

## Personal information



name(s) / Surname(s) **Rusu Bogdan-George**

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Nationality Romanian

Date of birth May 9, 1984

Gender Male

## Work experience

Dates 31 March 2020-Present  
 Occupation or position held Scientific Resercher, Petru Poni Institute of Macromolecular Chemistry, Iasi  
 Main activities and responsibilities Research activities

Dates September 1, 2018-31 March 2020  
 Occupation or position held Assistant researcher, Petru Poni Institute of Macromolecular Chemistry, Iasi  
 Main activities and responsibilities Research activities

Dates September 1, 2015 – august 31, 2018  
 Occupation or position held Scientific researcher, University of Agricultural Sciences and Veterinary Medicine Ion Ionescu de la Brad, Iasi  
 Main activities and responsibilities Research activities

## Education and training

Dates May 1, 2014-October 31, 2015  
 Occupation or position held Post-doctoral contract  
 Main activities and responsibilities Plasma polymerization DBD discharge at atmospheric pressure and study of protein adsorption on to porous polymer surfaces  
 Name and address of employer Faculty of Physics, Alexandru Ioan Cuza University, 11Carol I Blvd, 700506, Iasi, Romania  
 Type of business or sector Education/Research

Dates February ,2014 - April 2014  
 Occupation or position held CEEPUS research stage  
 Main activities and responsibilities Electrical diagnosis and optical diagnosis of hollow cathode discharge  
 Name and address of employer Innsbruck Experimental Plasma Physics Group (IEPPG), 'Leopold-Franzens' University, Innsbruck , Austria  
 Prof. Dr. Roman SCHRITTWIESER  
 Type of business or sector Education/Research

|                                      |  |
|--------------------------------------|--|
| Dates                                | July ,2009 - August 2009   |
| Occupation or position held          | CEEPUS research stage  |
| Main activities and responsibilities | Electrical diagnosis and optical diagnosis of hollow cathode discharge   |
| Name and address of employer         | Innsbruck Experimental Plasma Physics Group (IEPPG), 'Leopold-Franzens' University, Innsbruck , Austria  |
| Type of business or sector           | Prof. Dr. Roman SCHRITTWIESER<br>Education/Research  |
| Dates                                | October 1, 2009 - 24 september 2013  |
| Occupation or position held          | PhD student cotutelle  |
| Main activities and responsibilities | Plasma polymerization DBD discharge at atmospheric pressure and study of protein adsorption on to different surfaces   |
| Name and address of employer         | Faculty of Physics, Alexandru Ioan Cuza University, 11Carol I Blvd, 700506, Iasi, Romania<br>Adaptive Supramolecular Nanosystems Group, Institut Europeen des Membranes, ENSCM-UMII-UMR CNRS 5635, Place Eugene Bataillon CC047, Montpellier F-34095, France |
| Type of business or sector           | Education/Research   |
| Dates                                | October ,2008 - December 2008  |
| Occupation or position held          | CEEPUS research stage  |
| Main activities and responsibilities | Electrical diagnosis and optical diagnosis of hollow cathode discharge   |
| Name and address of employer         | Innsbruck Experimental Plasma Physics Group (IEPPG), 'Leopold-Franzens' University, Innsbruck , Austria<br>Prof. Dr. Roman SCHRITTWIESER   |
| Type of business or sector           | Education/Research   |
| Dates                                | October 1, 2007 - 1iuly 2009   |
| Occupation or position held          | Master in plasma physics, optics, spectroscopy and physical of polymers  |
| Main activities and responsibilities | Analysis of biological molecules immobilized on polymeric surfaces   |
| Name and address of employer         | Faculty of Physics, Alexandru Ioan Cuza University, 11Carol I Blvd, 700506, Iasi, Romania  |
| Type of business or sector           | Education/Research   |
| Dates                                | October 1, 2003 - 1iuly 2007   |
| Occupation or position held          | Bachelor in Medical Physics  |
| Main activities and responsibilities | Diploma Thesis - Atomic Force Microscopy (AFM)   |
| Name and address of employer         | Faculty of Physics, Alexandru Ioan Cuza University, 11Carol I Blvd, 700506, Iasi, Romania  |
| Type of business or sector           | Education/Research   |

### Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment  
*European level (\*)*

**ENGLISH**

**FRENCH**

| Understanding |                 |         |                  | Speaking           |                  |                   |  | Writing |                  |
|---------------|-----------------|---------|------------------|--------------------|------------------|-------------------|--|---------|------------------|
| Listening     |                 | Reading |                  | Spoken interaction |                  | Spoken production |  |         |                  |
| C1            | Proficient user | B1      | Independent user | B1                 | Independent user |                   |  | B1      | Independent user |
| A1            | Proficient user | B1      | Independent user | A1                 | Independent user |                   |  | A1      | Independent user |

