

Raport preliminar Program Nucleu 2018

Scurta descriere

Titlu: CERcetari de frontiera in domeniul FIZicii starii condensate si dezvoltarea de MATERiale functionale avansate cu potential de aplicatii in domeniile de specializare INTELigenta si de INTERes national (CEFIZMATINT)

Perioada de desfasurare: 2018

Suma totala alocata: 19.797.823 lei

Programul pentru anul 2018 a continuat directiile de cercetare deschise prin programul desfasurat in perioada 2016-2017, incercand o apropiere si mai mare de specializarile inteligente si domeniile de interes national prevazute in Strategia Nationala CDI 2014-2020. In plus fata de programul Nucleu precedent, noul program isi propune sa aduca o crestere si mai accentuata a gradului de multidisciplinaritate a cercetarilor desfasurate in institut, precum si o crestere a sinergiei tematice cu noile directii de cercetare in domeniu asa cum sunt ele enuntate in strategiile si programele nationale sau la nivel de Comunitate Europeana. Activitatile prevazute in cadrul programului vor implica practic toate grupurile de cercetare din institut intr-un efort unit de crestere a performantei institutionale si de transformare a INCDFM intr-un actor major la nivel global in ceea ce priveste dezvoltarile fundamentale si aplicative in domeniile abordate in program.

Scopul Programului Nucleu 2018 a fost de a desfasura activitatile necesare pentru implementarea directiilor strategice de cercetare prevazute in strategia INCDFM pentru perioada urmatoare, inclusiv de a pregati terenul pentru un Program Nucleu mai lung.

In definirea principalelor directii tematice din aceasta strategie s-a tinut cont de:

- Strategia Nationala CDI 2014-2020, care focalizeaza cercetarile pe 4 domenii de specializare inteligenta si pe 3 domenii de interes national. INCDFM poate contribui la toate acestea prin dezvoltarea de materiale avansate si de metode specifice de investigare si analiza.
- Tendintele tematice din ultimii 5 ani, care au reliefat un interes din ce in ce mai accentuat catre directii noi de cercetare, legate in special de sanatate, calitatea vietii si a mediului, resurse energetice regenerabile, tehnologii pentru dezvoltare durabila, materiale pentru aplicatii in conditii extreme de lucru

Au fost propuse urmatoarele directii tematice de cercetare pentru perioada urmatoare:

- 1. Studii teoretice si experimentale la frontiera cunoasterii in fizica starii condensate; Studiu si formare profesionala avansata in fizica si domenii conexe prin tehnici computationale moderne**

S-au derulat activitati de cercetare fundamentala, modelare, simulare teoretica, validare de concepte si idei prin experimente dedicate (fenomene la scala nano in materiale feroice, materiale 2D, fenomene optice neliniare, fizica suprafetelor si interfetelor, defecte structurale si simularea impactului lor asupra fenomenelor fizice, etc.). Aceasta directie a cuprins si activitati necesare pentru dezvoltarea de algoritmi, programe si infrastructuri computationale necesare calculelor avansate in fizica si formarii profesionale avansate a tinerilor cercetatori din domeniul fizicii si alte domenii conexe.

- 1. Cercetari experimentale si dezvoltari tehnologice in domeniul Eco-nanotehnologii si Materiale Avansate**

A cuprins activitati pentru dezvoltarea de materiale avansate, respectiv metode ecologice de preparare, caracterizare structurala avansata, investigarea proprietatilor fizice si a potentialului de aplicatii.

- 2. Materiale, structuri si metode cu potential de aplicatii in domeniile Bioeconomie si Sanatate**

A cuprins activitati necesare pentru prepararea si caracterizarea de materiale si metode cu utilitate in Bioeconomie (bio-senzori, procesarea catalitica a deseurilor organice, monitorizarea

calitatii alimentelor, metode moderne de conservare a alimentelor, metode si dispozitive de combatere a daunatorilor) si Sanatate (materiale biocompatibile, metode si materiale pentru livrarea tinta a medicamentelor, metode si materiale noi pentru terapie neinvaziva, metode aplicate in industria medicamentului, etc.)

3. Tehnologii emergente, materiale si (nano)structuri functionale pentru domeniile TIC, spatiu si Securitate, Energie, mediu si schimbari climatice si Patrimoniu cultural

A cuprins activitati de cercetare aplicativa si dezvoltare experimentală in domeniul tehnologiilor inovative si al materialelor/structurilor multifunctionale cu potential de aplicatii in domenii de inalta si foarte inalta tehnologie cum sunt TIC, spatiu si securitate (diverse dispozitive electronice, dispozitive de memorare a informatiei, comunicatii fara fir sau prin metode optice, senzorisitica pentru automatizari si monitorizarea diferitelor elemente cu impact asupra confortului si sigurantei personale, etc.), energie (cu aspecte legate de surse regenerabile de energie, stocare, transport si economisire) sau mediu (monitorizarea poluarii, eliminarea sau reciclarea poluantilor, eliminarea gazelor cu efect de sera si altele similare).

Temele de cercetare ce au fost abordate in cadrul programului Nucleu 2018 se incadreaza in urmatoarele specializari inteligente sau prioritati nationale din Strategie:

- **ECO-NANO-TEHNOLOGII ȘI MATERIALE AVANSATE**
- **TEHNOLOGIA INFORMAȚIEI ȘI A COMUNICAȚIILOR, SPAȚIU ȘI SECURITATE**
- **ENERGIE, MEDIU ȘI SCHIMBĂRI CLIMATICE**
- **BIO-ECONOMIE**
- **SĂNĂTATE**
- **TEHNOLOGII NOI ȘI EMERGENTE**
- **CERCETARE FUNDAMENTALA SI DE FRONTIERA**

Ca institut de varf in sistemul de cercetare din tara, INCDFM, prin programul sau Nucleu derulat in anul 2018, a adus contributii importante in implementarea cu succes a Strategiei Nationale CDI pentru perioada 2014-2020.

Obiectiv principal al Programului Nucleu 2018:

Cercetare avansata in fizica starii condensate, stiinta materialelor pentru achizitia de noi cunostinte, pentru dezvoltarea de aplicatii utile societatii si pentru formare de resursa umana competitiva pe piata cercetarii

Obiectivul principal a fost indeplinit prin urmatoarele obiective secundare:

Obiectivul secundar 1:

Studiul teoretic si experimental al fenomenelor fizice in materia condensata, cu accent pe sisteme nano-dimensionale, suprafete si interfete.

Se au in vedere urmatoarele aspecte:

- Efecte de dimensiune in materiale nanostructurate, nanocompozite, si nano-obiecte
- Functionalitati noi in sisteme 2D de tipul interfetelor, peretilor de domenii, suprafetelor.
- Fenomene fizico-chimice in noi materiale 2D
- Fenomene fizico-chimice si functionalitati noi in heterostructuri, multistraturi si super-retele cu potential de aplicatii in domeniile de specializare inteligenta sau de interes national
- Modelarea si simularea materialelor si structurilor functionale folosind fizica computationala
- Efecte corelative in materia condensata, proprietati supraconductoare, magnetice, feroelectrice si multiferoice
- Investigarea efectelor induse de diferite tipuri de radiatii asupra materialelor functionale si a dispozitivelor aferente, cu impact asupra caracteristicilor functionale

- Fenomene fizico-chimice in materiale pentru lucrul in conditii extreme de temperatura, presiune sau radiatii
- Studiul fenomenelor fizice si chimice la interfata cu sistemele vii
- Conceptualizarea si proiectarea de noi echipamente si metode de analiza cu sensibilitate ridicata

Obiectivul secundar 2:

Sinteza si caracterizarea materialelor functionale avansate si elaborarea de tehnologii cu impact redus asupra mediului

Se au in vedere urmatoarele aspecte:

- Sinteza si caracterizarea de nano-obiecte din materiale functionale cu potential de aplicatii high-tech
- Noi functionalitati derivate din combinarea de materiale disimilare in structuri complexe
- Sinteza si caracterizarea de nanocompozite cristaline si non-cristaline cu potential tehnologic
- Sinteza de materiale si analiza comportamentului materialelor functionale in conditii extreme de mediu

Obiectivul secundar 3:

Dezvoltarea de aplicatii in domeniile de specializare inteligenta si de interes national

Se au in vedere urmatoarele aspecte:

- Elaborarea de tehnologii de preparare a materialelor avansate si structurilor complexe, formularea de retete, metode, elaborarea de studii si documentatii
- Elaborarea de modele functionale la nivel de laborator (senzori, dispozitive electronice si optoelectronice, celule solare, dispozitive de stocare a energiei, etc.)
- Elaborarea de aparatura de sinteza si caracterizare, precum si optimizarea metodelor de investigare la scara micro si nanometrica utilizand aparatura existenta

Obiectivul secundar 4:

Studiu si formare profesionala avansata in fizica si domenii conexe

Acesta se adreseaza directiile de activitate specifice ale **Centrului Internațional de Pregătire Avansată și Cercetare în Fizică (CIFRA)**, unitate cu personalitate juridica din componenta INCDFM, asa cum au fost ele prevazute in HG 847/2013 de ratificare a acordului dintre Guvernul Romaniei si UNESCO pentru infiintarea CIFRA ca institut UNESCO de categoria 2.

Proiecte componente Program Nucleu 2018:

Proiect 1-Cercetari de frontiera in domeniul materialelor functionale avansate cu impact aplicativ-Proiect asociat Departamentului de cercetare din INCDFM

Proiect 2-Studiu si formare profesionala avansata in fizica si domenii conexe prin tehnici computationale moderne aplicabile proceselor fizice la nivel nano si macro-Proiect asociat CIFRA, unitate cu personalitate juridica in cadrul INCDFM.

Rezultatele propuse si gradul de indeplinire a acestora sunt prezentate in tabelul de mai jos.

Denumire rezultat	Valoarea propusa	Valoarea realizata	Grad de indeplinire
<i>Studii si documentatii pentru noi tehnologii, echipamente si metode</i>	3	4	133 %
<i>Formule, retete, scheme, produse si tehnologii (la nivel de material, tehnologie sau demonstrator produs in laborator)</i>	10	13	130 %
<i>Lucrari publicate in</i>	80	148 (la 1 noiembrie)	185 %

<i>jurnale ISI:</i>		2018)	
<i>Cereri de brevet depuse</i>	10	11	110 %
<i>Aplicatii de proiecte</i>	5	15	300 %
<i>Tineri cercetatori angajati in institut</i>	5	30	600 %
<i>Firme contactate pentru valorificarea rezultatelor</i>	10	14	140 % (Optoelectronica SA; ICPE-SA; WATTROM; Apel Laser; NANOM-MEMS; Nuclear & Vacuum; Continental; Cyber Swarm; R&D Consultanta si Servicii; All Green SRL; Sara Pharm Solutions; Bioelectronic SRL; Provitam SRL; Agilrom Scientific)

Mentiuni: au fost acordate 6 brevete de inventie si a fost inregistrat si un model de utilitate la OSIM.

Sume atrase din contracte economice (2018): 686.445 lei

Sume contractate pe proiecte castigate la competitii PN3 (2018): 13.744.835 lei

Fonduri structurale (2018): 10.390.453 lei

Sume atrase pe contracte din alte surse-FP7, H2020, Eurofusion (2018): 1.031.297 lei

Rezultate importante obtinute in 2018:

- A continuat cresterea numarului de lucrari in jurnale cu factor mare de impact, dupa cum se poate constata din tabelul de mai jos.

- Titlu Jurnal	Nr. articole	FI jurnal	FI total
APPLIED SURFACE SCIENCE	12	4.439	53.268
CERAMICS INTERNATIONAL	8	3.057	24.456
SCIENTIFIC REPORTS	5	4.122	20.61
CATALYSIS TODAY	3	4.667	14.001
SENSORS AND ACTUATORS B CHEMICAL	3	5.667	17.001
ACS APPLIED MATERIALS INTERFACES	2	8.097	16.194
ACS SUSTAINABLE CHEMISTRY ENGINEERING	2	6.140	12.28
JOURNAL OF ALLOYS AND COMPOUNDS	2	3.779	7.558
NANOSCALE	2	7.233	14.466
PHYSICAL REVIEW B	2	3.813	7.626
SOLAR ENERGY	2	4.374	8.748
2D MATERIALS	1	7.042	7.042
ACS NANO	1	13.709	13.709
ACTA MATERIALIA	1	6.036	6.036
APPLIED PHYSICS LETTERS	1	3.495	3.495
BIOMACROMOLECULES	1	5.738	5.738
CARBON	1	7.082	7.082
CATALYSIS COMMUNICATIONS	1	3.463	3.463
CATALYSIS SCIENCE TECHNOLOGY	1	5.365	5.365
CHEMICAL GEOLOGY	1	3.570	3.57
CORROSION SCIENCE	1	4.862	4.862
ELECTROCHIMICA ACTA	1	5.116	5.116
FRONTIERS IN CHEMISTRY	1	4.155	4.155
GREEN CHEMISTRY	1	8.586	8.586
JOURNAL OF MATERIALS CHEMISTRY A	1	9.931	9.931
JOURNAL OF MOLECULAR LIQUIDS	1	4.513	4.513

JOURNAL OF THE ELECTROCHEMICAL SOCIETY	1	3.662	3.662
MATERIALS HORIZONS	1	13.183	13.183
MICROPOROUS AND MESOPOROUS MATERIALS	1	3.649	3.649
NANOMATERIALS	1	3.504	3.504
NATURE COMMUNICATIONS	1	12.353	12.353
PHYSICA STATUS SOLIDI RAPID RESEARCH LETTERS	1	3.721	3.721
PHYSICAL CHEMISTRY CHEMICAL PHYSICS	1	3.906	3.906
PHYSICAL REVIEW A	1	2.909	2.909
PHYSICAL REVIEW APPLIED	1	4.782	4.782
SUPERCONDUCTOR SCIENCE TECHNOLOGY	1	2.861	2.861
VACUUM	1	2.067	2.067
TOTAL FI	69		345.468

Lucrari in jurnale cu factor de impact mai mare ca 3.

