



Anca Florina Bonciu

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Despre mine:

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EXPERIENȚA PROFESIONALĂ

30/09/2017 – ÎN CURS

ASISTENT CERCETARE ȘTIINȚIFICĂ – INSTITUTUL NAȚIONAL PENTRU FIZICA LASERILOR, PLASMEI ȘI RADIAȚIEI

- Transfer indus de laser (LIFT)
- Depunerea filmelor subțiri prin evaporare laser pulsată asistată de o matrice și depunere laser pulsată (MAPLE și PLD)
- Spectroscopie dispersivă de raze X (EDS)
- Microscopie electronică de baleiaj (SEM)
- Măsurători unghiuri de contact și energii de suprafață

Adresă Măgurele, România

31/10/2014 – 30/09/2017

TEHNICIAN – INSTITUTUL NAȚIONAL PENTRU FIZICA LASERILOR, PLASMEI ȘI RADIAȚIEI

- Depunerea filmelor subțiri prin evaporare laser pulsată asistată de o matrice (MAPLE)
- Spectroscopie dispersivă de raze X (EDS)
- Microscopie electronică de baleiaj (SEM)

Adresă 409 Atomistilor, 077125, Măgurele, România

EDUCAȚIE ȘI FORMARE PROFESIONALĂ

30/09/2018 – ÎN CURS – Măgurele, România

DOCTORAT – Facultatea de Fizică, Universitatea din București

Studii universitare de doctorat pe direcția Biofizică și Fizică Medicală

Adresă Măgurele, România

30/09/2016 – 30/06/2018 – Măgurele, România

MASTERAT – Facultatea de Fizică, Universitatea din București

Fizica materialelor avansate și nanostructuri

Adresă Măgurele, România

14/09/2009 – 14/06/2013 – Drăgășani, România

LICEU – Colegiul Național "Gib Mihăescu"

Matematică-Informatică

Adresă Drăgășani, România

30/09/2013 – 30/06/2016 – Măgurele, România

LICENȚĂ – Facultatea de Fizică, Universitatea din București

Fizică Medicală

Adresă Măgurele, România

● **STAGII DE LUCRU INTERNAȚIONALE**

27/10/2019 – 09/11/2019

Institut d'électronique de microélectronique et de nanotechnologie (IEMN) Lille, France

Proiect Mobilitati Brancuși România-Franța (PN-III-P3-3.1-PM-RO-FR-2019-0108)

● **COMPETENȚE LINGVISTICE**

Limbă(i) maternă(e): **ROMÂNĂ**

Altă limbă (Alte limbi):

	COMPREHENSIUNE		VORBIT		SCRIS
	Comprehenșiune orală	Citit	Exprimare scrisă	Conversație	
ENGLEZĂ	C1	C1	C1	C1	C1
FRANCEZĂ	B2	B2	B1	B1	B2

Niveluri: A1 și A2 Utilizator de bază B1 și B2 Utilizator independent C1 și C2 Utilizator experimentat

● **COMPETENȚE DE MANAGEMENT ȘI CONDUCERE**

Presendinte SPIE (Institute for Atomic Physics Student Chapter) 2019

Student Leadership Training Organizer, August 2019, San Diego

● **PERMIS DE CONDUCERE**

Permis de conducere: B

● **PUBLICAȚII**

Articole (1)

2022-Dumitrescu N.-L., Icriverzi M., **Bonciu A.**, Florian P., Moldovan A., Roseanu A., Rusen L., Dinca V., Grama F.

New Poly(N-isopropylacrylamide-butylacrylate) Copolymer Biointerfaces and Their Characteristic Influence on Cell Behavior In Vitro International Journal of Molecular Sciences, 23 (7), 3988, DOI: 10.3390/ijms23073988

2022-Craciun C., Andrei F., **Bonciu A.**, Brajnicov S., Tozar T., Filipescu M., Palla-Papavlu A., Dinescu M.

Nitrites Detection with Sensors Processed via Matrix-Assisted Pulsed Laser Evaporation Nanomaterials, 12 (7), 1138, DOI: 10.3390/nano12071138

