

**PERSONAL
INFORMATION**



Valentina MĂRĂSCU

📍 French Alternative Energies and Atomic Energy Commission (CEA), Saclay Center- DRF/ JOLIOT/ SCBM, 91191 Gif-sur-Yvette Cedex, France.

✉ valentina.marascu@inflpr.ro

Sex F | Date of birth 12/17/1990 | Nationality Romanian

**WORK
EXPERIENCE**

**January 2020-
present**

PostDoc Fellowship

French Alternative Energies and Atomic Energy Commission (CEA), Saclay Center- DRF/ JOLIOT/ SCBM, 91191 Gif-sur-Yvette Cedex, France.

<http://www.cea.fr/>

- Realization and analysis of tritium permeation experiments;
- Experiments concerning the study of the kinetics of absorption/desorption of tritium on different materials;
- Scientific data analysis.

Research sector

**July 2014 -
January 2020**

Research Assistant

National Institute for Laser, Plasma And Radiation Physics (NILPRP) – 409 Atomistilor Street, Po- Box Mg- 36, 077125 Bucharest-Magurele, Romania.

<http://www.Inflpr.ro>

- W particles production by using atmospheric pressure plasma jet;
- Studies/ experiments of plasma-W surface interactions;
- Numerical computation/ statistical analysis of particles;
- Materials characterization, deposited by various plasma and laser techniques, via AFM, FTIR, Profilometry, Contact Angle and Optical Microscopy.
- Scientific data analysis.

Research sector

**January 2016 –
September 2017**

Research Assistant

Polymers, Mesophases And Unconventional Methods For Environment Protection Research Center/ Faculty Of Physics, University Of Bucharest- 405 Atomistilor Street, Po- Box Mg- 11, 077125, Bucharest- Magurele, Romania.

<http://fizica.unibuc.ro/>

- Polymer-like thin films and nanomaterials deposition by various plasma techniques;
- High resolution optical emission spectroscopy measurements;
- Materials characterization, via AFM, FTIR, Profilometry, Contact Angle, Optical Microscopy.
- Numerical computation and statistical analysis of nanostructures.
- Scientific data analysis.

Research sector

January 2014 – July 2014 – **Trainee Research Assistant**

National Institute for Laser, Plasma And Radiation Physics (NILPRP)– 409 Atomistilor Street, Po- Box Mg- 36, 077125 Bucharest-Magurele, Romania.

<http://www.Inflpr.ro>

- Metal particles deposition by using atmospheric pressure plasma;
 - Numerical computation and statistical analysis of nanostructures;
 - Materials characterization, deposited by various plasma and laser techniques, via AFM, FTIR and Optical Microscopy.
 - Scientific data analysis.
- Research sector

March 2012 – December 2013 – **Technician III**

National Institute for Laser, Plasma And Radiation Physics (NILPRP)– 409 Atomistilor Street, Po- Box Mg- 36, 077125 Bucharest-Magurele, Romania.

<http://www.Inflpr.ro>

- Measurements and interpretation of FTIR spectra of various materials deposited by plasma and laser techniques;
 - Scientific data analysis.
- Research sector

**EDUCATION
AND
TRAINING**

October 2015 – May 2019 – **PhD degree in Exact Sciences (Physics domain);** ISCED 8
 • **qualification: *Excellent (Summa cum Laudae)***

Faculty of Physics, University of Bucharest, 405 Atomistilor Street, Po- Box Mg- 11, 077125, Bucharest- Magurele, Romania.

<http://www.fizica.unibuc.ro>

- Specialization: Optics, Spectroscopy, Plasma and Lasers
- Doctoral School of Physics, University of Bucharest, Romania.
- Thesis title: “*Study of tungsten dust formation in plasma for research in fusion technology*”.

October 2013 – June 2015 – **Master Degree (Physics domain)** ISCED 7

Faculty of Physics, University of Bucharest, 405 Atomistilor Street, Po- Box Mg- 11, 077125, Bucharest- Magurele, Romania.

<http://www.fizica.unibuc.ro>

- Specialization: Optics, Lasers and Applications
- Thesis title: “*Particles production for controlled fusion research by plasma methods*”.

October 2009 – February 2013 – **Bachelor in Mathematics** ISCED 6

Faculty of Mathematics and Computer Science, University of Bucharest, 14 Academiei Street, Sector 1, 010014, Bucharest, ROMANIA.

<http://www.fmi.unibuc.ro>

- Specialization: Mathematics and Computer Science
- Thesis title: “*Fourier Transform in infrared spectroscopy*”.

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	Proficient user	Proficient user	Proficient user	Proficient user	Proficient user
C1					
French	Independent user	Independent user	Independent user	Independent user	Independent user
B2					

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

Job-related skills

- Nano-, micromaterials and thin film depositions at low / atmospheric pressure plasma;
- Analyzes via high resolution optical emission spectroscopy (OES);
- Statistical analysis of particles/ CNW materials from SEM images with ImageJ/ Matlab;
- Materials characterization and interpretation via AFM, FTIR, Profilometry, Contact Angle and Optical Microscopy;
- Dissemination of scientific data.

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](#)

Romanian Ministry of Education, Research and Innovation Certificate of Professional Competence- Knowledge of computer operating, 14 august 2009

- OriginLab, ImageJ, Matlab, HTML/CSS/ Javascript, SolidWorks, etc.

Membership

- Romanian Physical Society (**RPS**);
- European Physical Society (**EPS**);
- American Physical Society (**APS**);
- IEEE Advancing Technology for Humanity, IEEE Nuclear and Plasma Sciences Society (**NPSS**).

