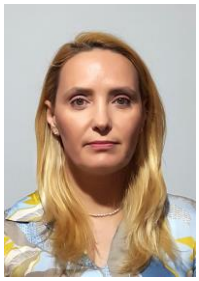

Curriculum Vitae

europass

Personal information

Surname/First name	**MIHAILESCU Natalia (born SERBAN)**
Address	Fizicienilor 12, Bl M5, Sc. 1, Ap. 8, Magurele -Ilfov, ROMANIA
Telephone(s)	(40-21) 457 43 39 Mobile | (40-762) 766 835
Fax(es)	(40)-(21) 457 42 43, 457 44 67
E-mail(s)	natalia.serban@inflpr.ro
Nationality	Romanian
Date of birth	22 January 1983
Gender	Female
Marital status	Married, two children

Work experience

Dates	February 2023→ to date
Occupation or position held	**Scientific Researcher II degree**
Main activities and responsibilities	Laser processed nanostructures: thin films deposition experiments and characterization; Applications: nanopowders generation and characterization; antimicrobial thin films and nanoparticles for surface functionalization; anticorrosive biocoatings; drug delivery system; tissue engineering; drug science; oxide for sensing structures; interface effects in oxide multilayers; Research contracts, and scientific articles; INFLPR organization activities;
Name and address of employer	National Institute for Lasers, Plasma and Radiation Physics, Atomistilor 409, 077125 Magurele-Ilfov, Romania.
Type of business or sector	Research, Laser, Plasma and Materials Physics

Dates	January 2014→ February 2023
Occupation or position held	**Scientific Researcher III degree**
Main activities and responsibilities	Deposition by laser techniques and characterization of adherent, hard protective coatings; ceramic coatings; metamaterials, organic and inorganic thin films synthesis for biomedical applications; nanopowders generation and characterization; antimicrobial thin films and nanoparticles for surface functionalization; anticorrosive biocoatings; drug delivery system; tissue engineering; drug science; oxide for sensing structures; epitaxial growth of thin films and nanostructures by laser ablation; interface effects in oxide multilayers; optical and fluorescent microscopy investigations.
Name and address of employer	National Institute for Lasers, Plasma and Radiation Physics, Atomistilor 409, 077125 Magurele-Ilfov, Romania.
Type of business or sector	Research, Laser, Plasma and Materials Physics

Dates	January 2010→ December 2013
Occupation or position held	**Scientific Researcher**
Main activities and responsibilities	Surface physics and engineering processing with *ns* laser sources; nanoparticles synthesis in vacuum and liquid environments; pulsed laser deposition; matrix assisted pulsed laser evaporation; combinatorial-matrix assisted pulsed laser evaporation, combinatorial-pulsed laser deposition; laser direct writing; surface processing; biomimetics; biosensing; UV/VIS transmission spectroscopy; Fourier transform infrared (FTIR) spectroscopy; plasma and laser theory.
Name and address of employer	National Institute for Lasers, Plasma and Radiation Physics, Atomistilor 409, 077125 Magurele-Ilfov, Romania.
Type of business or sector	Research, Laser, Plasma and Materials Physics
Dates	September 2008 → December 2009
Occupation or position held	**Research Assistant**
Main activities and responsibilities	Materials science; biomaterials; laser – matter interactions; surface modifications with lasers and micromachining; surface and material processing; deposition of thin solid structures by excimer laser irradiation
Name and address of employer	National Institute for Lasers, Plasma and Radiation Physics, Atomistilor 409, 077125 Magurele-Ilfov, Romania.
Type of business or sector	Research, Laser Physics, Spectroscopy
Dates	January 2006 → September 2008
Occupation or position held	**Junior Research Assistant**
Main activities and responsibilities	Monitoring dosimetry in Romania
Name and address of employer	SC Dozimed SRL Company, 077125, Magurele-Ilfov, Romania.
Type of business or sector	Dosimetry

