Curriculum vitae

Personal information

First name(s) / Surname(s)	**POHOAŢĂ Valentin**
Telephone	+40 232 201194
E-mail	vpohoata@uaic.ro

Work experience

Dates	February 2022 - present
Occupation or position held	Associate Professor, Faculty de Physics, Alexandru Ioan Cuza University of Iași
Dates	October 2005 - February 2022
Occupation or position held	Lecturer, Faculty de Physics, Alexandru Ioan Cuza University of Iași
Dates	February 2003 – October 2005
Occupation or position held	Associated Assistant
Name and address of employer	Faculty de Physics, Alexandru Ioan Cuza University of Iași
Field of activity	Education and research
Main activities and responsibilities	Courses, laboratories, practical works, tutoring, consultations and guidance for students in the Bachelor, Master and Doctoral School study cycles, research activity.

Courses:

- Laser physics and technological applications (year IV Technological Physics, Iași and Bălți extension);
- Optical spectroscopy: methods and instrumentation (second year master, Biophysics and Medical Physics, Physics for Advanced Technologies);
- Computer assisted graphics (year II, Physics);
- Virtual instrumentation (second year master, Balti extension, Physics for Advanced Technologies);
- Physics (Optics) (first year, Faculty of Chemistry);
- Microscopic and spectroscopic techniques used in forensics (Master of Forensics, Faculty of Law).

Laboratories and practical works:

- Laser physics and technological applications (year IV Technological Physics, Iași and Bălți extension);
- Computer assisted graphics (year II, Physics);
- Optical spectroscopy: methods and instrumentation (second year master, Biophysics and Medical Physics, Physics for Advanced Technologies);
- Spectroscopy and lasers (year II Technological Physics extension Bălți).

Previous teaching activities:

- Optical properties of materials (first year master course and laboratory, Optometry);
- Lasers in ophthalmology (first year master course and laboratory, Optometry);
- Physical methods of diagnosis in environmental protection (master course and laboratory year II, Sciences);

- Physical methods of non-destructive measurement and control (course and laboratory year IV Technological Physics);

- Optics (laboratory and seminar second year License).

Student coordination: undergraduate work preparation, 8 students; preparation of master's thesis, 14 students; Erasmus trainees, 7 students; member of the doctoral student guidance committee, 5 doctoral students.

Education and training

Dates	1999 - 2003
Title of qualification awarded	**Ph.D. in Physics** *Contribution to the double layer dynamics studies in plasma* *Magna Cum Laude*, Supervisor Prof. Univ. dr. Gheorghe Popa
Name and type of organization providing education and training	Faculty de Physics, Alexandru Ioan Cuza University of Iași
Dates	1997 - 1999
Title of qualification awarded	**Diploma of Advanced Studies** "Self-organization and nonlinearity in complex systems".
Name and type of organization providing education and training	Faculty de Physics, Alexandru Ioan Cuza University of Iași
Dates	1992 - 1997
Title of qualification awarded	**B.Sc., Physics**
Name and type of organization providing education and training	Faculty de Physics, Alexandru Ioan Cuza University of Iași
Dates	1988 - 1992
Title of qualification awarded	**Baccalaureate Diploma**
Name and type of organization providing education and training	"Ștefan cel Mare" High school Hârlău / Iași

Mobilities

- 01/03/1999 – 30/07/1999 – Institut fur Ionen Physik, Innsbruck Austria – CEEPUS mobility awarded by the National CEEPUS Office of AUSTRIA
- 17/11/1999 – 28/12/1999 – Institut fur Ionen Physik, Innsbruck Austria - Research mobility (doctorate) by Grant nr. 39702 funded by the World Bank: Research on the properties of low temperature plasma used in some technological applications, project director Prof.dr. Gheorghe Popa (1998 – 2000)
- 01/06/2001-31/7/2001 - "Jozef Stefan" Institute, University of Ljubljana, Slovenia CEEPUS mobility awarded by the National CEEPUS Office of SLOVENIA
- 17/01/2002 – 14/07/2002 - Institut fur Ionen Physik, Innsbruck Austria - Doctoral scholarship obtained through competition, financed by the Government of Romania through the National Office of Scholarships Abroad (ONBSS). Project name: The study of the self-oscillation mechanism of a double state and the related phenomena produced in the plasma of the DP machine.
- 01/08/2003 – 30/09/2003 - Institut fur Ionen Physik, Innsbruck Austria – research mobility awarded by the National CEEPUS Office of AUSTRIA
- 15/11/2013 – 21/11/2013 University of Cyprus, Department of Electrical and Computer Engineering, Nicosia; - purpose: detailing the experimental results, checking and discussing the results obtained by numerical modeling of the plasma jet.

