

Fișa de verificare

privind îndeplinirea standardelor minime necesare și obligatorii pentru conferirea titlurilor didactice din învățământul superior și al gradelor profesionale de cercetare-dezvoltare, a calității de conducător de doctorat și a atestatului de abilitare, conform metodologiei publicate în Ordinului Ministrului Educației Naționale și Cercetării Științifice nr. 6.129/20.12.2016

Comisia: CNATDCU Fizică

Candidat: **CS I. dr. Monica Olivia FOCSAN (IOSIN)**

Departamentului de Nanobiofotonică și Microspectroscopie Laser

Institutul de Cercetări Interdisciplinare în Bio-Nano-Științe

Universitatea Babeș-Bolyai.

Researcher ID: C-3242-2012

ORCID: 0000-0001-6735-5146

Criterii	Criterii minime	Realizat
1. Activitate didactică și profesională (A)	$A \geq 2$	A=7.34
2. Activitatea de cercetare 2.1 Articole științifice originale în extenso ca autor (I) 2.2. Articole științifice originale în extenso ca și prin autor sau autor correspondent (P)	$I \geq 4$ $P \geq 4$	I= 6.853 P=15.302
3. Recunoașterea impactului activității 3.1 Citări în reviste științifice în WOS (se exclud autocitarile) (C) 3.2 Indicele Hirsh (h)	$C \geq 40$ $h \geq 10$	C=174.265 h=17
TOTAL PUNCTAJ CNATDCU (T, $T=A+P/2+I/2+C/20+H/5$)	$T \geq 12$	T = 30.52

1. Activitate didactică și profesională (A)		
Nr.crt.	Tipul activităților	Indicatori
1.	Cărți în edituri internaționale recunoscute Web of Science în calitate de autor	-
2.	Capitole de carti in edituri internationale recunoscute Web of Science in calitate de autor/Review-uri in reviste cotate ISI 1. M. Potara, M. Focsan, A.M. Craciun, I. Botiz and S. Astilean, Polymer-coated plasmonic nanoparticles for environmental remediation: synthesis, functionalization and properties, chapter in New Polymer Nanocomposites for Environmental Remediation, eds. C. M. Hussain and M. Ajay, Elsevier, eds. C. M. Hussain and M. Ajay, Elsevier, 2018, Pages 361-387, ISBN:9780128110331. All authors contributed equally to this work. 2. A M Craciun, M Focsan, K Magyar, A Vulpoi, Zsolt Pap, Surface Plasmon Resonance or Biocompatibility, review, Materials 10 836 (2017) 1-37 All authors contributed equally to this work. 3. Monica Potara, Andreea Campu, Dana Maniu, Monica Focsan, Ioan Botiz and Simion Astilean, Detecting microbial contaminants (bacteria and viruses) by using advanced nanostructures, chapter in Advanced Nanostructures for Environmental Health, 1st Edition, eds. Lucian Baia, Zsold Papp, Monica Baia, Klara Heldi, Elsevier, accepted, ISBN:9780128158821. All authors contributed equally to this work.	0.2 0.2 0.18
3.	Cărți în edituri internaționale recunoscute Web of Science în calitate de editor	-
4.	Carti, manuale, indrumare de laborator in edituri nationale sau alte edituri internationale ca autor, note interne, prezentari sustinute pentru aprobarea analizelor de date in cadrul colaborarilor mari 1. Laser Microfabrication of Proteins for Biological Applications, Monica Focsan, Editura Alma Mater, 2013, ISBN 978-606-504-164-6	0.5
5.	Capitole de carti in edituri nationale sau alte edituri internationale ca autor	

	1. F. Toderaş, M. Iosin, M. Baia and S. Aştilean, Probing the interaction of bovine serum albumin (BSA) and gold nanoparticle, pag 215-221 in cartea Progress in Nanoscience and Nanotechnologies, Editura Academiei Romane (2007), ISBN 978-973-27-1576-5. 2. M. Iosin, S. Astilean, O. Stephan, PL Baldeck, Cross-linked protein nanostructures fabricated by two-photon laser induced photochemistry, pag 102-107, in cartea Progress in Nanoscience and Nanotechnologies, Editura Academiei Romane (2007) ISBN 978-973-27-1576-5 3. P.L. Baldeck, J. Bosson, M. Iosin, C.-L. Lin, N. Tosa, L. Vurtz, G. Vitrant and O. Stephan, 3D Laser Micro-Structuration of Polymers, Metals and Biomaterials by Two-Photon Induced Photochemistry, pag. 3-8, in cartea Trends in Optics and Photonics (2009) ISBN 978-81-908188-0-3. 4. M. Iosin, F. Toderas, P. Baldeck, S Astilean, Investigation of the binding constant of biocompatible gold nanoparticles to Bovine Serum Albumine using fluorescence and LSPR spectroscopy, pag. 235-240, in cartea New applications of micro and nanotechnologies", Editura Academiei Romane (2009) ISBN 978-973-27-1576	0.05 0.05 0.03 0.05
6.	Lucrari in extenso (cel putin 3 pagini) publicate in Proceedings-uri indexate ISI 1. L. D. S. Gonçalves, S. R. Valandro, H.-F. Wu, Y.-H. Lee, B. Mettra, C. Monnereau, C. C. S. Cavalheiro, A. Pawlicka, M. Focsan, C.-L. Lin, P. L. Baldeck, "3D Printing Natural Organic Materials by Photochemistry," SPIE Proceedings, Vol. 9745, 97450E-1~7, March 2016, , DOI: 10.1117/12.2217953 2. Lerouge, F.; Navarro, J. R. G.; Focsan, M.; Chaput F, Baldeck P and Parola S, Sharp gold based hybrid nanoprobe for cell imaging through dark field microscopy, Nanobiosystems: Processing, Characterization, and Applications Viii Volume: 9557 2015, DOI: 10.1117/12.2190853, Proceedings of SPIE 3. A. Bensouici, M. Ayadi, M. Iosin, G. Damian, J.P. Plaza, S. Astilean, M. Sebais, Chemical Decomposition of CdTe and CdBr₂ Dopants in KBr, 15th International Conference on Transparent Optical Networks (ICTON) 2013, ISBN:978-1-4799-0683-3,	0.03 0.04 0.03
7.	Brevete de inventie internationale acordate	-