Education and training

Dates	01 October 2008 – 30 May 2013
Title of qualification awarded	**PhD. In Physics**
Principal subjects / occupational skills covered	"*MAPLE deposition of thin films of polymers, calcium phosphates and bioglasses: physico-chemical and biological characterization*"
Name and type of organisation providing education and training	University of Bucharest, Faculty of Physics (Romania)
Dates	01 October 2006 – 30 June 2008
Title of qualification awarded	**Master degree** in "Astrophysics, Atomic and Nuclear Physics, Materials Physics"
Principal subjects / occupational skills covered	"*Dosimetry system with film. Monitoring dosimetry in Romania*"
Name and type of organisation providing education and training	University of Bucharest, Faculty of Physics (Romania)
Dates	October 2001 → June 2006
Title of qualification awarded	**B. Sc.** In Physics Technology
Principal subjects / occupational skills covered	"*Synthesis and characterization of radioactive matrix polymers standard sources, through various polymerization methods*"
Name and type of organisation providing education and training	University of Bucharest, Faculty of Physics (Romania)

Personal skills and competences

Mother tongue(s)	**Romanian**

Other language(s) **English, Italian**

Self-assessment	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Spoken production			
English	B1	Independent user	B1	Independent user	B1	Independent user	B1	Independent user	B1	Independent user
Italian	A1	Basic user	B1	Independent user	A1	Basic user	A1	Basic user	A1	Basic user

(*) Common European Framework of Reference (CEF) level

Social skills and competences: Able to communicate with people from different social classes and ethnic groups.

Technical skills and competences: Pulsed laser deposition of thin films and nanoparticles, matrix assisted pulsed laser evaporation of polymers, proteins and enzymes, calcium phosphates and bioglasses; Laser direct writing; Plasma and laser theory; Combinatorial Matrix-Assisted Pulsed laser Evaporation; Combinatorial pulsed laser deposition; IR and UV spectroscopy; Optical and Fluorescent Microscopy investigations; Atomic Force Microscopy; surface physics and engineering; biophysics and biomedicine; nanobiotechnologies; gas- and bio- sensors.

Computer skills and competences: AutoCAD, Mathcad, Origin, Adobe Photoshop, Image J, MS Office, Adobe Acrobat, and other frequently used applications in PC environment.

Other skills and competences: Ability to work on several topics at the time.

Driving licence: Category B

Research projects:

Project Coordinator: *Dr. Natalia Mihailescu*, **Project title***: „Advanced biodegradable Mg/Mg alloys implants with corrosion protection and antimicrobial shielding by hybrid coatings",* project no. 36, won in the competition of 2014, Applied Life Sciences and Biotechnologies, organized by UEFISCDI. The project was completed on November 30, 2017, UEFISCDI sum: 125.000 EUR, (PN-II-RU-TE-2014-4-0396). In this project I coordinated a team of 8 members. The dissemination of the project was materialized by publishing 5 articles in International Journals (3-Applied Surface Science, 1-Molecules, and 1-Journal of Physics: Conference Series); 2 posters and 1 oral presentation at International Conferences and 1 Book Chapter in International Book. More info about the dissemination, please visit http://lspi.inflpr.ro/TE_2015/PN-II-RU-TE-2014-4-0396/.

Project Coordinator: *Dr. Natalia Mihailescu*, **Project title:** *"Surface functionalization with metamaterials: anticorrosive and antimicrobial biodegradable Mg alloy implants",* project no. 3, won in the competition of 2014, Health Domain, organized by UEFISCDI. The project was completed on in 2020, April 30. UEFISCDI amount: 55.555 EUR, (PN-III-P1-1.1-PD-2016-1219). Till now, the dissemination of the project was materialized by publishing 2 articles in International Journals (Applied Surface Science, 2019, Materials 2020), and 3 Poster presentation at International Conferences. More info about the dissemination, please visit http://lspi.inflpr.ro/2018/PD52/Home.html.