- 19/11/2014 – 23/11/2014 Comenius University Bratislava, Slovakia; Faculty of Mathematics, Physics and Informatics, Division of Environmental Physics, - purpose: use of the experimental facilities of the partner team for the study of the plasma jet at atmospheric pressure, especially on the segment of chemistry induced by biological liquids (dosing of OH, NO and H2O2 radicals); inactivation of the bacterium E Coli in deionized water solution

Personal skills and competences

Mother tongue(s): Romanian

Other language(s): English

Self-assessment	Understanding		Speaking		Writing
European Level - Level of the Common European Framework of Reference for Languages	Listening	Reading	Spoken interaction	Spoken production	
English	B2 Independent user	C1 Experienced user	B1 Independent user	B2 Independent user	C1 Experienced user

Communication skills

Tutoring activity at the Bachelor and Master cycles within the Faculty of Physics, training candidates to participate in extracurricular competitions to popularize science such as FameLab, courses taught at other faculties within the Alexandru Ioan Cuza University of Iasi such as the Faculty of Chemistry and the Faculty of Law, participation in science festivals with lectures and experiments for the general public.

Organizational / managerial skills

Leadership (coordinator of European projects with up to 15 National academic partners);

Member of the local committee for organizing a number of 9 national and international conferences, in the period 2000 - 2021;

Member of the COST action team;

Member of the Council of the Faculty of Physics, terms 2016-2020, 2020-2024

Coordinator or member of the national organizing team of the Researchers' Night event, funded by the European Commission, 2013 - 2021

Scientific reviewer to various ISI indexed journals: Journal of Physics and Chemistry of Solids, IEEE Transactions on Plasma Science, Bioelectrochemistry, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Journal of Electrostatics.

Research interests

Plasma reactors, surface treatments;

Plasma, low- and high-pressure electrical discharges - production, parameter control, electrical, optical and spectroscopic diagnosis (laser absorption and LIF);

Surface analysis: XPS, IR, UV-VIS;

Analysis of materials of interest in carbon-rich astrophysics (FTIR, XPS)

Digital skills

Graphics: Autodesk AutoCad, Autodesk Fusion 360, Inkscape; Data analisis: SciDAVis, Origin, Excel; Data acquisition: Dasy Lab, LabView; Text editors: LaTex, Word

Scientific research activity

- Web of Science ResearcherID: https://publons.com/researcher/R-1354-2017/
- ORCID: https://orcid.org/0000-0001-5554-0088
- SCOPUS: 14049067900 https://www.scopus.com/authid/detail.uri?authorId=14049067900
- Google: https://scholar.google.ro/citations?user=Hu7c0KYAAAAJ&hl=ro&oi=ao
- BrainMap: https://www.brainmap.ro/valentin-pohoata

Books

Valentin Pohoață "Introduction to the physics of LASER systems", Publishing house Stef 2020,

ISBN 978-606-028-337-9

Publications & Citations

- 46 articles published in ISI indexed journals (WOS);
- 5 scientific articles published in extenso in SCOPUS indexed journals
- 8 scientific articles published in the Annals of Universities (BDI)
- 2 invited speaker - international conferences (IWSSPP - 2012, TIM19 - 2019);
- 139 Contributions to National and International Conferences and Workshops
- 543 citations (excluding self-citations) in journals and books ISI recognized (WOS);
- Hirsch-index: 12 - WOS; 13 - Scopus, 14 - Google Scholar

Grants

- Project Coordinator - within the public outreach projects founded by European Commission, Horizon 2020 Framework Program (selected after international competition):

  - European Commission, H2020-MSCA-NIGHT-2020 - European Researchers' Night, G.A. 954638 (DoReMi-RO), Doing Research Midnight in Romania – (2020 - 95 250 Euro);

  - European Commission, H2020-MSCA-NIGHT-2020bis - European Researchers' Night, G.A. 101036006 (OpeningUpScience), Opening Up Science – (2021 - 60 000 Euro).