Other

- **Experimental physics laboratories** with undergraduated students;
- **Member of the NILPRP organizing team:** the *European Researcher's Night Project* in **2018, 2015, 2014 and 2013**, Bucharest, Romania.
- **Member of the NILPRP organizing team:** *17th and 16th International Conference On Plasma Physics And Applications*, in **2017 and 2013**, Magurele-Bucharest, Romania.
- **National Jury Member** at *14th Edition Informatics Project Competition (INFOMATRIX)*, Lumina- The University of South-East Europe, 8th April **2016** Bucharest, Romania.
- **Exhibitor from NILPRP** at the *Sci+Fi Fest Project* in **2016**, Bucharest, Romania.
- **Exhibitor from NILPRP** at *Bucharest International Technical Fair – TIB*, 14-17 October **2015**, Romexpo, Bucharest, Romania.

ANNEXES

- **Annex 1 - List of ISI papers:**

1. L.N. Dumitrescu, P. Neacsu, M. Necula, A. Bonciu, A. Moldovan, **V. Marascu**, A. Cimpean, A. Rotaru, V. Dinca, M. Dinescu, *Induced-hydrophilicity and in vitro preliminary osteoblast response of polyvinylidene fluoride (PVDF) coatings obtained via MAPLE deposition and subsequent thermal treatment*, MOLECULES, 25, 582, 2020.
2. A. Bercea, B. Mitu, A. Matei, **V. Marascu**, S. Brajnicov, *Esterification process induced by UV irradiation of shellac thin films deposited by matrix assisted pulsed laser evaporation*, REV. CHIM. (Bucharest)70, No. 8, 2019.
3. I. Ionita, A. Bercea, S. Brajnicov, A. Matei, V. Ion, **V. Marascu**, B. Mitu, C. Constantinescu, *Second harmonic generation (SHG) in pentacene thin films grown by matrix assisted pulsed laser evaporation (MAPLE)*, Applied Surface Science 480 (2019) 212-218.
4. S. Brajnicov, A. Bercea, **V. Marascu**, A. Matei, B. Mitu, *Shellac Thin Films Obtained by Matrix-Assisted Pulsed Laser Evaporation (MAPLE)*, COATINGS, Volume: 8, Issue: 8, Article Number: 275, Published: AUG 2018.
5. V. Dinca, D. Zaharie-Butucel, L. Stanica, S. Brajnicov, **V. Marascu**, A. Bonciu, A. Cristocea, L. Gaman, M. Gheorghiu, S. Astilean, A. Vasilescu, *Functional Micrococcus lysodeikticus layers deposited by laser technique for the optical sensing of lysozyme*, COLLOIDS AND SURFACES B-BIOINTERFACES, Volume: 162, Pages: 98-107 Published: FEB 1 2018.
6. **V. Marascu**, A. Lazea-Stoyanova, C. Stancu, G. Dinescu, *The influence of plasma operation parameters on synthesis process of copper particles at atmospheric pressure*, PLASMA PROCESSES AND POLYMERS, Volume: 15, Issue: 1, Article Number: e1700091, Published: JAN 2018.
7. I. Tirca, V. Mitran, **V. Marascu**, S. Brajnicov, V. Ion, F. Stokker-Cheregi, I. A. Popovici, A.

- Cimpean, V. Dinca, M. Dinescu, *In vitro testing of curcumin based composites coatings as antitumoral systems against osteosarcoma cells*, APPLIED SURFACE SCIENCE, Volume: 425, Pages: 1040-1051, Published: DEC 15 2017.
8. S. Brajnicov, P. Neacsu, A. Moldovan, **V. Marascu**, A. Bonciu, R. Ion, V. Dinca, A. Cimpean, M. Dinescu, *Tailored biodegradable triblock copolymer coatings obtained by MAPLE: a parametric study*, APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, Volume: 123, Issue: 11, Article Number: 707, Published: NOV 2017.
 9. L. Rusen, S. Brajnicov, P. Neacsu, **V. Marascu**, A. Bonciu, M. Dinescu, V. Dinca, A. Cimpean, *Novel degradable biointerfacing nanocomposite coatings for modulating the osteoblast response*, SURFACE & COATINGS TECHNOLOGY, Volume: 325, Pages: 397-409, Published: SEP 25 2017.
 10. I. M. Gheorghiu, **V. Marascu**, D. Staicu, D. Zmarandache, P. Perlea, *Comparative ultrastructural analysis of dentin surfaces mechanically prepared using carbon steel conventional burs and polymer burs*, ROMANIAN BIOTECHNOLOGICAL LETTERS, Volume: 22, Issue: 4, Pages: 12775-12784, Published: JUL-AUG 2017.
 11. M. Acosta Gentoiu, R. Betancourt-Riera, S. Vizireanu, I. Burducea, **V. Marascu**, S. D. Stoica, B. I. Bită, G. Dinescu, R. Riera Aroche, *Morphology, microstructure and hydrogen content of carbon nanostructures obtained by PECVD at various temperatures*, JOURNAL OF NANOMATERIALS, Article Number: 1374973, Published: 2017.
 12. T. Acsente, M. D. Ionita, M. Teodorescu, **V. Marascu**, G. Dinescu, *Surface modification of PMMA foils using an atmospheric pressure plasma jet in presence of water vapors*, THIN SOLID FILMS, Volume: 614, Pages: 25-30, Part: A, Published: SEP 1 2016.
 13. D. Pantelica, P. Ionescu, H. Petrascu, M. D. Dracea, M. Statescu, E. Matei, O. Rasoga, C. Stancu, **V. Marascu**, V. Ion, T. Acsente, G. Dinescu, *Characterization of hydrogenated and deuterated silicon carbide films codeposited by magnetron sputtering*, NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, Volume: 371, Pages: 322-326, Published: MAR 15 2016.
 14. **V. Mărăscu**, S. Vizireanu, S. D. Stoica, V. Barna, A. Lazea-Stoyanova, G. Dinescu, *FTIR investigation of the ageing process of carbon nanowalls*, ROMANIAN REPORTS IN PHYSICS, Volume: 68, Issue: 3, Pages: 1108-1114, Published: 2016.
 15. A. Lazea-Stoyanova, M. Enculescu, S. Vizireanu, **V. Mărăscu**, G. Dinescu, *Effects of process parameters on growth of metal particles by atmospheric pressure plasma jet*, DIGEST JOURNAL OF NANOMATERIALS AND BIOSTRUCTURES, Volume: 9, Issue: 3, Pages: 1241-1247, Published: JUL-SEP 2014.
 16. C. Constantinescu, A. Matei, I. Ionita, V. Ion, **V. Marascu**, M. Dinescu, C. Vasiliu, A. Emandi, *Azo-derivatives thin films grown by matrix-assisted pulsed laser evaporation for non-linear optical applications*, APPLIED SURFACE SCIENCE Volume: 302 Pages: 69-73 Published: MAY 30 2014.