Granted patents "*Functionalization process of implants surface using nanocomposites with complementary properties*," Floroian L.; Samoilă C.; Badea M.; Floroian D.; Ristoscu C.G.; Mihailescu N.; Negut I.; Mihailescu I.N.; OSIM (BOPI nr. 4/2016); RO131045 (A0), A/00981/08.12.2015.

Scientific presentations:

I am author and co-author at **more than 60** posters and oral presentations at International Conferences devoted to laser-matter interactions and materials processing.

"Boosting sensitivity and selectivity of optical waveguide gas sensors by surface coating with noble metal nanoclusters," **N. Serban**, E. Axente, C. N. Mihailescu, G. Socol, C. Ristoscu, I. N. Mihailescu, oral presentation, and poster at NATO- ADVANCED STUDY INSTITUTE, "Nanotechnological Basis for Advanced Sensors," Bulgaria, Sozopol, mai 30 – iuni 11, 2010.

"Nanostructuring of Levan and immobilization of IgG by laser transfer" **N. Serban**, Umut Tuyl, F. Sima, E.T. Oner, L.E. Sima, M.S.Eroglu, S.M. Petrescu, I.N.Mihailescu and C. Ristoscu, poster at symposium Q:

Novel materials and fabrication methods for new emerging devices" E-MRS 2012 Spring Meeting;

"Synthesis of nanometric iron oxide film by reactive pulsed laser deposition for sensors" I. N. Mihailescu, C. Ristoscu, G. Socol, S. Nicolaie, **N. Serban**, S. A. Mulenko, Yu. N. Petrov N.T. Gorbachuk, poster at symposium V: Laser Materials prossesing for mico and nanao applications" E-MRS 2012 Spring Meeting;

"Pure and doped hydroxyapatite thin films synthesized by advanced laser techniques for metal implant coatings", A. Jankovic, **N. Serban**, L. Duta, S. Erakovic, C. Ristoscu, G.E. Stan, A. Visan, C. Luculescu, M.C. Chifiriuc, V. Miskovic-Stankovic, I.N. Mihailescu, Symposium V, 28 May, 17:00, POSTER, cod V. PI 35, E-MRS 2012 Spring Meeting;

"Nanostructured thin films of doped hydroxyapatite with MgF2, MgO or Ti transferred by pulsed laser deposition", **N. Serban**, L. Duta, F. N. Oktar, G. E. Stan, C. Luculescu, G. Popescu-Pelin, I. N. Mihailescu, Symposium V, 28 may, 17:00, POSTER, cod V. PI 36, E-MRS 2012 Spring Meeting;

"Doped biological hydroxyapatite thin films synthesized by Pulsed Laser Deposition for a new generation of implants," L. Duta, G.E. Stan, F.N. Oktar, **N. Serban**, I. N. Mihailescu, Symposium V, 28 May, POSTER, cod V. PI 37, 2013; E-MRS, Spring Meeting;

"Laser Synthesis of Nanometric Iron Oxide Films by Pulsed Laser Deposition" **N. Mihailescu**, C. Ristoscu, G. Socol, N. Stefan, M. Socol, S.A. Mulenko, N.T. Gorbachuk, I.N. Mihailescu, Workshop on "Transition Metal Oxide Thin Films-Functional Layers in `Smart Windows' and Water Splitting Devices: Technology and Optoelectronic Properties", 4-6 September, 2014, Varna, Bulgaria, oral and poster presentation;

"Biopolymer compositional gradient thin film assemblies synthesized by Combinatorial MAPLE: physico-chemical and in-vitro cell response studies", **N. Mihailescu (Serban),** F. Sima, E. Axente, L. E. Sima, M. Erginer, M. S. Eroglu, C. Ristoscu, S. M. Petrescu, E. Toksoy Oner, I. N. Mihailescu, Poster presentation (P.18) at 5th International Student Conference on Photonics, Orastie, Hunedoara, Romania, September 22-26, 2014;