- - Researcher within other projects:

  - 11 research projects;

  - 1 networking project;

  - 1 interdisciplinary institutional project;

  - 3 public outreach projects;

  - 5 COST action.

Standards CNATDCU

Values of standards necessary and mandatory for granting academic titles in higher education and research – Physics Field (National Council for Attestation of Titles, Diplomas and Certificates):

A	I	P	C	Hirsch	T
2.1	5.105	3.837	109.645	12	14.45

Summary of research activity

Project Coordinator - within the public outreach projects founded by European Commission, Horizon 2020 Framework Program, (selected after international competition)

- European Commission, H2020-MSCA-NIGHT-2020 - European Researchers' Night, G.A. 954638 (DoReMi-RO), Doing Research Midnight in Romania – (2020 - 95 250 Euro) https://cordis.europa.eu/project/id/954638
- European Commission, H2020-MSCA-NIGHT-2020bis - European Researchers' Night, G.A. 101036006 (OpeningUpScience), Opening Up Science – (2021 - 60 000 Euro) https://cordis.europa.eu/project/id/101036006

Researcher within other projects

- Synthesis of interstellar dust analogs by plasma methods (2017-2018), Funding agency: Romanian Space Agency, under the programme Space Technology and Advanced Research, grant no. 180/20.07.2017 (PlasmaDust) project coordinator lect. dr. Ionut Topala (2017-2018) 600000 RON
- Synthesis of transient complex molecular systems in laboratory plasmas with relevance for molecular astrophysics of hot cores (2014-2016), Funding agency: Romanian Space Agency, grant no. 349 (PlasmaHotCore) project coordinator lect. dr. Ionut Topala (2014-2016) 795319.89 RON
- Adhesion and controlled stability of plasma treated fabrics for industrial applications (2014-2016) PN-II-PT-PCCA-2013-4-0325, (CASPIS) Funding agency: UEFISCDI, project coordinator conf. dr. Gabriela Borcia (2014-2016) 75000 RON
- Effects of atmospheric pressure cold discharge plasmas to bacteria and cell cultures (2013-2014), Funding agency: UEFISCDI, Romania-Slovakia Bilateral cooperation, project coordinator lect. dr. Ionut Topala 20250 RON
- Development, diagnostic and modelling of cold plasma jets at atmospheric pressure for direct treatment of living tissues (2011-2013), Funding agency: UEFISCDI, Romania-Cyprus Bilateral cooperation project coordinator lect. dr. Ionut Topala 35844 RON
- Plasma functionalization of nanoscopic probes, PN-II-ID-PCE-2011-3-0270 Funding agency: UEFISCDI, project coordinator Prof. dr. Lucel Sirghi (2011-2015) 1499187 RON
- Acoustic microsensors based on magnetostrictive nanowires for medical applications PN II – SANAM (contract 12114/01.10.2008), project manager Prof.dr. Maria Neagu Partner UAIC-Iasi (P.2) (2008-2011), 125.000 RON
- Study of the mechanism of secondary discharge formation in DBD systems in atmospheric pressure pulses, Grant type AT, cod 159/2007, project coordinator Lect.dr. Alina Chiper, CNCSIS (2007 – 2008) 160 000 RON
- Physical Processes in Amorphous Magnetic Wires Used in the Operation of Magnetic Sensors, CEEX - SMMA (contract 2-CEx 06-11-58/2006, Subcontract 2-CEx 06-11-58-1.1/2006) project manager Prof.dr. Maria Neagu, Partner UAIC- Iasi (P1.1) (2006-2008), 250.000 RON
- Surface effects in nanometric magnetic materials, CEEX - ESMMN (contract CEx05-D11- 41/2005 – Subcontract 2/2005) project manager Prof.dr. Maria Neagu, Partner UAIC- Iasi (P1.2) (2005-2008) 125.000 RON
- Multifunctional magnetostrictive materials for intelligent hybrid systems of sensors, actuators and translators, CEEX - MAGSAT (contract no. 34/06.10.2005, Subcontract 8/06.10.2005), project coordinator Prof.dr. Maria Neagu, Partner UAIC -Iasi (UAIC1) (2005-2008), 100.000 RON