- **Annex 2 - List of Indexed ISI papers:**

1. **V. Mărăscu**, I. Chițescu, V. Barna, M. D. Ioniță, A. Lazea-Stoyanova, B. Mitu, G. Dinescu, *Application of image recognition algorithms for statistical description of nano- and microstructured surfaces*, 9TH INTERNATIONAL PHYSICS CONFERENCE OF THE BALKAN PHYSICAL UNION (BPU-9), Book Series: AIP Conference Proceedings, Volume: 1722, Article Number: 290006, Published: 2016.

- **Annex 3 - List of proceedings at international conferences:**

1. Dinescu G, Vizireanu S, Acsente T, Lazea A, Mitu B, **Marascu V**, Stancu C, Ionita E R, Teodorescu M, Ionita M D, Stoica S D, Satulu V, Carpen L, *Plasma processing of nanomaterials at low and atmospheric pressure*, Proc. Of ESCAMPIG XXIV, pg 411-412, 2018.
2. V. Satulu, B. Mitu, **V. Marascu**, A. Lazea-Stoyanova, I. Sarbu, D. Pelinescu, S. Somacescu,

- G. Dinescu, *Plasma-induced graft polymerization of silver nanoparticles dispersed in ethylene glycol onto polymeric foils for antimicrobial surfaces*, 23rd Europhysics Conference on Atomic and Molecular Physics of Ionized Gases (ESCAMPIG), Slovakia, Bratislava, 12-16 July 2016.
3. G. Dinescu, A. Lazea-Stoyanova, T. Acsente, V.S. Teodorescu, **V. Marascu**, *Growth of particles in plasma at low and atmospheric pressure starting from metallic targets*, 75th IUVSTA Workshop on Sheath Phenomena in Plasma Processing of Advanced Materials, 19th-23rd January 2015, Cerklje, Slovenia.
 4. A. Lazea-Stoyanova, M. Enculescu, **V. Marascu**, G. Dinescu, *Synthesis and properties of metallic particles obtained by a RF plasma jet operating from low to atmospheric pressure*, The XXII Europhysics Conference on Atomic and Molecular Physics of Ionized Gases (ESCAMPIG), 15-19 July, 2014, Greifswald, Germany.
 5. A. Lazea-Stoyanova, **V. Marascu**, S. Vizireanu, G. Dinescu, *Production of metallic particles at atmospheric pressure by a radiofrequency plasma jet*, The 31st ICPIG, July 14-19, 2013, Granada, Spain.

• **Annex 4 - List of presentations at international conferences (posters, orals and invited talks):**

