., Registrované v: SCOPUS*
13. [1.2] MURASE, Yohei - IZUMI, Mitsuru - UMEMOTO, Katsuya - ORYU, Tamami - YOKOYAMA, Minoru - YANAMOTO, Toshiyuki. *Design and test results of a novel quench protection circuit for a HTS ship propulsion motor. In Engineering Research Express, 2021-06-01, 3, 2, pp. Dostupné na: <https://doi.org/10.1088/2631-8695/abfd0e>., Registrované v: SCOPUS*

ADCA561 WULFF, A.C. - SOLOVYOV, Mykola - GÖMÖRY, Fedor - ABRAHAMSEN, A.B. - MISHIN, O.V. - USOSKIN, A. - RUTT, A. - LUNDEMAN, J.H. - THYDEN, K. - HANSEN, J.B. - GRIVEL, J.C. *Two level undercut-profile substrate for filamentary YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> coated conductors. In Superconductor Science and Technology, 2015, vol. 28, 072001. (2014: 2.325 - IF, Q2 - JCR, 1.196 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/28/7/072001>*

Citácie:

1. [1.1] MITCHELL, N. - ZHENG, J.X. - VORPAHL, C. - CORATO, V. -



- SANABRIA, C. - SEGAL, M. - SORBOM, B. - SLADE, R. - BRITTLES, G. - BATEMAN, R. - MIYOSHI, Y. - BANNO, N. - SAITO, K. - KARIO, A. - TEN KATE, H. - BRUZZONE, P. - WESCHE, R. - SCHILD, T. - BYKOVSKIY, N. - DUDAREV, A. - MENTINK, M. - MANGIAROTTI, F.J. - SEDLAK, K. - EVANS, D. - VAN DER LAAN, D.C. - WEISS, J.D. - LIAO, M. - LIU, G. Superconductors for fusion: a roadmap. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, OCT 2021, vol. 34, no. 10., Registrované v: WOS*
- ADCA562 ZAJKOSKA, S.M.\*\* - DOBROČKA, Edmund - HANSAL, S. - MANN, R. - HANSAL, W.E.G. - KAUTEK, W. Tartrate-based electrolyte for electrodeposition of Fe–Sn alloys. In Coatings, 2019, vol. 9, no. 5, p. (2018: 2.330 - IF, Q2 - JCR, karentované - CCC). (2019 - Current Contents). ISSN 2079-6412. Dostupné na: <https://doi.org/10.3390/coatings9050313>
- Citácie:*
- 1. [1.1] CHEN, H. - WANG, Z.J. - ZHANG, S.R. - CHENG, M. - CHEN, F.Y. - XU, Y. - LUO, J.H. A Low-Cost Neutral Aqueous Redox Flow Battery with Dendrite-Free Tin Anode. In JOURNAL OF THE ELECTROCHEMICAL SOCIETY. ISSN 0013-4651, NOV 1 2021, vol. 168, no. 11., Registrované v: WOS*
- ADCA563 ZANI, L. - BAYER, C.M. - BIANCOLINI, M.E. - BRUZZONE, P.L. - BRUTTI, C. - CIAZYNSKI, D. - COLEMAN, Michael - DURAN, I. - EISTERER, M. - FIETZ, W.H. - GADE, P.V. - GAIO, E. - GIORGETTI, F. - GOLDACKER, W. - GÖMÖRY, Fedor - GRANADOS, X. - HELLER, R. - HERTOUT, P. - HOA, C. - KARIO, A. - LACROIX, B. - LEWANDOWSKA, Marta - MAISTRELLO, A. - MUZZI, L. - NIJHUIS, A. - NUNIO, F. - PANIN, A. - PETRISOR, T. - PONCET, J.-M. - PROKOPEC, R. - SANMARTI CARDONA, M. - SAVOLDI, L. - SCHLACHTER, S. - SEDLAK, K. - STEPANOV, B. - TISEANU, I. - TORRE, A. - TURTÚ, S. - VALLCORBA, R. - VOJENČIAK, Michal - WEISS, K.-P. - WESCHE, R. - YAGOTINTSEV, K. - ZANINO, R. Overview of progress on the EU DEMO reactor magnet system design. In IEEE Transactions on Applied Superconductivity, 2016, vol. 26, art. no. 4204505. (2015: 1.092 - IF, Q3 - JCR, 0.403 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS). ISSN 1051-8223. Dostupné na: <https://doi.org/10.1109/TASC.2016.2536755>
- Citácie:*
- 1. [1.1] KWON, S.P. Examination of design parameters affecting Nb3Sn CICC current sharing temperature using necessary condition analysis. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUL 2021, vol. 34, no. 8., Registrované v: WOS*
- ADCA564 ZÁPRAŽNÝ, Zdenko\*\* - KORYTÁR, Dušan - JERGEL, Matej - HALAHOVETS, Yuriy - KOTLÁR, M. - MAŤKO, Igor - HAGARA, Jakub - ŠIFFALOVÍČ, Peter - KEČKÉŠ, Jozef - MAJKOVÁ, Eva. Characterization of the chips generated by the nanomachining of germanium for X-ray crystal optics. In International Journal of Advanced Manufacturing Technology, 2019, vol. 102, no. 9-12, p. 2757-2767. (2018: 2.496 - IF, Q2 - JCR, 0.987 - SJR, Q1 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0268-3768. Dostupné na: <https://doi.org/10.1007/s00170-019-03392-z> (VEGA 2/0092/18)
- Citácie:*
- 1. [1.1] ZHU, Hao - ZHANG, Zhaoyang - XU, Jiangping - REN, Yunpeng - ZHU, Zengwei - XU, Kun - WANG, Zhi - WANG, Chao. A numerical study of picosecond laser micro-grooving of single crystalline germanium: Mechanism discussion and process simulation. In JOURNAL OF MANUFACTURING PROCESSES. ISSN 1526-6125, 2021, vol. 69, pp. 351-367. Dostupné na: <https://doi.org/10.1016/j.jmapro.2021.07.056>, Registrované v: WOS*

- ADCA565 ZASOŇSKÁ, B.A. - LÍŠKOVÁ, Aurélia - KURICOVÁ, M. - TULINSKÁ, J. - POP-GEORGIEVSKI, O. - ČIAMPOR, Fedor - VÁVRA, Ivo - DUŠINSKÁ, M. - ILAVSKÁ, S. - HORVÁTHOVÁ, M. - HORÁK, Daniel. Functionalized porous silica&maghemite core-shell nanoparticles for applications in medicine: design, synthesis, and immunotoxicity. In Croatian medical journal, 2016, vol. 57, p. 165-178. (2015: 1.483 - IF, Q2 - JCR, 0.497 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents). ISSN 0353-9504. Dostupné na: <https://doi.org/10.3325/cmj.2016.57.165>
- Citácie:
1. [1.1] MOURDIKOU DIS, Stefanos - KOSTOPOULOU, Athanasia - LAGROW, Alec P. Magnetic Nanoparticle Composites: Synergistic Effects and Applications. In ADVANCED SCIENCE, 2021, vol. 8, no. 12, pp. Dostupné na: <https://doi.org/10.1002/advs.202004951>., Registrované v: WOS
  2. [1.1] SHARONOVA, N. - SVIRSHCHEVSKAYA, E. - POPOV, A. A. - KARPOV, N. - TIKHONOVSKIY, G. - ZAKHARKIV, A. Yu - SIZOVA, S. - TIMOSHENKO, V. Yu - KLIMENTOV, S. M. - OLEINIKOV, V. A. Interaction of SiFe Nanoparticles with Epithelial and Lymphoid Cells. In RUSSIAN JOURNAL OF BIOORGANIC CHEMISTRY. ISSN 1068-1620, 2020, vol. 46, no. 6, pp. 1198-1206. Dostupné na: <https://doi.org/10.1134/S106816202006028X>., Registrované v: WOS
- ADCA566 ZATKO, Bohumír - DUBECKÝ, František - ŠAGÁTOVÁ, A. - SEDLAČKOVÁ, K. - RYC, L. High resolution alpha particle detectors based on 4H-SiC epitaxial layer. In Journal of Instrumentation, 2015, vol. 10, c04009. (2014: 1.399 - IF, Q2 - JCR, 0.683 - SJR, Q2 - SJR, karentované - CCC). (2015 - Current Contents, WOS, SCOPUS). ISSN 1748-0221. Dostupné na: <https://doi.org/10.1088/1748-0221/10/04/C04009>
- Citácie:
1. [1.1] CHAUDHURI, Sandeep K. - KARADAVUT, OmerFaruk - KLEPPINGER, Joshua W. - MANDAL, Krishna C. High-resolution radiation detection using Ni/SiO<sub>2</sub>/n-4H-SiC vertical metal-oxide-semiconductor capacitor. In JOURNAL OF APPLIED PHYSICS, 2021, vol. 130, no. 7, pp. ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/5.0059151>., Registrované v: WOS
  2. [1.1] JIA, Yuping - SHEN, Yutong - SUN, Xiaojuan - SHI, Zhiming - JIANG, Ke - WU, Tong - LIANG, Hongwei - CUI, Xingzhu - LU, Wei - LI, Dabing. Improved performance of SiC radiation detector based on metal-insulator-semiconductor structures. In NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, 2021, vol. 997, no., pp. ISSN 0168-9002. Dostupné na: <https://doi.org/10.1016/j.nima.2021.165166>., Registrované v: WOS
  3. [1.1] KLEPPINGER, Joshua W. - CHAUDHURI, Sandeep K. - KARADAVUT, OmerFaruk - MANDAL, Krishna C. Defect characterization and charge transport measurements in high-resolution Ni/n-4H-SiC Schottky barrier radiation detectors fabricated on 250 mu m epitaxial layers. In JOURNAL OF APPLIED PHYSICS, 2021, vol. 129, no. 24, pp. ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/5.0049218>., Registrované v: WOS
  4. [1.1] KLEPPINGER, Joshua W. - CHAUDHURI, Sandeep K. - KARADAVUT, OmerFaruk - MANDAL, Krishna C. Role of deep levels and barrier height lowering in current-flow mechanism in 150 mu m thick epitaxial n-type 4H-SiC Schottky barrier radiation detectors. In APPLIED PHYSICS LETTERS, 2021, vol. 119, no. 6, pp. ISSN 0003-6951. Dostupné na: <https://doi.org/10.1063/5.0064036>., Registrované v: WOS
  5. [1.1] YANG, Tiebin - LI, Feng - ZHENG, Rongkun. Recent advances in

*radiation detection technologies enabled by metal-halide perovskites. In MATERIALS ADVANCES, 2021, vol. 2, no. 21, pp. 6744-6767. Dostupné na: <https://doi.org/10.1039/d1ma00569c>, Registrované v: WOS*

- ADCA567 ZATKO, Bohumír\*\* - HRUBČÍN, Ladislav - ŠAGÁTOVÁ, A. - OSVALD, Jozef - BOHÁČEK, Pavol - KOVÁČOVÁ, Eva - HALAHOVETS, Yuriy - ROZOV, S.V. - SANDUKOVSKIY, V.G. Study of Schottky barrier detectors based on a high quality 4H-SiC epitaxial layer with different thickness. In Applied Surface Science, 2021, vol. 536, no. 14, no. 147801. (2020: 6.707 - IF, Q1 - JCR, 1.295 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents, WOS, SCOPUS). ISSN 0169-4332. Dostupné na: <https://doi.org/10.1016/j.apsusc.2020.147801>

Citácie:

1. [1.1] GULLU, H. H. - SIRIN, D. Seme - YILDIZ, D. E. Analysis of Double Gaussian Distribution on Barrier Inhomogeneity in a Au/n-4H SiC Schottky Diode. In JOURNAL OF ELECTRONIC MATERIALS. ISSN 0361-5235, 2021, vol. 50, no. 12, pp. 7044-7056. Dostupné na: <https://doi.org/10.1007/s11664-021-09254-3>, Registrované v: WOS
2. [1.1] OZDEMIR, A. F. - GOKSU, T. - YILDIRIM, N. - TURUT, A. Effects of measurement temperature and metal thickness on Schottky diode characteristics. In PHYSICA B-CONDENSED MATTER. ISSN 0921-4526, 2021, vol. 616, 413125. Dostupné na: <https://doi.org/10.1016/j.physb.2021.413125>, Registrované v: WOS
3. [1.1] WANG, Xi - ZHONG, Yiwen - PU, Hongbin - HU, Jichao - FENG, Xianfeng - YANG, Guowen. Investigation of lateral spreading current in the 4H-SiC Schottky barrier diode chip. In JOURNAL OF SEMICONDUCTORS. ISSN 1674-4926, 2021, vol. 42, no. 11, 112802. Dostupné na: <https://doi.org/10.1088/1674-4926/42/11/112802>, Registrované v: WOS
4. [1.2] KACHA, A. H. - AMROUN, M. N. - AKKAL, B. - BENAMARA, Z. Effect of the Ultra-Thin GaN Interlayer on the Electrical and Photoelectrical Parameters of Au|GaAs Schottky Barrier Diodes. In Semiconductors, 2021-12-01, 55, pp. S54-S61. ISSN 10637826. Dostupné na: <https://doi.org/10.1134/S1063782621090086>, Registrované v: SCOPUS

- ADCA568 ZÁVIŠOVÁ, Vlasta - KONERACKÁ, Martina - MÚČKOVÁ, Marta - LAZOVÁ, Jana - JURÍKOVÁ, Alena - LANCZ, Gábor - TOMAŠOVIČOVÁ, Natália - TIMKO, Milan - KOVÁČ, Jozef - VÁVRA, Ivo - FABIÁN, Martin - FEOKTYSOV, A. - GARAMUS, Vasil M. - AVDEEV, Mikhail V. - KOPČANSKÝ, Peter. Magnetic fluid poly(ethylene glycol) with moderate anticancer activity. In Journal of Magnetism and Magnetic Materials, 2011, vol. 323, no. 10, p. 1408-1412. (2010: 1.690 - IF, Q2 - JCR, 0.936 - SJR, Q1 - SJR, karentované - CCC). (2011 - Current Contents, WOS, SCOPUS). ISSN 0304-8853. Dostupné na: <https://doi.org/10.1016/j.jmmm.2010.11.060> (ICMF 12 : International Conference on Magnetic Fluids)

Citácie:

1. [1.1] KALAISELVAN, Chandunika R. - THORAT, Nanasaheb D. - SAHU, Niroj Kumar. Carboxylated PEG-Functionalized MnFe2O4 Nanocubes Synthesized in a Mixed Solvent: Morphology, Magnetic Properties, and Biomedical Applications. In ACS OMEGA. ISSN 2470-1343, 2021, vol. 6, no. 8, pp. 5266-5275. Dostupné na: <https://doi.org/10.1021/acsomega.0c05382>, Registrované v: WOS
2. [1.1] XU, Yichen - ZHENG, Huabo - SCHUMACHER, David - LIEHN, Elisa Anamaria - SLABU, Ioana - RUSU, Mihaela. Recent Advancements of Specific Functionalized Surfaces of Magnetic Nano- and Microparticles as a Theranostics Source in Biomedicine. In ACS BIOMATERIALS SCIENCE & ENGINEERING. ISSN 2373-9878, 2021, vol. 7, no. 6, pp. 1914-1932. Dostupné na:

- ADCA569 <https://doi.org/10.1021/acsbiomaterials.0c01393>, Registrované v: WOS  
 ZÁVIŠOVÁ, Vlasta - KONERACKÁ, Martina - ŠTRBÁK, Oliver - TOMAŠOVIČOVÁ, Natália - KOPČANSKÝ, Peter - TIMKO, Milan - VÁVRA, Ivo. Encapsulation of indomethacin in magnetic biodegradable polymer nanoparticles. In Journal of Magnetism and Magnetic Materials, 2007, vol. 311, no. 1, p. 379-382. (2006: 1.212 - IF, Q2 - JCR, 0.838 - SJR, Q2 - SJR, karentované - CCC). (2007 - Current Contents, WOS, SCOPUS). ISSN 0304-8853. Dostupné na: <https://doi.org/10.1016/j.jmmm.2006.11.177> (SCAMC 06 : International Conference on the Scientific and Clinical Applications of Magnetic Carriers)  
 Citácie:  
 1. [1.1] ADHIKARI, Chandan. Polymer nanoparticles-preparations, applications and future insights: a concise review. In POLYMER-PLASTICS TECHNOLOGY AND MATERIALS. ISSN 2574-0881, 2021, vol. 60, no. 18, pp. 1996-2024. Dostupné na: <https://doi.org/10.1080/25740881.2021.1939715>, Registrované v: WOS
- ADCA570 ZEISSLER, K. - MRUCZKIEWICZ, Michal - FINIZIO, S. - RAABE, J. - SHEPLEY, P.M. - SADOVNIKOV, A.V. - NIKITOV, S.A. - FALLON, K. - MCFADZEAN, S. - MCVITIE, S. - MOORE, T.A. - BURNELL, G. - MARROWS, C.H. Pinning and hysteresis in the field dependent diameter evolution of skyrmions in Pt/Co/Ir superlattice stacks. In Scientific Reports, 2017, vol. 7, art. no. 15125. (2016: 4.259 - IF, Q1 - JCR, 1.692 - SJR, Q1 - SJR, karentované - CCC). (2017 - Current Contents). ISSN 2045-2322. Dostupné na: <https://doi.org/10.1038/s41598-017-15262-3>  
 Citácie:  
 1. [1.1] DERRAS-CHOUK, A. - CHUDNOVSKY, E.M. Skyrmions near defects. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, MAY 12 2021, vol. 33, no. 19., Registrované v: WOS  
 2. [1.1] FLACKE, L. - AHRENS, V. - MENDISCH, S. - KORBER, L. - BOTTCHE, T. - MEIDINGER, E. - YAQOUB, M. - MULLER, M. - LIENSBERGER, L. - KAKAY, A. - BECHERER, M. - PIRRO, P. - ALTHAMMER, M. - GEPRAGS, S. - HUEBL, H. - GROSS, R. - WEILER, M. Robust formation of nanoscale magnetic skyrmions in easy-plane anisotropy thin film multilayers with low damping. In PHYSICAL REVIEW B. ISSN 2469-9950, SEP 27 2021, vol. 104, no. 10., Registrované v: WOS  
 3. [1.1] JE, S.G. - THIAN, D. - CHEN, X.Y. - HUANG, L.S. - JUNG, D.H. - CHAO, W.L. - LEE, K.S. - HONG, J.I. - SOUMYANARAYANAN, A. - IM, M.Y. Targeted Writing and Deleting of Magnetic Skyrmions in Two-Terminal Nanowire Devices. In NANO LETTERS. ISSN 1530-6984, FEB 10 2021, vol. 21, no. 3, p. 1253-1259., Registrované v: WOS  
 4. [1.1] MOURKAS, A. - MARKOU, A. - SWEKIS, P. - PANAGIOTOPOULOS, I. Topological hall effect in Pt/Co/W multilayers with different anisotropies. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. ISSN 0304-8853, JUL 15 2021, vol. 530., Registrované v: WOS  
 5. [1.2] LITZIUS, Kai - KLÄUI, Mathias. Materials for skyrmionics. In Magnetic Skyrmions and Their Applications, 2021-01-01, pp. 31-54. Dostupné na: <https://doi.org/10.1016/B978-0-12-820815-1.00001-8>, Registrované v: SCOPUS
- ADCA571 ZERMONO, V. - SIROIS, F. - TAKAYASU, M. - VOJENČIAK, Michal - KARIO, A. - GRILLI, F. A self-consistent model for estimating the critical current of superconducting devices. In Superconductor Science and Technology, 2015, vol. 28, 085004. (2014: 2.325 - IF, Q2 - JCR, 1.196 - SJR, Q1 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/0953-2048/28/8/085004>



**Citácie:**

1. [1.1] GONG, T.Y. - MA, G.T. - WANG, R.C. - LI, S.L. - YAO, C.X. - XIAO, L. 3-D FEM Modeling of the Superconducting EDS Train With Cross-Connected Figure-Eight-Shaped Suspension Coils. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, APR 2021, vol. 31, no. 3., Registrované v: WOS
2. [1.1] LIANG, B. - CHEN, Y. - JIANG, J. - YANG, X.S. - XU, M. - ZHAO, Y. Anisotropy of Critical Current in QIS-CICC HTS Conductors. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
3. [1.1] LIU, D.H. - LI, D.K. - ZHANG, W.W. - YONG, H.D. - ZHOU, Y.H. Electromagnetic-thermal-mechanical behaviors of a no-insulation double-pancake coil induced by a quench in the self field and the high field. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, FEB 2021, vol. 34, no. 2., Registrované v: WOS
4. [1.1] NIU, M.D. - XIA, J. - YONG, H.D. - ZHOU, Y.H. Quench characteristics and mechanical responses during quench propagation in rare earth barium copper oxide pancake coils. In APPLIED MATHEMATICS AND MECHANICS-ENGLISH EDITION. ISSN 0253-4827, FEB 2021, vol. 42, no. 2, p. 235-250., Registrované v: WOS

**ADDA Vedecké práce v domácich karentovaných časopisoch – impaktovaných**

- ADDA01      BERONSKÁ, Nad'a - IŽDINSKÝ, Karol - ŠTEFÁNIK, Pavol - KÚDELA, Stanislav, Jr. - SIMANČÍK, František - VÁVRA, Ivo - KRIŽANOVÁ, Zuzana. Structure and thermal expansion behaviour of Al/C composites reinforced with unidirectionally aligned continuous high modulus C fibres. In Kovové materiály, 2011, vol. 49, no. 6, pp. 427-436. (2010: 0.471 - IF, Q2 - JCR, 0.295 - SJR, Q2 - SJR, karentované - CCC). (2011 - Current Contents, SCOPUS). ISSN 0023-432X. Dostupné na: <https://doi.org/10.4149/km-2011-6-427>

**Citácie:**

1. [1.1] BAIG, Mirza Murtuza Ali - HASSAN, Syed Fida - SAHEB, Nouari - PATEL, Faheemuddin. Metal Matrix Composite in Heat Sink Application: Reinforcement, Processing, and Properties. In MATERIALS, 2021, vol. 14, no. 21, pp. Dostupné na: <https://doi.org/10.3390/ma14216257>., Registrované v: WOS

**ADEA Vedecké práce v ostatných zahraničných časopisoch – impaktovaných**

- ADEA01      ŠOUC, Ján - GÖMÖRY, Fedor - VOJENČIAK, Michal - FROLEK, Lubomír - ISFORT, D. - EHRENBURG, J. - BOCK, J. AC loss of the short coaxial superconducting cable model made from ReBCO coated tapes. In Journal of Physics: Conference Series, 2008, vol. 97, no. 012198. (2007: 0.258 - SJR, Q3 - SJR). (2008 - WOS, SCOPUS). ISSN 1742-6588.

**Citácie:**

1. [1.1] ZHANG, H.Y. - WEN, Z.Z. - GRILLI, F. - GYFTAKIS, K. - MUELLER, M. Alternating Current Loss of Superconductors Applied to Superconducting Electrical Machines. In ENERGIES. APR 2021, vol. 14, no. 8., Registrované v: WOS

**ADEB Vedecké práce v ostatných zahraničných časopisoch – neimpaktovaných**

- ADEB01      HOTOVÝ, I. - HURAN, Jozef - SPIESS, L. - ROMANUS, H. - CAPONE, S. -



REHACEK, V. - TAURINO, A.M. - DONOVAL, D. - SICILIANO, P. Au-NiO nanocrystalline thin films for sensor application. In Journal of Physics: Conference Series, 2007, vol. 61, p. 435-439. (2006: 0.272 - SJR, Q3 - SJR). ISSN 1742-6588.

Citácie:

1. [1.1] MOHAMMED, Ban K. - MOHAMMED, Mustafa K. A. - AHMED, Duha S. The effect of copper doping on the structural, optical, and electrical properties of nickel oxide thin films for optoelectronic applications. In JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, 2021, vol. 99, no. 1, pp. 1-12. ISSN 0928-0707. Dostupné na: <https://doi.org/10.1007/s10971-021-05537-7>, Registrované v: WOS

ADEB02 HUDEC, Boris - HUŠEKOVÁ, Kristína - DOBROČKA, Edmund - LALINSKÝ, Tibor - AARIK, J. - AIDLA, A. - FRÖHLICH, Karol. High-permittivity metal-insulator-metal capacitors with TiO<sub>2</sub> rutile dielectric and RuO<sub>2</sub> bottom electrode. In Institute of Physics Conference Series : Materials Science and Engineering, 2010, vol. 8, 012024. ISSN 1757-899x. Dostupné na: <https://doi.org/10.1088/1757-899X/8/1/012024>

Citácie:

1. [1.1] KANG, W.S. - AHN, J.S. - HAN, J.H. Seed layer mediated growth of high dielectric and low leakage BaTiO<sub>3</sub> thin film using two-step sputtering process. In CERAMICS INTERNATIONAL. ISSN 0272-8842, SEP 15 2021, vol. 47, no. 18, p. 25826-25831., Registrované v: WOS

ADEB03 RÝGER, Ivan - VANKO, Gabriel - LALINSKÝ, Tibor - VALLO, Martin - TOMÁŠKA, M. - RITOMSKÝ, Adrian. AlGaIn/GaN based SAW-HEMT devices for chemical gas sensors operating in GHz range. In Procedia Engineering : Proc. Eurosensors XXV, 2011, vol. 25, p. 1101-1104. (2011 - SCOPUS, WOS). ISSN 1877-7058. Dostupné na: <https://doi.org/10.1016/j.proeng.2011.12.271>

Citácie:

1. [1.1] UPADHYAY, Kavita T. - CHATTOPADHYAY, Manju K. Sensor applications based on AlGaIn/GaN heterostructures. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS. ISSN 0921-5107, 2021, vol. 263, no., pp., Registrované v: WOS

ADEB04 SEILER, Eugen - FROLEK, Lubomír. AC loss of the YBCO coated conductor in high magnetic fields. In Journal of Physics: Conference Series, 2008, vol. 97, art. no. 012028. (2007: 0.258 - SJR, Q3 - SJR). (2008 - WOS, SCOPUS). ISSN 1742-6588.

Citácie:

1. [1.2] MARCHEVSKY, Maxim. Quench detection and protection for high-temperature superconductor accelerator magnets. In Instruments, 2021-09-01, 5, 3, pp. Dostupné na: <https://doi.org/10.3390/INSTRUMENTS5030027>, Registrované v: SCOPUS

#### ADFA Vedecké práce v ostatných domácich časopisoch – impaktovaných

ADFA01 HASENÖHRL, Stanislav - NOVÁK, Jozef - VÁVRA, Ivo - ŠOLTÝS, Ján - KUČERA, Michal - ŠATKA, A. Epitaxial growth of GaP/In<sub>x</sub>Ga<sub>1-x</sub>P (xIn ? 0,27) virtual substrate for optoelectronic applications. In Journal of Electrical Engineering, 2011, vol. 62, p. 93-98. (2010: 0.278 - IF, Q4 - JCR, 0.191 - SJR, Q3 - SJR). (2011 - INSPEC, SCOPUS). ISSN 1335-3632. Dostupné na: <https://doi.org/10.2478/v10187-011-0015-1>

Citácie:

1. [1.1] TURKOGLU, A. - AGHOUTANE, N. - FEDDI, E. - MORA-RAMOS, M. E. - UNGAN, F. Non-resonant intense laser field effect on the nonlinear optical properties associated to the inter- and intra-band transitions in an anharmonic

- quantum well submitted to electric and magnetic field. In *SOLID STATE COMMUNICATIONS*, 2021, vol. 334, no., pp. ISSN 0038-1098. Dostupné na: <https://doi.org/10.1016/j.ssc.2021.114390>, Registrované v: WOS
- ADFA02 HOTOVÝ, I. - KOSTIČ, Ivan - HAŠČÍK, Štefan - ŘEHÁČEK, V. - LIDAY, J. - SITTER, H. Development and fabrication of TiO<sub>2</sub> tip arrays for gas sensing. In *Journal of Electrical Engineering*, 2011, vol. 62, p. 363-366. (2010: 0.278 - IF, Q4 - JCR, 0.191 - SJR, Q3 - SJR). (2011 - INSPEC, SCOPUS). ISSN 1335-3632. Dostupné na: <https://doi.org/10.2478/v10187-011-0058-3>
- Citácie:
1. [1.1] SIUZDAK, Katarzyna - HARYNSKI, Lukasz - WAWRZYNIAK, Jakub - GROCHOWSKA, Katarzyna. Review on robust laser light interaction with titania-Patterning, crystallisation and ablation processes. In *PROGRESS IN SOLID STATE CHEMISTRY*, 2021, vol. 62, no., pp. ISSN 0079-6786. Dostupné na: <https://doi.org/10.1016/j.progsolidstchem.2020.100297>, Registrované v: WOS

#### ADFB Vedecké práce v ostatných domácich časopisoch – neimpaktovaných

- ADFB01 HARMATHA, L. - BALLO, P. - BREZA, J. - PÍSEČNÝ, Pavol - ĽAPAJNA, Milan. Properties of Si-SiO<sub>2</sub> Interfaces in MOS structures with nitrogen-doped silicon. In *Advances in Electrical and Electronic Engineering*, 2006, vol. 5, p. 334-336. ISSN 1336-1376.
- Citácie:
1. [1.1] CIBIRA, G. Silicon Resistivity Behaviour. In *ADVANCES IN ELECTRICAL AND ELECTRONIC ENGINEERING*. ISSN 1336-1376, JUN 2021, vol. 19, no. 2, p. 179-185., Registrované v: WOS

#### ADMA Vedecké práce v zahraničných impaktovaných časopisoch registrovaných v databázach Web of Science alebo SCOPUS

- ADMA01 DUBORSKÁ, E. - SZABO, K. - BUJDOŠ, M. - VOJTKOVÁ, Hana - LITTERA, Pavol - DOBROČKA, Edmund - KIM, Hie Lim - URÍK, Martin\*\*. Assessment of aspergillus niger strain's suitability for arsenate-contaminated water treatment and adsorbent recycling via bioextraction in a laboratory-scale experiment. In *Microorganisms*, 2020, vol. 8, no. 1668. (2019: 4.152 - IF, Q2 - JCR). (2020 - WOS, SCOPUS). ISSN 2076-2607. Dostupné na: <https://doi.org/10.3390/microorganisms8111668>
- Citácie:
1. [1.2] VAŠINKOVÁ, M. - DLABAJA, M. - KUČOVÁ, K. Bioaccumulation of toxic metals by fungi of the genus Aspergillus isolated from the contaminated area of Ostrava Lagoons. In *IOP Conference Series: Earth and Environmental Science*, 2021-12-15, 900, 1, pp. ISSN 1755-1307. Dostupné na: <https://doi.org/10.1088/1755-1315/900/1/012048>, Registrované v: SCOPUS
- ADMA02 ELIÁŠ, Peter - MARTAUS, Jozef - ŠOLTÝS, Ján - KOSTIČ, Ivan. Micromachining of mesa and pyramidal-shaped objects in (1 0 0) InP substrates. In *Journal of Micromechanics and Microengineering*, 2005, vol. 15, p. 1007-1014. ISSN 0960-1317. Dostupné na: <https://doi.org/10.1088/0960-1317/15/5/016>
- Citácie:
1. [1.1] SUTTIJALERN, Kamonwan - NIEMCHAROEN, Surasak. Anisotropic wet etching of a novel micro-texture structure for an Al/n-Si/Al metal-semiconductor-metal photodetector fabrication. In *JOURNAL OF MICROMECHANICS AND MICROENGINEERING*. ISSN 0960-1317, 2021, vol. 31, no. 8, pp. Dostupné na: <https://doi.org/10.1088/1361-6439/ac0e7e>, Registrované v: WOS

- ADMA03 GRUSZECKI, P.\*\* - BANERJEE, C. - MRUCZKIEWICZ, Michal - HELLWIG, O. - BARMAN, A. - KRAWCZYK, M. The influence of the internal domain wall structure on spin wave band structure in periodic magnetic stripe domain patterns. In Solid State Physics : advances in Research and Applications, 2019, vol. 70, p. 79-132. (2018: 4.500 - IF, Q1 - JCR). ISSN 0081-1947. Dostupné na: <https://doi.org/10.1016/bs.ssp.2019.09.003>  
Citácie:  
1. [1.1] *ALVAREZ-PRADO, L.M. Control of Dynamics in Weak PMA Magnets. In MAGNETOCHEMISTRY. MAR 2021, vol. 7, no. 3., Registrované v: WOS*
- ADMA04 GUROV, J.B. - ROZOV, S.V. - SANDUKOVSKIY, V.G. - YAKUSHEV, E.A. - HRUBČÍN, Ladislav - ZATKO, Bohumír. Characteristics of silicon carbide detectors. In Instruments and Experimental Techniques, 2015, vol. 58, p. 22-24. (2014: 0.331 - IF, Q4 - JCR, 0.254 - SJR, Q3 - SJR, karentované - CCC). (2015 - Current Contents). ISSN 0020-4412. Dostupné na: <https://doi.org/10.1134/S0020441215010054>  
Citácie:  
1. [1.1] *REJHON, Martin - BRYNZA, Mykola - GRILL, Roman - BELAS, Eduard - KUNC, Jan. Investigation of deep levels in semi-insulating vanadium-doped 4H-SiC by photocurrent spectroscopy. In PHYSICS LETTERS A, 2021, vol. 405, no., pp. ISSN 0375-9601. Dostupné na: <https://doi.org/10.1016/j.physleta.2021.127433>., Registrované v: WOS*
- ADMA05 HOLÍŠOVÁ, V.\*\* - NATŠINOVÁ, M. - KRATOŠOVÁ, G. - CHROMČÁKOVÁ, Ž. - SCHRÖFEL, A. - VÁVRA, Ivo - ŽIVOTSKÝ, O. - ŠAFAŘÍK, I. - OBALOVÁ, L. Magnetically modified nanogold-biosilica composite as an effective catalyst for CO oxidation. In Arabian Journal of Chemistry, 2019, vol. 12, no. 1148-1158. (2018: 3.298 - IF, Q2 - JCR, 0.605 - SJR, Q2 - SJR). ISSN 1878-5352. Dostupné na: <https://doi.org/10.1016/j.arabjc.2018.12.002>  
Citácie:  
1. [1.1] *SHAFIEI, Nasrin - NASROLLAHZADEH, Mahmoud - IRAVANI, Siavash. Green Synthesis of Silica and Silicon Nanoparticles and Their Biomedical and Catalytic Applications. In COMMENTS ON INORGANIC CHEMISTRY. ISSN 0260-3594, 2021, vol. 41, no. 6, pp. 317-372. Dostupné na: <https://doi.org/10.1080/02603594.2021.1904912>., Registrované v: WOS*

