Curriculum vitae Europass

Informaţii personale

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Sex	barbatesc

Locul de muncă/ Domeniul ocupaţional	**Cercetator stiintific gradul 1, Dr./Director General INCD Fizica Materialelor/cercetare dezvoltare**

Experienţa profesională

Perioada	Februarie 2013 – Prezent
Funcţia sau postul ocupat	Director general (cu delegatie)/prin concurs
Activităţi şi responsabilităţi principale	Management INCD Fizica Materialelor, cercetare in domeniul materialelor noi si avansate si al nanotehnologiilor
Numele şi adresa angajatorului	INCD Fizica Materialelor
Tipul activităţii sau sectorul de activitate	Cercetare - dezvoltare

Perioada	Ianuarie 2010 – Ianuarie 2013
Funcţia sau postul ocupat	Sef laborator 10 Materiale si structuri multifunctionale, cercetator stiintific gradul 1
Activităţi şi responsabilităţi principale	Management laborator (aprox. 40 de membri)/ management proiecte nationale si internationale/ cercetare in domeniul materialelor si al nanotehnologiilor

Numele şi adresa angajatorului	INCD Fizica Materialelor
Tipul activităţii sau sectorul de activitate	Cercetare - dezvoltare
Perioada	2009 - 2010
Funcţia sau postul ocupat	cercetator stiintific gradul 1
Activităţi şi responsabilităţi principale	Management grup de cercetare/ management proiecte nationale si internationale/ cercetare in domeniul materialelor si al nanotehnologiilor
Numele şi adresa angajatorului	INCD Fizica Materialelor
Tipul activităţii sau sectorul de activitate	Cercetare - dezvoltare
Perioada	2008 – 2009
Funcţia sau postul ocupat	cercetator stiintific gradul 2
Activităţi şi responsabilităţi principale	Management grup de cercetare/ management proiecte nationale si internationale/ cercetare in domeniul materialelor si al nanotehnologiilor
Numele şi adresa angajatorului	INCD Fizica Materialelor
Tipul activităţii sau sectorul de activitate	Cercetare - dezvoltare
Perioada	2001 – 2008
Funcţia sau postul ocupat	Cercetator stiintific gradul 3
Activităţi şi responsabilităţi principale	Management proiecte nationale si internationale/cercetare in domeniul materialelor si nanotehnologiilor
Numele şi adresa angajatorului	INCD Fizica Materialelor
Tipul activităţii sau sectorul de activitate	Cercetare - dezvoltare
Perioada	1998 – 2001
Funcţia sau postul ocupat	Cercetator stiintific
Activităţi şi responsabilităţi principale	Cercetare in domeniul materialelor piezoelectrice, a proprietatilor optice a materialelor
Numele şi adresa angajatorului	INCD Fizica Materialelor
Tipul activităţii sau sectorul de activitate	Cercetare - dezvoltare

Perioada	1995 – 1998
Funcţia sau postul ocupat	Asistent cercetare
Activităţi şi responsabilităţi principale	Cercetare in domeniul materialelor piezoelectrice, a proprietatilor optice a materialelor
Numele şi adresa angajatorului	INCD Fizica Materialelor
Tipul activităţii sau sectorul de activitate	Cercetare - dezvoltare

Educaţie şi formare

Perioada	Nov. 2003 – Martie 2004
Funcţia sau postul ocupat	Post Doc
Activităţi şi responsabilităţi principale	cercetare in domeniul materialelor si al nanotehnologiilor
Numele şi adresa angajatorului	The Angstrom Lab. University of Uppsala, Suedia
Tipul activităţii sau sectorul de activitate	Cercetare - dezvoltare

Perioada	Aprilie. 2001 – Sept. 2003
Funcţia sau postul ocupat	Post Doc
Activităţi şi responsabilităţi principale	cercetare in domeniul materialelor si al nanotehnologiilor
Numele şi adresa angajatorului	Gesselschaft fuer Schwerionen Forschung, GSI Darmstadt, Germania
Tipul activităţii sau sectorul de activitate	Cercetare - dezvoltare