8.	Brevete de inventie nationale acordate 1. M Focsan et al, Dispozitiv microfluidic plasmonic pe bază de nanoparticle bipiramideice de aur, inventiei depusa OSIM nr. a 2018 00958	-
9.	Director/responsabil/coordonator pentru programe de studii. Programe de formare continua, proiecte educative si proiecte de infrastructura (proiectele de cercetare se exclud)	-
10.	Director/responsabil pentru proiecte de cercetare in valoare Vi EURO castigate prin competitie nationala sau internationala (proiectele de la punctul 9 se exclud). Sumele in lei sau in alte valute se convertesc in EURO la cursul mediu din anul respectiv conform www.bnr.ro pentru perioada de dupa 1999 si la cursul din 1999 pentru perioada anterioara. Responsabilii de proiect sunt cei care conduc o echipa de cercetare, fiind mentionati ca atare in proiectul depus; in cazul lor se considera doar suma aferenta echipei conduse. 1. Biosenzor Plasmonic- Microfluidic pentru Detectia în timp real a unor Biomarkeri relevanți (NANOFLU), PN-II-PT-PCCA-2013-4-1961, Agenția finanțatoare: UEFISCDI; Program în parteneriat, Director proiect, Suma totală 1.437.500 Lei, Curs Mediu BNR 2014: 4,4446 2. Controlling FRET by surface plasmon resonance in multilayer "core-shell" metallic nanoparticles towards efficient nanoscopic light sources (NanoLight), Agenția finanțatoare: UEFISCDI; Resurse Umane, Tinere Echipe, PN-II-RU-TE-2014-4-2102, Director proiect, Suma totală: 549700 lei, Curs Mediu BNR 2015: 4,4450 3. Fabricare de nanoplatforme senzorialice noi, flexibile și ieftine pe bază de hartie realizate prin caligrafie plasmonică pentru detectia ultrasensibilă multiplexată de biomarkeri specifici cancerului (NanoDet4All), câștigat pe poziția 1. PN-III-P1-1.1-TE-2016-2095, Agenția finanțatoare: UEFISCDI; Resurse Umane, Tinere Echipe, PN-III-P1-1.1-TE-2016-2095, Director proiect, Suma totală: 444.366 lei, Curs Mediu BNR 2018: 4,6535	3.23 1.24 0.95

	4. Platformă microfluidică pentru detecția plasmonică integrată (2plamidet), Agenția finanțatoare: UEFISCDI, Proiect Internațional Brancusi România-Franța, , Contract nr: 786/27.06.2014, Director proiect, Suma totală: 21600 lei , Curs Mediu BNR 2014: 4,445 5. Dezvoltarea unor metode pentru biodetecția plasmonică și nanostructurarea proteinelor prin absorpția laser a doi fotoni, Nr. Proiect: TD-65/.2007, Agenția finanțatoare: CNCSIS, National Young PhD grant, Director proiect, Suma totală: 42500 lei , Curs Mediu BNR 2007: 3,3373 6. Grant pentru cercetare stiintifica pentru tineri doctoranzi, BD/174 2007, Agenția finanțatoare: CNCSIS, Director proiect, Suma totală: 46500 lei, Curs Mediu BNR 2007: 3,3373 7. Grant international: Aplicații ale nanoparticulelor din metale nobile în Biologie Medicină și Biotehnologii, Agenția finanțatoare: Bursă internațională, World Federation of Scientists, Elvetia, 2006-2007, 1500 EURO 8. Grant international: Dezvoltarea de metode pentru biodetecția plasmonică Agenția finanțatoare: Grant internațional, Agence Universitaire de la Francophonie (AUF), Franța, 2007, Director proiect, 12900 Euro 9. Competitie nationala, Platforme Biosenzoristice Sensibile și Eficiente pe bază de Hârtie pentru Aplicații de Diagnosticare, Director proiect, UNESCO L'Oreal Femeile din Stiinta, 9353 Euro	0.05 0.13 0.14 0.02 0.13 0.09
TOTAL CRITERIUL A		7.34

criterii	Criterii minimale	Realizat
2. Activitatea de cercetare 2.1 Articole științifice originale în extenso ca autor (I) 2.2. Articole științifice originale în extenso ca și prin autor sau autor correspondent (P)	$I \geq 4$ $P \geq 4$	I= 6.853 P=15.302