#### ADMB Vedecké práce v zahraničných neimpaktovaných časopisoch registrovaných v databázach Web of Science alebo SCOPUS

- ADMB01 BYSTRITSKY, V.M. - DUDKIN, G.N. - FILIPOWICZ, M. - HURAN, Jozef - KRYLOV, A.R. - NECHAEV, B.A. - PADALCO, V.N. - PENKOV, F.M. - PHILIPPOV, A.V. - TULEUSHEV, Yu.Zh. Effect of pd and dd reactions enhancement in deuterides TiD<sub>2</sub>, ZrD<sub>2</sub> and Ta<sub>2</sub>D in the astrophysical energy range. In Physics of Particles and Nuclei Letters, 2016, vol. 13, p. 79-97. (2015: 0.290 - SJR, Q3 - SJR). (2016 - SCOPUS). ISSN 1547-4771. Dostupné na: <https://doi.org/10.1134/S1547477116010064>  
Citácie:  
1. [1.2] *Robinson, S.J.Q., Fan, C., Harper, M., Zamick, L. On the vibrational model of 92Pd and comparison with 48Cr In International Journal of Modern Physics E 30(2021),2150047, Registrované v: SCOPUS*
- ADMB02 BYSTRITSKY, V.M. - GAŽI, Štefan - HURAN, Jozef - DUDKIN, G.N. - KRYLOV, A.R. - LYSÁKOV, A.S. - NECHAEV, B.A. - PADALCO, V.N. - SADOVSKY, A.B. - FILIPOWICZ, M. - PHILIPPOV, A.V. Studying the D(p, γ)3He reaction in zirconium deuteride within the proton energy range of 9-35 keV. In

Physics of Particles and Nuclei Letters, 2015, vol. 12, p. 550-558. (2014: 0.272 - SJR, Q3 - SJR). (2015 - SCOPUS). ISSN 1547-4771. Dostupné na: <https://doi.org/10.1134/S1547477115040111>

Citácie:

1. [1.1] MOSCOSO, J. - DE SOUZA, R.S. - COC, A. - ILIADIS, C. *Bayesian Estimation of the D(p,gamma)He-3 Thermonuclear Reaction Rate. In ASTROPHYSICAL JOURNAL. ISSN 0004-637X, DEC 2021, vol. 923, no. 1., Registrované v: WOS*

ADMB03

EDWARDS, M.J. - LE BOULBAR, E.D. - VITTOZ, S. - VANKO, Gabriel - BRINKFELDT, K. - RUFER, L. - JOHANDER, P. - LALINSKY, Tibor - BOWEN, C.R. - ALLSOPP, D.W.E. Pressure and temperature dependence of GaN/AlGaIn HEMT based sensors on a sapphire membrane. In Physica status solidi C. Current topics in solid state physics, 2012, vol. 9, p. 960-963. (2011: 0.453 - SJR, Q3 - SJR). (2012 - SCOPUS). ISSN 1862-6351.

Citácie:

1. [1.1] MOSER, Matthias - PRADHAN, Mamta - ALOMARI, Mohammed - BURGHARTZ, Joachim N. *Model and Simulation of GaN-Based Pressure Sensors for High Temperature Applications-Part I: Physics Based Compact Modeling. In IEEE SENSORS JOURNAL, 2021, vol. 21, no. 18, pp. 20165-20175. ISSN 1530-437X. Dostupné na: <https://doi.org/10.1109/JSEN.2021.3096206>., Registrované v: WOS*

2. [1.1] MOSER, Matthias - PRADHAN, Mamta - ALOMARI, Mohammed - BURGHARTZ, Joachim N. *Model and Simulation of GaN-Based Pressure Sensors for High Temperature Applications-Part II: Sensor Design and Simulation. In IEEE SENSORS JOURNAL, 2021, vol. 21, no. 18, pp. 20176-20183. ISSN 1530-437X. Dostupné na: <https://doi.org/10.1109/JSEN.2021.3096695>., Registrované v: WOS*

ADMB04

FRÖHLICH, Karol - HUDEEC, Boris - ĽAPAJNA, Milan - HUŠEKOVÁ, Kristína - ROSOVÁ, Alica - ELIÁŠ, Peter - AARIK, J. - RAMMULA, R. - KASIKOV, A. - ARROVAL, T. - AARIK, L. - MURAKAMI, K. - ROMMEL, M. - BAUER, A.J. TiO<sub>2</sub>-based metal-insulator-metal structures for future DRAM storage capacitors. In ECS Transactions, 2012, vol. 50, p. 79-87. (2011: 0.261 - SJR, Q2 - SJR). (2012 - WOS). ISSN 1938-5862. Dostupné na: <https://doi.org/10.1149/05013.0079ecst>

Citácie:

1. [1.1] HAYES, M. - JENKINS, M.A. - WOODRUFF, J. - MOSER, D.F. - DEZELAH, C.L. - CONLEY, J.F. *Improved properties of atomic layer deposited ruthenium via postdeposition annealing. In JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A. ISSN 0734-2101, SEP 2021, vol. 39, no. 5., Registrované v: WOS*

2. [1.1] MAIER, F.J. - SCHNEIDER, M. - SCHRATTENHOLZER, J. - SCHMID, U. *Electrical and Microstructural Characterization of TiO<sub>2</sub> Thin Films for Flexoelectric Devices. In 30TH MICROMECHANICS AND MICROSYSTEMS EUROPE WORKSHOP (MME) 2019. ISSN 1742-6588, 2021, vol. 1837., Registrované v: WOS*

ADMB05

GRILLI, F.\*\* - BENKEL, T. - HÄNISCH, J. - LAO, M. - REIS, T. - BERBERICH, E. - WOLFTÄDLER, S. - SCHNEIDER, C. M. - MILLER, P. - PALMER, C. - GLOWACKI, B.A. - CLIMENTE-ALARCON, V. - SMARA, A. - TOMKOW, L. - TEIGELKÖTTER, J. - STOCK, Alex - BUDEL, Julius - JEUNESSE, L. - STAEMPFLIN, M. - DELAUTRE, G. - ZIMMERMANN, Bernhard - VAN DER WOUDE, R. - PEREZ, A. - SAMOILENKOV, S. - MOLODYK, A. - PARDO, Enric - KAPOLKA, Milan - LI, S. - DADHICH, Anang. Superconducting motors for aircraft propulsion: the advanced superconducting motor experimental



demonstrator project. In *Journal of Physics: Conference Series*, 2020, vol. 1590, no. 012051. (2019: 0.227 - SJR, Q3 - SJR). ISSN 1742-6588. Dostupné na: <https://doi.org/10.1088/1742-6596/1590/1/012051> (H2020 ASuMED)

Citácie:

1. [1.1] ARNDT, T. - HOLZAPFEL, B. - NOE, M. - NAST, R. - HORNING, F. - KLASER, M. - KUDYMOW, A. New coil configurations with 2G-HTS and benefits for applications. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, SEP 2021, vol. 34, no. 9., Registrované v: WOS
2. [1.1] DORGET, R. - NOUAILHETAS, Q. - COLLE, A. - BERGER, K. - SUDO, K. - AYAT, S. - LEVEQUE, J. - KOBLISCHKA, M.R. - SAKAI, N. - OKA, T. - DOUINE, B. Review on the Use of Superconducting Bulks for Magnetic Screening in Electrical Machines for Aircraft Applications. In *MATERIALS*. JUN 2021, vol. 14, no. 11., Registrované v: WOS
3. [1.1] KOVALEV, K. - KADEROV, V. - IVANOV, N. - MALEVICH, N. - ZHECHIHIN, B. Electrical Machines with Superconducting Windings at 20 K. In *2021 IEEE 14TH WORKSHOP ON LOW TEMPERATURE ELECTRONICS (WOLTE)*. 2021., Registrované v: WOS
4. [1.1] KUMAR, A. - KUMAR, A. - KOCHHER, G. Potential of supercritical nitrogen to be used as cryogen for superconducting applications. In *MATERIALS TODAY-PROCEEDINGS*. ISSN 2214-7853, 2021, vol. 47, 14, p. 4345-4349., Registrované v: WOS
5. [1.1] SASA, H. - IWAKUMA, M. - YOSHIDA, K. - SATO, S. - SASAYAMA, T. - YOSHIDA, T. - YAMAMOTO, K. - MIURA, S. - KAWAGOE, A. - IZUMI, T. - TOMIOKA, A. - KONNO, M. - SASAMORI, Y. - HONDA, H. - HASE, Y. - SYUTOH, M. - LEE, S. - HASUO, S. - NAKAMURA, M. - HASEGAWA, T. - AOKI, Y. - UMEMO, T. Experimental Evaluation of 1 kW-class Prototype REBCO Fully Superconducting Synchronous Motor Cooled by Subcooled Liquid Nitrogen for E-Aircraft. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
6. [1.1] SEITZ, A. - HABERMANN, A.L. - PETER, F. - TROELTSCH, F. - PARDO, A.C. - DELLA CORTE, B. - VAN SLUIS, M. - GORAJ, Z. - KOWALSKI, M. - ZHAO, X. - GRONSTEDT, T. - BIJEWITZ, J. - WORTMANN, G. Proof of Concept Study for Fuselage Boundary Layer Ingesting Propulsion. In *AEROSPACE*. JAN 2021, vol. 8, no. 1., Registrované v: WOS
7. [1.1] SHENG, J. - HU, M. - LI, W.R. - WANG, X.L. - SHEN, B.Y. - LI, Z.Y. - JIN, Z.J. Concept Design of a Portable Superconducting Transformer Based on Conductors in Tube Cables. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, NOV 2021, vol. 31, no. 8., Registrované v: WOS
8. [1.1] ZANEGIN, S. - IVANOV, N. - ZUBKO, V. - KOVALEV, K. - SHISHOV, I. - SHISHOV, D. - PODGUZOV, V. Measurements and Analysis of AC Losses in HTS Windings of Electrical Machine for Different Operation Modes. In *APPLIED SCIENCES-BASEL*. MAR 2021, vol. 11, no. 6., Registrované v: WOS
9. [1.1] ZHANG, H.Y. - MUELLER, M. Electromagnetic properties of curved HTS trapped field stacks under high-frequency cross fields for high-speed rotating machines. In *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*. ISSN 0953-2048, APR 2021, vol. 34, no. 4., Registrované v: WOS

ADMB06

HALIM, J.\*\* - PALISAITIS, J. - LU, j. - THÖRNBERG, J. - MOON, E.J. - PRECNER, Marián - EKLUND, P. - PERSSON, P.O.A. - BARSOUM, M.W. - ROSEN, J. Synthesis of two-dimensional Nb<sub>1.33</sub>C (MXene) with randomly distributed vacancies by etching of the quaternary solid solution (Nb<sub>2/3</sub>Sc<sub>1/3</sub>)<sub>2</sub>AlC



MAX phase. In ACS Applied Nano Materials, 2018, vol. 1, iss. 6, p. 2455-2460. (2018 - MEDLINE). ISSN 2574-0970. Dostupné na: <https://doi.org/10.1021/acsanm.8b00332>

Citácie:

1. [1.1] ABBASI, N.M. - XIAO, Y. - PENG, L. - DUO, Y.H. - WANG, L.D. - ZHANG, L. - WANG, B. - ZHANG, H. Recent Advancement for the Synthesis of MXene Derivatives and Their Sensing Protocol. In ADVANCED MATERIALS TECHNOLOGIES. ISSN 2365-709X, OCT 2021, vol. 6, no. 10., Registrované v: WOS
2. [1.1] AHMED, S. - JIANG, X.T. - WANG, C. - KALSOM, U.E. - WANG, B. - KHAN, J. - MUHAMMAD, Y. - DUAN, Y.M. - ZHU, H.Y. - REN, X.Z. - ZHANG, H. An Insightful Picture of Nonlinear Photonics in 2D Materials and their Applications: Recent Advances and Future Prospects. In ADVANCED OPTICAL MATERIALS. ISSN 2195-1071, JUN 2021, vol. 9, no. 11., Registrované v: WOS
3. [1.1] BABAR, Z.U.D. - ZHENG, R.K. - MUMTAZ, M. - RIZWAN, S. Magneto-transport of mechanically-pressed niobium carbide (Nb<sub>2</sub>C) distorted MXene. In MATERIALS LETTERS. ISSN 0167-577X, FEB 15 2021, vol. 285., Registrované v: WOS
4. [1.1] BAO, Z.H. - LU, C.J. - CAO, X. - ZHANG, P.G. - YANG, L. - ZHANG, H. - SHA, D.W. - HE, W. - ZHANG, W. - PAN, L. - SUN, Z.M. Role of MXene surface terminations in electrochemical energy storage: A review. In CHINESE CHEMICAL LETTERS. ISSN 1001-8417, SEP 2021, vol. 32, no. 9, p. 2648-2658., Registrované v: WOS
5. [1.1] CHEN, H.W. - MA, H.Y. - LI, C. Host-Guest Intercalation Chemistry in MXenes and Its Implications for Practical Applications. In ACS NANO. ISSN 1936-0851, OCT 26 2021, vol. 15, no. 10, p. 15502-15537., Registrované v: WOS
6. [1.1] DE, S. - ACHARYA, S. - SAHOO, S. - NAYAK, G.C. Current trends in MXene research: properties and applications. In MATERIALS CHEMISTRY FRONTIERS. OCT 7 2021, vol. 5, no. 19, p. 7134-7169., Registrované v: WOS
7. [1.1] DING, G.L. - YANG, B.D. - CHEN, R.S. - ZHOU, K. - HAN, S.T. - ZHOU, Y. MXenes for memristive and tactile sensory systems. In APPLIED PHYSICS REVIEWS. ISSN 1931-9401, MAR 2021, vol. 8, no. 1., Registrované v: WOS
8. [1.1] DING, M.Y. - HAN, C.H. - YUAN, Y.J. - XU, J.S. - YANG, X.F. Advances and Promises of 2D MXenes as Cocatalysts for Artificial Photosynthesis. In SOLAR RRL. ISSN 2367-198X, DEC 2021, vol. 5, no. 12., Registrované v: WOS
9. [1.1] FENG, X.F. - YU, Z.X. - SUN, Y.X. - LONG, R.X. - SHAN, M.Y. - LI, X.H. - LIU, Y.C. - LIU, J.H. Review MXenes as a new type of nanomaterial for environmental applications in the photocatalytic degradation of water pollutants. In CERAMICS INTERNATIONAL. ISSN 0272-8842, MAR 15 2021, vol. 47, no. 6, p. 7321-7343., Registrované v: WOS
10. [1.1] HO, D.H. - CHOI, Y.Y. - JO, S.B. - MYOUNG, J.M. - CHO, J.H. Sensing with MXenes: Progress and Prospects. In ADVANCED MATERIALS. ISSN 0935-9648, NOV 2021, vol. 33, no. 47, SI., Registrované v: WOS
11. [1.1] HUANG, H. - WEI, - CHEN, Y. Two-dimensional biomaterials: material science, biological effect and biomedical engineering applications. In CHEMICAL SOCIETY REVIEWS. ISSN 0306-0012, OCT 18 2021, vol. 50, no. 20, p. 11381-11485., Registrované v: WOS
12. [1.1] JAFFARI, Z.H. - ABUABDOU, S.M.A. - NG, D.Q. - BASHIR, M.J.K. Insight into two-dimensional MXenes for environmental applications: Recent progress, challenges, and prospects. In FLATCHEM. ISSN 2452-2627, JUL 2021, vol. 28., Registrované v: WOS
13. [1.1] KAILASA, S.K. - JOSHI, D.J. - KODURU, J.R. - MALEK, N.I. Review