"Nanostructured thin films of reinforced hydroxyapatite with MgF2 or MgO transferred by pulsed laser deposition ", **N. Mihailescu,** A. Visan, G. E. Stan, M. C. Chifiriuc, C. Bleotu, L. Duta, I. Urzica, C. Luculescu, F. N. Oktar, I. N. Mihailescu, at ROMOPTO 2015, 11th International Conference on Optics "Micro- to Nano-Photonics IV", September 1-4, 2015 Bucharest, Romania;

"Pulsed Laser Fabrication of Ag, Si:C thin films for antimicrobial coatings of implants ", **N. Mihailescu,** G. Socol, C. Hapenciuc, I. Negut, C. Ristoscu, Ion N. Mihailescu, G. Stan, C. Chifiriuc, 12th International Conference on Nanosciences & Nanotechnologies (NN15), 7-10 July 2015, Thessaloniki, Greece;

"Matrix-assisted pulsed laser evaporation of lignin addition to simple and silver-doped hydroxyapatite thin films: structural and biological evaluation"; **N. Mihailescu,** C. Ristoscu, A. Janković, S. Eraković, I.N. Mihailescu, G. E. Stan, L. Duta, A. Visan, A. C. Popa, M. A. Husanu, C. Bleotu, M. C. Chifiriuc, C. R. Luculescu, V. V. Srdić, Dj. Janaćković, V., Mišković-Stanković; "New Trends in Sensing- Monitoring-Telediagnosis for Life Sciences," Brasov, Romania - September 3-5, 2015; **Best poster presentation;**

"Bioactive glass thin films synthesized by advanced pulsed laser techniques," **Natalia Mihailescu**, G.E. Stan, Carmen Ristoscu, M. Sopronyi, Ion N. Mihailescu, 2016 INERA Conference, "Vapor Phase Technologies for metal oxide and carbon nanostructures", 5 – 9 July 2016, Velingrad, Bulgaria. **Best poster presentation;**

"Nanostructured bioactive glass thin films synthesized by pulsed laser deposition onto biodegradable metallic implants", **Natalia Mihailescu**, A. Ficai, Carmen Ristoscu, F. Sima, C.N. Mihailescu, Laura Floroian, M. Sopronyi, Mariana Carmen Chifiriuc, Irina Negut, Coralia Bleotu, Ion N. Mihailescu, Poster (P100) presentation at ICPEPA-10, August 29 – September 2, 2016, Brasov, Romania;

"A comparative study of pure Mg/Mg–based alloys for metallic implants application ", **Natalia Mihailescu**, I. Ungureanu (Negut), A. Ficai, Roxana Truscă, Dragos Gudovan, Laura Floroian, and Ion N. Mihailescu, prezentare poster la International Symposium of Chemical Engineering and Materials 2018 SICHEM, 6-9 Septembrie 2018, Bucuresti, Romania;

"Nanostructured bioactive glass coatings synthesized by pulsed laser deposition onto biodegradable metallic implants ", **Natalia Mihailescu**, M. Sopronyi, A. Ficai, Laura Floroian, Irina Negut, Carmen Ristoscu, G. Stan, José M.F. Ferreira and Ion N. Mihailescu, 27-30 August 2018, 12th European Symposium on Thermal Analysis & Calorimetry (ESTAC12) in Brasov, Romania;

"Metamaterials for biodegradable metallic implants synthesized by laser techniques ", Natalia Mihailescu et al., poster at 5th Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC5) and 14th Mediterranean Conference on Calorimetry and Thermal Analysis (Medicta2019), 27th and 30th August 2019 in Roma/Rome, Italy;

„Corrosion studies of mg/mg –based alloys as biodegradable metallic implants," **Natalia Mihailescu**, A. Ficai, Carmen Ristoscu, Mariana Carmen Chifiriuc, Ion N. Mihailescu, poster on-line la Emerge MAT 4TH INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES IN MATERIALS ENGINEERING, 4-5 November 2021, Bucharest, Romania;