Nr. crt	Autori	Titlu articol	Revista	An	DOI	Nr. autori	N_ef	AIS	AIS/ N_ef	Prim (0 sau 1)	AIS_Prim i
1	Iosin, M, Stephan, O, Astilean, Dupperay, A, Baldeck, PL	Microstructuration of protein matrices by laser-induced photochemistry	JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS	2007		5	5	0,161	0,032	1	0,161
2	Iosin, M, Toderas, F, Baldeck, P Astilean, S	In Vitro biosynthesis of gold nanotriangles for Surface-Enhanced Raman spectroscopy	JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS	2008		4	4	0,113	0,028	1	0,113
3	Iosin, M, Baldeck, Astilean, S	Plasmon-enhanced fluorescence of dye molecules	NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS	2009	10.1016/j.nimb.2008.10.055	3	3	0,35	0,117	1	0,350
4	Toderas, F, Iosin, M, Astilean, S	Luminescence properties of gold nanorods	NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS	2009	10.1016/j.nimb.2008.10.018	3	3	0,35	0,117	0	0,000
5	Iosin, M, Toderas, F, Baldeck, PL, Astilean, S	Study of protein-gold nanoparticle conjugates by fluorescence and surface-enhanced Raman scattering	JOURNAL OF MOLECULAR STRUCTURE	2009	10.1016/j.molstruc.2009.02.004	4	4	0,369	0,092	1	0,369
6	Stiufiuc, R, Toderas, F, Iosin, M Stiufiuc, G	ANISOTROPIC GOLD NANOCRYSTALS: SYNTHESIS AND CHARACTERIZATION	INTERNATIONAL JOURNAL OF MODERN PHYSICS B	2010	10.1142/S0217979210064381	4	4	0,158	0,040	0	0,000
7	Dzagli, MM ; Canpean, V, Iosin, M, Mohou, MA, Astilean, S	Study of the interaction between CdSe/ZnS core-shell quantum dots and bovine serum albumin by spectroscopic techniques	JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY	2010	10.1016/j.jphotoc hem.2010.08.008	5	5	0,681	0,136	1	0,681
8	Iosin, M Baldeck, P ; Astilean, S	Study of tryptophan assisted synthesis of gold nanoparticles by combining UV-Vis, fluorescence, and SERS spectroscopy	JOURNAL OF NANOPARTICLE RESEARCH	2010	10.1007/s11051-010-9869-6	3	3	0,999	0,333	1	0,999
9	Canpean, V Iosin, M Astilean, S	Disentangling SERS signals from two molecular species: A new evidence for the production of p,p '-dimercaptoazobenzene by catalytic coupling reaction of p-aminothiophenol on metallic nanostructures	CHEMICAL PHYSICS LETTERS	2010	10.1016/j.cplett.2010.10.006	3	3	0,762	0,254	0	0,000
10	Iosin, M , Canpean, V Astilean, S	Spectroscopic studies on pH- and thermally induced conformational changes of Bovine Serum Albumin adsorbed onto gold nanoparticles	JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY	2011	10.1016/j.jphotoc hem.2010.11.012	3	3	0,692	0,231	1	0,692
11	Iosin, M ; Scheul T ; Nizak, C Stephan, O ; Astilean, S Baldeck, P	Laser microstructuration of three-dimensional enzyme reactors in microfluidic channels	MICROFLUIDICS AND NANOFUIDICS	2011	10.1007/s10404-010-0698-9	6	5,5	1,026	0,187	1	1,026

12	Zaiba, S ; Lerouge, F; Gabudean, AM ; Focsan, M Lerme, J ; Gallavardin, T Maury, O Andraud, C Parola, S ; Baldeck, PL	Transparent Plasmonic Nanocontainers Protect Organic Fluorophores against Photobleaching	NANO LETTERS	2011	10.1021/nl2004847	10	7,5	5,07	0,676	0	0,000
13	Gabudean, AM Lerouge, F Gallavardin, T Iosin, M Zaiba, S Maury, O Baldeck, PL Andraud, C Parola, S	Synthesis and optical properties of dyes encapsulated in gold hollow nanoshells	Optical Materials	2011	10.1016/j.optmat.2011.03.017	9	7	0,563	0,080	0	0,000
14	Focsan, M Gabudean, AM Canpean, V Maniu, D Astilean, S	Formation of size and shape tunable gold nanoparticles in solution by bio-assisted synthesis with bovine serum albumin in native and denaturated state	MATERIALS CHEMISTRY AND PHYSICS	2011	10.1016/j.matchemphys.2011.05.041	5	5	0,63	0,126	1	0,630
15	Focsan, M; Ardelean, II Craciun, C Astilean, S	Interplay between gold nanoparticle biosynthesis and metabolic activity of cyanobacterium <i>Synechocystis</i> sp PCC 6803	NANOTECHNOLOGY	2011	10.1088/0957-4484/22/48/485101	4	4	1,236	0,309	1	1,236
16	Gabudean, AM Focsan, M Astilean, S	Gold Nanorods Performing as Dual-Modal Nanoprobes via Metal-Enhanced Fluorescence (MEF) and Surface-Enhanced Raman Scattering (SERS)	JOURNAL OF PHYSICAL CHEMISTRY C	2012	10.1021/jp211954m	3	3	1,374	0,458	0	0,000
17	Oltean, M ; Calborean, A Mile, G Vidrighin, M Iosin, M Leopold, L ; Maniu, D Leopold, N Chis, V	Absorption spectra of PTCDI: A combined UV-Vis and TD-DFT study	SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY	2012	10.1016/j.saa.2012.07.056	9	7	0,352	0,050	0	0,000
18	Thioune, N Lidgi-Guigui, N ; Cottat, M ; Gabudean, AM ; Focsan, M ; Benoist, HM ; Astilean, S ; de la Chapelle, ML	Study of gold nanorods-protein interaction by localized surface plasmon resonance spectroscopy	Gold Bulletin	2013	10.1007/s13404-013-0118-5	8	6,5	0,689	0,106	0	0,000
19	Bensouici, A Ayadi, M Iosin, M Damian, G ; Plaza, JL ; Astilean, S Sebais, M	Chemical Decomposition of CdTe and CdBr ₂ Dopants in KBr	2013 15TH INTERNATIONAL CONFERENCE ON TRANSPARENT OPTICAL NETWORKS (ICTON 2013)	2013			0		0,000	0	0,000
20	Suarasan, S ; Focsan, M; Maniu, D ; Astilean, S	Gelatin-nanogold bioconjugates as effective plasmonic platforms for SERS detection and tagging	COLLOIDS AND SURFACES B-BIOINTERFACES	2013	10.1016/j.colsurfb.2012.10.046	4	4	0,827	0,207	0	0,000
21	Cottat, M Thioune, N Gabudean, AM; Lidgi-Guigui, N ; Focsan, M; Astilean, S ; de la Chapelle, ML	Localized Surface Plasmon Resonance (LSPR) Biosensor for the Protein Detection	PLASMONICS	2013	10.1007/s11468-012-9460-3	7	6	0,819	0,137	0	0,000
22	Iliut, M ; Iosin, M ; Astilean, S	MONITORING THE EFFECTS OF ULTRAVIOLET AND VISIBLE LIGHT ON Rb AND VITAMIN A IN MILK	ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL	2013		3	3	0,066	0,022	0	0,000
23	Navarro, JRG ; Lerouge, F ; Micouin, G ; Ceprega, C ; Favier, A ; Charreyre, MT ; Blanchard, NP ; Lerme, J ; Chaput, F ; Focsan, M ; Kamada, K ; Baldeck, PL ; Parola, S	Plasmonic bipyramids for fluorescence enhancement and protection against photobleaching	Nanoscale	2014	10.1039/c3nr06425e	13	9	1,74	0,193	0	0,000