- on MXenes-based nanomaterials for sustainable opportunities in energy storage, sensing and electrocatalytic reactions. In *JOURNAL OF MOLECULAR LIQUIDS*. ISSN 0167-7322, NOV 15 2021, vol. 342., Registrované v: WOS
14. [1.1] LI, X.L. - MA, X.Y. - HOU, Y. - ZHANG, Z.H. - LU, Y. - HUANG, Z.D. - LIANG, G.J. - LI, M.A. - YANG, Q. - MA, J.L. - LI, N. - DONG, B.B. - HUANG, Q. - CHEN, F.R. - FAN, J. - ZHI, C.Y. Intrinsic voltage plateau of a Nb(2)CTx MXene cathode in an aqueous electrolyte induced by high-voltage scanning. In *JOULE*. ISSN 2542-4351, NOV 17 2021, vol. 5, no. 11, p. 2993-3005., Registrované v: WOS
15. [1.1] LIPATOV, A. - LOES, M.J. - VOROBEOVA, N.S. - BAGHERI, S. - ABOURAHMA, J. - CHEN, H.Y. - HONG, X. - GOGOTSI, Y. - SINITSKII, A. High Breakdown Current Density in Monolayer Nb<sub>4</sub>C<sub>3</sub>Tx MXene. In *ACS MATERIALS LETTERS*. JUN 28 2021, vol. 3, no. 8, p. 1088-1094., Registrované v: WOS
16. [1.1] LIU, Z.X. - ALSHAREEF, H.N. MXenes for Optoelectronic Devices. In *ADVANCED ELECTRONIC MATERIALS*. ISSN 2199-160X, SEP 2021, vol. 7, no. 9., Registrované v: WOS
17. [1.1] LU, B.B. - ZHU, Z.Y. - MA, B.Y. - WANG, W. - ZHU, R.S. - ZHANG, J.H. 2D MXene Nanomaterials for Versatile Biomedical Applications: Current Trends and Future Prospects. In *SMALL*. ISSN 1613-6810, NOV 2021, vol. 17, no. 46., Registrované v: WOS
18. [1.1] LYU, J. - KASHKAROV, E.B. - TRAVITZKY, N. - SYRTANOV, M.S. - LIDER, A.M. Sintering of MAX-phase materials by spark plasma and other methods. In *JOURNAL OF MATERIALS SCIENCE*. ISSN 0022-2461, JAN 2021, vol. 56, no. 3, p. 1980-2015., Registrované v: WOS
19. [1.1] MENG, W.X. - LIU, X.J. - SONG, H.Q. - XIE, Y. - SHI, X.L. - DARGUSCH, M. - CHEN, Z.G. - TANG, Z.Y. - LU, S.Y. Advances and challenges in 2D MXenes: From structures to energy storage and conversions. In *NANO TODAY*. ISSN 1748-0132, OCT 2021, vol. 40., Registrované v: WOS
20. [1.1] MING, F.W. - LIANG, H.F. - HUANG, G. - BAYHAN, Z. - ALSHAREEF, H.N. MXenes for Rechargeable Batteries Beyond the Lithium-Ion. In *ADVANCED MATERIALS*. ISSN 0935-9648, JAN 2021, vol. 33, no. 1., Registrované v: WOS
21. [1.1] MURALI, G. - RAWAL, J. - MODIGUNTA, J.K.R. - PARK, Y.H. - LEE, J.H. - LEE, S.Y. - PARK, S.J. - IN, I. A review on MXenes: new-generation 2D materials for supercapacitors. In *SUSTAINABLE ENERGY & FUELS*. ISSN 2398-4902, NOV 9 2021, vol. 5, no. 22, p. 5672-5693., Registrované v: WOS
22. [1.1] PAZNIAK, H. - BENCHAKAR, M. - BILYK, T. - LIEDL, A. - BUSBY, Y. - NOEL, C. - CHARTIER, P. - HURAND, S. - MARTEAU, M. - HOUSSIAU, L. - LARCIPRETE, R. - LACOVIG, P. - LIZZIT, D. - TOSI, E. - LIZZIT, S. - PACAUD, J. - CELERIER, S. - MAUCHAMP, V. - DAVID, M.L. Ion Implantation as an Approach for Structural Modifications and Functionalization of Ti<sub>3</sub>C<sub>2</sub>Tx MXenes. In *ACS NANO*. ISSN 1936-0851, MAR 23 2021, vol. 15, no. 3, p. 4245-4255., Registrované v: WOS
23. [1.1] QIN, R. - SHAN, G. - HU, M. - HUANG, W. Two-dimensional transition metal carbides and/or nitrides (MXenes) and their applications in sensors. In *MATERIALS TODAY PHYSICS*. ISSN 2542-5293, NOV 2021, vol. 21., Registrované v: WOS
24. [1.1] SHEKHIREV, M. - SHUCK, C.E. - SARYCHEVA, A. - GOGOTSI, Y. Characterization of MXenes at every step, from their precursors to single flakes and assembled films. In *PROGRESS IN MATERIALS SCIENCE*. ISSN 0079-6425, JUL 2021, vol. 120., Registrované v: WOS
25. [1.1] SINGH, A.K. - KUMBHAKAR, P. - KRISHNAMOORTHY, A. -

- NAKANO, A. - SADASIVUNI, K.K. - VASHISHTA, P. - ROY, A.K. - KOCHAT, V. - TIWARY, C.S. Review of strategies toward the development of alloy two-dimensional (2D) transition metal dichalcogenides. In *ISCIENCE*. DEC 17 2021, vol. 24, no. 12., Registrované v: WOS
26. [1.1] WANG, T.R. - LI, N. - LI, Y.R. - KAI, J.J. - FAN, J. M-Site Vacancy-Mediated Adsorption and Diffusion of Sodium on Ti<sub>2</sub>CO<sub>2</sub> MXene. In *JOURNAL OF PHYSICAL CHEMISTRY C*. ISSN 1932-7447, JAN 14 2021, vol. 125, no. 1, p. 82-90., Registrované v: WOS
27. [1.1] WANG, Y. - NIAN, Y. - BISWAS, A.N. - LI, W. - HAN, Y. - CHEN, J.G.G. Challenges and Opportunities in Utilizing MXenes of Carbides and Nitrides as Electrocatalysts. In *ADVANCED ENERGY MATERIALS*. ISSN 1614-6832, JAN 2021, vol. 11, no. 3., Registrované v: WOS
28. [1.1] YAQUB, A. - SHAFIQ, Q. - KHAN, A.R. - HUSNAIN, S.M. - SHAHZAD, F. Recent advances in the adsorptive remediation of wastewater using two-dimensional transition metal carbides (MXenes): a review. In *NEW JOURNAL OF CHEMISTRY*. ISSN 1144-0546, JUN 14 2021, vol. 45, no. 22, p. 9721-9742., Registrované v: WOS
29. [1.1] YU, L.P. - LU, L. - ZHOU, X.H. - XU, L. - ALHALILI, Z. - WANG, F.J. Strategies for Fabricating High-Performance Electrochemical Energy-Storage Devices by MXenes. In *CHEMELECTROCHEM*. ISSN 2196-0216, JUN 1 2021, vol. 8, no. 11, p. 1948-1987., Registrované v: WOS
30. [1.1] ZHOU, A.G. - LIU, Y. - LI, S.B. - WANG, X.H. - YING, G.B. - XIA, Q.X. - ZHANG, P.G. From structural ceramics to 2D materials with multi-applications: A review on the development from MAX phases to MXenes. In *JOURNAL OF ADVANCED CERAMICS*. ISSN 2226-4108, DEC 2021, vol. 10, no. 6, p. 1194-1242., Registrované v: WOS
31. [1.2] DESHMUKH, Kalim - MUZAFFAR, Aqib - KOVÁŘÍK, Tomáš - AHAMED, M. Basheer - PASHA, S. K.Khadheer. Introduction to 2D MXenes: Fundamental aspects, MAX phases and MXene derivatives, current challenges, and future prospects. In *MXenes and their Composites: Synthesis, Properties and Potential Applications*, 2021-01-01, pp. 1-47. Dostupné na: <https://doi.org/10.1016/B978-0-12-823361-0.00009-5>., Registrované v: SCOPUS
32. [1.2] MORENO RUIZ, Yolice P. - DA SILVA, William Leonardo - ZIMNOCH DOS SANTOS, João H. MXene-based photocatalysts. In *Photocatalytic Systems by Design: Materials, Mechanisms and Applications*, 2021-01-01, pp. 333-357. Dostupné na: <https://doi.org/10.1016/B978-0-12-820532-7.00012-6>., Registrované v: SCOPUS
33. [1.2] PATIL, Indrajit - PARSE, Haridas - LATE, Dattatray J. - KAKADE, Bhalchandra. 2D metal carbides and their hybrid nanostructure: Fundamental, synthesis, and applications. In *Fundamentals and Supercapacitor Applications of 2D Materials*, 2021-01-01, pp. 235-251. Dostupné na: <https://doi.org/10.1016/B978-0-12-821993-5.00004-2>., Registrované v: SCOPUS
34. [1.2] SARASWATHI, Kailasa - REDDY, M. Sai Bhargava - RAO, Kalagadda Venkateswara - DESHMUKH, Kalim - PONNAMMA, Deepalekshmi - WASEEM, Sadiya - RAKHA, Mustafa Farag Ibrahim Aly - PASHA, S. K.Khadheer - SADASIVUNI, Kishor Kumar. MXenes and their composites for energy harvesting applications. In *MXenes and their Composites: Synthesis, Properties and Potential Applications*, 2021-01-01, pp. 687-723. Dostupné na: <https://doi.org/10.1016/B978-0-12-823361-0.00008-3>., Registrované v: SCOPUS
35. [1.2] YU, Yadong - ZHOU, Jian - SUN, Zhimei. Synthesis methods and surface chemistry/functionalization of MXene. In *MXenes and their Composites: Synthesis, Properties and Potential Applications*, 2021-01-01, pp. 49-89.

*Dostupné na: <https://doi.org/10.1016/B978-0-12-823361-0.00003-4>,*

*Registrované v: SCOPUS*

- ADMB07 CHYMO, F. - FRÖHLICH, Karol - KUNDRATA, Ivan - HUŠEKOVÁ, Kristína - HARMATHA, L. - RACKO, J. - BREZA, J. - MIKOLÁŠEK, M.\*\*.  
Characterization of MIS photoanode with a thin SiO<sub>2</sub> layer for photoelectrochemical water splitting. In AIP Conference Proceedings : Applied Physics of Condensed Matter (APCOM 2019), 2019, vol. 2131, no. 020020. (2018: 0.182 - SJR). (2019 - SCOPUS, WOS). ISSN 0094-243X. Dostupné na: <https://doi.org/10.1063/1.5119473>  
Citácie:  
1. [1.1] PASTUKHOVA, Nadiia - MAVRIC, Andraz - LI, Yanbo. Atomic Layer Deposition for the Photoelectrochemical Applications. In ADVANCED MATERIALS INTERFACES, 2021, vol. 8, no. 7, pp. ISSN 2196-7350. Dostupné na: <https://doi.org/10.1002/admi.202002100>, Registrované v: WOS
- ADMB08 KLEINOVÁ, Angela - HURAN, Jozef - SASINKOVÁ, Vlasta - PERNÝ, M. - ŠÁLY, V. - PACKA, J. FTIR spectroscopy of silicon carbide thin films prepared by PECVD technology for solar cell application. In Proceedings of the SPIE, 2015, vol. 9563, 95630U. (2014: 0.237 - SJR). (2015 - SCOPUS, WOS). ISSN 0277-786X. Dostupné na: <https://doi.org/10.1117/12.2186748>  
Citácie:  
1. [1.1] FILATOV, Y.D. - SIDORKO, V.I. - KOVALEV, S.V. - KOVALEV, V.A. Effect of the Processed Material Structure on the Polishing Quality of Optical Surfaces. In JOURNAL OF SUPERHARD MATERIALS. ISSN 1063-4576, NOV 2021, vol. 43, no. 6, p. 435-443., Registrované v: WOS  
2. [1.1] TRUONG, T.B. - CHEN, Y.R. - LIN, G.Y. - LIN, H-T - WU, Y.S. - YANG, C.C. Lithium polyacrylate polymer coating enhances the performance of graphite/silicon/carbon composite anodes. In ELECTROCHIMICA ACTA. ISSN 0013-4686, JAN 1 2021, vol. 365., Registrované v: WOS  
3. [1.1] WANG, Zhao - SCHMALBACH, Kevin M. - PENN, R. Lee - POERSCHKE, David - ANTONIOU, Antonia - MARA, Nathan A. - STEIN, Andreas. 3D Periodic and Interpenetrating Tungsten-Silicon Oxycarbide Nanocomposites Designed for Mechanical Robustness. In ACS APPLIED MATERIALS & INTERFACES. ISSN 1944-8244, 2021, vol. 13, no. 27, pp. 32126-32135. Dostupné na: <https://doi.org/10.1021/acsami.1c06894>, Registrované v: WOS
- ADMB09 KRŠKO, O. - PLECENIK, T. - MOŠKO, Martin - HAIDRY, A.A. - ĐURINA, P. - TRUCHLY, M. - GRANČIČ, B. - GREGOR, M. - ROCH, T. - SATRAPINSKY, L. - MOŠKOVÁ, Antónia - MIKULA, M. - KÚŠ, P. - PLECENÍK, A. Highly sensitive hydrogen semiconductor gas sensor operating at room temperature. In Procedia Engineering, 2015, vol. 120, p. 618-622. (2014: 0.275 - SJR). (2015 - SCOPUS). ISSN 1877-7058. Dostupné na: <https://doi.org/10.1016/j.proeng.2015.08.748>  
Citácie:  
1. [1.1] CHACHULI, Siti Amaniah Mohd - HAMIDON, Mohd Nizar - ERTUGRUL, Mehmet - MAMAT, Md Shuhazlly - COBAN, Omer - TUZLUCA, Fatma Nur - YESILBAG, Yasar Ozkan - SHAMSUDIN, N. H. Effects of MWCNTs/graphene nanoflakes/MXene addition to TiO<sub>2</sub> thick film on hydrogen gas sensing. In JOURNAL OF ALLOYS AND COMPOUNDS, 2021, vol. 882, no., pp. ISSN 0925-8388. Dostupné na: <https://doi.org/10.1016/j.jallcom.2021.160671>, Registrované v: WOS
- ADMB10 KUJOVIČ, Tomáš\*\* - GÖMÖRY, Fedor\*\*. Influence of local deformation on critical current of high temperature superconductor tape. In Journal of Physics: Conference Series : 14th European Conference on Applied Superconductivity (EUCAS2019) 1-5 September 2019, Glasgow, UK, 2020, vol. 1559, no. 012050.