Perioada	1996 2001
Calificarea / diploma obţinută	Doctor in Fizica
Disciplinele principale studiate / competenţe profesionale dobândite	Fizica/Optica si spectroscopie
Numele şi tipul instituţiei de învăţământ / furnizorului de formare	Universitatea din Bucuresti, Facultatea de Fizica

Aptitudini şi competenţe personale

Limba Materna | Romana

Limbi străine cunoscute | **Engleza, franceza**

	Înţelegere				**Vorbire**				**Scriere**	
Autoevaluare	Ascultare		Citire		Participare la conversaţie		Discurs oral		Exprimare scrisă	
Engleza		Fluent		Fluent		Fluent		Fluent		Fluent
Franceza		intelegere		fluent		intelegere		intelegere		fluent

(*) Nivelul Cadrului European Comun de Referinţă Pentru Limbi Străine

Alte competente | Operare calculator, utilizare programe specifice Office, prelucrarea datelor experimentale (Origin, MathCad), programare (Visual Basic)

Anexe | memoriu de activitate, lista proiecte, lista lucrari, lista patente

Memoriu de activitate :

Etapa actuala a activitatii mele ca cercetator a inceput in 2001 cu o bursa postdoctorala in domeniul folosirii membranelor poroase nucleare (ion track membranes) in prepararea unor nanofire cu proprietati speciale. Bursa a fost finantata de Uniunea Europeana si s-a desfasurat in prima parte in GSI Darmstadt (aprilie 2001 – septembrie 2003) si a doua parte in Universitatea din Uppsala (octombrie 2003 – martie 2004). Principala directie de cercetare a fost legata de realizarea unor nanofire metalice cu proprietati speciale prin metoda template, principalul scop urmarit fiind realizarea unor nanofire cu proprietati de magnetorezistenta gigant.
O alta directie de cercetare deosebit de importanta demarata in perioada 2003 – 2005 este legata de cea a nanofirelor semiconductoare. Astfel am fost initiatorul unei colaborari bilaterale intre INCDFM si GSI Darmstadt ce da posibilitatea realizarii unor proiecte de cercetare comune intre cele doua institutii. Accesul la o facilitate de importanta acceleratorului de ioni grei din GSI s-a concretizat prin realizarea prin aceeasi metoda sablon a unor nanofire din PbSeTe, CdTe, CdS, ZnO pure si dopate. De asemenea in urma bursei postdoctorale obtinute prin concurs in cadrul sistemului Marie Curie am putut ulterior participa la un alt concurs de proiecte stiintifice de reintegrare obtinand din partea comunitatii europene finantarea proiectului de cercetare legat de studiul nanofirelor de calcogenite de cadmiu (acronim CdX nanowires) in cadrul FP 6.
Directia de cercetare deosebit de moderna a fost in continuare urmarita si prin proiecte la nivel national in cadrul PNCDI 1, 2, 3 si CEEX care aveau ca principale obiective prepararea si studiul proprietatilor unor nanofire metalice si semiconductoare a materialelor nanostructurate.
La revenirea in tara in anul 2004 am demarat constructia unui grup de cercetare care in prezent numara aproximativ 30 de membri, grup de cercetare angrenat in numeroase proiecte nationale si in colaborari internationale. Dat fiind evolutia infrastructurii INCDFM am largit domeniul de activitate al grupului integrand activitati ce folosesc camera curata si tehnologiile specifice materialelor semiconductoare, zona materialelor biomimetice. Am combinat astfel mai multe zoneale cercetarii, incluzand chimia si electrochimia, fizica, tehnologiile specifice microelectronicii.
In domeniul colaborarilor internationale trebuie mentionate doua poriecte de cercetare castigate ca si co - director avand ca parteneri INCDFM si Ecole Politechnique Federale de Lausanne (grupul condus de Prof. Jean Philippe Ansermet) in cadrul programului SCOPES si finantate de statul elvetian.
De asemenea am fost director pentru grupul roman al unui proiect desfasurat sub egida European Science Foundation (ESF), proiect in care colaboratori au fost Austrian Institute of Technology si Universitatea din Neuchatel.
Incepand cu ianuarie 2010 am ocupat functia de sef al laboratorului 10, Materiale si structuri multifunctionale, laborator din care faceau parte la acel moment aproximativ 40 de cercetatori, cu activitate atat in domeniul de cercetare stiintifica fundamentala cat si cu accente pe activitati de cercetare cu caracter aplicativ. In aceasta perioada activitatile au cuprins atat activitati de cercetare cat si activitati de management specifice – administrarea resurselor materiale, coordonarea resursei umane.
In anul 2013 am fost numit Director General al INCD Fizica Materialelor. In aceasta perioada activitatile de management au crescut in importanta. Atragerea de fonduri pentru modernizarea infrastructurii de cercetare a fost pe primul plan. A fost fructificata oportunitatea oferita de fondurile structurale prin aplicatia de proiect depusa (si in calitate de director de proiect) avand scopul de a dezvolta un centru nou, modern de cercetare in domeniul materialelor (Ritec – Research Innovation and Technology Center). Centrul a fost finalizat in decembrie 2015 cu o valoare totala a investitiei de aproximativ 10 000 000 euro.
In anul 2015 am castigat prin concurs functia de Director General si presedinte al CA. In perioada trecuta am continuat politica de crestere a vizibilitatii internationale a institutiei pe care o conduc precum si de crestere a impactului activitatii de cercetare. Astfel in cadrul INCD pentru Fizica Materialelor a fost realizata prima implicare intr-un ERIC din partea Romaniei (CERIC – ERIC este