24	Tira, DS ; Focsan, M ; Ulinici, S ; Maniu, D ; Astilean, S	Rhodamine B-Coated Gold Nanoparticles as Effective "Turn-on" Fluorescent Sensors for Detection of Zinc II Ions in Water	SPECTROSCOPY LETTERS	2014		5	5	0,164	0,033	0	0,000
25	Focsan, M Gabudean, AM Vulpoi, A; Astilean, S	Controlling the Luminescence of Carboxyl-Functionalized CdSe/ZnS Core- Shell Quantum Dots in Solution by Binding with Gold Nanorods	JOURNAL OF PHYSICAL CHEMISTRY C	2014	10.1021/ jp50128 1v	4	4	1,234	0,309	1	1,234
26	Diac, A ; Focsan, M ; Socaci, C ; Gabudean, AM ; Farcau, C ; Maniu, D; Vasile, E; Terec, A ; Veca, LM ; Astilean, S	Covalent conjugation of carbon dots with Rhodamine B and assessment of their photophysical properties	RSC ADVANCES	2015	10.1039/ c5ra1316 1h	10	7,5	0,628	0,084	1	0,628
27	Lerouge, F ; Navarro, JRG ; Focsan, M; Chaput, F ; Baldeck, P ; Parola, S	SHARP GOLD BASED HYBRID NANOPROBES FOR CELL IMAGING THROUGH DARK-FIELD MICROSCOPY	Proceedings of SPIE	2015	10.1117/ 12.2190 853	6	5,5		0,000	0	0,000
28	Suarasan, S ; Focsan, M ; Soritau, O ; Maniu, D ; Astilean, S	One-pot, green synthesis of gold nanoparticles by gelatin and investigation of their biological effects on Osteoblast cells	COLLOIDS AND SURFACES B- BIOINTERFACES	2015	10.1016/ j.colsurfb .2015.05. 009	5	5	0,8	0,160	0	0,000
29	Leordean, C ; Marta, B Gabudean, AM, Focsan, M Botiz, I Astilean, S	Fabrication of highly active and cost effective SERS plasmonic substrates by electrophoretic deposition of gold nanoparticles on a DVD template	APPLIED SURFACE SCIENCE	2015	10.1016/ j.apsusc. 2015.04. 208	6	5,5	0,574	0,104	0	0,000
30	Goncalves, JLD ; Valandro, SR] ; Wu, HF ; Lee, YH ; Mettra, B ; Monnereau, C ; Cavalheiro, CCS ; Pawlicka, A ; Focsan, M ; Lin, CL ; Baldeck, PL	3D Printing Natural Organic Materials by Photochemistry	Proceedings of SPIE, ORGANIC PHOTONIC MATERIALS AND DEVICES XVIII	2016	10.1117/ 12.2217 953	11	8		0,000	0	0,000
31	Craciun, AM ; Diac, A ; Focsan, M ; Socaci, C ; Magyari, K ; Maniu, D ; Mihalache, I ; Veca, LM ; Astilean, S ; Terec, A	Surface passivation of carbon nanoparticles with p-phenylenediamine towards photoluminescent carbon dots	RSC ADVANCES	2016	10.1039/ c6ra1012 7e	10	7,5	0,59	0,079	0	0,000
32	Focsan, M ; Craciun, AM ; Astilean, S ; Baldeck, PL	Two-photon fabrication of three- dimensional silver microstructures in microfluidic channels for volumetric surface-enhanced Raman scattering detection	OPTICAL MATERIALS EXPRESS	2016	10.1364/ OME.6.0 01587	4	4	0,749	0,187	1	0,749
33	Suarasan, S ; Focsan, M ; Potara, M.; Soritau, O ; Florea, A ; Maniu, D ; Astilean, S	Doxorubicin-Incorporated Nanotherapeutic Delivery System Based on Gelatin-Coated Gold Nanoparticles: Formulation, Drug Release, and Multimodal Imaging of Cellular Internalization	ACS APPLIED MATERIALS & INTERFACES	2016	10.1021/ acsami.6 b07583	7	6	1,581	0,264	0	0,000
34	Focsan, M ; Campu, A ; Craciun, AM ; Potara, M ; Leordean, C ; Maniu, D ; Astilean, S	A simple and efficient design to improve the detection of biotin-streptavidin interaction with plasmonic nanobiosensors	BIOSENSORS & BIOELECTRONICS	2016	10.1016/ j.bios.20 16.07.05 4	7	6	1,178	0,196	1	1,178
35	Craciun, AM ; Focsan, M ; Gaina, L ; Astilean, S	onic (phenothiazinyl)vinyl-pyridinium chro	DYES AND PIGMENTS	2017	10.1016/ j.dyepig. 2016.08. 033	4	4	0,534	0,134	0	0,000