(2019: 0.227 - SJR, Q3 - SJR). ISSN 1742-6588. Dostupné na:

<https://doi.org/10.1088/1742-6596/1559/1/012050>

Citácie:

1. [1.1] WANG, K.Y. - GAO, Y.W. - LUO, W. - ZHOU, Y.H. - NIJHUIS, A. *Nonlinear contact behavior of HTS tapes during pancake coiling and CORC cabling. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUL 2021, vol. 34, no. 7., Registrované v: WOS*

ADMB11 KUTIŠ, V. - DZUBA, Jaroslav - PAULECH, J. - MURÍN, Justín - LALINSKÝ, Tibor. MEMS piezoelectric pressure sensor-modelling and simulation. In *Procedia Engineering*, 2012, vol. 48, p. 338-345. (2011: 0.237 - SJR). (2012 - SCOPUS, WOS). ISSN 1877-7058. Dostupné na: <https://doi.org/10.1016/j.proeng.2012.09.523>

Citácie:

1. [1.1] UPADHYAY, Kavita T. - CHATTOPADHYAY, Manju K. *Sensor applications based on AlGaIn/GaN heterostructures. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS. ISSN 0921-5107, 2021, vol. 263, no., pp. Dostupné na: https://doi.org/10.1016/j.mseb.2020.114849., Registrované v: WOS*

ADMB12 KUTIŠ, V. - GÁLIK, G. - KRÁLOVIČ, V. - RÝGER, Ivan - MOJTO, E. - LALINSKÝ, Tibor. Modelling and simulation of SAW sensor using FEM. In *Procedia Engineering*, 2012, vol. 48, p. 332-337. (2011: 0.237 - SJR). (2012 - SCOPUS, WOS). ISSN 1877-7058. Dostupné na: <https://doi.org/10.1016/j.proeng.2012.09.522>

Citácie:

1. [1.1] FILIPIAK, Jerzy - MARC, Pawel. *Surface acoustic wave vibration sensor as a seismometer. In SENSORS AND ACTUATORS A-PHYSICAL. ISSN 0924-4247, 2021, vol. 323, no., pp. Dostupné na: https://doi.org/10.1016/j.sna.2021.112653., Registrované v: WOS*

2. [1.1] KUMAR, Mukesh - BHADU, Deepak. *Design Performance and Frequency Response Analysis of SAW-Based Sensor for Dichloromethane Gas Sensing Amidst the COVID-19. In JOURNAL OF VIBRATION ENGINEERING & TECHNOLOGIES. ISSN 2523-3920, 2021, vol. 9, no. 5, pp. 725-732. Dostupné na: https://doi.org/10.1007/s42417-020-00257-8., Registrované v: WOS*

3. [1.1] PATIAL, Payal - DESHWAL, Manish. *Systematic Review on Design and Development of Efficient Semiconductor Based Surface Acoustic Wave Gas Sensor. In TRANSACTIONS ON ELECTRICAL AND ELECTRONIC MATERIALS. ISSN 1229-7607, 2021, vol. 22, no. 4, pp. 385-393. Dostupné na: https://doi.org/10.1007/s42341-021-00332-1., Registrované v: WOS*

ADMB13 LALINSKÝ, Tibor - RÝGER, Ivan - VANKO, Gabriel - TOMÁŠKA, M. - KOSTIČ, Ivan - HAŠČÍK, Štefan - VALLO, Martin. AlGaIn/GaN based SAW-HEMT structures for chemical gas sensors. In *Procedia Engineering : Proc. Eurosensors XXIV*, 2010, vol. 5, no. 152-155. (2010 - SCOPUS). ISSN 1877-7058. Dostupné na: <https://doi.org/10.1016/j.proeng.2010.09.402>

Citácie:

1. [1.1] EISNER, Savannah R. - ALPERT, Hannah S. - CHAPIN, Caitlin A. - YALAMARTHY, Ananth Saran - SATTERTHWAITE, Peter F. - NASIRI, Ardalan - PORT, Sara - ANG, Simon - SENESKY, Debbie G. *Extended Exposure of Gallium Nitride Heterostructure Devices to a Simulated Venus Environment. In 2021 IEEE AEROSPACE CONFERENCE (AEROCONF 2021). ISSN 1095-323X, 2021, vol., no., pp. Dostupné na: https://doi.org/10.1109/AERO50100.2021.9438131., Registrované v: WOS*

2. [1.1] PAL, Praveen - PRATAP, Yogesh - GUPTA, Mridula - KABRA, Sneha. *Analytical Modeling and Simulation of AlGaIn/GaN MOS-HEMT for High*



- Sensitive pH Sensor. In IEEE SENSORS JOURNAL. ISSN 1530-437X, 2021, vol. 21, no. 12, pp. 12998-13005. Dostupné na: <https://doi.org/10.1109/JSEN.2021.3069243>., Registrované v: WOS*
3. [1.1] UPADHYAY, Kavita T. - CHATTOPADHYAY, Manju K. Sensor applications based on AlGaIn/GaN heterostructures. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS. ISSN 0921-5107, 2021, vol. 263, no., pp., Registrované v: WOS
4. [1.2] SHARMA, Niketa - GUPTA, Yogendra - SHARMA, Ashish - SHARMA, Harish. Thermal Modeling of the GaN HEMT Device Using Decision Tree Machine Learning Technique. In Lecture Notes in Networks and Systems. ISSN 23673370, 2021-01-01, 204, pp. 13-20. Dostupné na: [https://doi.org/10.1007/978-981-16-1089-9\\_2](https://doi.org/10.1007/978-981-16-1089-9_2)., Registrované v: SCOPUS
5. [3.1] BHATTACHARJEE, K. - ZHGOON, S. Solidly mounted layer thin film device with grounding layer. March 3, 2021, United States Patent No. 10938367 B2.
- ADMB14 LETTRICHOVÁ, I. - PUDIŠ, D. - LAURENČÍKOVÁ, Agáta - GASO, P. - ŠUŠLIK, Ľ. - JANDURA, D. - ĎURIŠOVÁ, J. - NOVÁK, Jozef. Optical properties of GaAs-based LED with Fresnel structure in the surface. In Proceedings of the SPIE, 2022, vol. 10142, no. 101421P. (2021: 0.184 - SJR). ISSN 0277-786X. Dostupné na: <https://doi.org/10.1117/12.2264454>
- Citácie:
1. [1.1] CHEN, D. - WANG, Y.M. - FU, Y. - ZHOU, H.M. Fabrication of Transparent Polymer Optical Device Combined with Selective Visible-Light Transmission and Zero-Birefringence. In MACROMOLECULAR RAPID COMMUNICATIONS. ISSN 1022-1336, JAN 2021, vol. 42, no. 2., Registrované v: WOS
- ADMB15 MIKOLÁŠEK, M. - RACKO, J. - REHACEK, V. - HARMATHA, L. - ĽAPAJNA, Milan - FRÖHLICH, Karol. Electrical characterisation of MIS photoanodes annealed under different conditions for solar fuel generation. In ASDAM 2016 : the 11th International Conference on Advanced Semiconductor Devices and Microsystems. - IEEE, 2016, p. 45-48. ISBN 978-1-5090-3081-1. Dostupné na: <https://doi.org/10.1109/ASDAM.2016.7805891>
- Citácie:
1. [1.1] GROSMAN, Arie - LEVY, Hadar Manis - SARSUI, Gabby. The role of traps in dark current and photocurrent of chemical bath deposition grown nano-domains PbS/GaAs heterojunction layers. In JOURNAL OF APPLIED PHYSICS, 2021, vol. 129, no. 21, pp. ISSN 0021-8979. Dostupné na: <https://doi.org/10.1063/5.0047477>., Registrované v: WOS
- ADMB16 MOŠKOVÁ, Antónia - MOŠKO, Martin. Note on the Coulomb blockade of a weak tunnel junction with Nyquist noise: Conductance formula for a broad temperature range. In Physica status solidi C. Current topics in solid state physics, 2017, vol. 14, no. 1700029. (2016: 0.354 - SJR, Q3 - SJR). ISSN 1862-6351. Dostupné na: <https://doi.org/10.1002/pssc.201700029>
- Citácie:
1. [1.1] FOONG, Yee Wei - HOSSAIN, Md Sazzad - SUKHOMLINOV, Sergey - BEVAN, Kirk H. Faradaic Quantized Capacitance as an Ideal Pseudocapacitive Mechanism. In JOURNAL OF PHYSICAL CHEMISTRY C, 2021, vol. 125, no. 8, pp. 4343-4354. ISSN 1932-7447. Dostupné na: <https://doi.org/10.1021/acs.jpcc.0c07862>., Registrované v: WOS
2. [1.1] MOREL, Tom - MORA, Christophe. Double-periodic Josephson junctions in a quantum dissipative environment. In PHYSICAL REVIEW B, 2021, vol. 104, no. 24, pp. ISSN 2469-9950. Dostupné na:

- <https://doi.org/10.1103/PhysRevB.104.245417>., Registrované v: WOS
- ADMB17 NAST, R. - VOJENČIAK, Michal - DEMENČÍK, Eduard - KARIO, A. - RINGSDORF, B. - JUNG, A. - RUNTSCH, B. - GRILLI, F. - GOLDACKER, W. Influence of laser striations on the properties of coated conductors. In Journal of Physics: Conference Series, 2014, vol. 507, 022023. (2013: 0.231 - SJR). (2014 - WOS, SCOPUS). ISSN 1742-6588. Dostupné na: <https://doi.org/10.1088/1742-6596/507/2/022023>
- Citácie:
1. [1.1] WULFF, A. C. - ABRAHAMSEN, A. B. - INSINGA, A. R. Multifilamentary coated conductors for ultra-high magnetic field applications. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY, 2021, vol. 34, no. 5, pp. ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/abee2b>., Registrované v: WOS
- ADMB18 PLECENIK, Andrej - HAIDRY, A.A. - PLECENIK, T. - ĎURINA, P. - TRUCHLY, M. - MOŠKO, Martin - GRANČIČ, B. - GREGOR, M. - ROCH, T. - SATRAPINSKY, L. - MOŠKOVÁ, Antónia - MIKULA, M. - KÚŠ, P. Metal oxide gas sensors on the nanoscale. In Proceedings of the SPIE, 2014, vol. 9083, 90830Y. (2013: 0.223 - SJR). (2014 - SCOPUS). ISSN 0277-786X. Dostupné na: <https://doi.org/10.1117/12.2050349>
- Citácie:
1. [1.1] SHEPA, I - MUDRA, E. - DUSZA, J. Electrospinning through the prism of time. In MATERIALS TODAY CHEMISTRY, 2021, vol. 21, no., pp. ISSN 2468-5194. Dostupné na: <https://doi.org/10.1016/j.mtchem.2021.100543>., Registrované v: WOS
- ADMB19 POLÁK, Milan - UŠÁK, E. - JANŠÁK, Lubomil - DEMENČÍK, Eduard - LEVIN, G.A. - BARNES, P.N. - WEHLER, D. - MOENTER, B. Coupling losses and transverse resistivity of multifilament YBCO coated. In Journal of Physics: Conference Series, 2006, vol. 43, p. 591-594. (2006 - WOS, SCOPUS). ISSN 1742-6588. Dostupné na: <https://doi.org/10.1088/1742-6596/43/1/145>
- Citácie:
1. [1.1] ABDEL-SALAM, M. - ELNOZAHY, A. - ELGAMAL, M. Minimum power loss based design of SMES as influenced by coil material. In JOURNAL OF ENERGY STORAGE, 2020, vol. 30, no., pp. Dostupné na: <https://doi.org/10.1016/j.est.2020.101461>., Registrované v: WOS
- ADMB20 RUBELI, T. - COLANGELO, D. - DUTOIT, B. - VOJENČIAK, Michal. Heat transfer monitoring between quenched high-temperature superconducting coated conductors and liquid nitrogen. In Progress in Superconductivity and Cryogenics, 2015, vol. 17, p. 10-13. (2014: 0.141 - SJR, Q4 - SJR). (2015 - SCOPUS, WOS). ISSN 1229-3008. Dostupné na: <https://doi.org/10.9714/psac.2015.17.1.010>
- Citácie:
1. [1.1] HAJIRI, G. - BERGER, K. - DORGET, R. - LEVEQUE, J. - CARON, H. Thermal and Electromagnetic Design of DC HTS Cables for the Future French Railway Network. In IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY. ISSN 1051-8223, AUG 2021, vol. 31, no. 5., Registrované v: WOS
- ADMB21 RÝGER, Ivan - VANKO, Gabriel - KUNZO, Pavol - LALINSKÝ, Tibor - VALLO, Martin - PLECENÍK, A. - SATRAPINSKY, L. - PLECENÍK, T. AlGaIn/GaN HEMT based hydrogen sensors with gate absorption layers formed by high temperature oxidation. In Procedia Engineering, 2012, vol. 47, p. 518-521. (2011: 0.237 - SJR). (2012 - SCOPUS, WOS). ISSN 1877-7058. Dostupné na: <https://doi.org/10.1016/j.proeng.2012.09.198>
- Citácie:

1. [1.1] AJAYAN, J. - NIRMAL, D. - RAMESH, R. - BHATTACHARYA, Sandip - TAYAL, Shubham - JOSEPH, L. M. I. Leo - THOUTAM, Laxman Raju - AJITHA, D. A critical review of AlGa<sub>N</sub>/Ga<sub>N</sub>-heterostructure based Schottky diode/HEMT hydrogen (H-2) sensors for aerospace and industrial applications. In MEASUREMENT, 2021, vol. 186, no., pp. ISSN 0263-2241. Dostupné na: <https://doi.org/10.1016/j.measurement.2021.110100>., Registrované v: WOS
  2. [1.1] PAL, Praveen - PRATAP, Yogesh - GUPTA, Mridula - KABRA, Sneha. Analytical Modeling and Simulation of AlGa<sub>N</sub>/Ga<sub>N</sub> MOS-HEMT for High Sensitive pH Sensor. In IEEE SENSORS JOURNAL, 2021, vol. 21, no. 12, pp. 12998-13005. ISSN 1530-437X. Dostupné na: <https://doi.org/10.1109/JSEN.2021.3069243>., Registrované v: WOS
  3. [1.1] UPADHYAY, Kavita T. - CHATTOPADHYAY, Manju K. Sensor applications based on AlGa<sub>N</sub>/Ga<sub>N</sub> heterostructures. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, 2021, vol. 263, no., pp. ISSN 0921-5107. Dostupné na: <https://doi.org/10.1016/j.mseb.2020.114849>., Registrované v: WOS
  4. [1.2] SHARMA, Niketa - GUPTA, Yogendra - SHARMA, Ashish - SHARMA, Harish. Thermal Modeling of the Ga<sub>N</sub> HEMT Device Using Decision Tree Machine Learning Technique. In Lecture Notes in Networks and Systems. ISSN 23673370, 2021-01-01, 204, pp. 13-20. Dostupné na: [https://doi.org/10.1007/978-981-16-1089-9\\_2](https://doi.org/10.1007/978-981-16-1089-9_2)., Registrované v: SCOPUS
- ADMB22 RÝGER, Ivan - VANKO, Gabriel - LALINSKÝ, Tibor - HAŠČÍK, Štefan - NEMEC, Pavol - BENČUROVÁ, Anna - TOMÁŠKA, M. The Ga<sub>N</sub>/SiC heterostructure-based hydrogen SAW sensor operating in GHz range. In Procedia Engineering, 2014, vol. 87, p. 260-263. (2013: 0.217 - SJR). (2014 - SCOPUS, WOS). ISSN 1877-7058. Dostupné na: <https://doi.org/10.1016/j.proeng.2014.11.657>  
Citácie:
1. [1.1] UPADHYAY, Kavita T. - CHATTOPADHYAY, Manju K. Sensor applications based on AlGa<sub>N</sub>/Ga<sub>N</sub> heterostructures. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS. ISSN 0921-5107, 2021, vol. 263, no., pp., Registrované v: WOS
- ADMB23 RÝGER, Ivan - VANKO, Gabriel - LALINSKÝ, Tibor - DZUBA, Jaroslav - VALLO, Martin - KUNZO, Pavol - VÁVRA, Ivo. Enhanced sensitivity of Pt/NiO gate based AlGa<sub>N</sub>/Ga<sub>N</sub> C-HEMT hydrogen sensor. In Key Engineering Materials, 2014, vol. 605, p. 491-494. (2013: 0.190 - SJR, Q3 - SJR). (2014 - SCOPUS). ISSN 1013-9826. Dostupné na: <https://doi.org/10.4028/www.scientific.net/KEM.605.491>  
Citácie:
1. [1.1] AJAYAN, J. - NIRMAL, D. - RAMESH, R. - BHATTACHARYA, Sandip - TAYAL, Shubham - JOSEPH, L. M. I. Leo - THOUTAM, Laxman Raju - AJITHA, D. A critical review of AlGa<sub>N</sub>/Ga<sub>N</sub>-heterostructure based Schottky diode/HEMT hydrogen (H-2) sensors for aerospace and industrial applications. In MEASUREMENT, 2021, vol. 186, no., pp. ISSN 0263-2241. Dostupné na: <https://doi.org/10.1016/j.measurement.2021.110100>., Registrované v: WOS
- ADMB24 SANZ, S. - ARLABAN, T. - MANZANAS, R. - TROPEANO, M - FUNKE, R. - KOVÁČ, Pavol - YANG, Y. - NEUMANN, H. - MONDESERT, B. Superconducting light generator for large offshore wind turbines. In Journal of Physics: Conference Series, 2014, vol. 507, 032040. (2013: 0.231 - SJR). (2014 - WOS, SCOPUS). ISSN 1742-6588. Dostupné na: <https://doi.org/10.1088/1742-6596/507/3/032040>  
Citácie:
1. [1.1] CAKAL, G. - KEYSAN, O. Axial flux generator with novel flat wire for direct-drive wind turbines. In IET RENEWABLE POWER GENERATION. ISSN