Member in International networking project:

- Spanish National Research Council (CSIC), LINKA20353, LInking ice, gas, and dust: Laboratory AstroChemistry (LILAC), Project leader: Dr. María Belén MATE NAYA, (2021-2022)

Member in Public outreach projects Horizon 2020

- European Commission, H2020-MSCA-NIGHT-2018, G.A. 818795 (HSciRO) Handle with Science, project coordinator lect. dr. Catalin Agheorghiesei (2018 - 2019) 128000 euro
- European Commission, H2020-MSCA-NIGHT-2014, G.A. 633311 (RoTalkScience), RESEARCHERS' NIGHT in ROMANIA. Do you speak science? project coordinator lect. dr. Ionut Topala (2014-2015) 118316 euro
- European Commission, FP7-PEOPLE-2013-NIGHT, G.A. 609771 (RNR 2013), RESEARCHERS' NIGHT in ROMANIA 2013. Science: The great escape, project coordinator lect. dr. Ionut Topala (2013) 33880 euro

Member in Interdisciplinary institutional project

- Representative from the Faculty of Physics - FDI project code CNFIS-FDI-2021-0418 financed from the Institutional Development Fund "Consolidation of the entrepreneurial ecosystem from the Alexandru Ioan Cuza University of Iași ECO-ANT-UAIC, Domain 4: supporting the company's activities student entrepreneurship (SAS) within universities, project director Assoc. Prof. Dr. Anton Sorin Gabriel (project duration 8 months - 2021) (200,000 lei)

Member in COST actions

- COST Action CM1401, Our Astro-Chemical History, Chair Dr Laurent Wiesenfeld, RO MC member Dr. Ionut Topala, 2016-2018
- COST Action CA18212, Molecular Dynamics in the GAS phase, Chair Prof. Henning Zettergren, RO MC member Dr. Nicolina Pop, 2019-2023
- COST Action CA18104, Revealing the Milky Way with Gaia, Chair Dr Nicholas Walton, RO MC member Dr. Nicolina Pop, 2018-2020
- COST Action CA19110, Plasma applications for smart and sustainable agriculture, Chair Dr. Nevena Puac, RO MC member Dr. Ionut Topala, 2020-2024
- COST Action CA20129, Multiscale Irradiation and Chemistry Driven Processes and Related Technologie, Chair Dr. Dr Alexey Verkhovtsev, RO MC member Dr. Ionut Topala, 2021-2025

Book

Valentin Pohoață "Introduction to the physics of LASER systems", Publishing Stef 2020, **ISBN 978-606-028-337-9**

Free Web access: https://www.plasma.uaic.ro/wp-content/uploads/2021/12/Introducere-in-Fizica-sistemelor-Laser_Editura-Stef-2020_plasma_uaic_ro.pdf

Chapter book (interdisciplinary field)

Ancuța Elena Franț, Valentin Pohoata "The legislation that regulates the profession for which students are preparing. Forensic expertise. Creative Commons licenses. Inventions" (pp. 104-123) in" Work Guide. Theory, case studies, practices at national and international level in the field of legal sciences" edited by Tudorel Toader, Carmen Tamara Ungureanu, Olga Andreea Urdă, Alexandru Ioan Cuza University of Iași Publishing House (UAIC), 2020, **ISBN: 978-606-714-616-5**

ISI indexed articles (Author Records from the Web of Science Core Collection)