- 2021-**Bonciu A.**, Vasilescu A., Dinca V., Petcu S.F.
Interfaces obtained by MAPLE for chemical and biosensors applications Sensors and Actuators Reports, 3,100040,DOI: 10.1016/j.snr.2021.100040
- 2021-**Bonciu, A.F.**; Filipescu, M.; Voicu, S.I.; Lippert, T.; Palla-Papavlu, A.
Facile Fabrication of Hybrid Carbon Nanotube Sensors by Laser Direct Transfer. Nanomaterials 2021, 11, 2604.
<https://doi.org/10.3390/nano11102604>
- 2021-Dumitrescu, L.N.; Icriverzi, M.; **Bonciu, A.**; Ros, eanu, A.;Moldovan, A.; Dinca, V.
In Vitro Effect of Replicated Porous Polymeric Nano-Microstructured Biointerfaces Characteristics on Macrophages Behavior. Nanomaterials 2021, 11, 1913. <https://doi.org/10.3390/nano11081913>
- 2021-Rose, O.L.; **Bonciu, A.**;Marascu, V.; Matei, A.; Liu, Q.; Rusen,L.; Dinca, V.; Dinu, C.Z.
Thin Films of Metal-Organic Framework Interfaces Obtained by Laser Evaporation. Nanomaterials 2021, 11, 1367.
<https://doi.org/10.3390/nano11061367>
- 2021-Elena Sima, L., **Bonciu, A.**, Baciuc, M., Anghel, I., Dumitrescu, L. N., Rusen, L., & Dinca, V.
Bioinstructive Micro-Nanotextured Zirconia Ceramic Interfaces for Guiding and Stimulating an Osteogenic Response In Vitro. Nanomaterials, 10(12), 2465. doi:10.3390/nano10122465
- 2021-Enea, N., Ion, V., Moldovan, A., **Bonciu, A.**, & Scarisoreanu, N. D.
Piezoelectric Hybrid Heterostructures PVDF/(Ba,Ca)(Zr,Ti)O₃ Obtained by Laser Techniques. Coatings, 10(12), 1155.
doi:10.3390/coatings10121155

Articole (2)

- 2020- Marascu, V.; Stancu, C.; Satulu, V.; **Bonciu, A.**; Grisolia, C.; Dinescu, G.
Material Erosion and Dust Formation during Tungsten Exposure to Hollow-Cathode and Microjet Discharges. Appl. Sci. 2020, 10, 6870.
- 2020- **Bonciu, A.**; Wagner, A.; Marascu, V.; Moldovan, A.; Dinu, C.Z.; Dinca, V.
Influence of Laser-Designed Microstructure Density on Interface Characteristics and on Preliminary Responses of Epithelial Cells. Appl. Sci. 2020, 10, 6299.
- 2020- A.M. Titoiu, G. Necula-Petrareanu, D. Visinescu, V. Dinca, **A. Bonciu**, C.N. Mihailescu, C. Purcarea, R. Boukherroub, S. Szunerits, A. Vasilescu
Flow injection enzymatic biosensor for aldehydes based on a Meldola Blue-Ni complex electrochemical mediator. Microchim Acta 187, 550 (2020). <https://doi.org/10.1007/s00604-020-04477-3>
- 2020- **A.F. Bonciu**, S. Orobeti, L.E. Sima, M. Icriverzi, M. Filipescu, A. Moldovan, A. Popescu, V. Dinca, M. Dinescu
Pyramidal shaped ceria nano-biointerfaces for studying the early bone cell response, Applied Surface Science, 533, 2020, 147464, ISSN 0169-4332, <https://doi.org/10.1016/j.apsusc.2020.147464>.
- 2020- Antoniac, I. V., Filipescu, M., Barbaro, K., **Bonciu, A.**, Birjega, R., Cotrut, C. M., Galvano, E., Fosca, M., Fadeeva, I. V., Vadalà, G., Dinescu, M., Rau, J. V.Iron
Ion-Doped Tricalcium Phosphate Coatings Improve the Properties of Biodegradable Magnesium Alloys for Biomedical Implant Application. Adv. Mater. Interfaces 2020, 7, 2000531. <https://doi.org/10.1002/admi.202000531>
- 2020- Marascu, V., Lazea-Stoyanova, A., **Bonciu, A.**, Satulu, V., and Dinescu, G.
Tungsten particles fabrication by a microjet discharge, Materials Research Express, vol. 7, no. 6, 2020. doi: 10.1088/2053-1591/ab955d;
- 2020- Dumitrescu, L.N.; Neacsu, P.; Necula, M.G.; **Bonciu, A.**; Marascu, V.; Cimpean, A.; Moldovan, A.; Rotaru, A.; Dinca, V.; Dinescu, M.
Induced Hydrophilicity and In Vitro Preliminary Osteoblast Response of Polyvinylidene Fluoride (PVDF) Coatings Obtained via MAPLE Deposition and Subsequent Thermal Treatment. Molecules 2020, 25, 582, <https://doi.org/10.3390/molecules25030582>;
- 2020- V. Dinca, Q.Liu, S. Brajnicov, **A. Bonciu**, A. Vlad, C. Z. Dinu
Composites formed from tungsten trioxide and graphene oxide for the next generation of electrochromic interfaces Composites Communications 17(115-122) ISSN 2452-2139, <https://doi.org/10.1016/j.coco.2019.11.015>, 2020;2019- M. Icriverzi, A. Bonciu,

Articole (3)