36	Craciun, AM ; Focsan, MJ ; Magyari, K ; Vulpoi, A ; Pap, Z	Surface Plasmon Resonance or Biocompatibility-Key Properties for Determining the Applicability of Noble Metal Nanoparticles	MATERIALS	2017	10.3390/ ma10070 836	5	5	0,000	0,000	1	0,000
37	Focsan, M ; Craciun, AM ; Potara, M ; Leordean, C ; Vulpoi, A ; Maniu, D ; Astilean, S	Flexible and Tunable 3D Gold Nanocups Platform as Plasmonic Biosensor for Specific Dual LSPR-SERS Immuno- Detection	SCIENTIFIC REPORTS	2017	10.1038/ s41598- 017- 14694-1	7	6	1,356	0,226	1	1,356
38	Campu, A ; Lerouge, F ; Chateau, D ; Chaput, F ; Baldeck, P ; Parola, S ; Maniu, D ; Craciun, AM ; Vulpoi, A ; Astilean, S ; Focsan, M	ANALYTICAL CHEMISTRY	ANALYTICAL CHEMISTRY	2018	10.1021/ acs.analc hem.8b0 1689	11	8	1,371	0,171	1	1,371
39	Susu, L ; Campu, A ; Craciun, AM ; Vulpoi, A ; Astilean, S ; Focsan, M	Designing Efficient Low-Cost Paper- Based Sensing Plasmonic Nanoplatforms	SENSORS	2018	10.3390/ s180930 35	6	5,5	0,554	0,101	1	0,554
40	Potara, M ; Focsan, M ; Craciun, AM ; Botiz, I ; Astilean, S	Polymer-coated plasmonic nanoparticles for environmental remediation: Synthesis, functionalization, and properties	NEW POLYMER NANOCOMPOSITES FOR ENVIRONMENTAL REMEDICATION	2018		5	5		0,000	1	0,000
41	Hampel, B ; Kovacs, G ; Czekes, Z ; Hernadi, K ; Danciu, V ; Ersen, O ; Girleanu, M ; Focsan, M ; Baia, L ; Pap, Z	Mapping the Photocatalytic Activity and Ecotoxicology of Au, Pt/TiO2 Composite Photocatalysts	ACS SUSTAINABLE CHEMISTRY & ENGINEERING	2018	10.1021/ acsussh emeng.8b 02465	10	7,5	1,142	0,152	0	0,000
42	Suarasan, Sorina; Craciun, Ana-Maria; Licarete, Emilia; Focsan, Monica; Magyari, Klara; Astilean, Simion	Intracellular dynamic disentangling of Doxorubicin release from luminescent nanogold carriers by Fluorescence Lifetime Imaging Microscopy (FLIM) under two-photon excitation	ACS applied materials & interfaces	2019	10.1021/ acsami.8 b21269	6	5,5	1,634	0,297	0	0,000
43	Campu, A ; Susu, L ; Orzan, F ; Maniu, D ; Craciun, AM ; Vulpoi, A ; Roiban, L ; Focsan, M ; Astilean, S	Multimodal biosensing on paper-based platform fabricated by plasmonic calligraphy using gold nanopyramids ink	Frontiers in Chemitry	2019	10.3389/ fchem.20 19.0005 5	9	7	1,237	0,177	1	1,237
44	Sz.Fodor, L.Baia, M.Focșan, K.Hernád, Zs.Pap	Designed and controlled synthesis of visible light active copper(I)oxide photocatalyst: From cubes towards the polyhedrons - with Cu nanoparticles	APPLIED SURFACE SCIENCE	2019	https://doi.org/10.1016/j.apusc.2019.03.288	5	5	0,627	0,125	0	0,000
45	Dumitrita Rugina, Raluca Ghiman, Monica Focșan, Flaviu Tăbăran, Florina Copaciu, Maria Suci, Adela Pintea, Simion Aștilean	Resveratrol-delivery vehicle with anti- VEGF activity carried to human retinal pigmented epithelial cells exposed to high-glucose induced conditions	Colloids and Surfaces B: Biointerfaces	2019	https://doi.org/10.1016/j.colsurfb.2019.04.022	8	6,5	0,738	0,114	1	0,738
									6,842	21	15,302

criterii	Criterii minimale	Realizat
3. Recunoașterea impactului activității 3.1 Citări în reviste științifice în WOS (se exclud autocitarile) (C) 3.2 Indicele Hirsh (h)	$C \geq 40$ $h \geq 10$	C=174.265 h=17

