



PERSONAL INFORMATION

**Gabriel Bogdan Butoi**



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Sex Male | Date of birth 03/09/1990 | Nationality Romanian

WORK  
EXPERIENCE

01/09/2022 - present **Research scientist III**  
National Institute for Laser, Plasma and Radiation Physics, Magurele, Romania  
([www.inflpr.ro](http://www.inflpr.ro))  
Specialized, scientific and technical activities  
Business or sector R&D

01/07/2020 – 01/09/2022 **Research scientist**  
National Institute for Laser, Plasma and Radiation Physics, Magurele, Romania  
([www.inflpr.ro](http://www.inflpr.ro))  
▪ Specialized, scientific and technical activities  
Business or sector R&D

01/09/2014 - 06/2020 **Asistent research scientist**  
National Institute for Laser, Plasma and Radiation Physics, Magurele, Romania  
([www.inflpr.ro](http://www.inflpr.ro))  
▪ Specialized, scientific and technical activities  
Business or sector R&D

14/09/2012 – 04/06/2018 **Asistent research scientist**  
University of Bucharest, Romania ([www.unibuc.ro](http://www.unibuc.ro))  
▪ Specialized, scientific and technical activities  
Business or sector Research

EDUCATION  
AND TRAINING

01/10/2014 – 04/06/2018 **Ph.D in Physics**  
Doctoral School of the Faculty of Physics, University of Bucharest, Bucharest, Romania  
▪ State of condensed matter

01/10/2012 – 30/06/2014 **Master`s Degree**

Faculty of Physics, University of Bucharest, Magurele, Romania

- Fotonics, spectroscopy, plasma and lasers

01/10/2009 – 30/06/2012

**Bachelor Degree**

Faculty of Physics, University of Bucharest, Magurele, Romania

- Physics

**PERSONAL SKILLS**

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Replace with name of language certificate. Enter level if known.					

 Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

Communication skills ▪ Good communication skills

Organisational / managerial skills ▪ Good skills in planning, organizing and conducting complex experiments

Job-related skills ▪ Good knowledge of devices and working methods and their use in the conduct of complex experiments

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

 Levels: Basic user - Independent user - Proficient user  
[Digital competences - Self-assessment grid](#)

Driving licence B

**ADDITIONAL INFORMATION**

Conferences

1. B. Butoi, P. Dinca, V. Barna, C. Porosnicu, "Plasma facing materials in thermo nuclear fusion reactors: retention of nuclear fuel", International Conference of Physics Students, Torino, Italia, 7 – 14 august 2017 (prezentare orală)
2. B. Butoi, P. Dinca, D. Staicu, C. Armeanu, C. Porosnicu, E.S Barna, "Polyaniline thin film growth influenced by plasma deposition parameters", 23th International Symposium on Plasma Chemistry, Montreal, Canada, 30 iulie – 4 august 2017 (prezentare orală)