- 2019- M.Icriverzi, L.Rusen, S.Brajnicov, **A.Bonciu**, M.Dinescu, A.Campean, R.W.Evans, V.Dinca, A.Roseanu
Macrophage in vitro Response on Hybrid Coatings Obtained by Matrix Assisted Pulsed Laser Evaporation Coatings 9(4):236, DOI: 10.3390/coatings9040236, April 2019;
- 2019- V.Ion, N.D. Scarisoreanu, **A.Bonciu**, A.Moldovan, V.Ghenescu, M.G.Banciu, A.Andrei, M.Dinescu
Multilayer protective coatings obtained by pulsed laser deposition Applied Surface Science 479, DOI: 10.1016/j.apsusc.2019.02.186,February 2019;
- 2018- V. Dinca, C.Viespe, S.Brajnicov, I.Constantinoiu, A.Moldovan, **A.Bonciu**, C.N.Toader, R.E.Ginghina,N.Grigoriu, M.Dinescu,N.D. Scarisoreanu

MAPLE Assembled Acetylcholinesterase–Polyethylenimine Hybrid and Multilayered Interfaces for Toxic Gases Detection Sensors 18(12):4265, DOI: 10.3390/s18124265, December 2018;
2018-M.Icriverzi, L.Rusen, L.E.Sima, A.Moldovan, S.Brajnicov, **A.Bonciu**, N.Mihailescu, M.Dinescu, A.Cimpean, A.Roseanu, V.Dinca
In vitro behavior of human mesenchymal stem cells on poly(N-isopropylacrylamide) based biointerfaces obtained by matrix assisted pulsed laser evaporation Applied Surface Science, Volume: 440, Pages: 712-724, DOI: 10.1016/j.apsusc.2018.01.200, May 15 2018;
2018-V.Mitran, V.Dinca, R.Ion, V.D.Cojocaru, P.Neacsu, C.Z.Dinu, L.Rusen, S.Brajnicov, **A.Bonciu**, M.Dinescu, D.Raducanu, I.Dan, A.Cimpean
Graphene nanoplatelets-Sericin Surface-Modified Gum Alloy for Improved Biological Response RSC Advances, Issue 33, 8, 18492-18501, DOI: 10.1039/C8RA01784K, 2018;
2017-Dinca V,Zaharie-Butucel D, Stanica L, Brajnicov S,Marascu V, **Bonciu A**, Cristocea A, Gaman L, Gheorghiu M, Astilean S, Vasilescu A
Functional Micrococcus lysodeikticus layers deposited by laser technique for the optical sensing of lysozyme Colloids and surfaces B: Biointerfaces, 2018 Feb 1, doi: 10.1016/j.colsurfb.2017.11.058,Epub 2017 Nov 23;
2017- S.Brajnicov, P. Neacsu, A.Moldovan, V.Marascu, **A.Bonciu**, R.Ion, V.Dinca, M.Dinescu
Tailored biodegradable triblock copolymer coatings obtained by MAPLE: a parametric study Applied Physics A 123(11), November 2017, DOI 10.1007/s00339-017-1334-2;
2017- L.Rusen, S.Brajnicov, P.Neacsu, V.Marascu, **A.Bonciu**, M.Dinescu, V.Dinca, A.Cimpean
Novel degradable biointerfacing nanocomposite coatings for modulating the osteoblast response Surface & Coatings Technology, Online 19 June 2017, <https://doi.org/10.1016/j.surfcoat.2017.06.045>;
2014- **A. Bonciu**, M.Barbinta
Liposomes: Model of cell membranes and drug carrier systems The Journal of the International Association of Physics Students, August 2014

● ALTE PUBLICAȚII

Capitole cărți

2017- L. Rusen, V. Dinca, C. Mustaciosu, M. Icriverzi, L.E.Sima,**A.Bonciu**, N. Serban, S. Brajnicov, N. Dumitrescu, A. Rosean, M. Dinescu
CHAPTER 10: Smart coatings obtained by matrix assisted pulsed laser evaporation based on thermo responsive polymers for biological applications
Book title: **Modern Technologies for Creating the Thin-film Systems and Coatings**, 2017;
Publisher: **InTech**, pages 171-191, Print publication date: 8 March 2017;
ISBN 978-953-51-3004-8, Print ISBN 978-953-51-3003-1, DOI: 10.5772/66280;

2016- V. Dinca, L. E. Sima, L.Rusen, **A.Bonciu**, T. Lippert, M. Dinescu, M. Farsari
CHAPTER 9: Bio-Interfaces Engineering Using Laser-Based Methods for Controlled Regulation of Mesenchymal Stem Cell Response In Vitro
Book title: **Recent Advances in Biopolymers**, 2016;
Publisher: **InTech**, pages 221-251, Print publication date: 6 March 2016; ISBN 978-953-51-2255-5