1. Gerber, I. C., Mihaila, I., Pohoata, V., & Topala, I. (2021). Evolution of Electrical and Optical Parameters of a Helium Plasma Jet in Interaction with Liquids. *IEEE Transactions on Plasma Science*, *49*(2), 557–562. doi: 10.1109/TPS.2020.3008967
2. Dascalu, A., Pohoata, V., Shimizu, K., & Sirghi, L. (2021). Molecular Species Generated by Surface Dielectric Barrier Discharge Micro-plasma in Small Chambers Enclosing Atmospheric Air and Water Samples. *Plasma Chemistry and Plasma Processing*, *41*(1), 389–408. doi: 10.1007/s11090-020-10122-x
3. C. Lazarou, C., Chiper, A. S., Anastassiou, C., Topala, I., Mihaila, I., Pohoata, V., & Georghiou, G. E. (2019). Numerical simulation of the effect of water admixtures on the evolution of a helium/dry air discharge. *Journal of Physics D-Applied Physics*, *52*(19), 195203. https://doi.org/10.1088/1361-6463/ab06cd
4. Cocean, I., Cocean, A., Postolachi, C., Pohoata, V., Cimpoesu, N., Bulai, G., Gurlui, S. (2019). Alpha keratin amino acids BEHVIOR under high FLUENCE laser interaction. Medical applications. Applied Surface Science, 488, 418–426. doi: 10.1016/j.apsusc.2019.05.207
5. Sava, I., I. Stoica, I. Mihaila, V. Pohoata, I. Topala, G. Stoian, and N. Lupu 2018. "Nanoscale analysis of laser-induced surface relief gratings on azo-copolyimide films before and after gold coating," *Polymer Testing*, 72 (2018), 407–415 (DOI: 10.1016/j.polymertesting.2018.10.033).
6. Samoila, F., V. Pohoata, and L. Sirghi 2018. "Cleaning Away the Oleic Acid Contaminant from Glass Surface by Negative Glow Plasma," *Plasma Chemistry and Plasma Processing*, 38/6 (2018), 1273–1291 (DOI: 10.1007/s11090-018-9927-x).
7. Rusu, B.-G., V. Postolache, I.-G. Cara, V. Pohoata, I. Mihaila, I. Topala, and G. Jitareanu 2018. "METHOD OF FUNGAL WHEAT SEEDS DISEASE INHIBITION USING DIRECT EXPOSURE TO AIR COLD PLASMA," *Romanian Journal of Physics*, 63/905 (2018), 13.
8. Nastuta, A. V., V. Pohoata, I. Mihaila, and I. Topala 2018. "Diagnosis of a short-pulse dielectric barrier discharge at atmospheric pressure in helium with hydrogen-methane admixtures," *Physics of Plasmas*, 25/4 (2018), 043515 (DOI: 10.1063/1.5017097).
9. Lazarou, C., C. Anastassiou, I. Topala, A. S. Chiper, I. Mihaila, V. Pohoata, and G. E. Georghiou 2018. "Numerical simulation of capillary helium and helium−oxygen atmospheric pressure plasma jets: propagation dynamics and interaction with dielectric," *Plasma Sources Science and Technology*, 27/10 (2018), 105007 (DOI: 10.1088/1361-6595/aadeb8).
10. Jijie, R., A. Barras, T. Teslaru, I. Topala, V. Pohoata, M. Dobromir, T. Dumych, J. Bouckaert, S. Szunerits, N. Dumitrascu, and R. Boukherroub 2018. "Aqueous medium-induced micropore formation in plasma polymerized polystyrene: an effective route to inhibit bacteria adhesion," *Journal of Materials Chemistry B*, 6/22 (2018), 3674–3683 (DOI: 10.1039/C7TB02964K).
11. Hodoroaba, B., I. C. Gerber, D. Ciubotaru, I. Mihaila, M. Dobromir, V. Pohoata, and I. Topala 2018. "Carbon 'fluffy' aggregates produced by helium–hydrocarbon high-pressure plasmas as analogues to interstellar dust," *Monthly Notices of the Royal Astronomical Society*, 481/2 (2018), 2841–2850 (DOI: 10.1093/mnras/sty2497).
12. Nastuta, A. V., I. Topala, V. Pohoata, I. Mihaila, C. Agheorghiesei, and N. Dumitrascu 2017. "Atmospheric Pressure Plasma Jets in Inert Gases: Electrical, Optical and Mass Spectrometry Diagnosis," *Romanian Reports in Physics*, 69/1 (2017), 407.
13. Gurlui, S., I. Sandu, N. Cimpoesu, V. Pohoata, L. G. Sandu, and M. Strat 2017. "Nanoaggregates and Selforganization Phenomena in Polyurethane Coumarine Film," *Materiale Plastice*, 54/3 (2017), 589–592.
14. Gerber, I. C., I. Mihaila, D. Hein, A. V. Nastuta, R. Jijie, V. Pohoata, and I. Topala 2017. "Time Behaviour of Helium Atmospheric Pressure Plasma Jet Electrical and Optical Parameters," *Applied Sciences-Basel*, 7/8 (2017), 812 (DOI: 10.3390/app7080812).
15. Teslaru, T., I. Topala, M. Dobromir, V. Pohoata, L. Curecheriu, and N. Dumitrascu 2016. "Polythiophene films obtained by polymerization under atmospheric pressure plasma conditions," *Materials Chemistry and Physics*, 169 (2016), 120–127 (DOI: 10.1016/j.matchemphys.2015.11.038).
16. Rusu, B.-G., V. Pohoata, C. Ionita, R. Schrittwieser, and N. Dumitrascu 2016. "Method of Obtaining Porous Polymer Structure Using Atmospheric Pressure Plasma," *Romanian Journal of Physics*, 61/3–4 (2016), 518–526.
17. Mihaila, I., V. Pohoata, R. Jijie, A. V. Nastuta, I. A. Rusu, and I. Topala 2016. "Formation of positive ions in hydrocarbon containing dielectric barrier discharge plasmas," *Advances in Space Research*, 58/11 (2016), 2416–2423 (DOI: 10.1016/j.asr.2016.08.010).