Nr. crt	Autori	Titlu articol	Revista	An	DOI	Nr. autori	N_ef	Nr. citari	Nr. cit/ N_ef
1	Iosin, M, Stephan, O, Astilean, Dupperay, A, Baldeck, PL	Microstructuration of protein matrices by laser-induced photochemistry	JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS	2007		5	5	12	2,400
2	Iosin, M, Toderas, F, Baldeck, P Astilean, S	In Vitro biosynthesis of gold nanotriangles for Surface-Enhanced Raman spectroscopy	JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS	2008		4	4	14	3,500
3	Iosin, M, Baldeck, Astilean, S	Plasmon-enhanced fluorescence of dye molecules	NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS	2009	10.1016/j.nimb.2008.10.055	3	3	21	7,000
4	Toderas, F, Iosin, M, Astilean, S	Luminescence properties of gold nanorods	NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS	2009	10.1016/j.nimb.2008.10.018	3	3	21	7,000
5	Iosin, M, Toderas, F, Baldeck, PL, Astilean, S	Study of protein-gold nanoparticle conjugates by fluorescence and surface-enhanced Raman scattering	JOURNAL OF MOLECULAR STRUCTURE	2009	10.1016/j.molstruc.2009.02.004	4	4	96	24,000
6	Stiufluic, R, Toderas, F, Iosin, M Stiufluic, G	ANISOTROPIC GOLD NANOCRYSTALS: SYNTHESIS AND CHARACTERIZATION	INTERNATIONAL JOURNAL OF MODERN PHYSICS B	2010	10.1142/S0217979210064381	4	4	3	0,750
7	Dzagli, MM ; Canpean, V, Iosin, M, Mohou, MA, Astilean, S	Study of the interaction between CdSe/ZnS core-shell quantum dots and bovine serum albumin by spectroscopic techniques	JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY	2010	10.1016/j.jphotocem.2010.08.008	5	5	40	8,000
8	Iosin, M Baldeck, P ; Astilean, S	Study of tryptophan assisted synthesis of gold nanoparticles by combining UV-Vis, fluorescence, and SERS spectroscopy	JOURNAL OF NANOPARTICLE RESEARCH	2010	10.1007/s11051-010-9869-6	3	3	23	7,667
9	Canpean, V Iosin, M Astilean, S	Disentangling SERS signals from two molecular species: A new evidence for the production of p,p'-dimercaptoazobenzene by catalytic coupling reaction of p-aminothiophenol on metallic nanostructures	CHEMICAL PHYSICS LETTERS	2010	10.1016/j.cplett.2010.10.006	3	3	37	12,333
10	Iosin, M , Canpean, V Astilean, S	Spectroscopic studies on pH- and thermally induced conformational changes of Bovine Serum Albumin adsorbed onto gold nanoparticles	JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY	2011	10.1016/j.jphotocem.2010.11.012	3	3	55	18,333
11	Iosin, M ; Scheul T ; Nizak, C Stephan, O ; Astilean, S Baldeck, P	Laser microstructuration of three-dimensional enzyme reactors in microfluidic channels	MICROFLUIDICS AND NANOFUIDICS	2011	10.1007/s10404-010-0698-9	6	5,5	22	4,000