- 13 studenti si post-doctoranzi din strainatate au venit sa lucreze in INCDFM (3 bursieri AUF prin programul Eugen Ionesco; 1 bursier ICTP; 8 au avut burse din tarile de origine; 1 a venit in cadrul unui program Erasmus); 1 cercetator din Franta si unul din Mauretania s-au angajat in INCDFM pe proiecte PCCDI; 1 cercetatori din Portugalia si 1 cercetatori din Iran vor fi angajati pe proiecte POC-Specialist din strainatate.
- In legatura cu publicatiile merita subliniat faptul ca au inceput sa apara primele publicatii in jurnale din sistemul Nature, deocamdata in calitate de co-autori. Oricum, co-optarea speciaistilor din INCDFM in listele de autori ale articolelor publicate in jurnale cu factor mare de impact denota, pe de o parte, expertiza de nivel international a specialistilor din INCDFM, iar pe de alta parte subliniaza calitatea de nivel foarte ridicat a infrastructurii din INCDFM, capabila sa produca rezultate publicabile in jurnale dintre cele mai prestigioase precum **Nature** (articol acceptat sper publicare pe data de 16 octombrie 2018, titlul si lista de autori, precum si mesajul de accept sunt mai jos)

Unveiling the double well energy landscape in a ferroelectric layer

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Gesendet: Dienstag, 16. Oktober 2018 16:35

An: Michael Hoffmann <Michael.Hoffmann@namlab.com>

Cc: tobias.roedel@nature.com

Betreff: Decision on Nature manuscript 2018-06-08547B

16th October 2018

Dear Mr Hoffmann,

We are delighted to accept your manuscript entitled "Unveiling the double well energy landscape in a ferroelectric layer" for publication in Nature. Thank you for choosing to publish your interesting work with us.

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With kind regards,

Olivia Boulton
Editorial Assistant, Nature

On behalf of Tobias Roedel
Associate Editor
Nature

- Consolidarea pozitiei INCDFM in cadrul C-ERIC, infrastructura pan-europeana distribuita in 9 tari din centrul si estul Europei la care INCDFM participa cu laboratoarele TEM (inalta rezolutie) si RES. Tehnica de imagistica si analiza elementala TEM este a doua cea mai solicitata tehnica dupa tehnicile implicand sincrotronul de la Trieste (a se vedea si tabelul de mai jos).

Instrument/Beamline	N. of Requests
SAXS	39
HRTEM	32
MASC	19
NAPXPS	18
IUVSOFF	9
XAFS	8
XPSXPD	8
DAVID	7
FESEM	7
MCX	6
SISSI-BOFF	5
TOFERDA	5
XAS	5
FAMA-IrrHi	4
PEEM	4
TWINMIC	4
EPRESR	3
FAMA-IrrLi	3
LARA	3
MAGIC	3
SANS	3
SISSI-Bio	3
SYRMEP	3
XRDI	3
BAEL	2
GINA	2
IRRA	2
AJAX	1
ESMI	1
GAPH	1
IUVS	1
NASP	1
NMICRO	1
PGAA	1

RBS	1
SISSI-Mat	1
SUES	1
UARPES	1
Total	221

Statistica a fost realizata dupa incheierea celui de al 8-lea apel de proiecte pentru acces la infrastructurile C-ERIC.

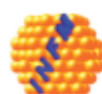
- Organizarea celei de a 3-a editii ale International Workshop of Materials Physics (IWMP), in perioada 29-30 mai cu participarea a 10 invitati din strainatate si 5 din tara.



3RD INTERNATIONAL WORKSHOP ON MATERIALS PHYSICS

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Coperta programului celei de a 3-a editii a IWMP in 2018.

- O consecinta a organizarii IWMP a constat in castigarea unui proiect H2020 in calitate de partener (inceput in ianuarie, perioada de derulare 2018-2021).
- Un alt rezultat remarcabil obtinute in 2018 il constituie incheierea unui contract de servicii de cercetare cu firma Cyber-Swarm (<https://www.cyber-swarm.net/>), in valoare de 200.000 USD. Mentionam ca firma Cyber-Swarm, a obtinut fonduri de la fondul de investitii

manageriat de catre Tim Draper <http://www.draper.vc/portfolio/>, cel care a investit si in dezvoltarea firmelor Tesla su Skype. Firma este interesata in cercetarile desfasurate in INCDFM in legatura cu structuri care sa imite sinapsele dintre neuronii din creierul uman.

Resursa Umana la finalul anului 2018

Total personal	265
Personal studii superioare	214
Personal auxiliary	51
CS1	29
CS2	25
CS3	38
CS	21
ACS	24
IDT3	2
IDT	2
Doctori	128
Doctoranzi	27
Contract permanent	224
Contract perioada determinate-tineri	41

Infrastructura

INCDFM posed o infrastructura de inalt nivel, care acopera toate necesitatile de la preparare de material pana la dezvoltarea de aplicatii la nivel de demonstrator functional in laborator.

Echipamentele puse la dispozitia proiectelor componente sunt listate in tabelul de mai jos (valori mai mari de **100.000 euro**)

Valoarea achiziției (euro)	Numele infrastructurii	Data achiziției (ll-aa)
203655	Analizor vectorial de rețele	Aug-08
287111	Microscop electronic de baleiaj + acces.	May-08
361972	Echipament PLD Workstation	Jun-08
169948	Microscop de forta atomica	Jun-08
208776	Sistem depunere prin pulverizare Gama	Feb-09
106318	Physisorption ASAP 2020	Aug-10
246418	Difractometru raze X D8Advance	Dec-06
370932	Criostat cu magnet supraconductor	Oct-07
225637	Criomagnet fara agent racire	Dec-06
158722	Instalatie de Sinterizare Spark Plasma	May-08
185089	Instalatie de sinteza a probelor	Aug-09
103163	Analizor semisferic de electroni (XPS)	Dec-07
106384	Difractometru de raze X	Mar-08
153560	Incinta epitaxie in flux molecular	Dec-08
129407	Microscop cu efect tunel + accesorii	May-09
474281	Instalatie complexa pt. XPS, AES, STM	Jul-09
522940	Echipament de pulverizare cu magnetron	Sep-09
105360	Elipsometru Woolham M2000	Nov-10
115711	Spectrofluorimetru Fluorolog	Dec-06
118042	Spectrometru Raman RFS-100	Nov-05
160209	Sistem Masuratori Parametri Dielectrici	Mar-08

141200	Spectroelipsometru	Mar-08
116170	Sistem microscopie FTIR	Oct-08
264636	Sistem Depunere prin evaporare	Dec-08
171354	Microscop optic cu scanare	Feb-09
113604	Instalatie de subtiere ionica	Sep-08
107303	Instalatie automata de Lichefiere Heliu	Dec-08
311133	Platforma digitala pt. tehnica RES	Feb-09
123402	Spectrometru Mossbauer + accesorii	Aug-09
238283	Microscop Raman	Sep-09
103977	Statie testare la temperaturi joase	Sep-09
497529	Spectrofotometru de fluorescenta	Sep-09
527782	Instalatie Spectroscopie de electroni cu rezolutie unghiulara si de spin	Sep-09
538036	Analizor vectorial + panouri absorbante	May-10
807767	Spectrometru RES in pulsuri	May-10
850274	Instalatie Microscopie LEEM	Oct-10
186635	Instalatie de nanolitografie SEM	Nov-10
226638	Sistem SPM - Microscop de forta	Nov-10
114020	Stand masura linii dimensionalitate redusa	Nov-10
569343	Spectrometru pt. domeniul THz	Nov-10
966763	Sistem complex de masuratori SQUID-PPMS	Nov-10
227407	Instalatie de fotolitografie	Nov-10
497192	Sistem dual SEM-FIB + accesorii	Dec-10
2255815	Microscop electronic JEM ARM + accesorii	Dec-10
404223	Spectrometru XAS de absorbtie a radiatiei X	Feb-11
141786	Suport pozitionare pt. instalatie SEM	Feb-11
115227	Statie pt. lichefiere Heliu	Feb-11
140273	Spectrometru Mossbauer	Feb-11
147218	Instalatie de metalizare (materiale necontaminante)	Mar-11
147218	Instalatie de metalizare (materiale contaminante)	Mar-11
581388	Echipament de litografie de electroni - Instalatie de rezolutie ridicata	Nov-15
999838	Microscop electronic prin transmisie pentru caracterizari microstructurale in contrast de difractie, tomografie cu fascicul de electroni si experimente in-situ in dom. de temperaturi -195÷+1000 °C	Nov-15
362064	Echipament CVD pentru depunerea de semiconductori de banda larga de tip III-V si II-VI, precum si de materiale dielectrice de tip oxid sau nitrura	Nov-15
140084	Echipament CVD pentru depuneri de materiale pe baza de carbon, cu precadere grafena si nanotuburi de carbon	Nov-15
666666	Unitate de spectroscopie de fotoelectroni XPS cu facilitati de tratament al probelor la presiune si temperatura ridicata	Nov-15
140000	Echipament CVD pentru depuneri de materiale polimerice	Nov-15
442667	Sistem pentru depunere de straturi subtiri asistata de matrice folosind pulsuri laser (MAPLE)	Nov-15
2727030	CLADIREA RITECC-CENTRUL DE CERCETARE, INOVARE SI TEHNOLOGII	Ian-16
399376	ECHIPAMENT PT.FABRICAREA DE STRATURI SUBTIRI	Ian-2017

Valoarea totala a infrastructurii din INCDFM se apropie de 30 milioane euro.

De remarcat ca in anul 2018, cu sprijinul MCI, s-au facut pasi importanti si in finalizarea lucrarilor de restaurare a conacului Otetelesanu, cladirea care a constituit leaganul Fizicii pe Platforma Magurele. Acesta urmeaza a fi transformat, o parte, intr-un centru modern de pregatire profesionala (cu sali de computing, servicii pentru studentii si cercetatorii din strainatate care vin

sa lucreze in INCDFM), iar pe de alta parte, intr-un centru de conferinte si prezentare a INCDFM (sala de conferinte, un mic muzeu, birouri de relatii cu publicul, etc.)
Mai jos sunt cateva imagini sugestive cu acuala baza materiala a INCDFM, parte din ea realizata prin fondurile Programului Nucleu.



Imagine a conacului Otetelesanu, aflat in stadiu avansat de finalizare



Noul difractometru Rigaku, achizitionat din fonduri Nucleu.



Instalatie de depunere prin pulverizare cu magnetron, achizitionata din fonduri Nucleu



Noul microscop SEM achizitionat din fonduri transfrontaliere



Noul laborator de analize chimice (TO-SIMS, fluorescența de raze X, etc.)-fonduri structurale și donații