(\*) [Common European Framework of Reference \(CEF\) level](http://www.cedefop.europa.eu)

Social skills and competences Good communication skills and good organisation skills.

|                                  |   |
|----------------------------------|---|
| Technical skills and competences | <ul style="list-style-type: none"> <li>Experience in atomic force microscopy technique.</li> <li>Experience in optical emission spectroscopy.</li> <li>Experience in infrared spectroscopy</li> <li>Experience in Raman spectroscopy</li> <li>Experience in Scanning Electron Microscopy (SEM) technique</li> <li>Experience in contact angle technique</li> <li>Experience in Plasma polymerization and plasma treatment at atmospheric pressure</li> <li>Experience in Pulsed Laser Deposition (PLD) technique</li> </ul> |
| <b>Conferences</b>               | <ul style="list-style-type: none"> <li>Oral presentations at national and international conferences : 10</li> <li>Poster presentations at national and international conferences : 50</li> <li>Hirsch <math>h = 8</math> (according ISI Web of Science Core Collection)</li> </ul>  |
| <b>Grants Member</b>             | <ul style="list-style-type: none"> <li>Team member in 7 projects during 2003-2019</li> </ul>  |

**Publications:**

1. Ursu, C; Nica, P; Rusu, BG; Focsa, C, V-shape plasma generated by excimer laser ablation of graphite in argon: Spectroscopic investigations, SPECTROCHIMICA ACTA PART B-ATOMIC SPECTROSCOPY, 163, 105743, (2020)
2. Besleaga, A; Demeter, A; Rusu, GB; Dinca; Sirghi, L, PHOTOCATALYTIC ACTIVITY OF TiO2 FILMS DEPOSITED BY REACTIVE MULTI-PULSE HIPIMS AT DIFFERENT SUBSTRATE TEMPERATURE VALUES, ROMANIAN REPORTS IN PHYSICS, Volume: 71, Issue: 2 (2019).
3. Vasile Tiron, Ioana-Laura Velicu, Iulian Pana, Daniel Cristea, Bogdan George Rusu, Paul Dinca, Corneliu Porosnicu, Eduard Grigore, Daniel Munteanu, Sorin Tascu, HiPIMS deposition of silicon nitride for solar cell application, Surface and Coatings Technology, Volume 344, 25 June 2018, Pages 197-203
4. Bogdan-George Rusu, Vladut Postolache, Irina-Gabriela Cara, Valentin Pohoata, Ilarion Mihaila, Ionut Topala, Gerard Jitareanu, Method of Fungal Wheat Seeds Disease Inhibition Using Direct Exposure to Air Cold Plasma Rom. Journ. Phys., 63, 905 (2018)
5. Irina-Gabriela Cara, Bogdan-George Rusu, Lucian Raus, Gerard Jitareanu, Sorption potential of alkaline treated straw and a soil for sulfonyleurea herbicide removal from aqueous solutions: An environmental management strategy, Chemosphere Available online 31 July 2017,
6. Ioana-Laura Velicu, Vasile Tiron, Bogdan-George Rusu, Gheorghe Popa, Copper thin films deposited under different power delivery modes and magnetron configurations: A comparative study, Surface & Coatings Technology (2016), In Press, Accepted Manuscript
7. BG Rusu, V Pohoata, C Ionita, R Schrittwieser, CHARACTERIZATION OF SUPER HYDROPHILIC FILMS PRODUCED IN DBD PLASMA AT ATMOSPHERIC PRESSURE, DIGEST JOURNAL OF NANOMATERIALS AND BIOSTRUCTURES 10 (3), 941-945
8. GB Rusu, I Topala, C Borcia, N Dumitrascu, G Borcia, Effects of Atmospheric-Pressure Plasma Treatment on the Processes Involved in Fabrics Dyeing, Plasma Chemistry and Plasma Processing 36 (1), 341-354
9. Nica, P., Rusu, G. B., Dragos, O., Ursu, C., Effect of Excimer Laser Beam Spot Size on Carbon Laser-Produced Plasma Dynamics, IEEE TRANSACTIONS ON PLASMA SCIENCE, VOL. 42, NO. 10, OCTOBER 2014
10. B.-G. Rusu, V. Pohoata, C. Ionita, R. Schrittwieser, N. Dumitrascu, Method of Obtaining Porous Polymer Structure Using Atmospheric Pressure Plasma, Rom. Journ. Phys., Vol. 61, Nos. 3