12	Zaiba, S , Lerouge, F, Gabudean, AM ; Focsan, M Lerme, J ; Gallavardin, T Maury, O Andraud, C Parola, S ; Baldeck, PL	Transparent Plasmonic Nanocontainers Protect Organic Fluorophores against Photobleaching	NANO LETTERS	2011	10.1021/nl2004847	10	7,5	35	4,667
13	Gabudean, AM Lerouge, F Gallavardin, T Iosin, M Zaiba, S Maury, O Baldeck, PL Andraud, C Parola, S	Synthesis and optical properties of dyes encapsulated in gold hollow nanoshells	Optical Materials	2011	10.1016/j.optmat.2011.03.017	9	7	11	1,571
14	Focsan, M Gabudean, AM Canpean, V Maniu, D Astilean, S	Formation of size and shape tunable gold nanoparticles in solution by bio-assisted synthesis with bovine serum albumin in native and denaturated state	MATERIALS CHEMISTRY AND PHYSICS	2011	10.1016/j.matchemphys.2011.05.041	5	5	8	1,600
15	Focsan, M; Ardelean, II Craciun, C Astilean, S	Interplay between gold nanoparticle biosynthesis and metabolic activity of cyanobacterium Synechocystis sp PCC 6803	NANOTECHNOLOGY	2011	10.1088/0957-4484/22/48/485101	4	4	18	4,500
16	Gabudean, AM Focsan, M Astilean, S	Gold Nanorods Performing as Dual-Modal Nanoprobes via Metal-Enhanced Fluorescence (MEF) and Surface-Enhanced Raman Scattering (SERS)	JOURNAL OF PHYSICAL CHEMISTRY C	2012	10.1021/jp211954m	3	3	82	27,333
17	Oltean, M ; Calborean, A Mile, G Vidrighin, M Iosin, M Leopold, L ; Maniu, D Leopold, N Chis, V	Absorption spectra of PTCDI: A combined UV-Vis and TD-DFT study	SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY	2012	10.1016/j.saa.2012.07.056	9	7	17	2,429
18	Thioune, N Lidgi-Guigui, N ; Cottat, M ; Gabudean, AM ; Focsan, M ; Benoist, HM ; Astilean, S ; de la Chapelle, ML	Study of gold nanorods-protein interaction by localized surface plasmon resonance spectroscopy	Gold Bulletin	2013	10.1007/s13404-013-0118-5	8	6,5	9	1,385
19	Bensouici, A Ayadi, M Iosin, M Damian, G ; Plaza, JL ; Astilean, S Sebais, M	Chemical Decomposition of CdTe and CdBr2 Dopants in KBr	2013 15TH INTERNATIONAL CONFERENCE ON TRANSPARENT OPTICAL NETWORKS (ICTON 2013)	2013			0		0,000
20	Suarasan, S ; Focsan, M; Maniu, D ; Astilean, S	Gelatin-nanogold bioconjugates as effective plasmonic platforms for SERS detection and tagging	COLLOIDS AND SURFACES B-BIOINTERFACES	2013	10.1016/j.colsurfb.2012.10.046	4	4	19	4,750
21	Cottat, M Thioune, N Gabudean, AM; Lidgi-Guigui, N ; Focsan, M; Astilean, S ; de la Chapelle, ML	Localized Surface Plasmon Resonance (LSPR) Biosensor for the Protein Detection	PLASMONICS	2013	10.1007/s11468-012-9460-3	7	6	19	3,167
22	Iliut, M ; Iosin, M ; Astilean, S	MONITORING THE EFFECTS OF ULTRAVIOLET AND VISIBLE LIGHT ON Rb AND VITAMIN A IN MILK	ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL	2013		3	3	0	0,000
23	Navarro, JRG ; Lerouge, F ; Micouin, G ; Cepraga, C J ; Favier, A ; Charreyre, MT ; Blanchard, NP ; Lerme, J ; Chaput, F ; Focsan, M J ; Kamada, K ; Baldeck, PL ; Parola, S	Plasmonic bipyramids for fluorescence enhancement and protection against photobleaching	Nanoscale	2014	10.1039/c3nr06425e	13	9	19	2,111
24	Tira, DS ; Focsan, M ; Ulinici, S ; Maniu, D ; Astilean, S	Rhodamine B-Coated Gold Nanoparticles as Effective "Turn-on" Fluorescent Sensors for Detection of Zinc II Ions in Water	SPECTROSCOPY LETTERS	2014		5	5	10	2,000

25	Focsan, M ; Gabudean, AM ; Vulpoi, A ; Astilean, S	Controlling the Luminescence of Carboxyl-Functionalized CdSe/ZnS Core-Shell Quantum Dots in Solution by Binding with Gold Nanorods	JOURNAL OF PHYSICAL CHEMISTRY C	2014	10.1021/jp501281v	4	4	14	3,500
26	Diac, A ; Focsan, M ; Socaci, C ; Gabudean, AM ; Farcau, C ; Maniu, D ; Vasile, E ; Terec, A ; Veca, LM ; Astilean, S	Covalent conjugation of carbon dots with Rhodamine B and assessment of their photophysical properties	RSC ADVANCES	2015	10.1039/c5ra13161h	10	7,5	13	1,733
27	Lerouge, F ; Navarro, JRG ; Focsan, M ; Chaput, F ; Baldeck, P ; Parola, S	SHARP GOLD BASED HYBRID NANOPROBES FOR CELL IMAGING THROUGH DARK-FIELD MICROSCOPY	Proceedings of SPIE	2015	10.1117/12.2190853	6	5,5		0,000
28	Suarasan, S ; Focsan, M ; Soritau, O ; Maniu, D ; Astilean, S	One-pot, green synthesis of gold nanoparticles by gelatin and investigation of their biological effects on Osteoblast cells	COLLOIDS AND SURFACES B-BIOINTERFACES	2015	10.1016/j.colsurfb.2015.05.009	5	5	23	4,600
29	Leordean, C ; Marta, B ; Gabudean, AM, Focsan, M ; Botiz, I ; Astilean, S	Fabrication of highly active and cost effective SERS plasmonic substrates by electrophoretic deposition of gold nanoparticles on a DVD template	APPLIED SURFACE SCIENCE	2015	10.1016/j.apsusc.2015.04.208	6	5,5	9	1,636
30	Goncalves, JLD ; Valandro, SR J ; Wu, HF ; Lee, YH ; Mettra, B ; Monnereau, C ; Cavalheiro, CCS ; Pawlicka, A ; Focsan, M ; Lin, CL ; Baldeck, PL	3D Printing Natural Organic Materials by Photochemistry	Proceedings of SPIE, ORGANIC PHOTONIC MATERIALS AND DEVICES XVIII	2016	10.1117/12.2217953	11	8		0,000
31	Craciun, AM ; Diac, A ; Focsan, M ; Socaci, C ; Magyari, K ; Maniu, D ; Mihalache, I ; Veca, LM ; Astilean, S ; Terec, A	Surface passivation of carbon nanoparticles with p-phenylenediamine towards photoluminescent carbon dots	RSC ADVANCES	2016	10.1039/c6ra10127e	10	7,5	11	1,467
32	Focsan, M ; Craciun, AM ; Astilean, S ; Baldeck, PL	Two-photon fabrication of three-dimensional silver microstructures in microfluidic channels for volumetric surface-enhanced Raman scattering detection	OPTICAL MATERIALS EXPRESS	2016	10.1364/OME.6.001587	4	4	9	2,250
33	Suarasan, S ; Focsan, M ; Potara, M.; Soritau, O ; Florea, A ; Maniu, D ; Astilean, S	Doxorubicin-Incorporated Nanotherapeutic Delivery System Based on Gelatin-Coated Gold Nanoparticles: Formulation, Drug Release, and Multimodal Imaging of Cellular Internalization	ACS APPLIED MATERIALS & INTERFACES	2016	10.1021/acsami.6b07583	7	6	23	3,833
34	Focsan, M ; Campu, A ; Craciun, AM ; Potara, M ; Leordean, C ; Maniu, D ; Astilean, S	A simple and efficient design to improve the detection of biotin-streptavidin interaction with plasmonic nanobiosensors	BIOSENSORS & BIOELECTRONICS	2016	10.1016/j.bios.2016.07.054	7	6	8	1,333
35	Craciun, AM ; Focsan, M ; Gaina, L ; Astilean, S	onic (phenothiazinyl)vinyl-pyridinium chro	DYES AND PIGMENTS	2017	10.1016/j.dyepig.2016.08.033	4	4	1	0,250
36	Craciun, AM ; Focsan, M ; Magyari, K ; Vulpoi, A ; Pap, Z	Surface Plasmon Resonance or Biocompatibility-Key Properties for Determining the Applicability of Noble Metal Nanoparticles	MATERIALS	2017	10.3390/ma10070836	5	5	6	1,200