3. B. Butoi, C. Porosnicu, P. Dinca, I. Jepu, O. G. Pompilian, C. Lungu, "DCMS and HiPIMS deposition of W and WN thin films for deuterium desorption study", 17th International Balkan Workshop on Applied Physics, Constanta, Romania, 11 – 14 iulie 2017 (prezentare orală)
4. B. Butoi, C. Porosnicu, P. Dinca, I. Jepu, O.G. Pompilian, C. P. Lungu, M. Diaconu, G. Soreanu, I. Cretescu, "TVA Obtained Cu/Ag Layers Having Antimicrobial Properties Used in Smart Ventilation Systems", 17th International Conference on Plasma Physics and Applications, Magurele, Romania, 15-20 iunie 2017 (prezentare poster)
5. B. Butoi, P. Dinca, O.G. Pompilian, I. Jepu, C. Porosnicu, C. Lungu, "Study of deuterium desorption from tungsten and nitrogen seeded tungsten layers obtained by DCMS and HiPIMS", European Student Divertor Workshop (EuSDiv), Oxford, Marea Britanie, 26 -28 septembrie 2016 (prezentare orală)
6. P. Dinca, B. Butoi, I. Jepu, V. Tiron, O.G. Pompilian, C. Porosnicu, I. Burducea, C.P. Lungu, "Beryllium-tungsten mixed layers obtained by m-HiPIMS/ DCMS technique in a deuterium and nitrogen reactive gas mixture", European Student Divertor Workshop (EuSDiv), Oxford, Marea Britanie, 26 -28 septembrie 2016
7. B. Butoi, D. Staicu, C. Armeanu, A. Groza, C. Berlic, V. Barna, E. Barna, "GLAD technique in plasma polymerization. Thin film deposition analysis", International Conference of Physics Students, Valletta, Malta, 8 – 14 august 2016 (prezentare orală)
8. B. Butoi, P. Dinca, C. Porosnicu, I. Jepu, O.G. Pompilian, C. P. Lungu, "Deuterium retention study in Be/W layers obtained by DC magnetron sputtering deposition process", 13th Kudowa Summer School, "Towards Fusion Energy" Kudowa Zdrój, Polonia, 13-17 iunie, 2016 (prezentare orală)
9. P. Dinca, O.G. Pompilian, C. Porosnicu, B. Butoi, I. Jepu, I. Burducea, C. P. Lungu, "Structural and morphological Influence on deuterium retention for Be-W pure and mixed layers exposed to low frequency D plasma", 13th Kudowa Summer School, "Towards Fusion Energy" Kudowa Zdrój, Polonia, 13-17 iunie, 2016 (prezentare orală)
10. B. Butoi, C. Porosnicu, P. Dinca, I. Jepu, C.P. Lungu, M. Lungu, O. G. Pompilian, A. Niculescu, S. Brajnicov, M. Diaconu, G. Soreanu, I. Cretescu, "Antimicrobial efficiency of Cu/ Ag layers obtained by tva, deposited on filtering grids used for smart ventilation systems", International Balkan Workshop on Applied Physics, Constanta, Romania, 7 – 9 iulie 2016 (prezentare orală)
11. P. Dinca, O.G. Pompilian, C. Porosnicu, B. Butoi, I. Jepu, I. Burducea, C. P. Lungu, "Structural and morphological influence on deuterium retention for Be-W pure and mixed layers exposed to low frequency D plasma", International Balkan Workshop on Applied Physics, Constanta, Romania, 7 – 9 iulie 2016
12. C. Porosnicu, B. Butoi, P. Dinca, I. Jepu, C. P. Lungu, M. Diaconu, G. Soreanu, I. Cretescu, "Antimicrobial testing of the ValmGreen module developed for sustainable enhancing of wellbeing and comfort in indoor buildings", CSA 2015 Joint International Conference, Iasi, Romania, 22-25 octombrie 2015
13. B. Butoi, P. Dinca, R. Berezovski, I. Jepu, C. Porosnicu, E. Barna, "Electro-optical response in liquid crystal cells obtained in DC polymerization reactor", XXXII International Conference on Phenomena in Ionized Gases, Iasi, Romania, 26 - 31 iulie 2015
14. C. P. Lungu, C. M. Ticos, C. Porosnicu, I. Jepu, M. Lungu, P. Dinca, O. Pompilian, B. Butoi, D. Ursescu, R. Banici, G. Cojocar, R. Ungureanu, C. Luculescu, A. Marcu, A. Marin, P. Osiceanu, I. Feraru, C. Grigorescu, "Plasma plume analysis and the effect of terawatt laser system irradiation on C, W layers", XXXII International Conference on Phenomena in Ionized Gases, Iasi, Romania, 26 - 31 iulie 2015
15. B. Butoi, C. Porosnicu, I. Cretescu, M. Diaconu, P. Dinca, I. Jepu, O. G. Pompilian, M. Lungu, C.P. Lungu, "Characterization of TVA deposited Ag/Cu thin film with antibacterial properties for use in Smart Ventilation Systems", 42nd European Physical Society Conference on Plasma Physics, Lisabona, Portugalia, 22-26 iulie 2015 (prezentare poster)
16. C. Porosnicu, C. Lungu, I. Jepu, C. Luculescu, P. Dinca, B. Butoi, O. G. Pompilian A. Vladescu, D. Patroi, M. Lungu, L. Avotina, G. de Temmerman, R. Pitts, "Stress studied of beryllium deuterium mixed layers obtained by TVA", 15th International Conference on Plasma-Facing Materials and Components for Fusion Applications (PFMC 2015), Aix en Provence, France, 18-22 mai 2015
17. B. Mihalcea, O. Stoican, C. Diplasu, G. Visan, A. Groza, A. Surmeian, O. Danila, L. Tudor, I. Barbut, P. Dinca, B. Butoi, A. Fazacas, M. Ganciu Petcu, "Confinement of charged micro and nanoparticles in multipole Paul traps", The 4th International Colloquium "Physics of Materials" (P III-4), Bucuresti, Romania, 13-14 noiembrie 2014