1. **V. Marascu**, C. Stancu, A. Bonciu, V. Satulu, G. Dinescu, *On the erosion of Tungsten surfaces exposed to an atmospheric pressure microdischarge*, 18th International Conference on Plasma Physics and Applications (CPPA 2019), 20-22 June 2019, Iasi, Romania **(Poster)**.
2. M. Zarif, S.A. Yehia, S. Vizireanu, V. Satulu, **V. Marascu**, B.I. Bitu, G. Dinescu, *Atmospheric pressure plasma treatment of surfaces for cleaning and modification*, 18th International Conference on Plasma Physics and Applications (CPPA 2019), 20-22 June 2019, Iasi, Romania **(Poster)**.
3. L. Dinca, B. Diaconescu, V. Satulu, **V. Marascu**, C. Gheorghiu, B. Mitu, *Carbon-based thin films for high-power laser applications*, 18th International Conference on Plasma Physics and Applications (CPPA 2019), 20-22 June 2019, Iasi, Romania **(Poster)**.
4. L. G. Carpen, T. Acsente, B. I. Bitu, **V. Marascu**, V. Satulu, G. Dinescu, *Modification of tungsten surfaces by thermal oxidation and subsequent reduction in H₂ plasma*, E-MRS Spring Meeting, Acropolis Congress Centre, 27-31 May, 2019 Nice, France. **(Poster)**.
5. I. Ionita, A. Bercea, S. Brajnicov, A. Matei, V. Ion, **V. Marascu**, B. Mitu, C. Constantinescu, *Second harmonic generation (SHG) in pentacene thin films grown by matrix assisted pulsed laser evaporation (MAPLE)*, E-MRS Spring Meeting, Acropolis Congress Centre, 27-31 May, 2019 Nice, France. **(Poster)**.
6. A. Matei, A. Vlad, R. Birjega, M. D. Ionita, E. R. Ionita, **V. Marascu**, A. Lazea-Stoyanova, *Lamellar montmorillonite thin films obtained by laser techniques*, E-MRS Spring Meeting, Acropolis Congress Centre, 27-31 May, 2019 Nice, France. **(Poster)**.
7. **V. Marascu**, C. Stancu, A. Bonciu, V. Satulu, G. Dinescu, *Tungsten surface modification and particles production in low and atmospheric pressure plasmas*, Conference On Cold Plasma Sources and Applications (COPSA 2018), 19-23 November 2018, Ypres, Belgium **(Poster)**.
8. M. Zarif, S. Vizireanu, S. Corobea, V. Satulu, **V. Marascu**, B. Bitu, D. Dumitru, G. Dinescu, *Atmospheric pressure plasma treatment of moulds used in polymer composites injection process*, The 6th International Colloquium „Physics of Materials” (PM 6), 15 – 16 November, 2018, Bucharest, Romania **(Poster)**.
9. I. C. Constantin, A. A. Ardeleanu, **V. Marascu**, C. Stancu, B. Mitu, G. Dinescu, *Improvement of Cu magnetron sputtering deposition process for textile fabrics application*, The 6th International Colloquium „Physics of Materials” (PM 6), 15 – 16 November, 2018, Bucharest, Romania **(Poster)**.

10. A. Lazea-Stoyanova, **V. Marascu**, G. Dinescu, *Synthesis of particles from different metals by an atmospheric pressure plasma jet: a comparative study*, 16th International Conference on Plasma Surface Engineering (PSE), September 17- 21, 2018, Garmisch-Partenkirchen, Germany (**Poster**).
11. **V. Marascu**, A. Lazea- Stoyanova, A. Bonciu, V. Satulu, C. Stancu, S.D. Stoica, G. Dinescu, *Behaviour of Tungsten materials submitted to constricted plasmas, erosion and particle formation*, Gordon Conference "Plasma Processing Science", August 4-11, 2018, Bryant University, USA (**Poster**).
12. Cristian STANCU, Silviu-Daniel STOICA, Maximilian TEODORESCU, **Valentina MARASCU**, Christian GRISOLIA, Gheorghe DINESCU, *Behaviour of tungsten surfaces exposed to hollow cathode discharges*, 18th International Balkan Workshop on Applied Physics and Materials Science (IBWAP 2018), July 10-13, 2018, Constanta, Romania (**Poster**).
13. S.D. Stoica, **V. Marascu**, S. Vizireanu, V. Satulu, G. Dinescu, *CNW/W particles hybrid materials synthesized by plasma techniques*, E-MRS 2018- Spring Meeting, 18-22 June 2018, Strasbourg, France (**Poster**).
14. F. Andrei, A. Vlad, R. Birjega, A. Matei, V.C. Dinca, M. Secu, S. Brajnicov, A. Rotaru, **V. Marascu**, M. Dumitru, M. Dinescu, R. Zavoianu, *Hybrid layered double hydroxides-curcumin thin films deposited via MAPLE with fluorescence and drug delivery properties*, E-MRS 2018- Spring Meeting, 18-22 June 2018, Strasbourg, France (**Poster**).
15. S. Brajnicov, C. Constantinescu, A. Bonciu, A. Moldovan, **V. Marascu**, N.L. Dumitrescu, V. Dinca, M. Dinescu, *Studies of the surface morphology of PLCL-PEG-PLCL co-polymer coatings deposited by Matrix Assisted Pulsed Laser Evaporation*, E-MRS 2018- Spring Meeting, 18-22 June 2018, Strasbourg, France (**Poster**).
16. Dinescu G, Vizireanu S, Acsente T, Lazea A, Mitu B, Marascu V, Stancu C, Ionita E R, Teodorescu M, Ionita M D, Stoica S D, Satulu V, Carpen L, Plasma processing of nanomaterials at low and atmospheric pressure, Proc. Of ESCAMPIG XXIV, (**Poster**).
17. **V. Marascu**, A. Lazea-Stoyanova, C. Stancu, S. D. Stoica, G. Dinescu, *Erosion process of electrodes in atmospheric pressure plasma jets as source of metallic particles production*, 8th International Conference on Inovations in Thin Film Processing and Characterization (ITFPC 17), 23-27 October 2017, Campus ARTEM, Nancy, France (**Oral presentation**).
18. A. Lazea-Stoyanova, **V. Marascu**, C. Stancu, G. Dinescu, *The impact of RF power over the synthesis of copper particles obtained with an atmospheric pressure plasma jet*, 21st International Colloquium On Plasma Processes (CIP) & 5th Magnetron Ion Processing & Arc Technologies European Conference (MIATEC), June 26-30, 2017, Nice, France (**Poster**).
19. **V. Marascu**, A. Lazea-Stoyanova, C. Stancu, S. D. Stoica, B. Mitu, G. Dinescu, *Characteristics of tungsten particles obtained at atmospheric pressure by a plasma jet*, 17th International Conference on Plasma Physics and Applications (CPPA 2017), June 15-20, 2017, Magurele Bucharest, Romania (**Poster**).
20. **V. Marascu**, A. Lazea-Stoyanova, A. Bonciu, C. Stancu, B. Mitu, C. Constantin, G. Dinescu, *Synthesis and characterization of Tungsten particles obtained in controlled atmospheric plasma jet*, The 5th International Colloquium "Physics of Materials" (PM-5), University "Politehnica" of Bucharest, November 10- 11, 2016, Bucharest, Romania (**Poster**).
21. G. Dinescu, **V. Marascu**, T. Acsente, A. Lazea-Stoyanova, S. Vizireanu, V.S. Teodorescu; *Nano- and micro-particles fabrication by plasma assisted physical processes*, 7th International Symposium on Plasma Nanoscience and Nanotechnology (iPlasmaNano-VII), Vavrona, Athens, Greece, 15-20 October 2016 (**Invited talk**).
22. **V. Marascu**, A. Lazea- Stoyanova, C. Stancu, A. Bonciu, G. Dinescu, *Production of tungsten particles from a radiofrequency plasma jet*, 29th Symposium On Fusion Technology (SOFT), 5-9 September 2016, Prague, Czech Republic (**Poster**).