● CONFERINȚE ȘI SEMINARE

Conferințe (1)

2021- **A.F. Bonciu**, M. Filipescu, S.I. Voicu, T. Lippert, A. Palla-Papavlu
Facile fabrication of hybrid carbon nanotube sensors by laser direct transfer
EMRS Spring 2021 31Mai-4Iunie, online, Poster Presentation

2021- **A.F. Bonciu**, S. Orobeti, L. E. Sima, M. Icriverzi, V. Dinca, M. Filipescu, A. Moldovan, A.Popescu and M. Dinescu
Pyramidal shaped ceria nano-biointerfaces for early bone cell response
EMRS Spring 2021 31Mai-4Iunie, online, Oral Presentation

2021- **Anca Bonciu**, Alixandra Wagner, Nicoleta Dumitrescu, Valentina Marascu, Antoniu Moldovan, Cerasela Zoica Dinu, Valentina Dinca
Influence of laser-designed microstructures density on interfaces characteristics and on preliminary responses of cells
EMRS Spring 2021 31Mai-4Iunie, online, Poster Presentation

2019- **A.F. Bonciu**, V. Dinca, M. Icriverzi, S. Brajnicov, L. Rusen, A. Roseanu, A. Campean and M. Dinescu
Lactoferrin based nanocomposite coatings for modulating the macrophages and osteoblast response in vitro
EMRS-European Materials Research Society SPRING, May 27-31, Nice, France, Oral Presentation

2019- **A.F. Bonciu**, E. Sirjita, S. Vizireanu, G. Dinescu, A. Palla-Papavlu, M. Dinescu
Characterization of active materials based on functionalized carbon nanowalls for sensing applications
EMRS-European Materials Research Society SPRING, May 27-31, Nice, France, Poster Presentation

2019- **A.F. Bonciu**; S. Iosub ; M. Filipescu ;V. Dinca and M. Dinescu
Micro and nanostructured ceria films targeting the in vitro response of osteosarcoma cells
EMRS-European Materials Research Society SPRING, May 27-31, Nice, France, Poster Presentation

2019- **A.F. Bonciu**, A. Palla-Papavlu, V. Dinca, M. Filipescu and M. Dinescu
Fabrication of smart flexible biosensors by laser transfer
EMRS-European Materials Research Society SPRING, May 27-31, Nice, France, Poster Presentation

Conferințe (2)

2018- **A.F. Bonciu**, M. Icriverzi , S. Brajnicov, N.L. Dumitrescu, L. Rusen, V. Dinca, A. Roseanu, A. Cimpean and M. Dinescu
Hybrid Biomimetic Coatings Targeting the Modulated Response of Cells
LASER IGNITION SUMMER SCHOOL 2018, July 2-6, Sibiu, Romania, Poster presentation

2017- **A.F. Bonciu**, S. Brajnicov, N.L. Dumitrescu, M. Icriverzi , L. Rusen , V. Dinca¹ , A. Roseanu and M. Dinescu
Synthesis and Characterization of Hybrid Biomimetic Coatings Using Matrix Assisted Pulsed Laser Evaporation Technique
IONS Balvanos 2017, July 25-28, Balvanos, Romania, oral presentation

2015- **A.F. Bonciu**, C.R. Luculescu, I. Tarca
Maple gradient deposition of hydroxyapatite-based biocompatible films for tissue engineering
THE 8th INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS, ROCAM 2015, July 7-10 , Bucharest, Romania, oral presentation

2015- **A. Bonciu**, R. Ungureanu, M. Zamfirescu, C. Luculescu
Surface-enhanced Raman scattering substrates obtained with ultrashort laser pulses
ROMOPTO 2015, September 1-4, Bucharest, Romania, poster presentation

2015- **A.F. Bonciu**, C. Luculescu
Nanostructured surface-enhanced Raman scattering substrates obtained by low energy plasmas
The First Conference of Romanian Electron Microscopy Society 2015, May 7-8, Bucharest, Romania, poster presentation

2014- **A. Bonciu**, M. Barbinta
Biophysical studies on biohybrids based on artificial lipid membranes
International Conference of Physics Students 2014, August, Heidelberg, Germany, poster presentation

2014- **A. Bonciu**, M. Barbinta
Carbon-based biohybrids: preparation and characterization
Annual Scientific Session of Lumina University 2014, May, Bucharest, Romania, oral presentation

● DISTINȚII ONORIFICE ȘI PREMII

Distincții

2019- **Best poster presentation**
EMRS- European Materials Research Society Spring, 27-31 May, Nice, France

2018- **Best poster presentation**
The Laser Ignition Summer School 2018, 2-6 July, Sibiu, Romania

2017- **Laureate of Academic Hope**
Creative Awards ARCUB - UNATC, 5th edition