„One-temperature analytical model for femto-/atto-second laser beam-metals drilling with empirical testing: A novel approach," **Natalia Mihailescu** et al., poster at The International Conference on Lasers, Plasma, and Radiation – Science and Technology Palace of Parliament, Bucharest, Romania, June 7-10, 2022;

„Corrosion studies, biocompatibility and antimicrobial features of Mg/Mg –based alloys as biodegradable metallic implants," **Natalia Mihailescu** et al., poster at The International Conference on Lasers, Plasma, and Radiation – Science and Technology Palace of Parliament, Bucharest, Romania, June 7-10, 2022.

The autonomy and visibility of the scientific activity

I have performed more than 15 working-stages in prestigious Universities and Institutes (Institute of Physics, Czech Republic; University of Cyprus, National Hellenic Research Foundation, Greece, Tel Aviv University and Racah Institute of Physics, Hebrew University of Jerusalem, Israel. In 2012, I attended the training courses: „*Training in the Field of Nanotechnology and Processing of Functional Materials"* organized by Faculty of Technology and Metallurgy, University of Belgrade, Serbia; and training courses: *"Metal Oxide Films: Technology and Applications"*, organized by Institute of Electronics and Institute of Solid-State Physics, Bulgaria. In November 2014, I was invited by the Marmara University, Turkey, to deliver a talk on *„Advanced laser transfer of biomaterials thin films for biomedical applications".*

I am Member of the Guidance Committee of Doctoral Student Maxim MAXIMOV, Doctoral School "Applied Chemistry and Materials Science", POLITEHNICA University of Bucharest, doctoral thesis entitled "Coatings with bioactive glass for implants" which will be completed in 2026; I was the coordinator of the student's master's thesis D. L. Jongen, Dep. of Applied Engineering Sciences, "POLITEHNICA" University, Bucharest, date of support: 2015.

In 2016, I was Member of the Organizing Committee of 10th International Conference on Photo-Excited Processes and Applications, ICPEPA-10 Conference, Romania, http://icpepa10.com/ and Member of the Organizing Committee in 2022 and 2024 at International Conference on Lasers, Plasma, and Radiation – Science and Technology (ICLPR-ST), https://iclpr-st.inflpr.ro/. I am Member of the Publishers Committee of the Romanian Biotechnological Letters Journal, 2015; UPB Scientific Bulletin, 2018; Applied Surface Science and ACS Sustainable Chemistry & Engineering, 2019.

My scientific contributions consist in 41 publications articles in International Journals and 9 proceedings/ non-ISI articles. Among them, 7 ISI published papers as main/corresponding author and 5 Book Chapters. Since now, I achieved 931 citations (Sum of Times Cited, without self-citations) in International Journals and Books, with a **Hirsh Index = 18** (from Web of Science – **C-5879-2011**, 2025).

Natalia MIHAILESCU (Serban) - Web of Science Researcher Profile

https://www.brainmap.ro/natalia-mihailescu

Participation in National Projects

National Plan for Research, Development and Innovation

"Cellular and molecular biotechnologies with applications in medicine" Postdoctoral Program 2010 – 2013, POSDRU/89/1.5/S/60746;
"Pulsed laser nanostructuring, assembling and immobilization of biomaterials;" TE 82/2011;
"Multi-parameter metal oxide nanosensors synthesized by advanced laser technologies – metomultisensor;" ID304/2011;
"Fundamental research of plasma physics and technology. Applications in nuclear fusion and surface engineering," PN- 09390301;
"Studies and techniques for materials and surface plasma processing" PN 09390401;
"Innovative system of electrical energy production using PEM type combustion piles at high temperatures, nourished by hydrogen produced by acetic acid reformation", PN II - 22-079 PEMREFACET;
"Superhydrophobe breathing nanostructures", PN II – 32-168 LOTUS, 2008-2011;