- Publications**
1. Butoi, B. ; Berezovski, C ; Staicu, D ; Berezovski, R ; Marin, AM ; Barna, ES; Direct Current Plasma Polymerization Reactor For Thin Durometer Film Deposition; JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS Volume: 16 Issue: 9-10 Pages: 1212-1217 Published: SEP-OCT 2014
  2. Avram, A ; Covlea, V ; Matei, A ; Bazavan, M ; Butoi, B ; Bita, B ; Barna, E ; Jipa, A; Impact Of Rf And Dc Plasma On Wood Structure; ROMANIAN REPORTS IN PHYSICS Volume: 67 Issue: 3 Pages: 1028-1039 Published: 2015
  3. Surmeian, A ; Maximean, DM ; Mihalcea, B ; Stoican, O ; Butoi, B ; Danila, O ; Dinca, P; Barbut, I ; Tudor, L ; Fazacas, A ; Diplasu, E ; Chapon, P ; Ganciu, M Gdoes And GdmsAnalytical Systems, Effective Tools For Characterization Of Conductive And NonconductiveMaterial Surfaces;UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN SERIES A-APPLIED MATHEMATICS AND PHYSICS Volume: 77 Issue: 4 Pages: 273-280 Published: 2015
  4. Pompilian, OG; Dinca, P ; Porosnicu, C ; Lungu, CP ; Chiru, P ; Butoi, B ; Jepu, I ; Study On Uv-Visible Emission Plasmas With Applications In Photodynamic Therapy And Surface Treatment Against Biological Contaminants; ROMANIAN REPORTS IN PHYSICS Volume: 68 Issue: 3 Pages: 1197-1207 Published: 201
  5. P. Dinca, C. Porosnicu, B. Butoi, I. Jepu, V. Tiron, O. G. Pompilian, I. Burducea, C. P. Lungu, I.-L. Velicu, Beryllium-Tungsten Study on Mixed Layers obtained by m-HiPIMS/DCMS Techniques in a Deuterium and Nitrogen Reactive Gas Mixture; Surface and Coatings Technology, Volume: 321 Pages: 397-402 Published: JUL 15 2017
  6. B. Butoi, Andreea Groza , Paul Dinca, Adriana Balan ,Valentin Barna ,Morphological and Structural Analysis of Polyaniline and Poly(o-anisidine) Layers Generated in a DC Glow Discharge Plasma by Using an Oblique Angle Electrode Deposition Configuration; Polymers Volume: 9 Issue: 12 Article Number: 732 Published: DEC 2017
  7. S. Brezinsek et al, Plasma-Wall Interaction Studies within the EUROfusion Consortium: progress on Plasma-Facing Components development and qualification; Nuclear Fusion, Volume: 57 Issue: 11 Article Number: 116041 Published: NOV 2017
  8. Avotina, L ; Lungu, M ; Dinca, P ; Butoi, B ; Cojocaru, G ; Ungureanu, R ; Marcu, A ; Luculescu, C ; Hapenciu, C ; Ganea, PC ; Petjukevics, A ; Lungu, CP ; Kizane, G ; Ticos, CM ; Antohe, S; Irradiation of nuclear materials with laser-plasma filaments produced in air and deuterium by terrawatt (TW) laser pulses; JOURNAL OF PHYSICS D-APPLIED PHYSICS Volume: 51 Issue: 2 Article Number: 025302 Published: JAN 17 2018
  9. Ben Yaala, M; Moser, L; Steiner, R; Butoi, B; Dinca, P; Petersson, P; Marot, L; Meyer, E; Deuterium As A Cleaning Gas For ITER First Mirrors: Experimental Study On Beryllium Deposits From Laboratory And JET-ILW; NUCLEAR FUSION Volume: 59 Issue: 9 Article Number: 096027 Published: SEP 2019
  10. Groza, A; Serbanescu, M; Butoi, B; Stancu, E; Straticiu, M; Burducea, I; Balan, A; Chiroasca, A; Mihalcea, B; Ganciu, M; Advances In Spectral Distribution Assessment Of Laser Accelerated Protons Using Multilayer CR-39 Detectors; APPLIED SCIENCES-BASEL Volume: 9 Issue: 10 Article Number: 2052 Published: MAY 2 2019
  11. Dinca, P; Tiron, V; Velicu, IL ; Porosnicu, C; Butoi, B; Velea, A; Grigore, E; Costin, C; Lungu, CP; Negative ion-induced deuterium retention in mixed W-Al layers co-deposited in dual-HiPIMS; SURFACE & COATINGS TECHNOLOGY Volume: 363 Pages: 273-281 Published: APR 15 2019
  12. Butoi, B; Staicu, D; Cured Pmma Thin Films For Greatly Improving The Electro-Optical Response Time In Nematic Liquid Crystal Pixels; DIGEST JOURNAL OF NANOMATERIALS AND BIOSTRUCTURES Volume: 14 Issue: 1 Pages: 175-182 Published: JAN-MAR 2019
  13. M. Lungu, I. Porosnicu, P. Dinca, A. Velea, F. Baiasu, B. Butoi, Oana Pompilian, C. Staicu, Anca Constantina Parau , C. Porosnicu, C. Lungu, I. Tiseanu; Structural, Compositional And Mechanical Characterization Of Wxcrfye1-X-Y Layers Relevant To Nuclear Fusion; Materials Volume: 12 Issue: 24 Article Number: 4072 Published: DEC 2 2019
  14. Nemanic, V; Zumer, M; Porosnicu, C; Butoi, B ; Alves, E ; Mateus, R, Deuterium Inventory Determination In Beryllium And Mixed Beryllium-Carbon Layers Doped With Oxygen; FUSION ENGINEERING AND DESIGN; Volume: 150 Article Number: 111365 Published: JAN 2020
  15. Staicu, D.; Butoi, B.; Armeanu, C.; et al.; Influence Of The Key Deposition Control Parameters On The Structure Of Thin Films In A Direct Current Cold Plasma Reactor For Photonics Applications; DIGEST JOURNAL OF NANOMATERIALS AND BIOSTRUCTURES Volume: 11 Issue: 4 Pages: 1375-1382 Published: OCT-DEC 2016