18. Sava, I., A. Burescu, I. Stoica, V. Musteata, M. Cristea, I. Mihaila, V. Pohoata, and I. Topala 2015. “Properties of some azo-copolyimide thin films used in the formation of photoinduced surface relief gratings,” *Rsc Advances*, 5/14 (2015), 10125–10133 (DOI: 10.1039/c4ra14218g).
19. Rusu, B. G., V. Pohoata, C. Ionita, and R. Schrittwieser 2015. “Characterization of Super Hydrophilic Films Produced in Dbd Plasma at Atmospheric Pressure,” *Digest Journal of Nanomaterials and Biostructures*, 10/3 (2015), 941–945.
20. Hensel, K., K. Kucerova, B. Tarabova, M. Janda, Z. Machala, K. Sano, C. T. Mihai, M. Ciorpac, L. D. Gorgan, R. Jijie, V. Pohoata, and I. Topala 2015. “Effects of air transient spark discharge and helium plasma jet on water, bacteria, cells, and biomolecules,” *Biointerphases*, 10/2 (2015), 029515 (DOI: 10.1116/1.4919559).
21. Rusu, G. B., M. Asandulesa, I. Topala, V. Pohoata, N. Dumitrascu, and M. Barboiu 2014. “Atmospheric pressure plasma polymers for tuned QCM detection of protein adhesion,” *Biosensors & Bioelectronics*, 53 (2014), 154–159 (DOI: 10.1016/j.bios.2013.09.035).
22. Nastuta, A. V., V. Pohoata, and I. Topala 2013. “Atmospheric pressure plasma jet-Living tissue interface: Electrical, optical, and spectral characterization,” *Journal of Applied Physics*, 113/18 (2013), 183302 (DOI: 10.1063/1.4804319).
23. Asandulesa, M., I. Topala, V. Pohoata, Y. M. Legrand, M. Dobromir, M. Totolin, and N. Dumitrascu 2013. “Chemically Polymerization Mechanism of Aromatic Compounds under Atmospheric Pressure Plasma Conditions,” *Plasma Processes and Polymers*, 10/5 (2013), 469–480 (DOI: 10.1002/ppap.201200068).
24. Jijie, Roxana, C. Luca, V. Pohoata, and I. Topala 2012. “Effects of Atmospheric-Pressure Plasma Jet on Pepsin Structure and Function,” *Ieee Transactions on Plasma Science*, 40/11 (2012), 2980–2985 (DOI: 10.1109/TPS.2012.2217509).
25. Jijie, R., V. Pohoata, and I. Topala 2012. “Thermal behavior of bovine serum albumin after exposure to barrier discharge helium plasma jet,” *Applied Physics Letters*, 101/14 (2012), 144103 (DOI: 10.1063/1.4757130).
26. Vitelaru, C., V. Pohoata, C. Aniculaesei, V. Tiron, and G. Popa 2011. “The break-down of hyperfine structure coupling induced by the Zeeman effect on aluminum S-2(1/2)-> P-2(1/2) transition, measured by tunable diode-laser induced fluorescence,” *Journal of Applied Physics*, 109/8 (2011), 084911 (DOI: 10.1063/1.3579446).
27. Tiron, V., M. Dobromir, V. Pohoata, and G. Popa 2011. “Ion Energy Distribution in Thermionic Vacuum Arc Plasma,” *Ieee Transactions on Plasma Science*, 39/6 (2011), 1403–1407 (DOI: 10.1109/TPS.2011.2108671).
28. Nastuta, A. V., I. Topala, C. Grigoras, V. Pohoata, and G. Popa 2011. “Stimulation of wound healing by helium atmospheric pressure plasma treatment,” *Journal of Physics D-Applied Physics*, 44/10 (2011), 105204 (DOI: 10.1088/0022-3727/44/10/105204).
29. Mardare, D., V. Nica, V. Pohoata, D. Macovei, N. Gheorghe, D. Luca, and C.-M. Teodorescu 2011. “X-ray absorption fine structure investigations on heat-treated Cr-doped titania thin films,” *Thin Solid Films*, 520/4 (2011), 1348–1352 (DOI: 10.1016/j.tsf.2011.04.124).
30. Asandulesa, M., I. Topala, V. Pohoata, and N. Dumitrascu 2010. “Influence of operational parameters on plasma polymerization process at atmospheric pressure,” *Journal of Applied Physics*, 108/9 (2010), 093310 (DOI: 10.1063/1.3506528).
31. Dobromir, M., Neagu, M., Pohoata, V., Borza, F., Meydan, T., Ovari, T. A., … Chiriac, H. (2008). Magnetic properties of Fe-based amorphous thin films. *Journal of Optoelectronics and Advanced Materials*, *10*(2), 410–412.
32. Chiper, A. S., Nastuta, A. V., Rusu, G. B., Pohoata, V., Cazan, R., & Popa, G. (2008). Optical diagnosis of double discharges in pulsed DBD with different barrier materials. *Journal of Optoelectronics and Advanced Materials*, *10*(8), 1976–1980.
33. Buruiana, T., Buruiana, E. C., Melinte, V., Pohoata, V., Prejmerean, C., & Moldovan, M. (2008). New urethane dimethacrylates for testing in dental applications. Relational aspects in chemistry and photochemistry of composite materials. *Journal of Optoelectronics and Advanced Materials*, *10*(4), 969–974.
34. Topala, I., Dumitrascu, N., & Pohoata, V. (2007). Influence of plasma treatments on the hemocompatibility of PET and PET+TiO2 films. *Plasma Chemistry and Plasma Processing*, *27*(1), 95–112. https://doi.org/10.1007/s11090-006-9046-y
35. Dobromir, M., Neagu, M., Popa, G., Chiriac, H., Pohoata, V., & Hison, C. (2007). Surface and bulk magnetic behavior of Fe-Si-B amorphous thin films. *Journal of Magnetism and Magnetic Materials*, *316*(2), E904–E907. https://doi.org/10.1016/j.jmmm.2007.03.136
36. Buruiana, E. C., Buruiana, T., Zamfir, M., Pohoata, V., & Donescu, D. (2007). Elastomeric azo-polyurethanes containing fluorescent pyrene and their photo activity. *Designed Monomers and Polymers*, *10*(4), 347–360. https://doi.org/10.1163/156855507781505147