" Cranio spinal implants biointegration by bioactive multilayer coatings", PN II – 71-110 BIOSTIMP.
„Advanced biodegradable Mg/Mg alloys implants with corrosion protection and antimicrobial shielding by hybrid coatings", PN-II-RU-TE-2014-4-0396;
"Surface functionalization with metamaterials: anticorrosive and antimicrobial biodegradable Mg alloy implants", PN-III-P1-1.1-PD-2016-1219.
„VO2 – Based smart windows" PED/ 2020-2023.
"The case of semi-Dirac-point in multilayer heterostructures", TE-2019-3289;
"NANOmed: O abordare industrială pentru integrarea nanotehnologiei în implanturile ortopedice", PN-IV-P7-7.1-PTE-2024-0335.

Participation in Bilateral and International Projects

"Innovative BIOmimetic nanostructured COATings for orthopaedic implants BY advanced pulsed LASER methods", (Biocoat By Laser), 19_RO-FR/2014, 2014- 2016;
"Ag/Si doped carbon layer for bio-medical application", M-ERA.NET PROJECT, CarLa, 7-083/2014, 2014-2015;
FP7, Theme Research potential, Call FP7 - REGPOT - 2009 - 1, "Reinforcing of Nanotechnology and Functional Materials Centre", Coordinator: Faculty of Technology and Metallurgy, University of Belgrade, Serbia, (2009 - 2012);
EUREKA 3033 „Hydroxyapatite Nanocomposite Ceramics - New Implant Material for Bone Substitutes (BIONANOCOMPOSIT);
"Laser ablation and Matrix Assisted Pulsed Laser Evaporation for synthesis of thin films for biomedical, chemical, optoelectronic and metallurgical applications", Bilateral Programme between Romania- Czech Republic, 2009-2011;
"A new generation of nanostructured coatings for biomedical implants applications", Bilateral Cooperation between Romania- Turkey, 2010-2011;
"Development of Nanostructured Functional Biosurfaces by Laser Direct Writing Technologies", Bilateral Cooperation between Romania- Turkey, 2012-2014;
"Biomimetic nanostructures synthesized by advanced laser technology for a new generation of implants: Experimental studies and theoretical modelling", Bilateral Cooperation between Romania- Republic of Moldova, 2013-2014;
"Nanostructured Thin Films Fabricated by Advanced Laser Techniques with Applications in Nanoelectronics, Spintronics, Biology and Medicine; Bilateral Cooperation between Romania-Cyprus, 2010-2012;
"Nanostructured thin films of mono-molecular magnets and organic oxides synthesized by pulsed laser advanced technologies (MAPLE, PLD) for new applications in optoelectronics, information storage and spintronics" Bilateral Cooperation between Romania-Cyprus, 2012-2014;
"Pulsed laser deposition and synthesis of carbon-containing nanostructures, Institute of Fundamental Technological Research", Bilateral programme between Romanian Academy-Polish Academy of Sciences;
"Physical and chemical approaches to the synthesis of visible-light sensitive semiconductor films for photo-catalytic application", "O. Chuiko Institute of Surface chemistry" Bilateral Programme between Romanian Academy-NAS of Ukraine, Kiev.
„New magnetic heat transport for thermal management in aerospace electronics/ PCB_MAG" STAR 179/ STAR ROSA/ 2017-2019.
"Thermochromic Materials for Energy-Efficiency", RO-NO-2019-0498.