- 1752-1416, JAN 2021, vol. 15, no. 1, p. 139-152., Registrované v: WOS
2. [1.1] MAGNUSSON, N. - HELLESO, S.M. - MIKKONEN, R. - ABRAHAMSEN, A.B. - RUNDE, M. - BERG, G. - NYSVEEN, A. Testing of an MgB<sub>2</sub> coil for a wind turbine generator pole. In *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*. ISSN 0921-4534, AUG 15 2021, vol. 587., Registrované v: WOS
3. [1.1] ROSOVA, A. - MATKO, I. - DOBROCKA, E. BaZrO<sub>3</sub> dopant interactions during MgB<sub>2</sub> wire formation by modified internal magnesium diffusion process. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, FEB 2021, vol. 127, no. 2., Registrované v: WOS
4. [1.1] VARGAS-LLANOS, C.R. - LENGSELD, S. - NOE, M. - ARNDT, T. - GRILLI, F. Influence of Coil Position on AC Losses of Stator Superconducting Windings of a Synchronous Machine for a 10 MW Wind Turbine. In *IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY*. ISSN 1051-8223, OCT 2021, vol. 31, no. 7., Registrované v: WOS
- ADMB25 SASINKOVÁ, Vlasta - HURAN, Jozef - KLEINOVÁ, Angela - BOHÁČEK, Pavol - ARBET, Juraj - SEKÁČOVÁ, Mária. Raman spectroscopy study of SiC thin films prepared by PECVD for solar cell working in hard environment. In *Proceedings of the SPIE*, 2015, vol. 9563, 95630V. (2014: 0.237 - SJR). (2015 - SCOPUS, WOS). ISSN 0277-786X. Dostupné na: <https://doi.org/10.1117/12.2186749>
- Citácie:
1. [1.1] DE OBALDIA, Elida I. - ALCANTAR-PENA, Jesus J. - WITTEL, Frederick P. - VEYAN, Jean Francois - GALLARDO-HERNADEZ, Salvador - KOUDRIAVTSEV, Yury - BERMAN-MENDOZA, Dainet - AUCIELLO, Orlando. Study of Atomic Hydrogen Concentration in Grain Boundaries of Polycrystalline Diamond Thin Films. In *APPLIED SCIENCES-BASEL*, 2021, vol. 11, no. 9, pp. Dostupné na: <https://doi.org/10.3390/app11093990>., Registrované v: WOS
- ADMB26 ŠTRBÍK, Vladimír - BLAGOEV, B. - MATEEV, E. - NURGALIEV, T. Electrical transport in epitaxial and polycrystalline thin LSMO films. In *Journal of Physics: Conference Series*, 2014, vol. 514, 012042. (2013: 0.231 - SJR). (2014 - WOS, SCOPUS). ISSN 1742-6588. Dostupné na: <https://doi.org/10.1088/1742-6596/514/1/012042>
- Citácie:
1. [1.1] USPENSKAYA, L. S. Kinetics of Magnetization Reversal in Superconductor-Ferromagnet Heterostructures in Longitudinal and Perpendicular Magnetic Fields. In *JOURNAL OF SURFACE INVESTIGATION*. ISSN 1027-4510, 2021, vol. 15, no. 6, pp. 1159-1164. Dostupné na: <https://doi.org/10.1134/S1027451021060227>., Registrované v: WOS
- ADMB27 TVAROŽEK, V. - NOVOTNÝ, I. - ŠUTTA, P. - NETRVALOVÁ, M. - VÁVRA, Ivo - BRUNCKO, J. - GAŠPIERIK, P. - FLICKYNGEROVÁ, S. Oblique angle sputtering of ZnO: Ga thin films. In *Physics Procedia*, 2012, vol. 32, p. 456-463. (2011: 0.227 - SJR). (2012 - SCOPUS). ISSN 1875-3892. Dostupné na: <https://doi.org/10.1109/ASDAM.2012.6418515>
- Citácie:
1. [1.1] ANH TUAN THANH PHAM - OANH KIEU TRUONG LE - DUNG VAN HOANG - TRUONG HUU NGUYEN - TRANG HUYEN CAO PHAM - PHUONG THANH NGOC VO - THANG BACH PHAN - VINH CAO TRAN. Controlling thickness to tune performance of high-mobility transparent conducting films deposited from Ga-doped ZnO ceramic target. In *JOURNAL OF THE EUROPEAN CERAMIC SOCIETY*. ISSN 0955-2219, 2021, vol. 41, no. 6, pp. 3493-3500. Dostupné na: <https://doi.org/10.1016/j.jeurceramsoc.2021.01.029>., Registrované v: WOS
- ADMB28 VANKO, Gabriel - ZEHETNER, J. - CHOLEVA, P. - LALINSKÝ, Tibor -



HUDEK, Peter. Laser ablation: A supporting technique to micromachining of SiC. In ASDAM 2012 : conference proceedings. - Piscataway : IEEE, 2012, p. 259-262. ISBN 978-1-4673-1195-3. Dostupné na: <https://doi.org/10.1109/ASDAM.2012.6418518>

Citácie:

1. [1.2] WANG, Hongjian - YANG, Tao - LIAO, Runqian - SONG, Chang. *Research Progress on Laser Drilling of Silicon Carbide and Its Power Devices. In Bandaoti Guangdong/Semiconductor Optoelectronics. ISSN 10015868, 2021-08-01, 42, 4, pp. Dostupné na: <https://doi.org/10.16818/j.issn1001-5868.2021.04.002>, Registrované v: SCOPUS*

ADMB29 VANKO, Gabriel - DZUBA, Jaroslav - RÝGER, Ivan - VALLO, Martin - LALINSKÝ, Tibor. MEMS pressure sensor with an AlGaIn/GaN based high electron mobility transistor. In NSTI: Advanced Materials - TechConnect Briefs 2015 : 10th Annual TechConnect World Innovation Conference and Expo, Held Jointly with the 18th Annual Nanotech Conference and Expo, and the 2015 National SBIR/STTR Conference; Washington; United States; 14 June 2015. 4.Vol. - Taylor and Francis Inc., 2015, p. 290-293. ISBN 978-149874730-1.

Citácie:

1. [1.1] WANG, R.R. - GUO, H. - TANG, J. - LIU, J.P. - LIU, L.S. *Research on the Force-Sensitive Characteristic of InAs QD Embedded in HEMT. In MICROMACHINES. NOV 2021, vol. 12, no. 11, Registrované v: WOS*

ADMB30 ZÁPRAŽNÝ, Zdenko - KORYTÁR, Dušan - JERGEL, Matej - ŠIFFALOVÍČ, Peter - HALAHOVETS, Yuriy - KECKES, J. - MAŤKO, Igor - FERRARI, C. - VAGOVIČ, Patrik - MIKLOŠKA, M. Nano-machining for advanced x-ray crystal optics. In AIP Conference Proceedings, 2016, vol. 1764, art. no. 020005. (2015: 0.180 - SJR). (2016 - SCOPUS, WOS). ISSN 0094-243X. Dostupné na: <https://doi.org/10.1063/1.4961133>

Citácie:

1. [1.2] GOEL, Bhaskar - SINGH, Sehijpal - SAREPAKA, Rama Gopal V. - MISHRA, Vinod - KHATRI, Neha - AGGARWAL, Vivek - NAND, Keshva - KUMAR, Raj. *Diamond turning of optical materials: A review. In International Journal of Machining and Machinability of Materials, 2021-01-01, 23, 2, pp. 160-190. ISSN 17485711. Dostupné na: <https://doi.org/10.1504/IJMMM.2021.114016>, Registrované v: SCOPUS*

ADMB31 ZEHETNER, J. - VANKO, Gabriel - DZUBA, Jaroslav - RÝGER, Ivan - LALINSKÝ, Tibor - BENKLER, M. - LUCKI, M. Laser ablation for membrane processing of AlGaIn/GaN- and micro structured ferroelectric thin film MEMS and SiC pressure sensors for extreme conditions. In Proceedings of the SPIE, 2015, vol. 9517, 951721. (2014: 0.237 - SJR). (2015 - SCOPUS, WOS). ISSN 0277-786X. Dostupné na: <https://doi.org/10.1117/12.2179041>

Citácie:

1. [1.1] WANG, Lukang - ZHAO, You - YANG, Zixuan - ZHAO, Yulong - YANG, Xinwan - GONG, Taobo - LI, Cun. *Femtosecond laser micromachining in combination with ICP etching for 4H-SiC pressure sensor membranes. In CERAMICS INTERNATIONAL, 2021, vol. 47, no. 5, pp. 6397-6408. ISSN 0272-8842. Dostupné na: <https://doi.org/10.1016/j.ceramint.2020.10.220>, Registrované v: WOS*

#### ADNA Vedecké práce v domácich impaktovaných časopisoch registrovaných v databázach Web of Science alebo SCOPUS

ADNA01 KOVÁČ, Jaroslav - FLOROVÍČ, M. - VINCZE, A. - DOBROČKA, Edmund -



NOVOTNÝ, I. - MIKOLÁŠEK, M. - ŠKRINIAROVÁ, J.\*\*. Fabrication and characterization of Si/SiO<sub>2</sub>/TiO<sub>2</sub> /ZnO heterostructures from sputtered and oxidized Ti-film. In Journal of Electrical Engineering, 2017, vol. 68, iss. 7, p. 58-61. (2016: 0.483 - IF, Q4 - JCR, 0.311 - SJR, Q2 - SJR). (2017 - WOS, SCOPUS). ISSN 1335-3632. Dostupné na: <https://doi.org/10.1515/jee-2017-0057>

Citácie:

1. [1.1] KAVALIUNAS, V. - HATANAKA, Y. - NEO, Y. - LAUKAITIS, G. - MIMURA, H. Structural Design of TiO<sub>2</sub>/Si Hybrid Photoelectrode and Pt-Free Counter Photoelectrodes for Charge Carrier Separation in Water-Splitting Reactions. In ECS JOURNAL OF SOLID STATE SCIENCE AND TECHNOLOGY. ISSN 2162-8769, OCT 1 2021, vol. 10, no. 10., Registrované v: WOS

ADNA02 PERNÝ, M. - ŠÁLY, V.\*\* - JANÍČEK, František - MIKOLÁŠEK, M. - VÁRY, M. - HURAN, Jozef\*\*. Electric measurements of PV heterojunction structures a-SiC/c-Si. In Journal of Electrical Engineering, 2018, vol. 69, iss. 1, p. 52-57. (2017: 0.508 - IF, Q4 - JCR, 0.205 - SJR, Q3 - SJR). (2018 - SCOPUS, WOS). ISSN 1335-3632. Dostupné na: <https://doi.org/10.1515/jee-2018-0007>

Citácie:

1. [1.1] CIBIRA, Gabriel. Silicon Resistivity Behaviour. In ADVANCES IN ELECTRICAL AND ELECTRONIC ENGINEERING, 2021, vol. 19, no. 2, pp. 179-185. ISSN 1336-1376. Dostupné na: <https://doi.org/10.15598/aeer.v19i2.4140>., Registrované v: WOS

ADNA03 PERNÝ, M. - ŠÁLY, V. - VÁRY, M. - MIKOLÁŠEK, M. - HURAN, Jozef - PACKA, J. AC impedance spectroscopy of Al/a-SiC/c-Si(p)/Al heterostructure under illumination. In Journal of Electrical Engineering, 2014, vol. 65, p. 174-178. (2013: 0.420 - IF, Q4 - JCR, 0.187 - SJR, Q3 - SJR). (2014 - INSPEC, WOS, SCOPUS). ISSN 1335-3632. Dostupné na: <https://doi.org/10.2478/jee-2014-0027>

Citácie:

1. [1.1] CARMEN MEJIA, Maria del - SANCHEZ, Luis Francisco - KURNIAWAN, Mario - EGGERT, Lara - TEJADA, Alvaro - CAMARGO, Magali - GRIESELER, Rolf - RUMICHE, Francisco - DIAZ, Isabel - BUND, Andreas - GUERRA, Jorge Andres. Analysis of the physical and photoelectrochemical properties of c-Si(p)/a-SiC:H(p) photocathodes for solar water splitting. In JOURNAL OF PHYSICS D-APPLIED PHYSICS, 2021, vol. 54, no. 19, pp. ISSN 0022-3727. Dostupné na: <https://doi.org/10.1088/1361-6463/abdb69>., Registrované v: WOS

ADNA04 ŠTRBÍK, Vladimír - CHROMIK, Štefan. Characterization of electrical transport in LSMO with enhanced temperature of metal-insulator transition. In Journal of Electrical Engineering, 2012, vol. 63, p. 270-272. (2011: 0.370 - IF, Q4 - JCR, 0.160 - SJR, Q3 - SJR). (2012 - INSPEC, SCOPUS). ISSN 1335-3632. Dostupné na: <https://doi.org/10.2478/v10187-012-0039-1>

Citácie:

1. [1.1] GRECULEASA, Simona Gabriela - STANCIU, Anda-Elena - LECA, Aurel - KUNCSEK, Andrei - HRIB, Luminita - CHIRILA, Cristina - PASUK, Iuliana - KUNCSEK, Victor. Influence of Thickness on the Magnetic and Magnetotransport Properties of Epitaxial La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3</sub> Films Deposited on STO (001). In NANOMATERIALS, 2021, vol. 11, no. 12, pp. Dostupné na: <https://doi.org/10.3390/nano11123389>., Registrované v: WOS

**\*AEC Vedecké práce v zahraničných recenzovaných vedeckých zborníkoch, monografiách**

AEC01 FRÖHLICH, Karol - HUŠEKOVÁ, Kristína - MACHAJDÍK, Daniel - LUPTÁK,

Roman - ĽAPAJNA, Milan - HOOKER, J.C. Growth and properties of ruthenium based metal gates for pMOS devices. In ASDAM 2004 : conference proceeding of the Fifth International Conference on Advanced Semiconductor Devices and Microsystems. Smolenice Castle, Slovakia October 17-21, 2004. - Piscataway : IEEE, 2004, s. 193-166. ISBN 0-7803-8535-7.

Citácie:

1. [1.1] HAYES, M. - JENKINS, M.A. - WOODRUFF, J. - MOSER, D.F. - DEZELAH, C.L. - CONLEY, J.F. Improved properties of atomic layer deposited ruthenium via postdeposition annealing. In JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A. ISSN 0734-2101, SEP 2021, vol. 39, no. 5., Registrované v: WOS

AEC02 KORDOŠ, Peter - ALAM, A. - BETKO, Július - CHOW, P.P. - HEUKEN, M. - JAVORKA, P. - KOCAN, M. - MARSO, M. - MORVIC, Marian - HOVE, J. M. van. Material and device issues of GaN-based HEMTs. In EDMO 2000 : 8th IEEE International Symposium on High Performance Electron Devices for Microwave and Optoelectronic Applications. - New York : IEEE PRESS, 2000, p. 61-66. ISBN 0-7803-6550-X. Dostupné na internete: <https://doi.org/10.1109/EDMO.2000.919030>

Citácie:

1. [1.1] SINGH, R. - LENKA, T.R. - NGUYEN, H.P.T. ANALYTICAL STUDY OF EFFECT OF ENERGY BAND PARAMETERS AND LATTICE TEMPERATURE ON CONDUCTION BAND OFFSET IN AlN/Ga<sub>2</sub>O<sub>3</sub> HEMT. In FACTA UNIVERSITATIS-SERIES ELECTRONICS AND ENERGETICS. ISSN 0353-3670, SEP 2021, vol. 34, no. 3, p. 323-332., Registrované v: WOS

AEC03 KUZMÍK, Ján - BLAHO, M. - POGANY, D. - GORNIK, E. - ALAM, A. - DIKME, Y. - HEUKEN, M. - JAVORKA, P. - MARSO, M. - KORDOŠ, Peter. Backgating, high-current and breakdown characterisation of AlGa<sub>N</sub>/Ga<sub>N</sub> HEMTs on silicon substrates. In ESSDERC 2003 : 33rd European Solid-State Device Research Conference. - Estoril, 2003, p. 319-321.

Citácie:

1. [1.1] DUB, M. - SAI, P. - SAKOWICZ, M. - JANICKI, L. - BUT, D.B. - PRYSTAWKO, P. - CYWINSKI, G. - KNAP, W. - RUMYANTSEV, S. Double-Quantum-Well AlGa<sub>N</sub>/Ga<sub>N</sub> Field Effect Transistors with Top and Back Gates: Electrical and Noise Characteristics. In MICROMACHINES. JUN 2021, vol. 12, no. 6., Registrované v: WOS

2. [1.1] JARNDAL, A. - ALIM, M.A. - RAFFO, A. - CRUPI, G. 2-mm-gate-periphery Ga<sub>N</sub> high electron mobility transistors on SiC and Si substrates: A comparative analysis from a small-signal standpoint. In INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING. ISSN 1096-4290, JUN 2021, vol. 31, no. 6., Registrované v: WOS

AEC04 STUHLÍKOVÁ, Ľ. - ŠEBOK, J. - RYBÁR, J. - PETRUS, M. - NEMEC, M. - HARMATHA, L. - BENKOVSKÁ, J. - KOVÁČ, Ján - ŠKRINIAROVÁ, J. - LALINSKÝ, Tibor - PASKIEWICZ, R. - TLACZALA, M. Investigation of deep energy levels in heterostructures based on Ga<sub>N</sub> by DLTS. In ASDAM 2010 : proceedings of the 8th International Conference on Advanced Semiconductor Devices and Microsystems. Eds. J. Breza, D. Donoval and E. Vavrinský. - Piscataway : IEEE, 2010, p. 135-138. ISBN 978-1-4244-8572-7.