37. Melnig, V., Pohoata, V., Obreja, L., Garlea, A., & Cazacu, M. (2006). Water-soluble polyamidhydroxyurethane swelling behaviour. *Journal of Optoelectronics and Advanced Materials*, *8*(3), 1040–1043.
38. Buruiana, E. C., Buruiana, T., & Pohoata, V. (2006). Synthesis, properties and fluorescence quenching in a polycation based on polyetherurethane with pyrene fluorophore. *Journal of Photochemistry and Photobiology A-Chemistry*, *180*(1–2), 150–156. https://doi.org/10.1016/j.jphotochem.2005.10.008
39. Strat, G., Buruiana, E., Buruiana, T., Pohoata, V., & Strat, M. (2005). Fluorescence properties of the polyurethane with anchored stilbene chromophore. *Journal of Optoelectronics and Advanced Materials*, *7*(2), 925–928.
40. Chiper, A. S., Anita, V., Agheorghiesei, C., Pohoata, V., Anita, M., & Popa, G. (2004). Spectroscopic diagnostics for a DBD plasma in He/Air and He/N-2 gas mixtures. *Plasma Processes and Polymers*, *1*(1), 57–62. https://doi.org/10.1002/ppap.200400003
41. Pohoata, V., Popa, G., Schrittwieser, R., Ionita, C., & Cercek, M. (2003). Properties and control of anode double layer oscillations and related phenomena. *Physical Review E*, *68*(1), 016405. https://doi.org/10.1103/PhysRevE.68.016405
42. Gyergyek, T., Cercek, M., Schrittwieser, R., Ionita, C., Popa, G., & Pohoata, V. (2003). Experimental study of the creation of a fire-rod II: Emissive probe measurements. *Contributions to Plasma Physics*, *43*(1), 11–24. https://doi.org/10.1002/ctpp.200310002
43. Schrittwieser, R., Ionita, C., Balan, P. C., Cabral, J. A., Figueiredo, F. H., Pohoata, V., & Varandas, C. (2001). Application of emissive probes for plasma potential measurements in fusion devices. *Contributions to Plasma Physics*, *41*(5), 494–503. https://doi.org/10.1002/1521-3986(200109)41:5<494::AID-CTPP494>3.0.CO;2-X
44. Schrittwieser, R., Avram, C., Balan, P. C., Pohoata, V., Stan, C., & Sanduloviciu, M. (2000). New insights into the formation of nonlinear space charge structures in various plasmas. *Physica Scripta*, *T84*, 122–127. https://doi.org/10.1238/Physica.Topical.084a00122
45. Pohoata, V., Rusu, I. A., Mihaila, I., & Toma, M. (1999). *Analysis of low-frequency self-sustained oscillations in low-temperature plasma created by an electron beam injection.* (P. Pisarczyk, T. Pisarczyk, & J. Wolowski, eds.). Warsaw: Polish Acad Sciences, Space Research Centre.
46. Mihaila, I., Pohoata, V., & Toma, M. (1999). *About the correlation among discharge current versus magnetic field characteristic and self-organised space charge structures in gas discharge plasma* (P. Pisarczyk, T. Pisarczyk, & J. Wolowski, eds.). Warsaw: Polish Acad Sciences, Space Research Centre.