Laborator camera anecoică pentru teste dispozitive telecomunicații microunde



Laborator de testari proprietati termice si mecanice



Laborator pentru testari proprietati optice

Lista lucrari publicate in anul 2018, cu contributia programului Nucleu

Nr	Titlul articolului	Numele Jurnalului, Volumul, pagina nr.	Nume Autor	AIS	Factorul de impact FI	Quartila in care se situeaza
1	Hierarchical functionalization of electrospun fibers by electrodeposition of zinc oxide nanostructures	<i>APPLIED SURFACE SCIENCE</i> , 458 , pp.555-563	Matei, E; Busuioc, C; Evanghelidis, A; Zgura, I; Enculescu, M; Beregoi, M; Enculescu, I	0.627	4.439	Q1
2	Reduced graphene oxide/iron oxide nanohybrid flexible electrodes grown by laser-based technique for energy storage applications	<i>CERAMICS INTERNATIONAL</i> , 44 , pp.20409-20416	Queralto, A; del Pino, AP; Logofatu, C; Datcu, A; Amade, R; Bertran-Serra, E; Gyorgy, E	0.437	3.057	Q1
3	Structural and optical properties of optimized amorphous GeTe films for memory applications	<i>JOURNAL OF NON-CRYSTALLINE SOLIDS</i> , 499 , pp.1-7	Galca, AC; Sava, F; Simandan, ID; Bucur, C; Dumitru, V; Porosnicu, C; Mihai, C; Velea, A	0.427	2.488	Q1
4	Networked mesoporous SnO ₂ nanostructures templated by Brij (R) 35 with enhanced H ₂ S selective performance	<i>MICROPOROUS AND MESOPOROUS MATERIALS</i> , 270 , pp.93-101	Stanioiu, A; Simion, CE; Sackmann, A; Baibarac, M; Florea, OG; Osiceanu, P; Teodorescu, VS; Somacescu, S	0.671	3.649	Q1
5	Lincomycin-embedded PANI-based coatings for biomedical applications	<i>APPLIED SURFACE SCIENCE</i> , 455 , pp.653-666	Popescu-Pelin, G; Fufa, O; Popescu, RC; Savu, D; Socol, M; Zgura, I; Holban, AM; Vasile, BS; Grumezescu, V; Socol, G	0.627	4.439	Q1
6	Hydroxyapatite coatings on Mg-Ca alloy prepared by Pulsed Laser Deposition: Properties and corrosion resistance in Simulated Body Fluid	<i>CERAMICS INTERNATIONAL</i> , 44 , pp.16678-16687	Rau, JV; Antoniac, I; Filipescu, M; Cotrut, C; Fosca, M; Nistor, LC; Birjega, R; Dinescu, M	0.437	3.057	Q1
7	Palladium pincer complex incorporation onto the Fe ₃ O ₄ -entrapped cross-linked multilayered polymer as a high loaded nanocatalyst for oxidation	<i>JOURNAL OF MOLECULAR LIQUIDS</i> , 266 , pp.393-404	Zohreh, N; Hosseini, SH; Tavakolizadeh, M; Busuioc, C; Negrea, R	0.57	4.513	Q1
8	Wide-Range Columnar and Lamellar Photoluminescent Liquid-Crystalline Lanthanide Complexes with Mesogenic 4-Pyridone Derivatives	<i>CHEMISTRY-A EUROPEAN JOURNAL</i> , 24 , pp.13512-13522	Chiriac, LF; Pasuk, I; Secu, M; Micutz, M; Circu, V	1.26	5.160	Q1
9	Polarization Orientation in Lead Zirconate Titanate (001) Thin Films Driven by the Interface with the Substrate	<i>PHYSICAL REVIEW APPLIED</i> , 10 , 34020	Tanase, LC; Abramiuc, LE; Popescu, DG; Trandafir, AM; Apostol, NG; Bucur, IC; Hrib, L; Pintilie, L; Pasuk, I; Trupina, L; Teodorescu, CM	2.124	4.782	Q1
10	Enhanced near-infrared response of a silicon solar cell by using an up-conversion phosphor film of Yb/Er - co-doped CeO ₂	<i>SOLAR ENERGY</i> , 171 , pp.40-46	Grigoroscuta, M; Secu, M; Trupina, L; Enculescu, M; Besleaga, C; Pintilie, I; Badica, P	0.799	4.374	Q1
11	Magnetism and magnetoresistance of single Ni-Cu alloy nanowires	<i>BEILSTEIN JOURNAL OF NANOTECHNOLOGY</i> , 9 , pp.2345-2355	Costas, A; Florica, C; Matei, E; Toimil-Molares, ME; Stavarache, I; Kuncser, A; Kuncser, V; Enculescu, I	0.745	2.968	Q1
12	Ferroelectric switching dynamics in 0.5Ba(Zr _{0.2} Ti _{0.8})O ₃ -0.5(Ba _{0.7} Ca _{0.3})TiO ₃ thin films	<i>APPLIED PHYSICS LETTERS</i> , 113 , 82903	Silva, JPB; Kamakshi, K; Negrea, RF; Ghica, C; Wang, J; Koster, G; Rijnders, G; Figueiras, F; Pereira, M; Gomes, MJM	0.927	3.495	Q1
13	Orbital Ordering of the Mobile and Localized Electrons at Oxygen-Deficient LaAlO ₃ /SrTiO ₃ Interfaces	<i>ACS NANO</i> , 12 , pp.7927-7935	Chikina, A; Lechermann, F; Husanu, MA; Caputo, M; Cancellieri, C; Wang, XQ; Schmitt, T; Radovic, M; Strocov, VN	4.045	13.709	Q1

14	Highly Efficient, Easily Recoverable, and Recyclable Re-SiO ₂ -Fe ₃ O ₄ Catalyst for the Fragmentation of Lignin	<i>ACS SUSTAINABLE CHEMISTRY & ENGINEERING</i> , 6 , pp.9606-9618	Tudorache, M; Opris, C; Cojocaru, B; Apostol, NG; Tirsoaga, A; Coman, SM; Parvulescu, VI; Duraki, B; Krumeich, F; van Bokhoven, JA	1.142	6.140	Q1
15	Versatile Actuators Based on Polypyrrole-Coated Metalized Eggshell Membranes	<i>ACS SUSTAINABLE CHEMISTRY & ENGINEERING</i> , 6 , pp.10173-10181	Beregoi, M; Preda, N; Evanghelidis, A; Costas, A; Enculescu, I	1.142	6.140	Q1
16	Magneto-optical properties of Ce ³⁺ and Tb ³⁺ -doped silico-phosphate sol-gel thin films	<i>APPLIED SURFACE SCIENCE</i> , 448 , pp.474-480	Stefan, CR; Elisa, M; Vasiliu, IC; Sava, BA; Boroica, L; Sofronie, M; Tolea, F; Enculescu, M; Kuncser, V; Beldiceanu, A; Volceanov, A; Eftimie, M	0.627	4.439	Q1
17	Thermal stability of phase change GaSb/GeTe, SnSe/GeTe and GaSb/SnSe double stacked films revealed by X-ray reflectometry and X-ray diffraction	<i>JOURNAL OF NON-CRYSTALLINE SOLIDS</i> , 492 , pp.11-17	Velea, A; Sava, F; Socol, G; Vlaicu, AM; Mihai, C; Lorinczi, A; Simandan, ID	0.427	2.488	Q1
18	k-space imaging of anisotropic 2D electron gas in GaN/GaAlN high-electron-mobility transistor heterostructures	<i>NATURE COMMUNICATIONS</i> , 9 , 2653	Lev, LL; Maiboroda, IO; Husanu, MA; Grichuk, ES; Chumakov, NK; Ezubchenko, IS; Chernykh, IA; Wang, X; Tobler, B; Schmitt, T; Zhanaveskin, ML; Valeyev, VG; Strocov, VN	5.685	12.353	Q1
19	Piezoelectric ferromagnetic BNT-BT _{0.08} /CoFe ₂ O ₄ coaxial core-shell composite nanotubes for nanoelectronic devices	<i>JOURNAL OF ALLOYS AND COMPOUNDS</i> , 752 , pp.381-388	Cerneza, M; Vasile, BS; Surdu, VA; Trusca, R; Sima, M; Craciun, F; Galassi, C	0.574	3.779	Q1
20	White-Light Emission of Dye-Doped Polymer Submicronic Fibers Produced by Electrospinning	<i>POLYMERS</i> , 10 , 737	Enculescu, M; Evanghelidis, A; Enculescu, I	0.7	2.935	Q1
21	Different-Length Hydrazone Activated Polymers for Plasmid DNA Condensation and Cellular Transfection	<i>BIOMACROMOLECULES</i> , 19 , pp.2638-2649	Priegue, JM; Lostale-Seijo, I; Crisan, D; Granja, JR; Fernandez-Trillo, F; Montenegro, J	1.279	5.738	Q1
22	Inhibitory effect of three phenacyl derivatives on the oxidation of sphalerite (ZnS) in air-equilibrated acidic solution	<i>CORROSION SCIENCE</i> , 138 , pp.154-162	Chirita, P; Duinea, MI; Sandu, AM; Birsu, LM; Sarbu, LG; Baibarac, M; Sava, F; Popescu, M; Matei, E	0.89	4.862	Q1
23	Localization Properties of Zig-Zag Edge States in Disordered Phosphorene	<i>PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS</i> , 12 , 1800051	Nita, M; Ostahie, B; Tolea, M; Aldea, A	0.755	3.721	Q1
24	Epitaxial growth of single-orientation high-quality MoS ₂ monolayers	<i>2D MATERIALS</i> , 5 , 35012	Bana, H; Travaglia, E; Bignardi, L; Lacovig, P; Sanders, CE; Dendzik, M; Michiardi, M; Bianchi, M; Lizzit, D; Presel, F; De Angelis, D; Apostol, N; Das, PK; Fujii, J; Vobornik, I; Larciprete, R; Baraldi, A; Hofmann, P; Lizzit, S	2.646	7.042	Q1
25	H ₂ S selective sensitivity of Cu doped BaSrTiO ₃ under operando conditions and the associated sensing mechanism	<i>SENSORS AND ACTUATORS B-CHEMICAL</i> , 264 , pp.327-336	Stanoiu, A; Piticescu, RM; Simion, CE; Rusti-Ciobota, CF; Florea, OG; Teodorescu, VS; Osiceanu, P; Sobetkii, A; Badilita, V	0.787	5.667	Q1
26	The improvement of SiO ₂ nanotubes electrochemical behavior by hydrogen atmosphere thermal treatment	<i>APPLIED SURFACE SCIENCE</i> , 444 , pp.216-223	Spataru, N; Anastasescu, C; Radu, MM; Balint, I; Negriila, C; Spataru, T; Fujishima, A	0.627	4.439	Q1
27	Polyaniline photoluminescence quenching induced by single-	<i>SCIENTIFIC REPORTS</i> , 8 , 9518	Baibarac, M; Matea, A; Daescu, M; Mercioniu,	1.356	4.122	Q1

	walled carbon nanotubes enriched in metallic and semiconducting tubes		I; Quillard, S; Mevellec, JY; Lefrant, S			
28	Compressive properties of pristine and SiC-Te-added MgB ₂ powders, green compacts and spark-plasma-sintered bulks	<i>CERAMICS INTERNATIONAL</i> , 44 , pp.10181-10191	Badica, P; Batalu, D; Burdusel, M; Grigoroscutea, MA; Aldica, GV; Enculescu, M; Gabor, RA; Wang, ZY; Huang, RX; Li, PF	0.437	3.057	Q1
29	Synthesis and characterization of CoFe ₂ O ₄ /BNT-BT0.08 core shell nanotubes by a template based sol-gel method	<i>CERAMICS INTERNATIONAL</i> , 44 , pp.10813-10819	Cernea, M; Vasile, BS; Surdu, VA; Trusca, R; Craciun, F; Galassi, C	0.437	3.057	Q1
30	On the properties of organic heterostructures prepared with nano-patterned metallic electrode	<i>APPLIED SURFACE SCIENCE</i> , 443 , pp.592-602	Breazu, C; Socol, M; Preda, N; Matei, E; Rasoga, O; Girtan, M; Mallet, R; Stanculescu, F; Stanculescu, A	0.627	4.439	Q1
31	Combined use of Mossbauer spectroscopy, XPS, HRTEM, dielectric and anelastic spectroscopy for estimating incipient phase separation in lead titanate-based multiferroics	<i>PHYSICAL CHEMISTRY CHEMICAL PHYSICS</i> , 20 , pp.14652-14663	Craciun, F; Cordero, F; Vasile, BS; Fruth, V; Zaharescu, M; Atkinson, I; Trusca, R; Diamandescu, L; Tanase, LC; Galizia, P; Cernea, M; Galassi, C	1.078	3.906	Q1
32	Engineering active sites on reduced graphene oxide by hydrogen plasma irradiation: mimicking bifunctional metal/supported catalysts in hydrogenation reactions	<i>GREEN CHEMISTRY</i> , 20 , pp.2611-2623	Primo, A; Franconetti, A; Magureanu, M; Mandache, NB; Bucur, C; Rizescu, C; Cojocaru, B; Parvulescu, VI; Garcia, H	1.58	8.586	Q1
33	Thermodynamic, structural and magnetic studies of phase transformations in MnAl nanocomposite alloys	<i>MATERIALS CHARACTERIZATION</i> , 140 , pp.1-8	Crisan, AD; Vasiliu, F; Nicula, R; Bartha, C; Mercioniu, I; Crisan, O	0.692	2.892	Q1
34	Ferroelectric photovoltaic characteristics of pulsed laser deposited 0.5Ba (Zr _{0.2} Ti _{0.8})O ₃ -0.5(Ba _{0.7} Ca _{0.3})TiO ₃ /ZnO heterostructures	<i>SOLAR ENERGY</i> , 167 , pp.18-23	Silva, JPB; Sekhar, KC; Cortes-Juan, F; Negrea, RF; Kuncser, AC; Connolly, JP; Ghica, C; Moreira, JA	0.799	4.374	Q1
35	Gallium incorporation into phosphate based glasses: Bulk and thin film properties	<i>JOURNAL OF THE MECHANICAL BEHAVIOR OF BIOMEDICAL MATERIALS</i> , 82 , pp.371-382	Stuart, BW; Grant, CA; Stan, GE; Popa, AC; Titman, JJ; Grant, DM	0.791	3.239	Q1
36	Branch-like NiO/ZnO heterostructures for VOC sensing	<i>SENSORS AND ACTUATORS B-CHEMICAL</i> , 262 , pp.477-485	Kaur, N; Zappa, D; Ferroni, M; Poli, N; Campanini, M; Negrea, R; Comini, E	0.787	5.667	Q1
37	New bio-active, antimicrobial and adherent coatings of nanostructured carbon double-reinforced with silver and silicon by Matrix-Assisted Pulsed Laser Evaporation for medical applications	<i>APPLIED SURFACE SCIENCE</i> , 441 , pp.871-883	Duta, L; Ristoscu, C; Stan, GE; Husanu, MA; Besleaga, C; Chifiriuc, MC; Lazar, V; Bleotu, C; Miculescu, F; Mihailescu, N; Axente, E; Badiceanu, M; Bociaga, D; Mihailescu, IN	0.627	4.439	Q1
38	Large positive linear magnetoresistance in the two-dimensional t(2g) electron gas at the EuO/SrTiO ₃ interface	<i>SCIENTIFIC REPORTS</i> , 8 , 7721	Kormondy, KJ; Gao, LY; Li, X; Lu, SR; Posadas, AB; Shen, SD; Tsoi, M; McCartney, MR; Smith, DJ; Zhou, JS; Lev, LL; Husanu, MA; Strocov, VN; Demkov, AA	1.356	4.122	Q1
39	Photocatalytic activity of wool fabrics deposited at low temperature with ZnO or TiO ₂ nanoparticles: Methylene blue degradation as a test reaction	<i>CATALYSIS TODAY</i> , 306 , pp.251-259	Frunza, L; Diamandescu, L; Zgura, I; Frunza, S; Ganea, CP; Negri, CC; Enculescu, M; Birzu, M	0.868	4.667	Q1
40	Influence of Mn content on the catalytic properties of Cu(Mn)-Zn-Mg-Al mixed oxides derived from LDH precursors in the total oxidation of methane	<i>CATALYSIS TODAY</i> , 306 , pp.276-286	Raciulete, M; Layrac, G; Papa, F; Negri, CC; Tichit, D; Marcu, IC	0.868	4.667	Q1