Citácie:

1. [1.1] MENEGHINI, M. - DE SANTI, C. - ABID, I. - BUFFOLO, M. - CIONI, M. - KHADAR, R.A. - NELA, L. - ZAGNI, N. - CHINI, A. - MEDJDOUB, F. - MENEGHESSO, G. - VERZELLES, G. - ZANONI, E. - MATIOLI, E. Ga<sub>N</sub>-based power devices: Physics, reliability, and perspectives. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, NOV 8 2021, vol. 130, no. 18., Registrované v: WOS

2. [1.1] *PUTCHA, V. - CHENG, L. - ALIAN, A. - ZHAO, M. - LU, H. - PARVAIS, B. - WALDRON, N. - LINTEN, D. - COLLAERT, N. On the impact of buffer and GaN-channel thickness on current dispersion for GaN-on-Si RF/mmWave devices. In 2021 IEEE INTERNATIONAL RELIABILITY PHYSICS SYMPOSIUM (IRPS). ISSN 1541-7026, 2021., Registrované v: WOS*
3. [1.1] *REMESH, N. - CHANDRASEKAR, H. - VENUGOPALRAO, A. - RAGHAVAN, S. - RANGARAJAN, M. - NATH, D.N. Re-engineering transition layers in AlGaIn/GaN HEMT on Si for high voltage applications. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, AUG 21 2021, vol. 130, no. 7., Registrované v: WOS*

**\*AEE Vedecké práce v zahraničných nerecenzovaných vedeckých zborníkoch, monografiách**

- AEE01 KUZMÍK, Ján - JAVORKA, P. - ALAM, A. - MARSO, M. - HEUKEN, M. - KORDOŠ, Peter. Investigation of self-heating effects in AlGaIn/GaN HEMTs. In EDMO 2001 : International Symposium on Electron Devices for Microwave and Optoelectronic Applications. - Vienna : Technical University of Vienna, 2001, p. 21.  
Citácie:  
1. [1.1] *CHOWDHURY, A. - ALIM, M.A. - ISLAM, S. - GAQUIERE, C. Estimation of channel temperature and thermal sensitivity for a 0.15  $\mu$ m GaN HEMT. In MICROELECTRONIC ENGINEERING. ISSN 0167-9317, JUL 15 2021, vol. 247., Registrované v: WOS*

**AFC Publikované príspevky na zahraničných vedeckých konferenciách**

- AFC01 DZUBA, Jaroslav - VANKO, Gabriel - RÝGER, Ivan - VALLO, Martin - KUTIŠ, V. - LALINSKÝ, Tibor. Influence of temperature on the sensitivity of the AlGaIn/GaN C HEMT based piezoelectric pressure sensor. In ASDAM 2014 : The 10th International Conference on Advanced Semiconductor Devices and Microsystems. Eds. J. Breza, D. Donoval, and E. Vavrinsky. - IEEE, 2014, p. 5-8. ISBN 978-1-4799-5474-2.  
Citácie:  
1. [1.1] *UPADHYAY, Kavita T. - CHATTOPADHYAY, Manju K. Sensor applications based on AlGaIn/GaN heterostructures. In MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, 2021, vol. 263, no., pp. ISSN 0921-5107. Dostupné na: <https://doi.org/10.1016/j.mseb.2020.114849>., Registrované v: WOS*
- AFC02 KÓSA, A. - BENKOVSKÁ, J. - STUHLÍKOVÁ, Ľ. - BÚC, D. - DUBECKÝ, František - HARMATHA, L. Radiation hardness of 4H-SiC structures. In ASDAM 2014 : The 10th International Conference on Advanced Semiconductor Devices and Microsystems. Eds. J. Breza, D. Donoval, and E. Vavrinsky. - IEEE, 2014, p. 41-44. ISBN 978-1-4799-5474-2.  
Citácie:  
1. [1.2] *HASBULLAH, Nurul Fadzlin - KHAIRI, Mohamad Azim Mohd - ABDULLAH, Yusof. Response of electron-irradiated silicon carbide schottky power diodes at elevated temperature. In International Journal of Power Electronics, 2021-01-01, 14, 2, pp. 143-155. ISSN 1756638X. Dostupné na: <https://doi.org/10.1504/IJPELEC.2021.117062>., Registrované v: SCOPUS*
- AFC03 LOBOTKA, Peter - RADNÓCZI, G. - CZIGÁNY, Zs. - VÁVRA, Ivo - DRŽÍK, Milan - MICUŠÍK, Matej - DOBROČKA, Edmund - KUNZO, Pavol. Preparation of nickel, nickel-iron, and silver-copper nanoparticles in ionic liquids. In Proceedings of the 17th International Conferece on Solid-State Sensors, Actuators and

Microsystems : Transducers 2013 & Eurosensors XXVII. - IEEE, 2013, p. 2021-2024. ISBN 978-1-4673-5981-8. Dostupné na:  
<https://doi.org/10.1109/Transducers.2013.6627194>

Citácie:

1. [1.2] ABDULHADI, Omar O. - RAHMMAN, Ibrahim A.A.A. - OBAID, A. S. *Synthesis and characterization of nickel nanoparticles formed by solution cold plasma jet. In Journal of Physics: Conference Series, 2021-12-30, 2114, 1, pp. ISSN 17426588. Dostupné na: <https://doi.org/10.1088/1742-6596/2114/1/012083>., Registrované v: SCOPUS*

AFC04

LUBY, Štefan - JERSEL, Matej - HOFBAUEROVÁ, Monika, Benkovičová - ŠIFFALOVICH, Peter - IVANČO, Ján - VÉGSO, Karol - MAJKOVÁ, Eva - RELLA, R. - MANERA, M.G. - CAPONE, S. - VÁVRA, Ivo. Sensitivity and long term stability of  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub> and CoFe<sub>2</sub>O<sub>4</sub> nanoparticle gas sensors for NO<sub>2</sub>, CO and acetone sensing - a comparative study. In ASDAM 2014 : The 10th International Conference on Advanced Semiconductor Devices and Microsystems. Eds. J. Breza, D. Donoval, and E. Vavrinsky. - IEEE, 2014, p. 251-254. ISBN 978-1-4799-5474-2.

Citácie:

1. [1.1] OU, X.M. - CHEN, K.A. - WEI, L.Q. - DENG, Y.Q. - LI, J. - LI, B. - DONG, L.H. *Effect of Co Doping on Magnetic and CO-SCR Properties of gamma-Fe<sub>2</sub>O<sub>3</sub>. In INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH. ISSN 0888-5885, APR 28 2021, vol. 60, no. 16, p. 5744-5757., Registrované v: WOS*

AFC05

MIKOLÁŠEK, M. - RACKO, J. - ŘEHÁČEK, V. - HARMATHA, L. - ĽAPAJNA, Milan - FRÖHLICH, Karol. Silicon based metal-insulator-semiconductor structures for photoelectrochemical solar fuel generation. In ASDAM 2016 : the 11th International Conference on Advanced Semiconductor Devices and Microsystems. Eds. Š. Haščík, J. Dzuba, G. Vanko. - IEEE, 2016, p. 45-48. ISBN 978-1-5090-3081-1.

Citácie:

1. [1.1] GROSMAN, A. - LEVY, H.M. - SARSUI, G. *The role of traps in dark current and photocurrent of chemical bath deposition grown nano-domains PbS/GaAs heterojunction layers. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, JUN 7 2021, vol. 129, no. 21., Registrované v: WOS*

AFC06

MIKULICS, M. - ZHANG, J. - SOBOLEWSKI, R. - ADAM, Roman - JUUL, L. - MARSO, M. - WINDEN, A. - HARTDEGEN, H. - GRÜTZMACHER, D. - KORDOŠ, Peter. GaAs nanowhiskers for femtosecond photodetectors and THz emitters. In ASDAM 2012 : conference proceedings. Eds. Š. Haščík, J. Osvald. - Piscataway : IEEE, 2012, p. 71-74. ISBN 978-1-4673-1195-3.

Citácie:

1. [1.1] EMELYANOV, E. A. - NASTOVJAK, A. G. - PETRUSHKOV, M. O. - ESIN, M. Yu. - GAVRILOVA, T. A. - PUTYATO, M. A. - SCHWARTZ, N. L. - SHVETS, V. A. - VASEV, A. V. - SEMYAGIN, B. R. - PREOBRAZHENSKII, V. V. *A Mask Based on a Si Epitaxial Layer for the Self-Catalytic Nanowire Growth on GaAs(111)B and GaAs(100) Substrates. In TECHNICAL PHYSICS LETTERS. ISSN 1063-7850, 2020, vol. 46, no. 2, pp. 161-164. Dostupné na: <https://doi.org/10.1134/S1063785020020194>., Registrované v: WOS*

AFC07

MITRÓOVÁ, Zuzana - TOMAŠOVIČOVÁ, Natália - LANCZ, Gábor - KOVÁČ, Jozef - VÁVRA, Ivo - KOPČANSKÝ, Peter. Preparation and characterization of carbon nanotubes functionalized by magnetite nanoparticles. In NANOCON 2010: 2nd international conference, October 12th - 14th 2010, Olomouc, Czech Republic : conference proceedings. - Ostrava : TANGER Ltd., 2010, p. 388-392. ISBN 978-80-87294-19-2. (NANOCON 2010 : International Conference)



**Citácie:**

1. [1.1] ADEWOYE, T.L. - OGUNLEYE, O.O. - ABDULKAREEM, A.S. - SALAWUDEEN, T.O. - TIJANI, J.O. Optimization of the adsorption of total organic carbon from produced water using functionalized multi-walled carbon nanotubes. In *HELIYON*. JAN 2021, vol. 7, no. 1., Registrované v: WOS
2. [1.1] MOHAMMAD, E.J. - KAREEM, M.M. - LAFTA, A.J.A. Preparation of MWCNTS/Cr<sub>2</sub>O<sub>3</sub>-NiO Nanocomposite for Adsorption and Photocatalytic Removal of Bismarck Brown G Dye from Aqueous Solution. In *INDONESIAN JOURNAL OF CHEMISTRY*. ISSN 1411-9420, JUN 2020, vol. 20, no. 3, p. 554-566., Registrované v: WOS
3. [1.1] MONTAZER, E. - SHAFII, M.B. - SALAMI, E. - MUHAMAD, M.R. - YARMAND, H. - GHAREHKHANI, S. - CHOWDHURY, Z.Z. - KAZI, S.N. - BADARUDIN, A. Heat transfer in turbulent nanofluids: Separation flow studies and development of novel correlations. In *ADVANCED POWDER TECHNOLOGY*. ISSN 0921-8831, AUG 2020, vol. 31, no. 8, p. 3120-3133., Registrované v: WOS
4. [1.1] SHTAIWI, M.H. - TAHBOUB, D.M. - EL-SHEIKH, A.H. - AL-HASHIMI, N.N. Magnetic solid-phase extraction of metal ions: Comparison of adding Schiff base to the extraction medium vs. magnetite modification with Schiff base. In *JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING*. APR 2020, vol. 8, no. 2., Registrované v: WOS

AFC08

VALIK, L. - ĽAPAJNA, Milan - GUCMANN, Filip - FEDOR, Ján - ŠIFFALOVÍČ, Peter - FRÖHLICH, Karol. Distribution of fixed charge in MOS structures with ALD grown Al<sub>2</sub>O<sub>3</sub> studied by capacitance measurements. In *ASDAM 2012 : conference proceedings*. Eds. Š. Haščík, J. Osvald. - Piscataway : IEEE, 2012, p. 227-230. ISBN 978-1-4673-1195-3.

**Citácie:**

1. [1.1] ZHAO, S. - YUAN, G.D. - ZHANG, D. - XU, P.F. - LI, G.Z. - HAN, W.H. Formation and elimination mechanism of thermal blistering in Al<sub>2</sub>O<sub>3</sub>/Si system. In *JOURNAL OF MATERIALS SCIENCE*. ISSN 0022-2461, NOV 2021, vol. 56, no. 31, p. 17478-17489., Registrované v: WOS

**AFD Publikované príspevky na domácich vedeckých konferenciách**

AFD01

OSVALD, Jozef. Interface electron traps and capacitance characteristics of AlGaIn/GaN. In *APCOM 2012 : proceedings on Applied Physics of Condensed Matter of the 18th International Conference*. Eds. J. Vajda, I. Jamnický. - Bratislava : Slovenská technická univerzita v Bratislave, 2012, p. 121-124. ISBN 978-80-227-3720-3.

**Citácie:**

1. [1.1] SONG, Y.L. - REDDY, M.K. - CHANG, L.M. - SHEU, G. Physics-Based TCAD Simulation and Calibration of 600 V GaN/AlGaIn/GaN Device Characteristics and Analysis of Interface Traps. In *MICROMACHINES*. JUL 2021, vol. 12, no. 7., Registrované v: WOS

AFD02

SEDLÁČKOVÁ, K. - ZÁTKO, Bohumír - ŠAGÁTOVÁ, A. - NEČAS, V. The effect of the LiF film topology on detection properties of thermal neutron semiconductor detectors. In *APCOM 2017 : proceedings of the 23th International Conference on Applied Physics of Condensed Matter*, June 12-14, 2017, Štrbské Pleso, Slovak Republic. Eds. J. Vajda and I. Jamnický. - Bratislava : SPEKTRUM STU, 2017, p. 125-129. ISBN 978-80-227-4699-1.

**Citácie:**

1. [1.1] BERNAT, R. - BAKRAC, L. - RADULOVIC, V. - SNOJ, L. - MAKINO, T. -



*OHSIMA, T. - PASTUOVIC, Z. - CAPAN, I. 4H-SiC Schottky Barrier Diodes for Efficient Thermal Neutron Detection. In MATERIALS. SEP 2021, vol. 14, no. 17., Registrované v: WOS*

- AFD03 ĽAPAJNA, Milan - VINCZE, A. - NOGA, Pavol - DOBROVODSKÝ, Jozef - ŠAGÁTOVÁ, A. - HASENÖHRL, Stanislav - GREGUŠOVÁ, Dagmar - KUZMÍK, Ján. Determination of secondary-ions yield in SIMS depth profiling of Si, Mg, and C ions implanted GaN epitaxial layers. In ASDAM 2018 : The Twelfth International Conference on Advanced Semiconductor Devices and Microsystems. Editors: J. Breza, D. Donoval, E. Vavrinsky. - IEEE, 2018, p. 141-144. ISBN 978-1-5386-7488-8. Dostupné na: <https://doi.org/10.1109/ASDAM.2018.8544657> (VEGA 2/0012/18)

Citácie:

1. [1.1] *HAJEK, F. - HOSPODKOVA, A. - HUBACEK, T. - OSWALD, J. - PANGRAC, J. - DOMINEC, F. - HORESOVSKY, R. - KULDOVA, K. Depth profile of acceptor concentration in InGaN/GaN multiple quantum wells. In JOURNAL OF LUMINESCENCE. ISSN 0022-2313, AUG 2021, vol. 236., Registrované v: WOS*

#### AFK Postery zo zahraničných konferencií

- AFK01 SOLOVYOV, Mykola - GÖMÖRY, Fedor - ŠOUC, Ján - MIKULÁŠOVÁ, Edita - UŠÁKOVÁ, M. - UŠÁK, E. Force acting on a magnetic cloak placed in magnetic field (EUCAS 2017)

Citácie:

1. [1.1] *ALEKSEEV, G.V. - SPIVAK, Y.E. Optimization-Based Numerical Analysis of Three-Dimensional Magnetic Cloaking Problems. In COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS. ISSN 0965-5425, FEB 2021, vol. 61, no. 2, p. 212-225., Registrované v: WOS*

- AFK02 STAINES, M. - YAZDANI ASRAMIA, M. - GLASSON, N. - ALLPRESS, N. - JOLLIFFE, L. - PARDO, Enric. Cooling systems for HTS transformers: impact of cost, overload, and fault current performance expectations (European Cryogenics Days 2017 and the 2nd International Workshop on Cooling Systems for HTS Applications (IWC-HTS) : Karlsruhe 2017)

Citácie:

1. [1.1] *SONG, W.J. - PEI, X.Z. - XI, J.W. - ZENG, X.W. A Novel Helical Superconducting Fault Current Limiter for Electric Propulsion Aircraft. In IEEE TRANSACTIONS ON TRANSPORTATION ELECTRIFICATION. ISSN 2332-7782, MAR 2021, vol. 7, no. 1, p. 276-286., Registrované v: WOS*

#### GII Rôzne publikácie a dokumenty, ktoré nemožno zaradiť do žiadnej z predchádzajúcich kategórií

- GII01 AINSLIE, M.D.\*\* - GRILLI, F. - QUEVAL, L. - PARDO, Enric - PEREZ-MENDEZ, F. - MATAIRA, R. - MORANDI, A. - GHABELI, Asef - BUMBY, C. - BRAMBILLA, R. A new benchmark problem for electromagnetic modelling of superconductors: the high-Tc superconducting dynamo (2020 Supercond. Sci. Technol. 33 105009) : Corrigendum. In Superconductor Science and Technology, 2021, vol. 34, no. 029502. (2020: 3.219 - IF, Q2 - JCR, 1.033 - SJR, Q1 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0953-2048. Dostupné na: <https://doi.org/10.1088/1361-6668/abd522>

Citácie:

1. [1.1] *PRIGOZHIN, L. - SOKOLOVSKY, V. Fast solution of the superconducting dynamo*

*benchmark problem. In SUPERCONDUCTOR SCIENCE & TECHNOLOGY. ISSN 0953-2048, JUN 2021, vol. 34, no. 6., Registrované v: WOS*

## **Príloha D**

### **Údaje o pedagogickej činnosti organizácie**

#### Semestrálne prednášky:

doc. Ing. Fedor Gömöry, DrSc.