16. Paul Pavel Dinca, Bogdan Butoi, Mihail Lungu, Corneliu Porosnicu, Ionut Jecu, Cornel Staicu, Cristian Lungu, Ana Niculescu, Ion Bucducea, Oana Trusca, Maria Diaconu, Igor Cretescu, Gabriela Soreanu; Antibacterial Efficiency of stainless-steel grids coated with CuAg by Thermionic Vacuum Arc Method; Coatings
- Patents**
1. O. Trusca, C.Porosnicu, C.P. Lungu, I. Jecu, B. Butoi, P. Dinca, O. G. Pompilian, D. Oprea, O. Ureche , Invelis modular, A/01054 din 29.12.2016.
  2. M. Ganciu, O. Stoican, A. Marcu, B. Butoi, M. Serbanescu, B. Mihalcea, A. Groza, C. Diplasu, P. Dinca, A. Surmeian, Generator de impulsuri ultrarapide pentru simularea pulsurilor electromagnetice asociate interactiei radiatiei laser de mare putere cu materia, A00592/23-08-2016]
  3. T. Lucian, M. Ganciu Petcu, O. S. Stoican, I. Barbut, B. Butoi, O. B. Danila, P. Dinca, C. Diplasu, A. Groza, B.V. Mihalcea, A.Surmeian, "Sistem de detectie a radiatiei ionizante in timp real cu protectie la zgomot electromagnetic", nr. inregistrare aplicatie OSIM A/00920 din 27-11-2015