41	Voltammetric and atomic force microscopy characterization of chymotrypsin, trypsin and caspase activities of proteasome	<i>CATALYSIS TODAY</i> , 306 , pp.287-293	de Jesus, CSH; Paquim, AMC; Diculescu, VC	0.868	4.667	Q1
42	Structure of high-resolution K beta(1,3) x-ray emission spectra for the elements from Ca to Ge	<i>PHYSICAL REVIEW A</i> , 97 , 52505	Ito, Y; Tochio, T; Yamashita, M; Fukushima, S; Vlaicu, AM; Syrocki, L; Slabkowska, K; Weder, E; Polasik, M; Sawicka, K; Indelicato, P; Marques, JP; Sampaio, JM; Guerra, M; Santos, JP; Parente, F	0.899	2.909	Q1
43	Hysteretic Characteristics of Pulsed Laser Deposited 0.5Ba(Zr0.2Ti0.8)O-3-0.5(Ba0.7Ca0.3)TiO3/ZnO Bilayers	<i>ACS APPLIED MATERIALS & INTERFACES</i> , 10 , pp.15240-15249	Silva, JPB; Wang, J; Koster, G; Rijnders, G; Negrea, RF; Ghica, C; Sekhar, KC; Moreira, JA; Gomes, MJM	1.634	8.097	Q1
44	Antimicrobial Activity of New Materials Based on Lavender and Basil Essential Oils and Hydroxyapatite	<i>NANOMATERIALS</i> , 8 , 291	Predoi, D; Iconaru, SL; Buton, N; Badea, ML; Marutescu, L	0.696	3.504	Q1
45	Photoelectrochemical response of carbon dots (CDs) derived from chitosan and their use in electrochemical imaging	<i>MATERIALS HORIZONS</i> , 5 , pp.423-428	Zhang, DW; Papaioannou, N; David, NM; Luo, H; Gao, H; Tanase, LC; Degousee, T; Samori, P; Sapelkin, A; Fenwick, O; Titirici, MM; Krause, S	3.148	13.183	Q1
46	Physical-chemical characterization and biological assessment of simple and lithium-doped biological-derived hydroxyapatite thin films for a new generation of metallic implants	<i>APPLIED SURFACE SCIENCE</i> , 439 , pp.724-735	Popescu, AC; Florian, PE; Stan, GE; Popescu-Pelin, G; Zgura, I; Enculescu, M; Oktar, FN; Trusca, R; Sima, LE; Roseanu, A; Duta, L	0.627	4.439	Q1
47	Influence of cobalt ferrite content on the structure and magnetic properties of (CoFe2O4)(x)(SiO2-PVA)(100-X) nanocomposites	<i>CERAMICS INTERNATIONAL</i> , 44 , pp.7891-7901	Dippong, T; Cadar, O; Levei, EA; Deac, IG; Diamandescu, L; Barbu-Tudoran, L	0.437	3.057	Q1
48	Influence of the modulated two-step synthesis of biogenic hydroxyapatite on biomimetic products' surface	<i>APPLIED SURFACE SCIENCE</i> , 438 , pp.147-157	Miculescu, F; Mocanu, AC; Stan, GE; Miculescu, M; Maidaniuc, A; Cimpean, A; Mitran, V; Voicu, SI; Machedon-Pisu, T; Ciocan, LT	0.627	4.439	Q1
49	Graphene growth by molecular beam epitaxy: an interplay between desorption, diffusion and intercalation of elemental C species on islands	<i>NANOSCALE</i> , 10 , pp.7396-7406	Presel, F; Tetlow, H; Bignardi, L; Lacovig, P; Tache, CA; Lizzit, S; Kantorovich, L; Baraldi, A	1.704	7.233	Q1
50	Ambiguous Role of Growth-Induced Defects on the Semiconductor-to-Metal Characteristics in Epitaxial VO2/TiO2 Thin Films	<i>ACS APPLIED MATERIALS & INTERFACES</i> , 10 , pp.14132-14144	Mihailescu, CN; Symeou, E; Svoukis, E; Negrea, RF; Ghica, C; Teodorescu, V; Tanase, LC; Negri, C; Giapintzakis, J	1.634	8.097	Q1
51	The adsorption of silicon on an iridium surface ruling out silicene growth	<i>NANOSCALE</i> , 10 , pp.7085-7094	Satta, M; Lacovig, P; Apostol, N; Dalmiglio, M; Orlando, F; Bignardi, L; Bana, H; Travaglia, E; Baraldi, A; Lizzit, S; Larciprete, R	1.704	7.233	Q1
52	Strong composition dependence of resistive switching in Ba1-xSrxTiO3 thin films on semiconducting substrates and its thermodynamic analysis	<i>ACTA MATERIALIA</i> , 148 , pp.419-431	Mohammadmoradi, O; Sen, C; Boni, AG; Pintilie, L; Misirliglu, IB	1.673	6.036	Q1
53	Bismuth and lead oxides codoped boron phosphate glasses for Faraday rotators	<i>CERAMICS INTERNATIONAL</i> , 44 , pp.6016-6025	Sava, BA; Boroica, L; Elisa, M; Shikimaka, O; Grabco, D; Popa, M; Barbos, Z; Iordanescu, R; Niculescu, AM;	0.437	3.057	Q1

			Kuncser, V; Galca, AC; Eftimie, M; Monteiro, RCC			
54	H2S sensing mechanism of SnO2-CuWO4 operated under pulsed temperature modulation	<i>SENSORS AND ACTUATORS B-CHEMICAL</i> , 259 , pp.258-268	Simion, CE; Somacescu, S; Teodorescu, VS; Osiceanu, P; Stanoiu, A	0.787	5.667	Q1
55	Synthesis of graphene-based photocatalysts for water splitting by laser-induced doping with ionic liquids	<i>CARBON</i> , 130 , pp.48-58	del Pino, AP; Gonzalez-Campo, A; Giraldo, S; Peral, J; Gyorgy, E; Logofatu, C; deMello, AJ; Puigmarti-Luis, J	1.39	7.082	Q1
56	Yellow laser potential of cubic Ca-3(Nb,Ga)(5)O-12:Dy3+ and Ca-3(Li,Nb,Ga)(5)O-12:Dy3+ single crystals	<i>JOURNAL OF ALLOYS AND COMPOUNDS</i> , 739 , pp.806-816	Gheorghe, C; Hau, S; Gheorghe, L; Voicu, F; Greculeasa, M; Enculescu, M; Belikov, KN; Bryleva, EY; Gaiduk, OV	0.574	3.779	Q1
57	Dense Ge nanocrystals embedded in TiO2 with exponentially increased photoconduction by field effect	<i>SCIENTIFIC REPORTS</i> , 8 , 4898	Lepadatu, AM; Slav, A; Palade, C; Dascalescu, I; Enculescu, M; Iftimie, S; Lazanu, S; Teodorescu, VS; Ciurea, ML; Stoica, T	1.356	4.122	Q1
58	Cracks and nanodroplets produced on tungsten surface samples by dense plasma jets	<i>APPLIED SURFACE SCIENCE</i> , 434 , pp.1122-1128	Ticos, CM; Galatanu, M; Galatanu, A; Luculescu, C; Scurtu, A; Udrea, N; Ticos, D; Dumitru, M	0.627	4.439	Q1
59	Influence of Gd and Pr doping on the properties of ceria: texture, structure, redox behaviour and reactivity in CH4/H2O reactions in the presence of H2S	<i>CATALYSIS SCIENCE & TECHNOLOGY</i> , 8 , pp.1333-1348	Florea, M; Postole, G; Matei-Rutkovska, F; Urda, A; Neatu, F; Massin, L; Gelin, P	1.105	5.365	Q1
60	Effect of green body annealing on laser performance of YAG:Nd3+ ceramics	<i>CERAMICS INTERNATIONAL</i> , 44 , pp.4487-4490	Yavetskiy, RP; Parkhomenko, SV; Vorona, IO; Tolmachev, AV; Kosyanov, DY; Kuryavyi, VG; Mayorov, VY; Gheorghe, L; Croitoru, G; Enculescu, M	0.437	3.057	Q1
61	Triggering surface ferroelectric order in Pb(Zr, Ti)O-3(001) by deposition of platinum	<i>APPLIED SURFACE SCIENCE</i> , 432 , pp.27-33	Bucur, IC; Tanase, LC; Abramiuc, LE; Lungu, GA; Chirila, C; Trupina, L; Apostol, NG; Costescu, RM; Negrea, RF; Pintilie, L; Teodorescu, CM	0.627	4.439	Q1
62	Spherical cobalt/cobalt oxide - Carbon composite anodes for enhanced lithium-ion storage	<i>ELECTROCHIMICA ACTA</i> , 264 , pp.191-202	Patrinoiu, G; Etacheri, V; Somacescu, S; Teodorescu, VS; Birjega, R; Culita, DC; Hong, CN; Calderon-Moreno, JM; Pol, VG; Carp, O	0.832	5.116	Q1
63	Thermophysical properties of Cu-ZrO2 composites as potential thermal barrier materials for a DEMO W-monoblock divertor	<i>FUSION ENGINEERING AND DESIGN</i> , 127 , pp.179-184	Galatanu, M; Enculescu, M; Galatanu, A	0.281	1.437	Q1
64	CdS/ZnS-doped silico-phosphate films prepared by sol-gel synthesis	<i>JOURNAL OF NON-CRYSTALLINE SOLIDS</i> , 481 , pp.435-440	Rusu, MI; Stefan, CR; Elisa, M; Feraru, ID; Vasiliu, IC; Bartha, C; Trusca, RD; Vasile, E; Peretz, S	0.427	2.488	Q1
65	Impact of thickness variation on structural, dielectric and piezoelectric properties of (Ba, Ca) (Ti, Zr)O-3 epitaxial thin films	<i>SCIENTIFIC REPORTS</i> , 8 , 2056	Ion, V; Craciun, F; Scarisoreanu, ND; Moldovan, A; Andrei, A; Birjega, R; Ghica, C; Di Pietrantonio, F; Cannata, D; Benetti, M; Dinescu, M	1.356	4.122	Q1
66	Enhanced UV- and visible-light driven photocatalytic performances and recycling properties of graphene oxide/ZnO hybrid layers	<i>CERAMICS INTERNATIONAL</i> , 44 , pp.1826-1835	Gyorgy, E; Logofatu, C; del Pino, AP; Datcu, A; Pascu, O; Ivan, R	0.437	3.057	Q1