Annex

List of publications

1."Metal Oxide Nanoparticles Synthesized by Pulsed Laser Ablation for Proton Exchange Membrane Fuel Cells", G. Dorcioman, D. Ebrasu, I. Enculescu, **N. Serban**, E. Axente, F. Sima, C. Ristoscu, I. N. Mihailescu, **Journal of Power Sources**, 195 (2010) 7776–7780. Impact Factor of Journal (IF): 4.290;

2.*"Double layered nanostructured composite coatings with bioactive silicate glass and polymethylmetacrylate for biomimetic implant applications*", L. Floroian, F. Sima, M. Florescu, M. Badea, A. C. Popescu, **N. Serban**, I. N. Mihailescu**, Journal of Electroanalytical Chemistry**, Volume: 648, Issue: 2, Pages: 111-118, DOI: 10.1016/j.jelechem. 2010.08.005. IF: 2.733;

3. *„Levan thin films by MAPLE nanostructured assembling"*, Felix Sima, Esra Cansever Mutlu, Mehmet S. Eroglu, Livia E. Sima, **Natalia Serban**, Carmen Ristoscu, Stefana M. Petrescu, Ebru Toksoy Oner, Ion N. Mihailescu, **Biomacromolecules**, Volume: 12, Issue: 6, (2011) Pages: 2251-2256 DOI: 10.1021/bm200340b. IF: 5.479;

4 *"Magnesium and strontium doped octacalcium phosphate thin films by matrix assisted pulsed laser evaporation"*, E. Boanini, P. Torricelli, M. Fini, F. Sima, **N. Serban**, I. N. Mihailescu, A. Bigi, **Journal of Inorganic Biochemistry**, 107:65–72, 2012. IF: 3.197;

5. *"Combinatorial Matrix-Assisted Pulsed Laser Evaporation: single-step synthesis of biopolymer compositional gradient thin film assemblies"*, F. Sima, E. Axente, L. E. Sima, U. Tuyel, M. S. Eroglu, **N. Serban**, C. Ristoscu, S. M. Petrescu, E. Toksoy Oner, and I. N. Mihailescu, **Applied Physics Letters**, 101, 2012, 233705. IF: 3.794;

6. *"Novel doped hydroxyapatite thin films obtained by pulsed laser deposition"*, L. Duta, F.N. Oktar, G.E. Stan, G. Popescu-Pelin, **N. Serban**, C. Luculescu, I.N. Mihailescu, **Applied Surface Science**, 265, 2013, 41-49. IF: 2.538;

7. *„Multiple nano-second laser ablation of metals based upon a new two-temperature approach",* **Natalia Serban**, Mihai Oane and Ion N. Mihailescu, **Romanian Reports in Physics**, Vol. 65, No.3, 2013. IF: 1.137;

8. *„Biological hydroxyapatite thin films synthesized by pulsed laser deposition",* L. DUTA, **N. SERBAN**, F. N. OKTAR, I. N. MIHAILESCU, **Optoelectronics and Advanced Materials – Rapid Communications,** Vol. 7, No. 11-12, November - December 2013, p. 1040-1044. IF: 0.449;

9. *"Increased Diffusion Coefficient of Polymeric Nanocomposite Layer for Gas Sensing Applications",* I. Nicolae, C. Viespe, N. Serban, C. C. Negrila, V. S. Teodorescu and L. Trupina, **Sensor Letters**, Vol. 11, 1–6, 2013;

10. *„Antifungal activity of Ag:hydroxyapatite thin films synthesized bypulsed laser deposition on Ti and Ti modified by TiO2 nanotubes substrates"*, Erakovic, S.; Jankovic, A.; Ristoscu, C.; Duta, L.; **Serban, N.**, Visan, A.; Mihailescu, I. N.; G. E. Stan; M. Socol; Iordache, O.; Dumitrescu, I.; Luculescu, C. R.; Janackovic, D.; Miskovic-Stankovic, V., **Applied Surface Science,** Volume 293, p.37-45 (2014). IF: 2.711;

11. *„Laser synthesis of nanometric iron oxide films for thermo-sensing applications",* **N. Serban**, C. Ristoscu, G. Socol, N. Stefan, I. N. Mihailescu, M. Socol, S. A. Mulenko, Yu. N. Petrov, N. T. Gorbachuk, **Materials Research Bulletin**; Volume 50, February 2014, Pages 148–154. IF: 2.288;

12. *„Combinatorial MAPLE gradient thin film assemblies signalling to human osteoblasts"*, E. Axente, F.Sima, L. E. Sima, M. Erginer, M. S. Eroglu, **N. Serban**, C. Ristoscu, S. M Petrescu, E. T. Oner and I. N. Mihailescu, **Biofabrication**, 6 (2014) 035010.IF: 4.289.