activ incepand cu anul 2014), este functionala o subunitate CIFRA cu statut de Centru UNESCO, iar institutia este primul institut de cercetare parte a Asociatiei Universitatilor Francofone. Am asigurat un climat atractiv pentru cercetatori, avand in institut atat cercetatori reintorsi dupa stagii extinse in strainatate cat si cetateni straini angajati atat din UE cat si din tari terte.
In calitate de Director General am consolidat un sistem de evaluare profesionala obiectiv, am consolidat structura de grupuri de cercetare astfel incat sa fie asigurata masa critica pentru implementarea proiectelor si am mentinut infrastructura la un nivel state of the art.

6.05.2024

Dr. Ionut Enculescu

Anexa CV 1

Lista de proiecte
Dr. Ionut Enculescu

Programul/Proiectul	**Funcţia**	**Perioada:**de la... până la...
POC – Sinergii Consolidarea participarii INCDFM la Consortiul CERIC	Director de proiect	2020 -2023
Centrul de Cercetare, Inovare si tehnologii pentru materiale noi RITecC ID: 1953 SMIS:49185 CTR 654/07.08.2015	Director de proiect	2014 - 2015
PNCDI 2 Idei Controlul sarcinii si spinului in tranzistori cu efect de camp cu canal nanofir	Director de Proiect	2013 - 2016
PNCDI 2 Parteneriate in Domeniile prioritare High efficiency electrospinning Heffes	Director de proiect	2012 - 2015
European Science Foundation Eurocore: „Insect Odorant-Binding Proteins on Conductive Polymer Nanofibers Based Biosensor to Diagnose Crop Disease”	Co-director proiect Responsabil partea Romana	2011 - 2014
Programul Nucleu: Cercetari avansate in domeniul fizicii materiei condensate si a materialelor (COMAFI) Proiectul: Materiale nanostructurate si nanocom-pozite :preparare, caracterizare, aplicatii	Dierector de proiect	2009-2012
SCOPES (proiecte finantate de Elvetia pentru colaborare cu Europa Centrala si de Est: Functional Nanowires	Co-director proiect Responsabil partea Romana	2009-2012
PNCDI 2	Responsabil de proiect	2008 - 2011