67	Coordination environment of Zn in foraminifera Elphidium aculeatum and Quinqueloculina seminula shells from a polluted site	<i>CHEMICAL GEOLOGY</i> , 477 , pp.100-111	de Giudici, G; Meneghini, C; Medas, D; Buosi, C; Zuddas, P; Iadecola, A; Mathon, O; Cherchi, A; Kuncser, AC	1.56	3.570	Q1
68	Dielectric properties of a bisimidazolium salt with dodecyl sulfate anion doped with carbon nanotubes	<i>BEILSTEIN JOURNAL OF NANOTECHNOLOGY</i> , 9 , pp.164-174	Maximean, DM; Circu, V; Ganea, CP	0.745	2.968	Q1
69	Material parameters from frequency dispersion simulation of floating gate memory with Ge nanocrystals in HfO ₂	<i>APPLIED SURFACE SCIENCE</i> , 428 , pp.698-702	Palade, C; Lepadatu, AM; Slav, A; Lazanu, S; Teodorescu, VS; Stoica, T; Ciurea, ML	0.627	4.439	Q1
70	Influence of In-Gap States on the Formation of Two-Dimensional Election Gas at ABO(3)/SrTiO ₃ Interfaces	<i>SCIENTIFIC REPORTS</i> , 8 , 195	Li, CJ; Xue, HX; Qu, GL; Shen, SC; Hong, YP; Wang, XX; Liu, MR; Jiang, WM; Badica, P; He, L; Dou, RF; Xiong, CM; Lu, WM; Nie, JC	1.356	4.122	Q1
71	Surface States- and Field-Effects at GaAs(100) Electrodes in Sodium Dodecyl Sulfate Acid Solution	<i>JOURNAL OF THE ELECTROCHEMICAL SOCIETY</i> , 165 , pp.H3008-H3017	Enache, M; Negri, C; Anastasescu, M; Dobrescu, G; Lazarescu, MF; Lazarescu, V	0.726	3.662	Q1
72	Effect of Li doping on the electric and pyroelectric properties of ZnO thin films	<i>APPLIED SURFACE SCIENCE</i> , 427 , pp.29-37	Trinca, LM; Galca, AC; Boni, AG; Botea, M; Pintilie, L	0.627	4.439	Q1
73	Functional properties improvement of Ag-ZnO thin films using Inconel 600 interlayer produced by electron beam evaporation technique	<i>THIN SOLID FILMS</i> , 667 , pp.76-87	Lungu, MV; Sobetkii, A; Sobetkii, AA; Patroi, D; Prioteasa, P; Ion, I; Negri, CC; Chifiriuc, MC	0.356	1.939	Q2
74	Organometallic compounds for photovoltaic applications	<i>INORGANICA CHIMICA ACTA</i> , 483 , pp.448-453	Ciobotaru, IC; Polosan, S; Ciobotaru, CC	0.292	2.264	Q2
75	Crystal growth and structural characterization of Sm ³⁺ , Pr ³⁺ and Dy ³⁺ - doped CNGG and CLNGG single crystals	<i>OPTICAL MATERIALS</i> , 84 , pp.335-338	Gheorghe, L; Greculeasa, M; Voicu, F; Gheorghe, C; Hau, S; Vlaicu, AM; Belikov, KN; Bryleva, EY; Gaiduk, OV	0.403	2.320	Q2
76	Thermal analysis, microstructure and impurity phases evolution in Fe ₁₄ Cr ferritic steel powders ball-milled in air and under an argon atmosphere	<i>JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY</i> , 134 , pp.463-474	Mihalache, V; Mercioniu, I; Aldica, G; Pasuk, I	0.279	2.209	Q2
77	Thermal, spectral and biological investigation of new nickel complexes with imidazole derivatives	<i>JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY</i> , 134 , pp.503-512	Vlaicu, ID; Olar, R; Scaeteanu, GV; Silvestro, L; Maurer, M; Stanica, N; Badea, M	0.279	2.209	Q2
78	Vortex dynamics driven by AC magnetic field in YBCO thin films with complex pinning structures	<i>SUPERCONDUCTOR SCIENCE & TECHNOLOGY</i> , 31 , 105012	Ivan, I; Ionescu, AM; Sandu, V; Crisan, A; Miu, L	0.821	2.861	Q2
79	Electric and magnetic properties of ferromagnetic/piezoelectric bilayered composite	<i>JOURNAL OF MATERIALS SCIENCE</i> , 53 , pp.14160-14171	Cernea, M; Vasile, BS; Surdu, VA; Trusca, R; Bartha, C; Craciun, F; Galassi, C	0.554	2.993	Q2
80	Effects of a surfactant on the morphology and photocatalytic properties of polycrystalline Fe-doped ZnO powders	<i>JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS</i> , 121 , pp.319-328	Diamandescu, L; Cernea, M; Trusca, R; Enculescu, M; Tanase, L; Baibarac, M; Feder, M; Nicoara, AI; Popescu, T	0.371	2.207	Q2
81	Edge-state mechanism for the anomalous quantum Hall effect in a diatomic square lattice	<i>PHYSICAL REVIEW B</i> , 98 , 125403	Ostahie, B; Nita, M; Aldea, A	1.142	3.813	Q2
82	Synthesis and Characterization of Chitosan-Coated Cobalt Ferrite Nanoparticles and Their Antimicrobial Activity	<i>JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS</i> , 28 , pp.1932-1941	Gingasu, D; Mindru, I; Patron, L; Ianculescu, A; Vasile, E; Marinescu, G; Preda, S; Diamandescu, L; Oprea, O; Popa, M; Saviuc, C; Chifiriuc, MC	0.196	1.754	Q2
83	Effect of mixing complexing agents on the properties of electrodeposited CZTS thin films	<i>OPTICAL MATERIALS</i> , 83 , pp.252-256	Zaki, MY; Nouneh, K; Touhami, ME; Belakhmima, RA;	0.403	2.320	Q2

			Galca, AC; Pintilie, L; Enculescu, M; Baibarac, M; Taibi, M			
84	Production and annealing of the paramagnetic defects in as-grown and oxygen doped floating zone silicon irradiated with high fluence 3.5 MeV and 27 MeV electrons	<i>MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING</i> , 83 , pp.1-11	Joita, AC; Nistor, SV	0.379	2.593	Q2
85	Removal of Zinc Ions Using Hydroxyapatite and Study of Ultrasound Behavior of Aqueous Media	<i>MATERIALS</i> , 11 , 1350	Iconaru, SL; Motelica-Heino, M; Guegan, R; Predoi, MV; Prodan, AM; Predoi, D	0.625	2.467	Q2
86	Bioceramic Layers with Antifungal Properties	<i>COATINGS</i> , 8 , 276	Predoi, D; Iconaru, SL; Predoi, MV	0.51	2.350	Q2
87	Investigation of sol-gel derived BaCl ₂ :Eu ²⁺ luminescent nanophosphor and the corresponding PVP@BaCl ₂ :Eu ²⁺ polymer nanocomposite	<i>JOURNAL OF PHYSICS D-APPLIED PHYSICS</i> , 51 , 305302	Secu, CE; Negrila, C; Secu, M	0.696	2.373	Q2
88	Organic heterostructures obtained on ZnO/Ag/ZnO electrode	<i>VACUUM</i> , 154 , pp.366-370	Socol, M; Preda, N; Breazu, C; Florica, C; Costas, A; Istrate, CM; Stanculescu, A; Girtan, M; Gherendi, F	0.36	2.067	Q2
89	Study of point-and cluster-defects in radiation-damaged silicon	<i>NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT</i> , 898 , pp.15-23	Donegani, EM; Fretwurst, E; Garutti, E; Klanner, R; Lindstroem, G; Pintilie, I; Radu, R; Schwandt, J	0.394	1.336	Q2
90	An X-ray photoelectron spectroscopy depth profile study on the InGeNi/(110) cleaved GaAs structure	<i>MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING</i> , 82 , pp.62-66	Negrila, CC; Lazarescu, MF; Logofatu, C; Ghita, RV; Cotirlan, C	0.379	2.593	Q2
91	Photoanode for solar water oxidation based on titania and hematite films	<i>THIN SOLID FILMS</i> , 658 , pp.7-11	Sima, M; Vasile, E; Sima, A	0.356	1.939	Q2
92	Characterization of surface and interface of Fe-C steel under electrolytic galvanization	<i>PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE</i> , 19 , pp.423-430	Bibicu, I; Bulea, C; Diamandescu, L; Rus, V; Popescu, T; Mercioniu, I	0.251	1.752	Q2
93	Osteoblast Cell Response to Naturally Derived Calcium Phosphate-Based Materials	<i>MATERIALS</i> , 11 , 1097	Mitran, V; Ion, R; Miculescu, F; Necula, MG; Mocanu, AC; Stan, GE; Antoniac, IV; Cimpean, A	0.625	2.467	Q2
94	Theoretical investigation of the structural, optical and magnetic properties of Mn doped and (Mn, Cr) co-doped CdS in its cubic structure	<i>MATERIALS CHEMISTRY AND PHYSICS</i> , 213 , pp.249-258	Aimouch, DE; Mesquine, S; Birsan, A; Kuncser, V; Zaoui, A; Boukortt, A	0.421	2.210	Q2
95	On the hydrophilicity of Ni-doped TiO ₂ thin films. A study by X-ray absorption spectroscopy	<i>THIN SOLID FILMS</i> , 657 , pp.42-49	Macovei, D; Tiron, V; Adomnitei, C; Luca, D; Dobromir, M; Antohe, S; Mardare, D	0.356	1.939	Q2
96	Synthesis and characterization of novel ferrite-piezoelectric multiferroic core-shell-type structure	<i>JOURNAL OF MATERIALS SCIENCE</i> , 53 , pp.9650-9661	Cernea, M; Vasile, BS; Ciuchi, IV; Surdu, VA; Barthia, C; Iuga, A; Galizia, P; Galassi, C	0.554	2.993	Q2
97	Annealing-Induced High Ordering and Coercivity in Novel L1(0) CoPt-Based Nanocomposite Magnets	<i>METALS</i> , 8 , 466	Crisan, AD; Vasiliu, F; Mercioniu, I; Barthia, C; Enculescu, M; Crisan, O	0.35	1.704	Q2
98	Structure and magnetic behavior of unpredictable EE-azide bridged tetranuclear Mn(II) complex with ONO-donor hydrazone ligand and its transformation to dinuclear Mn(III) complex	<i>POLYHEDRON</i> , 147 , pp.142-151	Bikas, R; Kuncser, V; Sanchiz, J; Schintie, G; Siczek, M; Hosseini-Monfared, H; Lis, T	0.276	2.067	Q2
99	Strain induced magnetism and superexchange interaction in Cr substituted nanocrystalline cobalt ferrite	<i>MATERIALS CHEMISTRY AND PHYSICS</i> , 211 , pp.54-64	Kumar, L; Kumar, P; Kuncser, V; Greculeasa, S; Sahoo, B; Kar, M	0.421	2.210	Q2

100	Incipient low-temperature formation of MAX phase in Cr-Al-C films	<i>JOURNAL OF ADVANCED CERAMICS</i> , 7, pp.143-151	Crisan, O; Crisan, AD	0.346	1.605	Q2
101	Phase change cellular automata modeling of GeTe, GaSb and SnSe stacked chalcogenide films	<i>MODELLING AND SIMULATION IN MATERIALS SCIENCE AND ENGINEERING</i> , 26, 45006	Mihai, C; Velea, A	0.785	1.793	Q2
102	Many-body effects in transport through a quantum-dot cavity system	<i>PHYSICAL REVIEW B</i> , 97, 195442	Dinu, IV; Moldoveanu, V; Gartner, P	1.142	3.813	Q2
103	Properties of Basil and Lavender Essential Oils Adsorbed on the Surface of Hydroxyapatite	<i>MATERIALS</i> , 11, 652	Predoi, D; Groza, A; Iconaru, SL; Predoi, G; Barbuceanu, F; Guegan, R; Motelica-Heino, MS; Cimpeanu, C	0.625	2.467	Q2
104	Production and aging of paramagnetic point defects in P-doped floating zone silicon irradiated with high fluence 27MeV electrons	<i>JOURNAL OF APPLIED PHYSICS</i> , 123, 161531	Joita, AC; Nistor, SV	0.561	2.176	Q2
105	Effect of electron injection on defect reactions in irradiated silicon containing boron, carbon, and oxygen	<i>JOURNAL OF APPLIED PHYSICS</i> , 123, 161576	Makarenko, LF; Lastovskii, SB; Yakushevich, HS; Moll, M; Pintilie, I	0.561	2.176	Q2
106	Kinetics of cluster-related defects in silicon sensors irradiated with monoenergetic electrons	<i>JOURNAL OF APPLIED PHYSICS</i> , 123, 161402	Radu, R; Pintilie, I; Makarenko, LF; Fretwurst, E; Lindstroem, G	0.561	2.176	Q2
107	Filling in the voids of electrospun hydroxypropyl cellulose network: Dielectric investigations	<i>EUROPEAN PHYSICAL JOURNAL PLUS</i> , 133, 159	Maximean, DM; Danila, O; Ganea, CP; Almeida, PL	0.406	2.240	Q2
108	One-Pot Enzymatic Production of Lignin-Composites	<i>FRONTIERS IN CHEMISTRY</i> , 6, 124	Ion, S; Opris, C; Cojocaru, B; Tudorache, M; Zgura, I; Galca, AC; Bodescu, AM; Enache, M; Maria, GM; Parvulescu, VI	1.237	4.155	Q2
109	Defect states and room temperature ferromagnetism in cerium oxide nanopowders prepared by decomposition of Ce-propionate	<i>MATERIALS CHEMISTRY AND PHYSICS</i> , 209, pp.121-133	Mihalache, V; Secu, M; Grivel, JC	0.421	2.210	Q2
110	Improved Optical and Morphological Properties of Vinyl-Substituted Hybrid Silica Materials Incorporating a Zn-Metalloporphyrin	<i>MATERIALS</i> , 11, 565	Dudas, Z; Fagadar-Cosma, E; Len, A; Romanszki, L; Almasy, L; Vlad-Oros, B; Dascalu, D; Krajnc, A; Kriechbaum, M; Kuncser, A	0.625	2.467	Q2
111	Gold nanoparticles stabilized on SBA-15 functionalized NNN-pincer ligand; highly effective catalyst for reduction of nitroarenes in aqueous medium	<i>CATALYSIS COMMUNICATIONS</i> , 108, pp.93-97	Hosseini, SH; Zohreh, N; Alipour, S; Busuioc, C; Negrea, R	0.596	3.463	Q2
112	The Effect of Film Thickness on the Gas Sensing Properties of Ultra-Thin TiO ₂ Films Deposited by Atomic Layer Deposition	<i>SENSORS</i> , 18, 735	Wilson, RL; Simion, CE; Blackman, CS; Carmalt, CJ; Stanoiu, A; Di Maggio, F; Covington, JA	0.554	2.475	Q2
113	Synthesis and characterization of dextran-coated iron oxide nanoparticles	<i>ROYAL SOCIETY OPEN SCIENCE</i> , 5, 111525	Predescu, AM; Matei, E; Berbecaru, AC; Pantilimon, C; Dragan, C; Vidu, R; Predescu, C; Kuncser, V	0.947	2.504	Q2
114	1532 nm sensitized luminescence and up-conversion in Yb,Er:YAG transparent ceramics	<i>OPTICAL MATERIALS</i> , 77, pp.221-225	Vorona, I; Yavetskiy, RP; Dobrotvorskaya, MV; Doroshenko, AG; Parkhomenko, SV; Tolmachev, AV; Kosyanov, DY; Gheorghe, L; Gheorghe, C; Hau, S; Enculescu, M	0.403	2.320	Q2
115	Wet chemical synthesis of ZnO-CdS composites and their photocatalytic activity	<i>MATERIALS RESEARCH BULLETIN</i> , 99, pp.174-181	Zgura, I; Preda, N; Socol, G; Ghica, C; Ghica, D; Enculescu, M; Negut, I; Nedelcu,	0.407	2.873	Q2