23. **V. Marascu**, A. Lazea-Stoyanova, M. Teodorescu, A. Bonciu, C. Stancu, G. Dinescu, *Tungsten particles synthesis by atmospheric pressure plasma for controlled fusion research*, 13th Kudova Summer School "Towards fusion energy", 13-17 June 2016, Poland (**Oral presentation**).
24. C. Stancu, E. R. Ionita, M. Teodorescu, S.D. Stoica, **V. Marascu**, G. Dinescu, S. Peillon, F. Gensdarmes, C. Grisolia, *Modification of tungsten surfaces by He and He/H₂ hollow cathode discharges*, 17th International Conference on Plasma Physics and Applications (CPPA 2017), June 15-20, 2017, Magurele-Bucharest, Romania (**Poster**).
25. A. Lazea-Stoyanova, **V. Marascu**, C. Stancu, G. Dinescu, *RF atmospheric pressure plasma jet: a method for synthesis of metallic particles*, 17th International Conference on Plasma Physics and Applications (CPPA 2017), June 15-20, 2017, Magurele-Bucharest, Romania (**Poster**).
26. M. Iriverzi, V. Dinca, L. Rusen, S. Brajnicov, **V. Marascu**, A. Bonciu, A. Cimpean, M. Dinescu, A. Roseanu, *Laser processing of hybrid biomimetic coatings*, 17th International Conference on Plasma Physics and Applications (CPPA 2017), June 15-20, 2017, Magurele-Bucharest, Romania (**Poster**).
27. A. Lazea-Stoyanova, **V. Marascu**, C. Stancu, G. Dinescu, *Synthesis of titanium particles by RF atmospheric plasma jet: continuous mode vs. pulsed mode*, XXXIII ICPIG, July 9-14, 2017, Estoril/ Lisbon, Portugal (**Poster**).
28. S. Brajnicov, P. Neacsu, V. Dinca, **V. Marascu**, A. Bonciu, A. Cimpean, M. Dinescu, *Polylactide-cocaprolactone based coatings deposited by Matrix Assisted Pulsed Laser Evaporation: an optimization study*, 17th International Conference on Plasma Physics and Applications (CPPA 2017), June 15-20, 2017, Magurele-Bucharest, Romania (**Poster**).
29. A. Matei, F. Jipa, B. Calin, M. Zamfirescu, M. Dinescu, B. Mitu, **V. Marascu**, J. Heitz, C. Plamadeala, *Polymeric guiding system obtained by direct laser writing*, 17th International Conference on Plasma Physics and Applications (CPPA 2017), June 15-20, 2017, Magurele-Bucharest, Romania (**Poster**).
30. I. Tirca, A. Vlad, M. Secu, R. Birjega, R. Zavoianu, **V. Marascu**, A. Marinescu, M. Dinescu, *Modification of Layered Double Hydroxides (LDHs) thin films properties with organic anion chromophore by laser technique*, 17th International Conference on Plasma Physics and Applications (CPPA 2017), June 15-20, 2017, Magurele-Bucharest, Romania (**Poster**).
31. A. Matei, R. Birjega, A.Vlad, A. Palla Papavlu, M. Filipescu, **V. Marascu**, A. Marinescu, M. Dinescu, R. Zavoianu, O.D.Pavel, *Lamellar thin films for food additives detection*, The 9th International conference on advanced materials, ROCAM 2017 & The 2nd International symposium on dielectric materials and applications, ISyDMA 2017, Bucharest, Romania (**Poster**).
32. A. Lazea-Stoyanova, **V. Marascu**, M. Teodorescu, M. Enculescu, G. Dinescu, *Pulsed RF Atmospheric Plasma Jet for Synthesis of Copper Particles*, 2016 MRS Fall Meeting, November 27- December 2, Boston- Massachusetts, USA (**Poster**).
33. A. Lazea-Stoyanova, **V. Marascu**, C. Stancu, A. M. Vlaicu, V. S. Teodorescu, G. Dinescu, *Titanium oxide particles obtained using an argon RF atmospheric plasma jet*, 15th International Conference on Plasma Surface Engineering (PSE 2016), September 12 - 16, 2016, in Garmisch-Partenkirchen, Germany (**Poster**).
34. S. Brajnicov, V. Dinca, **V. Marascu**, M. Dinescu, *Thin films of PLCL-PEG-PLCL copolymer coatings deposited by Matrix Assisted Pulsed Laser Evaporation*, The 5th International Colloquium "Physics of Materials" (PM-5), University "Politehnica" of Bucharest, November 10- 11, 2016, Bucharest, Romania (**Oral presentation**).
35. L.N. Dumitrescu, I. Tirca, A. Bonciu, **V. Marascu**, V. Dinca, M. Dinescu, *Morphological and topographical investigation of PVDF thin films deposited by matrix assisted by pulsed laser evaporation*, The 5th International Colloquium "Physics of Materials" (PM-5), University "Politehnică" of Bucharest, November 10- 11, 2016, Bucharest, Romania (**Poster**).