Nanofosfori cu conversie superioara pompati in infrarosu pentru aplicatii in biologie si medicina		
PNCDI 2 Dispozitive electronice transparente realizate cu filme subtiri obtinute prin tehnologia PED	Responsabil de proiect	2008 – 2011
PNCDI 2 Microtraductoare cu elemente sensibile bazate pe nanofire magnetice	Responsabil de proiect	2008 – 2011
PNCDI 2 Fotodetectori bazati pe nanofire multisegment	Director de proiect	2007 – 2010
Programul Nucleu: Cercetari avansate in domeniul fizicii materiei condensate si a materialelor (COMAFI) Proiectul: Materiale nanostructurate si nanocom-pozite :preparare, caracterizare, aplicatii	Dierector de proiect	2006-2008
CEEX 28/2006	Director de proiect	2006-2008
CEEX 1/2006 Nanofire de oxizi metalici semiconductori magnetici diluati	Director de proiect	2006-2008
CEEX 21/2005 Nanofire multistrat cu structura de tip valva de spin. Proprietati de magnetorezistenta gigant.	Director de proiect	2005-2008
CERES C4/ Proprietati electrice si fotovoltaice ale nanofirelor cu structura metal-CdTe-metal	Director de proiect	2004-2006
SCOPES (proiecte finantate de Elvetia pentru colaborare cu Europa Centrala si de Est: Copper and Manganese dopped ZnO nanowires (proiect nr. 110869)	Co-director proiect Responsabil partea Romana	2005-2008
FP6/Marie Curie European Reintegration Grants :	Director de Proiect	2004-2005

Cadmium Chalcogenite Nanowires		
FP5/ European Network on Ion Track Technology	Participant	Aprilie 2001- Martie 2004
CERES/Efectele iradierii cu ioni grei in cristalele de halogenuri alcaline	Participant	2003-2005
Orizont 2000	Participant; responsabil faza	1995-2001
Grant ANSTI pentru tineret	Director proiect	1999-2001
Granturi MCT	Participant	1996-2001
Granturi Academia Romana	Participant	1996-2001

10.08.2021

Dr. Ionut Enculescu

Lista de lucrari,
Dr. Ionut Enculescu, CS1

1) Aldea A., Leote R.J.B., Matei E., Evanghelidis A., Enculescu I., Diculescu V.C.,Gold coated electrospun polymeric fibres as new electrode platform for glucose oxidase immobilization,2021,Microchemical Journal,165,106108,10.1016/j.microc.2021.106108
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3) Aldea A., Matei E., Leote R.J.B., Rau I., Enculescu I., Diculescu V.C.,Ionophore- Nafion™ modified gold-coated electrospun polymeric fibers electrodes for determination of electrolytes,2020,Electrochimica Acta,363,137239,10.1016/j.electacta.2020.137239
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5) Preda N., Costas A., Beregoi M., Apostol N., Kuncser A., Curutiu C., Iordache F., Enculescu I.,Functionalization of eggshell membranes with CuO–ZnO based p–n junctions for visible light induced antibacterial activity against Escherichia coli,2020,Scientific Reports,10,1,20960,10.1038/s41598-020-78005-x
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7) Beregoi M., Preda N., Costas A., Enculescu M., Negrea R.F., Iovu H., Enculescu I.,Synthesis of core–double shell nylon-zno/polypyrrole electrospun nanofibers,2020,Nanomaterials,10,11,2241,1,11,10.3390/nano10112241
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11) Diculescu V.C., Beregoi M., Evanghelidis A., Negrea R.F., Apostol N.G., Enculescu I.,Palladium/palladium oxide coated electrospun fibers for wearable sweat pH-sensors,2019,Scientific Reports,9,1,8902,10.1038/s41598-019-45399-2
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13) Barsan M.M., Matei E., Enculescu M., Costescu R., Preda N., Enache T.A., Enculescu I., Diculescu V.C.,Nanostructured palladium doped nickel electrodes for immobilization of oxidases through nickel nanoparticles,2019,Electrochimica Acta,315,102,113,10.1016/j.electacta.2019.04.143