			L; Frunza, L; Ganea, CP; Frunza, S			
116	A Study of Extended Defects in Surface Damaged Crystals	CRYSTALS, 8, 67	Ferrari, C; Ghica, C; Rotunno, E	0.416	2.144	Q2
117	A Mathematical Account of the NEGF Formalism	ANNALES HENRI POINCARÉ, 19, pp.411-442	Cornean, HD; Moldoveanu, V; Pillet, CA	1.326	1.740	Q2
118	Charge carrier traps in tris-(8-hydroxyquinoline) aluminum	JOURNAL OF LUMINESCENCE, 194, pp.91-95	Secu, M; Polosan, S	0.423	2.732	Q2
119	Irradiation of nuclear materials with laser-plasma filaments produced in air and deuterium by terrawatt (TW) laser pulses	JOURNAL OF PHYSICS D-APPLIED PHYSICS, 51, 25302	Avotina, L; Lungu, M; Dinca, P; Butoi, B; Cojocaru, G; Ungureanu, R; Marcu, A; Luculescu, C; Hapenciuc, C; Ganea, PC; Petjukevics, A; Lungu, CP; Kizane, G; Ticos, CM; Antohe, S	0.696	2.373	Q2
120	Local configurations and atomic intermixing in as-quenched and annealed Fe _{1-x} Cr _x and Fe _{1-x} Mox ribbons	PHILOSOPHICAL MAGAZINE, 98, pp.1053-1067	Stanciu, AE; Greculeasa, SG; Bartha, C; Schintei, G; Palade, P; Kuncser, A; Leca, A; Filoti, G; Birsan, A; Crisan, O; Kuncser, V	0.535	1.632	Q2
121	Ultra-High Vacuum Deposition of Pyrene Molecules on Metal Surfaces	PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, 255, 1800235	Schleicher, S; Borca, B; Rawson, J; Matthes, F; Burgler, DE; Kogerler, P; Schneider, CM	0.412	1.729	Q3
122	Flexible organic heterostructures obtained by MAPLE	APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, 124, 602	Socol, M; Preda, N; Breazu, C; Stanculescu, A; Costas, A; Stanculescu, F; Girtan, M; Gherendi, F; Popescu-Pelin, G; Socol, G	0.327	1.604	Q3
123	A straightforward route to obtain organic/inorganic hybrid network from bio-waste: Electroless deposition of ZnO nanostructures on eggshell membranes	CHEMICAL PHYSICS LETTERS, 706, pp.24-30	Preda, N; Costas, A; Beregoi, M; Enculescu, I	0.429	1.686	Q3
124	Thermal Stress Effect on the Structure and Properties of Single and Double Stacked Films of GeTe and SnSe	PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, 255, 1700552	Sava, F; Borca, CN; Galca, AC; Socol, G; Grolimund, D; Mihai, C; Velea, A	0.412	1.729	Q3
125	A Comparative Study of Ge-Based Organometallic Additions to MgB ₂	IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, 28, 7000205	Batalu, D; Nakamura, T; Enculescu, M; Popa, S; Pasuk, I; Aldica, G; Ionescu, AM; Badica, P	0.248	1.288	Q3
126	Alternative valorization of red mud waste as functional materials with catalytic activity for sulfide oxidation in wastewater	INTERNATIONAL JOURNAL OF ENVIRONMENTAL SCIENCE AND TECHNOLOGY, 15, pp.895-908	Cruceanu, A; Zavoianu, R; Pavel, OD; Florea, M; Mara, L	0.374	2.037	Q3
127	The Cu- and Zn-complex-catalyzed methanolysis of the chemical warfare nerve agents soman, sarin, and VX	COMPTES RENDUS CHIMIE, 21, pp.339-345	Petrea, N; Petre, R; Pretorian, A; Toader, C; Somoghi, V; Neatu, F; Florea, M; Neatu, S	0.29	1.877	Q3
128	Selective catalytic oxidation reaction of p-xylene on manganese-iron mixed oxide materials	COMPTES RENDUS CHIMIE, 21, pp.354-361	Nicolae, S; Neatu, F; Florea, M	0.29	1.877	Q3
129	Electroluminescence Properties of IrQ(ppy) ₂ Dual-Emitter Organometallic Compound in Organic Light-Emitting Devices	JOURNAL OF ELECTRONIC MATERIALS, 47, pp.1490-1496	Ciobotaru, CC; Polosan, S; Ciobotaru, IC	0.302	1.566	Q3
130	Optical coatings for ELI experiments prepared by laser ablation	ROMANIAN JOURNAL OF PHYSICS, 63, 606	Bercea, A; Filipescu, M; Moldovan, A; Brajnicov, S; Colceag, D; Ion, V; Nistor, LC; Zorila, A; Dinescu, M	0.259	1.433	Q3
131	Tuning Wall Thicknesses in Mesoporous Silica Films for Optimization of Optical Anti-Reflective Properties	JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY, 18, pp.100-103	Abdullah, N; Hossain, MSA; Konstantinov, K; Tanabe, H; Matsuura, M; Maekawa, K; Fatehmulla, A; Farooq, WA; Islam, MT; Bando, Y; Kaneti, YV; Yamauchi, Y	0.156	1.354	Q3

132	CoFe ₂ -xCr _x O ₄ ferrites: synthesis, characterization and their catalytic activity	CHEMICAL PAPERS, 72, pp.3203-3213	Mindru, I; Gingasu, D; Diamandescu, L; Patron, L; Marinescu, G; Culita, DC; Calderon-Moreno, JM; Preda, S; Oprea, O; Parvulescu, V	0.204	0.963	Q4
133	Pinning-Induced Vortex-System Disorder at the Origin of the Second Magnetization Peak in Superconducting Single Crystals	JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, 31, pp.2329-2337	Ionescu, AM; Miu, D; Crisan, A; Miu, L	0.176	1.142	Q4
134	Irreversibility in Rolled Tantalum	JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, 31, pp.2047-2054	Sandu, V; Cimpoiasu, E	0.176	1.142	Q4
135	Low energy electron irradiation of carbon thin films	MATERIALS RESEARCH EXPRESS, 5, 55607	Pacala, O; Ciuca, I; Logofatu, C; Polosan, S	0.239	1.151	Q4
136	High temperature thermo-physical properties of SPS-edW-Cu functional gradient materials	MATERIALS RESEARCH EXPRESS, 5, 26502	Galatanu, M; Enculescu, M; Galatanu, A	0.239	1.151	Q4
137	Dwell Time Influence on Spark Plasma-Sintered MgB ₂	JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, 31, pp.317-325	Aldica, G; Popa, S; Enculescu, M; Pasuk, I; Ionescu, AM; Badica, P	0.176	1.142	Q4
138	Modeling issues regarding thermal conductivity of graphene-based nanocomposites	ROMANIAN JOURNAL OF INFORMATION SCIENCE AND TECHNOLOGY, 21, pp.82-92	Sandu, T; Gologanu, M; Voicu, R; Boldeiu, G; Moagar-Poladian, V	0.082	0.288	Q4
139	Low-temperature formation of 312 phase in Ti-Si-C ternary compound	DIGEST JOURNAL OF NANOMATERIALS AND BIOSTRUCTURES, 13, pp.155-162	Crisan, AD; Crisan, O	0.143	0.673	Q4
140	Hydrogenolysis of lignin over Ru-based catalysts: The role of the ruthenium in a lignin fragmentation process	MOLECULAR CATALYSIS, 450, pp.65-76	Verziu, M; Tirsoaga, A; Cojocaru, B; Bucur, C; Tudora, B; Richel, A; Aguedo, M; Samikannu, A; Mikkola, JP	Not Available	Not Available	Q4
141	Structural, Magnetic and Hyperfine Properties of Molybdenum Dioxide-Hematite Mixed Oxide Nanostructures	MRS ADVANCES, 3, pp.2887-2892	Trotta, R; Tolea, F; Valeanu, M; Diamandescu, L; Grabias, A; Sorescu, M	Not Available	Not Available	Not Available
142	ANALYSIS of PdGe-BASED CONTACT on N-Gasb	7TH INTERNATIONAL CONFERENCE ON STRUCTURAL ANALYSIS OF ADVANCED MATERIALS (ICSAAM 2017),1932,UNSP 030017	Ghita, RV; Negrilă, CC; Predoi, D; Trusca, R	Not Available	Not Available	Not Available
143	Fabrication and Characterization of Iron Oxide Dextran Composite Layers	7TH INTERNATIONAL CONFERENCE ON STRUCTURAL ANALYSIS OF ADVANCED MATERIALS (ICSAAM 2017),1932,UNSP 030019	Iconaru, SL; Predoi, SA; Beuran, M; Ciobanu, CS; Trusca, R; Ghita, R; Negoii, I; Teleanu, G; Turculet, SC; Matei, M; Badea, M; Prodan, AM	Not Available	Not Available	Not Available
144	Application of Biocompatible Magnetite Nanoparticles for the Removal of Arsenic and Copper from Water	7TH INTERNATIONAL CONFERENCE ON STRUCTURAL ANALYSIS OF ADVANCED MATERIALS (ICSAAM 2017),1932,UNSP 030018	Iconaru, SL; Beuran, M; Turculet, CS; Negoii, I; Teleanu, G; Prodan, AM; Motelica-Heino, M; Guegan, R; Ciobanu, CS; Jiga, G; Predoi, D	Not Available	Not Available	Not Available
145	Physico-Chemical Characteristics and Antimicrobial Studies of Silver Doped Hydroxyapatite	7TH INTERNATIONAL CONFERENCE ON STRUCTURAL ANALYSIS OF ADVANCED MATERIALS (ICSAAM 2017),1932,UNSP 030034	Predoi, D; Predoi, MV; El Kettani, MEC; Leduc, D; Iconaru, SL; Ciobanu, CS; Buton, N; Petre, CC; Prodan, AM	Not Available	Not Available	Not Available
146	The Influence of the Relaxation Time on the Dynamic Hysteresis in Perovskite Solar Cells	MATHEMATICAL MODELING AND COMPUTATIONAL PHYSICS 2017 (MMCP 2017), 173, UNSP 03017	Palici, A; Nemnes, GA; Besleaga, C; Pintilie, L; Anghel, DV; Pintilie, I; Manolescu, A	Not Available	Not Available	Not Available
147	Synthesis and Characterization of Jellyfied Composites from Bovine Bone-Derived Hydroxyapatite and Starch as Precursors for Robocasting	ACS OMEGA, 3, pp.1338-1349	Miculescu, F; Maidaniuc, A; Miculescu, M; Batalu, ND; Ciocoiu, RC; Voicu, SI; Stan, GE; Thakur, VK	Not Available	Not Available	Not Available

Lista brevetelor acordate si a cererilor de brevete depuse in 2018

#	Titlu Brevet	Autori	Nr. Inregistrare cerere sau nr decizie acordare	Data inregistrare cerere sau data Decizie Acordare
1	OCHELARI CU METASUPRAFEȚE ACTIVE PENTRU ÎMBUNĂȚĂȚIREA PERCEPȚIEI IMAGINILOR ÎN CONDIȚII DIFICILE DE VIZIBILITATE	COTÎRLAN-SIMIONUC COSTEL	A00815	10/18/2018
2	OBȚINERE ȘI MATERIAL CERAMIC PENTRU CĂRĂMIZI, REPLICĂ A CELOR ROMANE	PETRE BĂDICĂ, DAN BATALU, MIHAI-ALEXANDRU GRIGOROȘCUȚĂ, GHEORGHE VIRGIL ALDICA, IONUȚ SĂVULESCU, MIRCEA RADU	A00740	9/28/2018
3	PROCEDEU DE PREPARARE A LUMINOFORULUI NANOCRISTALIN $CeF_3:Tb^{3+}$	MIHAIL SECU, CORINA SECU	A00622	8/29/2018
4	STRAT MEZOPOROS PENTRU CELULE SOLARE PE BAZĂ DE PEROVSKIȚI ȘI METODA DE OBȚINERE	IOANA PINTILIE, ANDREI-GABRIEL TOMULESCU, LUCIA NICOLETA LEONAT, VIORICA STANCU, CRISTINA BEȘLEAGĂ STAN, VASILICA TOMA, VIOREL-GEORGEL DUMITRU, LUCIAN PINTILIE	A00364	5/23/2018
5	STRUCTURĂ DE MEMORIE OPTOELECTRICĂ CU POARTĂ FLOTANTĂ DIN NANOCRISTALE DE GERMANIU ȘI PROCEDEU DE REALIZARE A ACESTEIA	STOICA TOMA, PALADE CĂȚĂLIN, SLAV ADRIAN, LEPĂDATU ANA-MARIA	A00413	6/12/2018
6	STRUCTURĂ DE DOZIMETRU PE BAZĂ DE CAPACITOR MOS CU POARTĂ FLOTANTĂ DIN NANOCRISTALE DE GERMANIU ȘI PROCEDEU DE REALIZARE A ACESTEIA	LAZANU SORINA, PALADE CĂȚĂLIN, LEPĂDATU ANA-MARIA, STĂVĂRACHE IONEL, CIUREA MAGDALENA LIDIA	A00277	4/19/2018
7	MEMORIE CAPACITIVĂ ȘI METODĂ DE OPERARE	BONI GEORGIA ANDRA, CHIRILĂ CRISTINA, HRIB LUMINIȚA, VIOREL DUMITRU, PINTILIE IOANA, PINTILIE LUCIAN	A00363	5/23/2018
8	CIRCUITE LOGICE CU MEMORII CAPACITIVE	BONI GEORGIA ANDRA, CHIRILĂ CRISTINA, HRIB LUMINIȚA, VIOREL DUMITRU, PINTILIE IOANA, PINTILIE LUCIAN	A00560	7/31/2018
9	PROCEDEU DE OBȚINERE A UNUI FOTODETECTOR PE BAZĂ DE MATRICI DE NANOFIRE MIEZ-COAJĂ DE TIP OXID DE CUPRU ȘI OXID DE ZINC PREPARATE PE ELECTROZI METALICI INTERDIGITAȚI	COSTAȘ LILIANA-ANDREEA, FLORICA CAMELIA-FLORINA, PEDA NICOLETA-ROXANA, EVANGHELIDIS ALEXANDRU IONUȚ, BEȘLEAGĂ STAN CRISTINA. BEREGOI MIHAELA, ENCULESCU	A00439	6/19/2018