36. S. Brajnicov, **V. Marascu**, L. Rusen, A. Moldovan, V. Dinca, M. Dinescu, *Copolymer PLCL-PEG-PLCL functional bio-coating obtained by Matrix Assisted Pulsed Laser Evaporation: a deposition parametric study*, 10th International Conference on Photoexcited Processes and Applications (ICPEPA), August 29- September 2, 2016, Brasov, Romania (**Poster**).
37. A. Vlad, I. Tirca, R. Barjega, A. Matei, M. Dumitru, M. Dumitru, M. Dinescu, **V. Marascu**, R. Zavoianu, M. C. Corobea, *Comparison of different routes for the manufacture of intercalated dodecyl sulfate Mg, Allayered double hydroxides composite thin films using laser techniques*, 10th International Conference on Photoexcited Processes and Applications (ICPEPA), August 29- September 2, 2016, Brasov, Romania (**Poster**).
38. L.N. Dumitrescu, I. Tirca, V. Ion, A. Moldovan, **V. Marascu**, V. Dinca, M. Dinescu, *Polyvinylidenefluoride thin films deposited by MAPLE*, 10th International Conference on Photoexcited Processes and Applications (ICPEPA), August 29- September 2, 2016, Brasov, Romania (**Poster**).
39. M. Filipescu, A. Palla Papavlu, A. Matei, **V. Marascu**, M. Dinescu, *Laser processing of ferrocene thin films patterns for sensor application*, 10th International Conference on Photoexcited Processes and Applications (ICPEPA), August 29- September 2, 2016, Brasov, Romania (**Poster**).
40. A. Marinescu, A. Matei, A. Vlad, R. Birjega, M. Filipescu, **V. Marascu**, M. Dinescu, I.Tirca, R. Zavoianu, O.D. Pavel, C. Corobea, *The selection of optimal deposition conditions for producing thin films of Mg-Al LDH using laser techniques*, 10th International Conference on Photoexcited Processes and Applications (ICPEPA), August 29- September 2, 2016, Brasov, Romania (**Poster**).
41. A. Matei, R. Birjega, A.Vlad, A. Palla Papavlu, M. Filipescu, **V. Marascu**, R. Zavoianu, O.D. Pavel, M.C. Corobea, M. Dinescu, *Layered double hydroxides thin films grown by laser techniques for food additives detection*, 10th International Conference on Photoexcited Processes and Applications (ICPEPA), August 29- September 2, 2016, Brasov, Romania (**Poster**).
42. I. Tirca, **V. Marascu**, S. Brajnicov, V. Dinca, D. Pelinescu, I. Sarbu, V. Mitran, A.Campean, M. Dinescu, *In vitro evaluation of antitumoral and antibacterial activities of Curcumin loaded biodegradable copolymer*, 10th International Conference on Photoexcited Processes and Applications (ICPEPA), August 29- September 2, 2016, Brasov, Romania (**Poster**).
43. V. Satulu, B. Mitu, **V. Marascu**, A. Lazea-Stoyanova, I. Sarbu, D. Pelinescu, S. Somacescu, G. Dinescu, *Plasma-induced graft polymerization of silver nanoparticles dispersed in ethylene glycol onto polymeric foils for antimicrobial surfaces*, 23rd Europhysics Conference on Atomic and Molecular Physics of Ionized Gases (ESCAMPIG), 12-16 July 2016, Bratislava, Slovakia, (**Poster**).
44. A. Marinescu, A. Matei, A. Vlad, R. Birjega, M. Filipescu, **V. Marascu**, M. Dinescu, I. Tirca, R. Zavoianu, O. D. Pavel, C. Corobea, *Spectroscopic And Structural Characterization Of Layered Double Hydroxides Thin Films*, The 16th International Balkan Workshop on Applied Physics (IBWAP), 7-9 July, Constanta, Romania (**Poster**).
45. L.N. Dumitrescu, I. Tirca, A. Moldovan, **V. Marascu**, V. Dinca, M. Dinescu, *Laser Processing Of Polyvinylidene Fluoride Thin Films By Maple*, The 16th International Balkan Workshop on Applied Physics (IBWAP), 7-9 July, Constanta, Romania (**Poster**).
46. S. Brajnicov, V. Ion, **V. Marascu**, L. Rusen, V. Dinca, M. Dinescu, *Characterization and degradation behavior of hybrid coatings obtained by matrix assisted pulsed laser evaporation*, The 16th International Balkan Workshop on Applied Physics (IBWAP), 7-9 July, Constanta, Romania (**Poster**).
47. Icriverzi Madalina, Sima Livia, Dumitrescu Nicoleta, **Marascu Valentina**, Cimpean Anisoara, Dinca Valentina, Roseanu Anca, *In vitro cell-biomimetic coated titanium bioalloy interactions*, 4th International Conference on "Engineering & Technology,