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15) Matei E., Busuioc C., Evanghelidis A., Zgura I., Enculescu M., Beregoi M., Enculescu I.,Hierarchical functionalization of electrospun fibers by electrodeposition of zinc oxide nanostructures,2018,Applied Surface Science,458,555,563,10.1016/j.apsusc.2018.06.143
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19) Costas A., Florica C., Matei E., Toimil-Molares M.E., Stavarache I., Kuncser A., Kuncser V., Enculescu I.,Magnetism and magnetoresistance of single Ni-Cu alloy nanowires,2018,Beilstein Journal of Nanotechnology,9,1,2345,2355,10.3762/bjnano.9.219
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Lista de patente,
Dr. Ionut Enculescu, CS1

1) RO134058-A0Microstructured substrate for performing surface plasmon resonance measurements, is made up of glass substrate, transparent metallic film, rarefied network of polymeric fibres, and additional optically transparent metallic film EVANGHELIDIS A I; ENCULESCU M M; ENCULESCU I M; MATEI E; PREDA N R; DICULESCU V C; FLORICA C F; COSTAS L A; BEREGOI M
2) RO133230-A0Method for preparing photodetector based on array of core-shell nanowire matrix of copper oxide and oxide zinc type, involves depositing thin film at different times to obtain three different thicknesses for film of zinc oxide COSTAS L A; FLORICA C F; PREDA N R; EVANGHELIDIS A I; BESLEAGA S C; BEREGOI M; ENCULESCU M M; MATEI E; DICULESCU V C; ENACHE T A; IGNAT B M M; ONEA M L; ALDEA A; APOSTOL M M; BUNEA M C; CRISAN D N; CONSTANTINESCU M O; ENCULESCU I M
3) RO132440-A2Thermochromic device based on transparent flexible electrodes obtained by electro-spinning BUSUIOC C; EVANGHELIDIS A I; ENCULESCU M; MATEI E; PREDA N; FLORICA C; COSTAS L; OANCEA M; ENCULESCU I
4) RO131565-A2; RO131565-A8; RO131565-B1 Process for preparing polymeric micro- and nano-fibres by electrospinning, using textile materials, for obtaining multiple jets EVANCHELIDIS A I; BUSUIOC C; MATEI E; ENCULESCU M; PREDA N; FLORICA C; COSTAS L; OANCEA M; ENCULESCU I; EVANGHELIDIS A I
5) RO131555-A0; RO131555-A3; RO131555-B1 Process for unidimensional zinc oxide nanostructures by thermal oxidation in air of zinc films FLORICA C; PREDA N; COSTAS L; EVANGHELIDIS A I; OANCEA M; ENCULESCU M; MATEI E; ENCULESCU I
6) RO131131-A2; RO131131-B1 Electrochromic Device Based On Transparent Flexible Electrodes Obtained By Electrospinning And Polyaniline Electrodeposition MATEI E; BUSUIOC C; EVANCHELIDIS A I; ENCULESCU M; PREDA N; FLORICA C; COSTAS L; OANCEA M; ENCULESCU I; EVANGHELIDIS A I
7) RO130857-A2; RO130857-B1 Process for making predefined micron-range areas made of zinc oxide structures, obtained by self-catalytic deposition FLORICA C; PREDA N; ENCULESCU M; EVANGHELIDIS A I; COSTAS L; OANCEA M; BUSUIOC C; MATEI E; ENCULESCU I
8) RO130846-A2; RO130846-B1 Process for obtaining nanostructured array-like films formed of monodisperse structures of zinc oxide, by chemical deposition PREDA N; FLORICA C; ENCULESCU M; ZGURA I; SOCOL M; EVANCHELIDIS A I; COSTAS L; OANCEA M; BUSUIOC C; MATEI E; ENCULESCU I; EVANGHELIDIS A I
9) RO129633-A0; RO129633-B1 Process for making transparent and flexible conductive electrodes by electrospinning and electrochemical deposition EVANGHELIDIS A I; BUSUIOC C; MATEI E; ENCULESCU M; PREDA N; FLORICA C; COSTAS L; OANCEA M; ENCULESCU I
10) RO129373-A0Process for producing zinc oxide fibres with submicronic diameters by electrospinning, using polymethyl methacrylate solution EVANGHELIDIS A I; BUSUIOC C; ENCULESCU M; PREDA N; MATEI E; FLORICA C; COSTAS L; OANCEA M; ENCULESCU I