		MARIA-MONICA, MATEI ELENA, DICULESCU VICTOR- CONSTANTIN, ENACHE TEODOR ADRIAN, IGNAT-BÂRSAN MĂDĂLINA MARIA, ONEA MELANIA LOREDANA, ALDEA ANCA, APOSTOL MARIANA MIHAELA, BUNEA MIHAELA- CRISTINA, CRIȘAN DANIEL NICOLAE, CONSTANTINESCU MIHAI OCTAVIAN, ENCULESCU IONUȚ- MARIUS		
10	MATERIAL SENSIBIL LA GAZUL METAN LA TEMPERATURA CAMEREI	LŐRINCZI ADAM, FĂGĂDAR-COSMA EUGENIA, SOCOL GABRIEL, MIHĂILESCU ANDREEA, MATEI ELENA, ȘTEFAN MARIANA, LOGOFĂTU CONSTANTIN	A00621	8/29/2018
11	PROCEDEU DE OXIDARE SELECTIVĂ A <i>p</i> - PECIMENULUI DIN SURSE REGENERABILE ÎN PREZENȚĂ DE CATALIZATORI ETEROGENI OXIZI MICȘTI PE BAZĂ DE COBALT	NEAȚU FLORENTINA, NEAȚU ȘTEFAN, FLOREA MIHAELA	A00242	4/4/2018
12	INSTALAȚIE PENTRU OBTINEREA PRIN ELECTROFILARE A SUBSTRATURILOR FIBRILARE DIN BIOPOLIMERI	CIOCA MIHAI, DOBRESCU GABRIEL, IGHIGEANU ADELINA MARIA, EVANGHELIDIS ALEXANDRU, MATEI ELENA ENCULESCU IONUȚ	U00037 (model de utilitate)	7/31/2018
14	PROCEDEU DE OBTINERE A PULBERII DE HIDROXIAPATITĂ ÎN MATRICE DE SILICIU, UTILIZATĂ PENTRU APLICAȚII DE MEDIU	PREDOI DANIELA, CIOBANU STELUȚA CARMEN, GHIȚĂ RODICA, POPA CRISTINA-LIANA, ICONARU SIMONA- LILIANA	131326 (acordat)	9/28/2018
15	STRUCTURA DE CAPACITOR PENTRU MEMORIE NEVOLATILA PE BAZA DE NANOCRISTALE DE GERMANIU IMERSATE IN DIOXID DE SILICIU	CIUREA LIDIA MAGDALENA, STAVARACHE IONEL, TEODORESCU VALENTIN SERBAN	131074 (acordat)	4/27/2018
16	PROCEDEU DE OBTINERE DE MICRO SI NANOFIBRE POLIMERICE PRIN ELECTROSPINNING FOLOSIND MATERIALE TEXTILE PENTRU OBTINEREA DE JETURI MULTIPLE	EVANGHELIS ALEXANDRU IONUT, BUSUIOC CRISTINA, MATEI ELENA, ENCULESCU MARIA- MONICA, PREDĂ NICOLETA-ROXANA, FLORICA CAMELIA- FLORINA, COSTAS LILIANA-ANDREEA, OANCEA MIHAELA, ENCULESCU IONUT- MARIUS	131565 (acordat)	4/27/2018
17	MATRICE CAPACITIVĂ PENTRU MEMORIE NEVOLATILĂ, BAZATĂ PE	SLAV, A; PALADE, C; LEPADATU, AM;	131968 (acordat)	5/30/2018

	NANOCRISTALE DE GERMANIU IMERSATE ÎN DIOXID DE HAFNIU ȘI PROCEDEU DE REALIZARE A ACESTEIA	LAZANU, S; CIUREA, ML; VASILACHE, D; DRAGOMAN, M;		
18	METODĂ ȘI DISPOZITIV DE MĂSURARE A PROPRIETĂȚILOR OPTICE ALE STRATURILOR SUBȚIRI DEPUSE PE SUPRAFEȚE SAU INTERFEȚE CU REFLEXIE TOTALĂ INTERNĂ	COTÎRLAN-SIMIONUC COSTEL, LĂZĂRESCU MIHAIL FLORIN	128062 (acordat)	5/30/2018
19	PROCEDEU DE OBTINERE A UNOR NANOSTRUCTURI UNIDIMENSIONALE DE OXID DE ZINC PRIN OXIDARE TERMICĂ ÎN AER A UNOR FOLII DE ZINC	FLORICA CAMELIA-FLORINA, PREDĂ NICOLETA-ROXANA, COSTAȘ LILIANA-ANDREEA, EVANGHELIDIS ALEXANDRU IONUȚ, OANCEA MIHAELA, ENCULESCU MARIA-MONICA, MATEI ELENA, ENCULESCU MARIUS-IONUȚ	131555 (acordat)	5/30/2018

Lista premiilor obtinute in 2018

GOLD MEDAL AND CERTIFICATE OF ATTENDANCE	FERROELECTRIC MEMOMRY STRUCTURE WITH MULTIPLE MEMORY STATES AND FABRICATION METHOD	GEORGIA ANDRA BONI, CRISTINA CHIILĂ, LUMINIȚA HRIB, PINTILIE IOANA, PINTILIE LUCIAN
GOLD MEDAL AND CERTIFICATE OF ATTENDANCE	ULTRA-LOW POWER RESPIRATION RATE SENSOR	BEȘLEAGĂ STAN CRISTINA, DUMITRU VIOREL-GEORGEL
GOLD MEDAL AND CERTIFICATE OF ATTENDANCE	MAGNETIC MATERIAL BASED ON NANOPARTICLES OF IRON NITRIDE WITH ORDERED MARTENSITE STRUCTURE AND ITS MANUFACTURING METHOD	COMĂNESCU CEZAR CĂTĂLIN, PALADE PETRU, KUNCSEER ANDREI RISTIAN, PLĂPCIANU CARMEN GABRIELA
SILVER MEDAL AND CERTIFICATE OF ATTENDANCE	PROCESS FOR OBTAINING A TITANIUM DIOXIDE DOPED COMPOSITE WITH REDUCED IRON/NITROGEN/REDUCED GRAPHITE OXIDE, WITH EXTENDED PHOTOCATALYTIC ACTIVITY IN THE VISIBLE FIELD	FEDER MARCEL, DIAMANDESCU LUCIAN CONSTANTIN, CERNEA MARIN, STERIAN GHEORGHE, DUMITRESCU IULIANA
DIPLOMA OF EXCELLENCE AND CERTIFICATE OF ATTENDANCE	OBTAINING AN PHOTOACTIVE STRUCTURE ON n-GaSb	GHIȚĂ RODICA, NEGRILĂ, CONSTANTIN-CĂTĂLIN, LOGOFĂTU CONSTANTIN, MIHAI MARIA-DIANA, PREDOI DANIELA, STOICU MARIUS
DIPLOMA OF EXCELLENCE AND CERTIFICATE OF ATTENDANCE	PROCESSING METHOD AND SUPERCONDUCTING TAPE/WIRE IN A LIGHT METAL SHEATH WITH MgB ₂ CORE	MIHAI ALEXANDRU GRIGOROȘCUȚĂ, MIHAIL BURDUȘEL, GHEORGHE VIRGIL ALDICA, PETRE BĂDICĂ
DIPLOMA OF EXCELLENCE AND CERTIFICATE OF	PROCESS FOR PREPARING THE BaCl ₂ :Eu ²⁺ LUMINOPHORE	MIHAIL SECU, CORINA-ELISABETA SECU

ATTENDANCE		
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Portofoliul de contracte la finalul anului 2018

Nr. crt.	Denumirea proiectului	Cod proiect*	Suma (lei)
1	Cercetari de frontiera in domeniul materialelor avansate cu impact aplicativ	PN18-110101	19.606.009
2	Studiu si formare profesionala avansata in fizica si domnii conexe prin tehnici computationale moderne aplicabile proceselor fizice la nivel nano si macro	PN18-110201	191.814
Total program-nucleu			19.797.823

	Instalatii interes national	IIN 8 / 2013 - MCI	422.764,00
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Sursa finantare	Titlul proiectului	Valoare totala/Valoare 2018 (lei)	data de inceput	data de incheiere
ERA 33/2016	Filme oxidice cu fotocconductivitate ridicata functionalizate cu nanoparticule GeSi pentru aplicatii de mediu	1.125.000/123.750	1/5/2016	12/29/2018
ERA 61/2016	Materiale cu proprietati imbunatatite pentru integrare in senzori inteligenti de unde milimetrice	500.000/138.479	6/1/2016	5/31/2018
ERA 49/2016	Nanomateriale si arhitecturi inovatoare pentru aplicatii integrate de captare a energiei piezoelectrice	447.750/132.759	6/1/2016	6/1/2019
ERA 58/2016	Acoperiri nanostructurate de GeSn pentru fotonica	528.750/137.747	8/1/2016	7/2/2018
Eranet 74/2017	Materiale avansate biodegradabile pe baza de MgB2 rezistente la colonizare microbiana	462.771/112.521	7/27/2017	5/14/2020
IFA -CEA C5-08/2016	Amplificarea prin efecte plasmonice a emisiilor nanofibrelor polimerice dopate cu coloranti	900.000/150.882	8/1/2016	8/1/2019
IFA- CEA C5-03/2016	Optimizarea elementelor piroelectrice pe substrat de Si pentru aplicatii in senzoriala si captare de energie	900.000/150.882	8/1/2016	8/1/2019
18ELI/2016	Stiinta suprafetelor folosindu-se pozitroni: optimizarea moderatorilor din Ne solid si primele experimente PAES	1.200.400/128.163	9/1/2016	8/1/2019

Sursa finantare	Titlul proiectului	Valoare totala/Valoare 2018 (lei)	data de inceput	data de incheiere
23 ELI/2017	Masurarea in timp real a efectului fasciculului de protoni Indus de laser asupra celulelor umane	1.350.000/82.563	10/18/2017	12/31/2019
89PED/2017	Memorie foto-electrica pe baza de nanocristale de Ge	600.000/191.000	1/3/2017	7/2/2018
42PED/2017	Dozimetru tip capacitor cu nanocristale de Ge sau Si	600.000/190.500	1/3/2017	7/2/2018
54PED/2017	Fotodetectori miniaturizati pe baza de nanonofire de oxizi metalici	600.000/168.750	1/3/2017	7/2/2018
95PED/2017	Metoda magneto-optica vectoriala de investigare a filmelor magnetice microstructurate	410.000/130.000	1/3/2017	7/2/2018
98PED/2017	O metodologie generala de sinteza a precursorilor de bio-polimeri: cai catalitice de obtinere a acizilor aromatici mono- si dicarboxilici	600.000/142.500	1/3/2017	7/2/2018
128PED/2017	Dispozitiv pentru administrarea transdermala a medicamentelor bazat pe plase de nanofibre metalice si geluri termoresponsive	600.000/178.750	1/3/2017	7/2/2018
163PED/2017	De la caramizile romane de la Romula la materiale moderne pentru restaurare	390.000/100.000	1/3/2017	7/2/2018
88PED/2017	Limitatori de curent de scurt-circuit pe baza de supraconductori de temperatura inalta	240.000/80.000	1/3/2017	7/2/2018
203PED/2017	Dispozitiv de memorie tip capacitor, cu poarta flotanta din nanocristale de Ge:solutie noua pe baza de Al2O3	475.000/298.530	8/23/2017	7/2/2018
241PED/2017	Fabricarea prin imprimare laser 3D de proteze metalice cramiene functionalizate cu straturi subtiri ceramic bioactive	166.820/103.251	8/23/2017	7/2/2018
1EU-8/2/2016	Participarea Romaniei la EUROfusion WPMAT si cercetari complementare (principal)	1.522.418/398.416	7/1/2016	12/31/2018
1EU-8/2/2016	Participarea Romaniei la EUROfusion WPMAT si cercetari complementare (complementar)	324.100/82.507	7/1/2016	12/31/2018
PTE 51/2016	Tehnologie și echipament pentru obținerea prin electrofilare a substraturilor colagenice nanofibrilare, destinate pansamentelor resorbabile	830.020/365.520	10/6/2016	12/5/2018