- Computer , Basic & Applied Sciences” (ECBA- 2016), May 26-27, 2016, Tokyo, Japan **(Oral presentation)**.
48. I. Tirca, **V. Marascu**, V. Ion, S. Brajnicov, V. Dinca, M. Dinescu, *Hybrid biodegradable copolymer based coatings for in vitro osteosarcoma studies*, E-MRS 2016- Spring Meeting, 2-6 May 2016, Lille, France **(Poster)**.
 49. A. Matei, R. Barjega, A. Vlad, **V. Marascu**, M. Filipescu, C. Luculescu, R.Zavoianu, O. D. Pavel, M. C. Corobea, M. Dinescu, *Reconstruction by “memory effect” of layered double hydroxides thin films grown by pulsed laser deposition*, E-MRS 2016- Spring Meeting, 2-6 May 2016, Lille, France **(Poster)**.
 50. A. Matei, R. Barjega, A. Vlad, **V. Marascu**, C. Luculescu, B. Mitu, G. Epurescu, R.Zavoianu, O. D. Pavel, M. C. Corobea, M. Dinescu, I. Ion, *Composite films of layered double hydroxides-graphene grown by laser –based techniques*, E-MRS 2016- Spring Meeting, 2-6 May 2016, Lille, France **(Poster)**.
 51. M. Icriverzi, V. Dinca, L.E. Sima, L. Rusen, S. Brajnicov, **V. Marascu**, A. Bonciu, A. Roseanu, M. Dinescu, *Inflammatory response of hybrid biomimetic coatings obtained by MAPLE*, E-MRS 2016- Spring Meeting, 2-6 May 2016, Lille, France **(Oral presentation)**.
 52. Icriverzi Madalina, Sima Livia, Dumitrescu Nicoleta, **Marascu Valentina**, Dinca Valentina, Roseanu Anca, *Smart hybrid biomimetic coated titanium bioalloy in vitro cellular respore*, 11th Edition of International Symposium “Priorities of Chemistry for a Sustainable Development (PRIOCHEM)” 29th - 30th October 2015, Bucharest, Romania **(Poster)**.
 53. **V. Mărăscu**, I. Chițescu, V. Barna, M. D. Ioniță, A. Lazea-Stoyanova, B. Mitu, G. Dinescu, *Application of image recognition algorithms for statistical description of nano- and microstructured surfaces*, 9th International Physics Conference of the Balkan Physical Union-BPU9, Istanbul University, 24-27 August, 2015, Turkey.**(Poster)**.
 54. **V. Mărăscu**, A. Lazea-Stoyanova, V. Barna, I. Chițescu, G. Dinescu, *Atmospheric pressure plasma synthesis and characterization of Aluminum particles*, The 8th International Conference on Advanced Materials: ROCAM 2015, 7-10 July 2015, Bucharest, Romania. **(Poster)**.
 55. T. Acsente, M.D. Ionita, M. Teodorescu, **V. Marascu**, G. Dinescu, *Surface modification of PMMA foils using an atmospheric pressure plasma jet in presence of water vapors*, The 8th International Conference on Advanced Materials: ROCAM 2015, 7-10 July 2015, Bucharest, Romania. **(Oral presentation)**.
 56. Ion Tirca, N. L. Dumitrescu, **V. Marascu**, A. Bonciu, S. Brajnicov, M. Dinescu, V. Dinca, *Fabrication and characterization of poly(vinyl alcohol)/poly(ethylene glycol) thin films for biological applications*, The 8th International Conference on Advanced Materials: ROCAM 2015, 7-10 July 2015, Bucharest, Romania. **(Oral presentation)**.
 57. N. L. Dumitrescu, I. Tirca, A. Bonciu, **V. Marascu**, S. Brajnicov, M. Dinescu, V. Dinca, *Study of the solvents influence on the morphological and chemical characteristics of Hydroxyapatite thin films deposited by MAPLE*, The 8th International Conference on Advanced Materials: ROCAM 2015, 7-10 July 2015, Bucharest, Romania. **(Poster)**.
 58. D. Pantelica, P. Ionescu, H. Petrascu, M. D. Dracea, M. Statescu, E. Matei, O. Rasoga, C. Stancu, **V. Marascu**, V. Ion, T. Acsente, G. Dinescu, *Characterization of hydrogenated and deuterated silicon carbide films codeposited by magnetron sputtering*, 22nd International Conference on Ion Beam Analysis, 14 – 19 June, 2015 - Opatija, Croatia.**(Poster)**.
 59. G. Dinescu, A. Lazea-Stoyanova, T. Acsente, V.S. Teodorescu, **V. Marascu**, *Growth of particles in plasma at low and atmospheric pressure starting from metallic targets*, Proceedings of the 75th IUVSTA Workshop on Sheath Phenomena in Plasma Processing of Advanced Materials, 19th-23rd January 2015, Cerklje, Slovenia **(Invited talk)**.
 60. **V. Mărăscu**, E. S. Barna, S. D. Stoica, M. D. Ioniță, A. Lazea- Stoyanova, G. Dinescu, *Surface analysis of 2D nanomaterials obtained in RF plasma jet discharge*, The 4th International Colloquium “Physics of Materials” (PM-4), University “Politehnica” of Bucharest, November 13- 14, 2014, Bucharest, Romania.**(Poster)**.
 61. G. Dinescu, S. Vizireanu, T. Acsente, B. Mitu, A. Lazea, D. Stoica, **V. Marascu**, *Plasma Synthesis and Processing of Carbon Nanowalls and Submicron Metallic Particles*, 27th