SCOPUS indexed articles

1. Gerber, I. C., Chiper, A., Pohoata, V., Mihaila, I., & Topala, I. (2019). Comparative study of 3.4 micron band features from carbon dust analogues obtained in pulsed plasmas. *Proceedings of the International Astronomical Union*, *15*(S350), 237–240. doi: 10.1017/S174392131900749X
2. Gerber, I. C., Mihai, C. T., Gorgan, L., Ciorpac, M., Nita, A., Pohoata, V., … Topala, I. (2017). Viability and Cell Biology for HeLa and Vero Cells after Exposure to Low-Temperature Air Dielectric Barrier Discharge Plasma. *Plasma Medicine*, *7*(2). doi: 10.1615/PlasmaMed.2017019487
3. Asandulesa, M., Rusu, G., Topala, I., Pohoata, V., Dobromir, M., & Dumitrascu, N. (2013). Poly (Ethylene Glycol-Co-Styrene) Films Deposited by Plasma Polymerization Reactions at Atmospheric Pressure. *The Open Plasma Physics Journal*, *6*(1). Retrieved from https://benthamopen.com/ABSTRACT/TOPPJ-6-14
4. Rupnik, S., Kova, J., Ionita, C., & Schrittwieser, R. (2012). Measurements of the ion energy distribution function during the creation of a fire-rod in a weakly magnetized discharge plasma column. *39th EPS Conference on Plasma Physics 2012, EPS 2012 and the 16th International Congress on Plasma Physics*, *3*, 1947–1950.
5. Pascu, M., Vasile, C., Popa, G., Mihaila, I., & Pohoata, V. (2002). Modification of Polymer Blends Properties by Plasma/Electron Beam Treatment. I. Plasma Diagnosis and Bulk Properties of Plasma Treated Blends. *International Journal of Polymeric Materials*, *51*(1–2), 181–192. doi: 10.1080/00914030213031

01.03.2022 Associate Professor, Ph.D. Valentin Pohoață