Názov semestr. predmetu: Elektromagnetické prvky a systémy

Počet hodín za semester: 4

Názov katedry a vysokej školy: Fakulta elektrotechniky a informatiky STU, Ústav elektrotechniky

Ing. Ján Šoltýs, PhD

Názov semestr. predmetu: Nanotechnológie

Počet hodín za semester: 4

Názov katedry a vysokej školy: Fakulta elektrotechniky a informatiky STU, ÚJFI

#### Semestrálne cvičenia:

Ing. Lubomír Frolek

Názov semestr. predmetu: Elektromagnetické prvky a systémy

Počet hodín za semester: 4

Názov katedry a vysokej školy: Fakulta elektrotechniky a informatiky STU, Ústav elektrotechniky

RNDr. Dagmar Gregušová, DrSc.

Názov semestr. predmetu: Praktikum Fyziky tuhých látok

Počet hodín za semester: 20

Názov katedry a vysokej školy: Fakulta matematiky, fyziky a informatiky UK, Katedra experimentálnej fyziky

Ing. Tomáš Kujovič, PhD.

Názov semestr. predmetu: Elektromagnetické prvky a systémy

Počet hodín za semester: 4

Názov katedry a vysokej školy: Fakulta elektrotechniky a informatiky STU, Ústav elektrotechniky

Ing. Marek Mošat', PhD.

Názov semestr. predmetu: Elektromagnetické prvky a systémy

Počet hodín za semester: 4

Názov katedry a vysokej školy: Fakulta elektrotechniky a informatiky STU, Ústav elektrotechniky

Mgr. Mykola Soloviov, PhD.

Názov semestr. predmetu: Elektromagnetické prvky a systémy

Počet hodín za semester: 4

Názov katedry a vysokej školy: Fakulta elektrotechniky a informatiky STU, Ústav elektrotechniky

Ing. Ján Šoltýs, PhD

Názov semestr. predmetu: Nanotechnológie

Počet hodín za semester: 4

Názov katedry a vysokej školy: Fakulta elektrotechniky a informatiky STU, ÚJFI

**Príloha E****Medzinárodná mobilita organizácie****(A) Vyslanie vedeckých pracovníkov do zahraničia na základe dohôd:**

| Krajina    | D r u h d o h o d y |           |                 |           |                              |           |
|------------|---------------------|-----------|-----------------|-----------|------------------------------|-----------|
|            | MAD, KD, VTS        |           | Medziústavná    |           | Ostatné                      |           |
|            | Meno pracovníka     | Počet dní | Meno pracovníka | Počet dní | Meno pracovníka              | Počet dní |
| Bulharsko  |                     |           |                 |           | Milan<br>Ťapajna             | 3         |
| Česko      |                     |           |                 |           | Martin<br>Hulman             | 1         |
|            |                     |           |                 |           | Tibor Izsák                  | 5         |
|            |                     |           |                 |           | Lenka<br>Pribusová<br>Slušná | 2         |
|            |                     |           |                 |           | Viera<br>Skákalová           | 3         |
|            |                     |           |                 |           | Ján Šoltýs                   | 1         |
|            |                     |           |                 |           | Jaroslav<br>Tóbik            | 1         |
|            |                     |           |                 |           | Gabriel<br>Vanko             | 5         |
|            |                     |           |                 |           | Marian<br>Varga              | 9         |
|            |                     |           |                 |           | Marian<br>Varga              | 10        |
|            |                     |           |                 |           | Marian<br>Varga              | 6         |
|            |                     |           |                 |           | Tatiana<br>Vojteková         | 2         |
|            |                     |           |                 |           | Bohumír<br>Zaťko             | 3         |
|            |                     |           |                 |           | Bohumír<br>Zaťko             | 4         |
| Dánsko     |                     |           |                 |           | Boris Hudec                  | 5         |
|            |                     |           |                 |           | Marián<br>Precner            | 5         |
| Francúzsko |                     |           |                 |           | Anang<br>Dadhich             | 3         |
|            |                     |           |                 |           | Michal<br>Mruczkiewicz       | 2         |
|            |                     |           |                 |           | Enric Pardo                  | 3         |
|            |                     |           |                 |           | Viera<br>Skákalová           | 5         |
|            |                     |           |                 |           | Arpit Kumar<br>Srivastava    | 3         |
| Holandsko  |                     |           |                 |           | Eugen Seiler                 | 9         |
| Nemecko    |                     |           |                 |           | Fedor                        | 3         |

|             |                   |   |  |  |                             |    |
|-------------|-------------------|---|--|--|-----------------------------|----|
|             |                   |   |  |  | Gömöry                      |    |
|             |                   |   |  |  | Fedor<br>Gömöry             | 7  |
|             |                   |   |  |  | Fedor<br>Gömöry             | 6  |
|             |                   |   |  |  | Boris Hudec                 | 3  |
|             |                   |   |  |  | Pavol Kováč                 | 7  |
|             |                   |   |  |  | Tomáš<br>Kujovič            | 3  |
|             |                   |   |  |  | Tomáš<br>Kujovič            | 6  |
|             |                   |   |  |  | Marek<br>Mošať              | 3  |
|             |                   |   |  |  | Marek<br>Mošať              | 6  |
|             |                   |   |  |  | Enric Pardo                 | 1  |
|             |                   |   |  |  | Rastislav<br>Ries           | 3  |
|             |                   |   |  |  | Arpit Kumar<br>Srivastava   | 1  |
| Nórsko      |                   |   |  |  | Peter Hutár                 | 15 |
| Poľsko      | Štefan<br>Chromik | 5 |  |  | Michał<br>Mruczkiewicz<br>z | 13 |
|             |                   |   |  |  | Michał<br>Mruczkiewicz<br>z | 11 |
| Rakúsko     |                   |   |  |  | Martin<br>Hulman            | 3  |
|             |                   |   |  |  | Tibor Izsák                 | 5  |
|             |                   |   |  |  | Michaela<br>Sojková         | 5  |
|             |                   |   |  |  | Gabriel<br>Vanko            | 5  |
|             |                   |   |  |  | Tatiana<br>Vojteková        | 3  |
| Srbsko      |                   |   |  |  | Martin<br>Hulman            | 2  |
| Švajčiarsko |                   |   |  |  | Fedor<br>Gömöry             | 5  |
|             |                   |   |  |  | Arif Hussain                | 6  |
|             |                   |   |  |  | Michał<br>Mruczkiewicz<br>z | 5  |
|             |                   |   |  |  | Eugen Seiler                | 6  |
| Taliansko   |                   |   |  |  | Jana Hrdá                   | 4  |
|             |                   |   |  |  | Jana Hrdá                   | 4  |
|             |                   |   |  |  | Martin<br>Hulman            | 5  |
|             |                   |   |  |  | Martin<br>Hulman            | 3  |



|                            |          |          |  |  |                   |            |
|----------------------------|----------|----------|--|--|-------------------|------------|
|                            |          |          |  |  | Martin Hulman     | 10         |
|                            |          |          |  |  | Štefan Chromik    | 3          |
|                            |          |          |  |  | Peter Kotrusz     | 9          |
|                            |          |          |  |  | Peter Nádaždy     | 10         |
|                            |          |          |  |  | Viera Skákalová   | 9          |
|                            |          |          |  |  | Michaela Sojková  | 5          |
|                            |          |          |  |  | Michaela Sojková  | 4          |
|                            |          |          |  |  | Marianna Španková | 3          |
|                            |          |          |  |  | Tatiana Vojteková | 4          |
| USA                        |          |          |  |  | Ján Fedor         | 30         |
| <b>Počet vyslaní spolu</b> | <b>1</b> | <b>5</b> |  |  | <b>61</b>         | <b>326</b> |

**(B) Prijatie vedeckých pracovníkov zo zahraničia na základe dohôd:**

| Krajina                    | D r u h d o h o d y |           |                 |           |                 |           |
|----------------------------|---------------------|-----------|-----------------|-----------|-----------------|-----------|
|                            | MAD, KD, VTS        |           | Medziústavná    |           | Ostatné         |           |
|                            | Meno pracovníka     | Počet dní | Meno pracovníka | Počet dní | Meno pracovníka | Počet dní |
| Nemecko                    |                     |           |                 |           | Winkler T.      | 3         |
| Poľsko                     | Gierlowski P.       | 6         |                 |           |                 |           |
|                            | Zajcewa I.          | 6         |                 |           |                 |           |
| Rakúsko                    |                     |           |                 |           | Zaoli Z.        | 2         |
| Srbsko                     |                     |           |                 |           | Damnjanovic M.  | 2         |
| <b>Počet prijatí spolu</b> | <b>2</b>            | <b>12</b> |                 |           | <b>3</b>        | <b>7</b>  |

**(C) Účast' pracovníkov pracoviska na konferenciách v zahraničí (nezahrnutých v "A"):**

| Krajina           | Názov konferencie     | Meno pracovníka  | Počet dní |
|-------------------|-----------------------|------------------|-----------|
| Belgicko          | ALD 2022              | Boris Hudec      | 4         |
| Česko             | NANOCON 2022          | Tibor Izsák      | 4         |
|                   |                       | Marian Varga     | 4         |
| Dánsko            | MDE                   | Ondrej Pohorelec | 4         |
| Francúzsko        | IWED 2022             | Viera Skákalová  | 5         |
| Japonsko          | TWHM 2022             | Ján Kuzmík       | 10        |
| Japonsko (online) | ISS 2022              | Anang Dadhich    | 2         |
|                   |                       | Enric Pardo      | 2         |
|                   | TTC2022 Meeting       | Rastislav Ries   | 3         |
| Nemecko           | GW                    | Michaela Sojková | 6         |
|                   | HTS4Fusion & MEM 2022 | Marek Búran      | 7         |

|                   |                                           |                        |            |
|-------------------|-------------------------------------------|------------------------|------------|
|                   |                                           | Fedor Gömöry           | 7          |
|                   |                                           | Pavol Kováč            | 7          |
|                   |                                           | Rastislav Ries         | 7          |
|                   |                                           | Mykola Soloviov        | 7          |
|                   | IWN 2022                                  | Michal Blaho           | 6          |
|                   |                                           | Dagmar Gregušová       | 6          |
|                   |                                           | Ján Kuzmík             | 6          |
|                   |                                           | Ondrej Pohorelec       | 6          |
|                   |                                           | Peter Šichman          | 6          |
| Poľsko            | e-MRS                                     | Filip Gucmann          | 5          |
|                   |                                           | Roman Stoklas          | 5          |
|                   |                                           | Milan Ťapajna          | 5          |
|                   |                                           | Gabriel Vanko          | 5          |
|                   | e-MRS 2022                                | Jana Hrdá              | 5          |
|                   | IEEE NAP 2022                             | Juraj Feilhauer        | 6          |
|                   | JEMS 2022                                 | Iuliia Vetrova         | 6          |
| Portugalsko       | IASM                                      | Konstantin Bublikov    | 5          |
|                   | WOCSDICE                                  | Filip Gucmann          | 6          |
|                   |                                           | Jozef Novák            | 6          |
| Španielsko        | NANO 2022                                 | Viera Skákalová        | 5          |
|                   | SSM                                       | Ján Šoltýs             | 5          |
| Švajčiarsko       | EWEG                                      | Martin Hulman          | 5          |
|                   |                                           | Lenka Pribusová Slušná | 5          |
|                   |                                           | Tatiana Vojteková      | 5          |
| Taliansko         | CIMTEC 2022                               | Fedor Gömöry           | 5          |
|                   | IEEE NSS                                  | Bohumír Zaťko          | 7          |
|                   | iWoRiD                                    | Norbert Gál            | 6          |
|                   |                                           | Bohumír Zaťko          | 6          |
| Ukrajina (online) | In IEEE 2nd Ukrainian Microwave Week 2022 | Tetiana Kalmykova      | 2          |
| USA               | ASC 2022                                  | Anang Dadhich          | 11         |
|                   |                                           | Fedor Gömöry           | 11         |
|                   |                                           | Tomáš Kujovič          | 11         |
|                   |                                           | Marek Mošat'           | 11         |
|                   |                                           | Rastislav Ries         | 11         |
| Veľká Británia    | EFATS                                     | Enric Pardo            | 2          |
| <b>Spolu</b>      | <b>25</b>                                 | <b>46</b>              | <b>271</b> |

Vysvetlivky: MAD - medziakademické dohody, KD - kultúrne dohody, VTS - vedecko-technická spolupráca v rámci vládnych dohôd

#### Skratky použité v tabuľke C:

ALD 2022 - 22st International Conference on Atomic Layer Deposition

ASC 2022 - Applied Superconductivity Conference 2022

CIMTEC 2022 - 15th International Conference on Modern Materials and Technologies

e-MRS - 20th E-MRS Fall Meeting 2022

e-MRS 2022 - 20th E-MRS Fall Meeting 2022

EFATS - 2nd International Conference on Emissions Free Air Transport through Superconductivity

EWEG - 5th European Workshop on Epitaxial Graphene and 2D Materials

GW - Graphene Week 2022

HTS4Fusion & MEM 2022 - 5th HTS4Fusion Conductor Workshop & 10th MEM Mechanical & Electromagnetic Properties of Composite Superconductors

IASM - 4th International Advanced School on Magnonics  
IEEE NAP 2022 - IEEE 12th International Conference "Nanomaterials: Applications & Properties  
IEEE NSS - 2022 IEEE Nuclear Science Symposium, Medical Imaging Conference and Room Temperature Semiconductor Detector  
In IEEE 2nd Ukrainian Microwave Week 2022 - UMW 2022  
ISS 2022 - 35th International Symposium on Superconductivity  
IWED 2022 - 5th International Workshop on Electron Dynamics  
IWN 2022 - International Workshop on Nitride Semiconductors  
iWoRiD - 23rd International Workshop on Radiation Imaging Detectors  
JEMS 2022 - Joint European Magnetic Symposia  
MDE - Modern directions in Epitaxy  
NANO 2022 - 16th International Conference on Nanostructured Materials  
NANOCON 2022 - 14th International Conference on Nanomaterials  
SSM - Sol-SkyMag 2022  
TTC2022 Meeting - Tesla Technology Collaboration  
TWHM 2022 - 14th Topical Workshop on Heterostructure Microelectronics  
WOCSDice - 45th Workshop on Compound Semiconductor Devices and Integrated Circuits

**Príloha F****Vedecko-popularizačná činnosť pracovníkov organizácie SAV**

| <b>Meno</b>                    | <b>Spoluautori</b>                                          | <b>Typ<sup>1</sup></b> | <b>Názov</b>                                                                                                                       | <b>Miesto zverejnenia</b>    | <b>Dátum alebo počet za rok</b> |
|--------------------------------|-------------------------------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|
| Mgr. Fridrich Egyenes          |                                                             | TL                     | Kyseliny v kuchyni                                                                                                                 | Quark                        | 26.3.2022                       |
| doc. Ing. Fedor Gömöry, DrSc.  |                                                             | IN                     | Podľa vedca zo SAV nie sú reaktory na jadrovú fúziu len ďalšia technologická kuriozita. Môžu kompletne zmeniť budúcnosť energetiky | Refresher (webový portál)    | 18.3.2022                       |
| doc. Ing. Fedor Gömöry, DrSc.  |                                                             | TL                     | Vedci dosiahli prelom v jadrovej fúzii                                                                                             | SME                          | 27.1.2022                       |
| doc. Ing. Fedor Gömöry, DrSc.  |                                                             | TL                     | Veľký krok vpred. Pri fúznej reakcii vyrobili rekordné množstvo energie                                                            | DenníkN                      | 11.2.2022                       |
| Ing. Filip Gučmann, PhD.       | M. Španková, D. Gregušová, T. Kujovič, M. Mošat', L. Frolek | iné                    | Európska noc výskumníkov                                                                                                           | Stará tržnica, Bratislava    | 2022                            |
| Ing. Filip Gučmann, PhD.       | O. Pohorelec                                                | IN                     | Reklamná kampaň "nové PhD témy na EIÚ SAV"                                                                                         | Facebook a Instagram EIÚ SAV | 2022                            |
| Ing. Filip Gučmann, PhD.       | O. Pohorelec, F. Egyenes                                    | iné                    | Prezentačný stánok v rámci kariérneho veľtrhu Dni príležitostí                                                                     | FEI STU                      | 2022                            |
| RNDr. Katarína Neilinger, PhD. |                                                             | PB                     | Je veda riešením na všetko?                                                                                                        | ESET Science Award           | 2022                            |
| Mgr. Bohumír Zaťko, PhD        |                                                             | TV                     | Inovatívny detektor ionizovaného žiarenia                                                                                          | VAT na STV2                  | 19.2.2022                       |

<sup>1</sup> PB - prednáška/beseda, TL - tlač, TV - televízia, RO - rozhlas, IN - internet, EX - exkurzia, PU - publikácia, MM - multimédia, DO - dokumentárny film