37	Focsan, M ; Craciun, AM ; Potara, M ; Leordean, C; Vulpoi, A ; Maniu, D ; Astilean, S	Flexible and Tunable 3D Gold Nanocups Platform as Plasmonic Biosensor for Specific Dual LSPR-SERS Immuno-Detection	SCIENTIFIC REPORTS	2017	10.1038/s41598-017-14694-1	7	6	11	1,833
38	Campu, A ; Lerouge, F ; Chateau, D ; Chaput, F ; Baldeck, P ; Parola, S ; Maniu, D ; Craciun, AM ; Vulpoi, A ; Astilean, S ; Focsan, M	ANALYTICAL CHEMISTRY	ANALYTICAL CHEMISTRY	2018	10.1021/acs.analchem.8b01689	11	8	1	0,125
39	Susu, L ; Campu, A ; Craciun, AM ; Vulpoi, A ; Astilean, S ; Focsan, M	Designing Efficient Low-Cost Paper-Based Sensing Plasmonic Nanoplatfroms	SENSORS	2018	10.3390/s18093035	6	5,5	0	0,000
40	Potara, M ; Focsan, M; Craciun, AM ; Botiz, I ; Astilean, S	Polymer-coated plasmonic nanoparticles for environmental remediation: Synthesis, functionalization, and properties	NEW POLYMER NANOCOMPOSITES FOR ENVIRONMENTAL REMEDIATION	2018		5	5		0,000
41	Hampel, B ; Kovacs, G ; Czekes, Z ; Hernadi, K ; Danciu, V ; Ersen, O ; Girleanu, M ; Focsan, M ; Baia, L ; Pap, Z	Mapping the Photocatalytic Activity and Ecotoxicology of Au, Pt/TiO ₂ Composite Photocatalysts	ACS SUSTAINABLE CHEMISTRY & ENGINEERING	2018	10.1021/acssuschemeng.8b02465	10	7,5	0	0,000
42	Suarasan, Sorina; Craciun, Ana-Maria; Licarete, Emilia; Focsan, Monica; Magyari, Klara; Astilean, Simion	Intracellular dynamic disentangling of Doxorubicin release from luminescent nanogold carriers by Fluorescence Lifetime Imaging Microscopy (FLIM) under two-photon excitation	ACS applied materials & interfaces	2019	10.1021/acsami.8b21269	6	5,5	0	0,000
43	Campu, A ; Susu, L ; Orzan, F ; Maniu, D ; Craciun, AM ; Vulpoi, A ; Roiban, L ; Focsan, M ; Astilean, S	Multimodal biosensing on paper-based platform fabricated by plasmonic calligraphy using gold nanopyramids ink	Frontiers in Chemistry	2019	10.3389/fchem.2019.00055	9	7	0	0,000
44	Sz.Fodor, L.Baia, M.Focșan, K.Hernád, Zs.Pap	Designed and controlled synthesis of visible light active copper(I)oxide photocatalyst: From cubes towards the polyhedrons - with Cu nanoparticles	APPLIED SURFACE SCIENCE	2019	https://doi.org/10.1016/j.apusc.2019.03.288	5	5	0	0,000
45	Dumitrita Rugină, Raluca Ghiman, Monica Focșan, Flaviu Tăbăran, Florina Copaciu, Maria Suciu, Adela Pinte, Simion Aștilean	Resveratrol-delivery vehicle with anti-VEGF activity carried to human retinal pigmented epithelial cells exposed to high-glucose induced conditions	Colloids and Surfaces B: Biointerfaces	2019	https://doi.org/10.1016/j.colsurfb.2019.04.022	8	6,5	0	0,000