11. G. B. Rusu, M. Asandulesa, I. Topala, V. Pohoata, N. Dumitrascu, M. Barboiu, " Atmospheric pressure plasma polymers for tuned QCM detection of protein adhesion" Biosensors and Bioelectronics DOI: 10.1016/j.bios.2013.09.035
12. Bogdan-George Rusu, Frederique Cunin, Mihail Barboiu, " The color of selfassembly- Real-time optical detection of stabilized artificial G-quadruplexes under confined conditions" Angewandte Chemie DOI: 10.1002/anie.201306230
13. Alina Silvia Chiper, Rusu Bogdan George, Gheorghe Popa, "Influence of the dielectric Surface nonhomogeneities on the dynamic of the pulsed DBD plasma" IEEE Transactions on Plasma Science, Vol. 39, No. 11, Novembre 2011
14. A. S. Chiper, G. B. Rusu, C. Vitelaru, I. Mihaila, G. Popa, A comparative study of helium and argon DBD plasmas suitable for thermosensitive materials processing, ROMANIAN JOURNAL OF PHYSICS Volume: 56 Supplement: S Pages: 126-131
15. Schrittwieser R., Ionita C., Murawski A., Maszl C., Asandulesa M., Nastuta A., Rusu G., Douat C., Olenici S. B., Vojvodic I., Dobromir M., Luca D., Jaksch S., Scheier P., Cavity-hollow cathode-sputtering source for titanium films. Journal of Plasma Physics, 76(3-4):655-664; IAN 2010
16. A.S. Chiper, A.V. Nastuta, G.B. Rusu, G. Popa, 'On surface elementary processes and polymer surface modifications induced by double pulsed dielectric barrier discharge', Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, Vol. 267, Is. 2, p. 313-316, (2009);
17. A. Anghel, C. Porosnicu, M. Badulescu, I. Mustata, C.P. Lungu, K. Sugiyama, S. Lindig, K. Krieger, J. Roth, A. Nastuta, G. Rusu, G. Popa, 'Surface morphology influence on deuterium retention in beryllium films prepared by thermionic vacuum arc method', Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, Volume 267, Issue 2, Pages 426-429, (2009);
18. A. S. Chiper, G. B. Rusu, A. V. Nastuta and G. Popa, 'On the discharge parameters of a glow mode DBD at medium and atmospheric pressure', IEEE TRANSACTIONS ON PLASMA SCIENCE, VOL. 37, NO. 10, OCTOBER 2009;
19. V. Tiron, C. Andrei, A. V. Nastuta, G. B. Rusu, C. Vitelaru and G. Popa, *Carbon and Tungsten Sputtering in a Helium Magnetron Discharge*, IEEE TRANSACTIONS ON PLASMA SCIENCE, VOL. 37, NO. 8, AUGUST 2009
20. N. Iftimie, M. Crisan, A. Braileanu, D. Crisan, A. Nastuta, G. B. Rusu, P.D. Popa, D. Mardare, 'On the sensing gas properties of titanium dioxide films', JOAM, Vol. 10, Is. 9, p. 2363-2366, (2008);
21. A. S. Chiper, A. V. Nastuta, G. B. Rusu, V. Pohoata, R. Cazan, G. Popa, 'Optical diagnosis of double discharges in pulsed DBD with different barrier materials', JOAM, Vol. 10, Is. 8, p. 1976-1980, (2008);
22. A.V. Nastuta, G.B. Rusu, I. Topala, A.S. Chiper, G. Popa, 'Surface modifications of polymer induced by atmospheric DBD plasma in different configurations', JOAM, Vol. 10, Is. 8, p. 2038-2042, (2008);
23. Ana Garlea, Viorel Melning, M. I. Popa, G. Rusu, Entrapment of Tannic Acid in Chitosan Based Nanostructure Matrices, MATERIALE PLASTICE, Volume 45, Issue 3, pag: 193-197, 2008;
24. C. DANȚUȘ, G.B. RUSU, G.G. RUSU, P. GORLEY, 'On the structural characteristics of thermally oxidized CdO thin films', JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, Vol. 10, No. 11, November 2008, p. 2988 - 2992
25. A. S. Chiper, A. Nastuta, G. Rusu, G. Popa, 'Electrical characterisation of a double DBD in He at atmospheric pressure used for surface treatments', JOAM, Vol. 9, Is. 9, p. 2926-2931, (2007).-526, Bucharest, 2016