13. *„Structural and biological evaluation of lignin addition to simple and silver doped hydroxyapatite thin films synthesized by matrix-assisted pulsed laser evaporation"*; A. Janković, S. Eraković,C. Ristoscu, **N. Mihailescu (Serban)**, L. Duta, A. Visan, G.E. Stan, A.C.Popa, M.A. Husanu, C.R. Luculescu, V.V. Srdić, Dj. Janaćković, V. Mišković-Stanković, C. Bleotu, M.C. Chifiriuc, I.N. Mihailescu, **Journal of Materials Science-Materials in Medicine,** 2015 Jan; 26 (1):5333. doi: 10.1007/s10856-014-5333-y. IF: 2.587;

14. „*Surface-enhanced Raman scattering activity of niobium surface after irradiation with femtosecond laser pulses"*, Victor Ivanov, Emil Vlakhov, George Stan, Marian Zamfirescu, Catalina Albu, **Natalia Mihailescu**, Irina Negut, Catalin Luculescu, Marcela Socol, Carmen Ristoscu, and Ion Mihailescu, **Journal of Applied Physics**, 118, 203104 (2015). IF: 2.101;

15. *"Antiresorption implant coatings based on calcium alendronate and octacalcium phosphate deposited by matrix assisted pulsed laser evaporation"*, Elisa Boanini, Paola Torricelli; Lucia Forte; Stefania Pagani; **Natalia Mihailescu**; Carmen Ristoscu; Ion N Mihailescu; Adriana Bigi, **Colloids and Surfaces B**: **Biointerfaces** 136 (2015) 449–456. IF: 3.902;

16. *"Structural, compositional, mechanical characterization and biological assessment of bovine-derived hydroxyapatite coatings reinforced with MgF2 or MgO for implants functionalization",* **Natalia Mihailescu**,

G.E. Stan, L. Duta, Mariana Carmen Chifiriuc, Coralia Bleotu, M. Sopronyi, C. Luculescu, F.N. Oktar, I.N. Mihailescu, **Materials Science and Engineering C** 59 (2016) 863–874. IF: 4.164;

17. *"The influence of 1,3-diaminopropane in functional groups generation on iron oxide nanoparticles surfaces synthesized by laser pyrolysis",* A. D. Badoi, F. Dumitrache, C. T. Fleaca, **N. Mihailescu**, E. Vasile, C. Luculescu, L. Gavrila, I. Morjan, I. Ciuca, **Optoelectronics and Advanced Materials – Rapid Communications**, Vol. 10, Iss. 1 - 2, January - February 2016, p. 16 – 20. IF: 0.470;

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19. "*Investigation of optical, structural, morphological and antimicrobial properties of carboxymethyl cellulose capped Ag-ZnO nanocomposites prepared by chemical and mechanical methods",* Magdalena-Valentina Lungu, Eugeniu Vasile, Mariana Lucaci, Delia Pătroi, **Natalia Mihăilescu**, Florentina Grigore, Virgil Marinescu, Alexandra Brătulescu, Sorina Mitrea, Arcadie Sobetkii, Arcadii A. Sobetkii, Marcela Popa, Mariana-Carmen Chifiriuc, **Materials Characterization**, 120 (2016) 69–81. IF: 2.714;

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I declare on my own responsibility that the data presented are in accordance with reality.

Dr. Mihailescu Natalia October, 2025