Sursa finantare	Titlul proiectului	Valoare totala/Valoare 2018 (lei)	data de inceput	data de incheiere
125BG/2016	Marcarea moleculara a operelor de arta	140.000/70.000	9/30/2016	9/30/2018
16BM/2016	Nanoparticule pentru remedierea solurilor contaminate	24.000/9.400	6/1/2016	12/14/2018
82BM/2017	Nanostructuri functionalizate la suprafata pentru aplicatii in fotonica si tehnologii utilizand manipularea spinelor	21.700/10.850	4/1/2017	12/14/2018
20BM/2018	Noi nanostructuri calcogenice entru tehnologia informatiei si a comunicatiilor	38.000/9.000	8/1/2018	12/31/2019
Husanu	Proiect de mobilitate pentru cercetatori	2.294,48	2018	2018
Apostol	Proiect de mobilitate pentru cercetatori	6.419,06	2018	2018
Teodorescu C	Proiect de mobilitate pentru cercetatori	6.525,39	2018	2018
Hrib Luminita	Proiect de mobilitate pentru cercetatori	4.897,39	2018	2018
Patru Roxana	Proiect de mobilitate pentru cercetatori	4.970,06	2018	2018
IDEI 124/2017	Senzori biomimetici bazati pe tranzistori cu efect de camp de inalta performanta cu canal nanofir	850.000/244.740	7/12/2017	12/31/2019
IDEI134/2017	Ccaracterizarea la scala nanometrica a materialelor functionale avansate: de la 2D la 3D+	850.000/217.426	7/12/2017	12/31/2019
IDEI 152/2017	Modelarea proprietatilor semiconductoare ale nitrurii cubice de bor pentru aplicatii avansate	850.000/281.494	7/12/2017	12/31/2019
IDEI 177/2017	Noi abordari pentru sinteza de materiale hibride organice-anorganice de tip perosvskit cu posibile proprietati feroelectrice pentru aplicatii fotovoltaiice	850.000/249.462	7/12/2017	12/31/2019
IDEI 122/2017	Dispozitive optoelectronice pe baza de nanocristale de SiGeSn in matrice oxidica	850.000/248.580	7/12/2017	12/31/2019
IDEI 3/2017	Efectele cuplajului electron-vibron in sisteme nano-electromecanice	850.000/285.608	7/12/2017	12/31/2019
IDEI187/2017	Platforma de integrare nanomagnet-logica cu arii de jonctiuni de tunelare magnetica cu magnetizare inversata optic pentru memorii de tip spintronic si nanosenzori	850.000/248.580	7/12/2017	12/31/2019

Sursa finantare	Titlul proiectului	Valoare totala/Valoare 2018 (lei)	data de inceput	data de incheiere
IDEI141/2017	Biosenzori flexibili contactati prin hidrogeluri la nivelul epidermei pentru analiza cantitativa de biomarkeri in transpiratie	1.000.000/293.179	7/12/2017	12/31/2019
IDEI 201/2017	Rupere spontana de simetrie si procese disipative in laseri cu un singur punct cuantic. Tranzitia laser ca tranzitie de faza (CIFRA)	752.820/212.711	7/12/2017	12/31/2019
IDEI 198/2017	Proprietati ale neutronilor deduse din studiul proceselor de dezintegrari rare la energii joase si inalte (CIFRA)	775.700/218.010	7/12/2017	12/31/2019
ROSA 168/2017	Acoperiri multistrat pentru antene spatiale cu PIM scazut	172.000/70.400	7/20/2017	7/19/2019
ROSA 161/2017	Development of an electronic selection matrix module for imaging applications in THz domain-ESMM	173.475/73.353	7/20/2017	7/19/2019
IDEI Complexe 7/2018	Dispozitive nanoelectronice avansate bazate pe heterostructuri grafena/feroelectric	8.500.000/343.000	7/2/2018	6/30/2022
IDEI Complexe 16/2018	Controlul proprietatilor electronice in heterostructuri bazate pe perovskiti feroelectrici: de la teorie la aplicatii	8.500.000/468.749	10/10/2018	10/9/2022
IDEI Complexe /2018	Nanostructuri particulare de tip multistrat cu constanta dielectrica ridicata cu aplicatii pentru stocarea energiei si dispozitive nanoelectronice	8.500.000/287.049	10/10/2018	10/9/2022
7SOL/2017	Sistem integrat pentru interventia rapida la incidente CBRNE	8.275.000/1.165.000	10/1/2017	9/30/2020
TE 4/2018	Sinergia agentilor antimicrobieni incorporate in acoperiri durabile de biosticla pentru implanturi endo-osoase	450.000/126.000	5/2/2018	4/30/2020
TE 64/2018	Materiale avansate: sfere mezoporoase cu proprietati acido-bazice controlabile pentru intermediari de cauciuc	450.000/136.500	5/2/2018	4/30/2020
TE 30/2018	Fotodetectori in VIS-NIR pe baza de nanocristale de germaniu in matrice de nitrura de siliciu	450.000/126.000	5/2/2018	4/30/2020

Sursa finantare	Titlul proiectului	Valoare totala/Valoare 2018 (lei)	data de inceput	data de incheiere
TE 61/2018	Dezvoltarea de sisteme nanocompozite pentru aplicatii fotoelectrocatalitice	450.000/143.050	5/2/2018	4/30/2020
TE 62/2018	Harta materialelor ovonice cu comutare cu prag	450.000/125.833	5/2/2018	4/30/2020
TE 134/2018	Proprietati intrinseci in materiale dielectrice de microunde investigate prin spectroscoapie de terahertzi in domeniul temporal	450.000/56.250	10/10/2018	10/9/2020
PD 75/2018	Studii pentru imbunatatirea eficientei si stabilitatii celulelor solare perovskitice planare	250.000/82.590	5/2/2018	4/30/2020
PD 16/2018	Dezvoltarea de foto-tranzistori pe baza de perovskiti halogenati fara plumb pentru o noua generatie de afisaje OLET	250.000/88.002	5/2/2018	4/30/2020
PD 39/2018	Straturi de GeSn cu fotosenzitivitate crescuta prin effect de camp	250.000/82.500	5/2/2018	4/30/2020
PD 117/2018	Originea histerezisului rezistentei in straturi de grafena depuse pe substraturi feroelectrice	250.000/95.000	5/2/2018	4/30/2020
POC 54/2016	Materiale multifunctionale inteligente pentru aplicatii de inalta tehnologie-MATI2IT	16.450.000/810.959,38	9/1/2016	9/4/2021
POC 58/2016	Analize fizico-chimice, materiale nanostructurate și dispozitive pentru aplicații în domeniul farmaceutic și medical din România-AMD-FARMA-MED-RO	16.065.663/ 658.554,06	9/1/2016	9/4/2021
POC 28/2016	Materiale avansate speciale pe baza de bor si de pamanturi rare-REBMAT	8.827.500/ 1.720.731,66	9/1/2016	8/31/2020
POC 27/2016	Biosenzori electrochimici nanostructurați pentru diagnoză medicală și screening de compuși cu proprietăți farmaceutice: dezvoltare, caracterizarea suprafațelor și aplicații-NANOBIO SURF	8.914.316/ 1.963.701,58	9/1/2016	8/31/2020
Transfrontalier Ctr. Nr.121211/23.12.2016	Forta de interventie rapida in situatii CBRN pe fluviul Dunarea	631.334Eu/863663,21	12/23/2016	6/1/2018

Sursa finantare	Titlul proiectului	Valoare totala/Valoare 2018 (lei)	data de inceput	data de incheiere
Transfrontalier Ctr. Nr.121201/29.12.2016	Capabilitati si interoperabilitate pentru interventia romano-bulgara de specialitate, la eveniment chimic-biologic-radiologic-nuclear-explozivi	240.880Eu/324352,46	12/29/2016	6/1/2018
75PCCDI/2018	Paradigme tehnologice în sinteza și caracteriza-rea structurilor cu dimensionalitate variabilă	5.287.500/713.242	3/1/2018	8/31/2020
47PCCDI/2018	Noi directii de dezvoltare tehnologica si de utilizare a materialelor nanocompozite avansate	5.287.500/591.000	3/14/2018	10/12/2020
58PCCDI/2018	Noi metodologii de diagnosticare si tratament: provocari actuale si solutii tehnologice bazate pe nanomateriale si biomateriale	4.917.375/578.806,47	3/15/2018	9/15/2020
13PCCDI/2018	Terapii inteligente pentru boli non-comuni-cabile bazate pe Eliberarea controlata de compusi farmacologici din celule incapsulate dupa manipulare genetica sau bionanoparticule vectorizate	5.287.500/203.000	4/2/2018	12/15/2020
23PCCDI/2018	Imbunatatirea calitatii vietii prin dezvoltarea de noi tehnologii pe baza de nanoparticule eficiente in decontaminarea apelor si solurilor	5.287.500/456.750	4/2/2018	12/15/2020
43PCCDI/2018	Bionanomateriale inovative pentru tratament si diagnostic	4.318.125/275.500	4/2/2018	12/15/2020
44PCCDI/2018	Programinterinstituțional pentru dezvoltarea de solutii avansate pe baza de econanotehno-logii pentru tratamente multifunctionale ale materialelor textile si din piele	5.287.500/278.923	3/1/2018	8/31/2020
38PCCDI/2018	Materiale compozite cu oxid de grafen pentru îmbunătățirea performanței la acțiunea focului a elementelor de construcții și instalații în scopul protejării vieții în caz de incendiu	5.287.500/344.300	3/1/2018	8/31/2020

Sursa finantare	Titlul proiectului	Valoare totala/Valoare 2018 (lei)	data de inceput	data de incheiere
46PCCDI/2018	Materiale avansate si tehnologii laser/plasma de procesare pentru energie si depoluare: cresterea potentialului aplicativ si al interconec-tarii stiintifice in dome-niul eco-nanotehnologiilor	5.287.500/263.441	3/1/2018	8/31/2020
52PCCDI/2018	Platformă pluridis-ciplinară complexă de cercetare integrativă și sistematică a identi-tăților și patrimoniului cultural tangibil și non-tangibil din România	5.287.500/62.380,45	3/1/2018	8/31/2020
CERN 11/2018	Inginerie de defecte in detectorii de siliciu de tip p pentru viitoarele experimente LHC/DEPSIS	400.000	5/1/2018	12/31/2018
18PCCDI/2018	Valorificarea extensive a experientei in activitati de spatiu si securitate	4.804.575/45.000	3/26/2018	12/31/2020
12PFE/2018	Dezvoltare institutional pentru cercetare de excelenta in domeniul materialelor avansate	6.900.000/351.600	10/16/2018	12/10/2020
- Horizont 2020	3eFERRO	1.442.856,31/705.773,30	1/1/2018	6/30/2021

Lista serviciilor prestate prin contracte economice

	Beneficiar	Val. Contract fara TVA	Val. Contract cu TVA	Numar si data contract, comanda	Numar si data factura	fact. fara TVA
1	Ctr.1369/25.07.2017	6,735.50	8,015.25		F.8/28.02.2018	698.46
2			0.00		F.10/12.03.2018	1,047.83
3			0.00		F.12/15.03.2018	1,923.16
4			0.00		F.15/29.03.2018	1,085.94
5			0.00		F.17/03.04.2018	698.22
6			0.00		F.19/11.04.2018	2,621.53
7			0.00		F.20/12.04.2018	699.00
8			0.00		F.26/23.05.2018	1,219.18
9			0.00		F.29/24.05.2018	1,388.76
10			0.00		F.30/15.06.2018	699.84
11			0.00		F.36/09.07.2018	792.47
12			0.00		F.33/28.06.2018	698.54
13			0.00		F.42/02.08.2018	1,509.25
14			0.00		F.48/05.09.2018	694.82
15	GREENFIBER S.A	700.00	833.00	Ctr.258/06.02.2018	F.4/08.02.2018	700.00
16	INTELECTRO IASI	116,000.00	138,040.00	Ctr.222/01.02.2018	F.9/28.02.2018	116,000.00
17	ACTAVIS	12,000.00	14,280.00	Com.1802/13.02.2018	F.11/14.03.2018	12,000.00

18	ISOVOLTA	1,397.28	1,662.76	Com.4500373629/02.03.18	F.16/02.04.2018	1,397.28
19	INTELLECTRO IASI	125,500.00	149,345.00	Ctr.591/14.03.2018	F.25/14.05.2018	125,500.00
20	ELECTROMAGNETICA	1,400.00	1,666.00	Com.065-2/28.03.2018	F.21/16.04.2018	1,400.00
21	ELECTROMAGNETICA	700.00	833.00	COM.065-1/24.04.2018	F.24/08.05.2018	700.00
22	EUROTECHSYS	68,700.00	81,753.00	CTR.1235/07.06.2018	F.43/07.08.2018	68,700.00
23	INCD Microtehnologie	6,000.00	7,140.00	Com./21.06.2018	F.31/22.06.2018	6,000.00
24	SC GB INDCO SRL	20,892.60	24,862.19	CTR.888/23.04.2018	F.45/08.08.2018	20,892.60
25	SINDAN-PHARMA	12,000.00	14,280.00	Com.1806-1269/15.06.18	F.44/07.08.2018	12,000.00
26	ISOVOLTA	1,050.00	1,249.50	Com.1922/13.09.2018		
27	ROMPHARM	930.00	1,106.70	Com.1964/20.09.2018	F.53/01.10.2018	930.00
28	ISOVOLTA SA	1,050.00	1,249.50	Com.1922/13.09.2018	F.54/03.10.2018	1,050.00
29			0.00			
30			0.00			
31			0.00			
32			0.00			
33			0.00			
34			0.00			
TOTAL1		375,055.38	446,315.90			383,046.88

	Beneficiar	Val. Contract fara TVA	Val. Contract cu TVA	Numar si data contract, comanda	Numar si data factura	fact. fara TVA
1	Cyber Swarm	15,000.00	17,850.00		Inv 1 / 28.02.2018	56,673.00
2	Cyber Swarm	85,000.00	101,150.00		Inv 2 / 27.08.2018	339,651.50
3						
4						
5						
TOTAL2						396,324.50