- International Symposium on the Physics of Ionized Gases (SPIG 2014), 26th-29th August 2014, Belgrade, Serbia. **(Invited talk)**.
62. A. Lazea-Stoyanova, M. Enculescu, **V. Marascu**, G. Dinescu, *Synthesis and properties of metallic particles obtained by a RF plasma jet operating from low to atmospheric pressure*, ESCAMPIG XXII, July 15-19, 2014, Greifswald, Germany. **(Poster)**.
 63. A. Matei, I. Ionita, C. Constantinescu, **V. Marascu**, V. Ion, M. Dinescu, R. Iordanescu, I. Feraru, I.C. Vasiliu, A. Emandi, *Ferrocene based thin films grown by matrix-assisted pulsed laser evaporation for non-linear optical applications*, The 12th International Conference on Laser Ablation (COLA 2013), October 6-11, 2013, Ischia, Italy. **(Poster)**.
 64. V. Ion, A. Matei, M. Filipescu, C. Constantinescu, **V. Marascu**, M. Dinescu, I. Ionita, I.C. Vasiliu, A. Emandi, *Optical properties of azoderivative/ polymer thin films deposited by MAPLE*, The 12th International Conference on Laser Ablation (COLA 2013), October 6-11, 2013, Ischia, Italy. **(Poster)**.
 65. A. Lazea-Stoyanova, **V. Marascu**, S. Vizireanu, G. Dinescu, *Production of metallic particles at atmospheric pressure by a radiofrequency plasma jet*, 31st ICPIG, July 14-19, 2013, Granada, Spain. **(Poster)**.

- **Annex 5 - List of presentations at national conferences and workshops:**

1. **V. Marascu**, L. Rusen, A. Bonciu, L. N. Dumitrescu, M. Dinescu, V. Dinca, *Biodegradable biointerfaces based on polymeric coatings for in vitro cells analysis*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 21-22 June, 2019, Romania. **(Oral presentation)**.
2. V. Dinca, S. Brajnicov, **V. Marascu**, C. Viespe, M. Dinescu, N. Scarisoareanu, *Polymeric coatings obtained by MAPLE for sensing applications*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 21-22 June, 2018, Romania. **(Oral presentation)**.
3. A. Bonciu, S. Brajnicov, L. N. Dumitrescu, **V. Marascu**, L. Rusen, V. Dinca, M. Dinescu, A. Cimpean, *Biodegradable interfacing nanocomposite coatings for modulating the cellular response*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 21-22 June, 2018, Romania. **(Oral presentation)**.
4. S. Brajnicov, **P. Neacsu**, **V. Dinca**, **V. Marascu**, A. Bonciu, A. Cimpean, M. Dinescu, *Functional polymeric coatings obtained by Matrix-assisted pulsed laser evaporation*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 21-22 June, 2018, Romania. **(Oral presentation)**.
5. **V. Marascu**, A. Lazea-Stoyanova, C. Stancu, G. Dinescu, *Tungsten micro- and nanoparticles synthesis under atmospheric pressure plasma conditions*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 23-24 June, 2017, Romania. **(Oral presentation)**.
6. **V. Marascu**, C. Constantin, A. Lazea-Stoyanova, A. Bonciu, S. D. Stoica, C. Stancu, M. Teodorescu, G. Dinescu, *Production of tungsten particles with various shapes by using controlled atmospheric pressure plasma*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 17 June, 2016, Bucharest, Romania. **(Oral presentation)**.
7. S. Brajnicov, **V. Marascu**, V. Dinca, M. Dinescu, *Tunability of the surface morphology of plcl-peg-plcl co-polymer coatings deposited by matrix assisted pulsed laser evaporation*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 17 June, 2016, Bucharest, Romania. **(Oral presentation)**.
8. I. Tirca, **V. Marascu**, S. Brajnicov, V. Dinca, D. Pelinescu, I. Sarbu, V. Mitran, A. Campean, M. Dinescu, *In vitro evaluation of antitumoral activities of Curcumin loaded biodegradable copolymer*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 17 June, 2016, Bucharest, Romania. **(Oral presentation)**.
9. L. N. Dumitrescu, I. Tirca, V. Ion, A. Moldovan, **V. Marascu**, V. Dinca, M. Dinescu, *PVDF coatings deposited by MAPLE*, Annual Scientific Conference of Faculty of Physics, University

- of Bucharest, 17 June, 2016, Bucharest, Romania. **(Oral presentation)**.
10. **V. Marascu**, A. Lazea-Stoyanova, C. Stancu, E. S. Barna, G. Dinescu, *Particles synthesis by plasma methods for controlled fusion research*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 19 June, 2015, Bucharest, Romania. **(Oral presentation)**.
 11. **V. Marascu**, S. Vizireanu, S. D. Stoica, V. Barna, A. Lazea-Stoyanova, G. Dinescu, *FTIR investigation of the ageing process of carbon nanowalls*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 19 June, 2015, Bucharest, Romania. **(Oral presentation)**.
 12. A. Patrascu, **V. Marascu**, M. Teodorescu, M. Bazavan, *Determining the rotational temperature by simulating the OH molecular spectra*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 19 June, 2015, Bucharest, Romania. **(Oral presentation)**.
 13. V. Ciupina, **V. Marascu**, A. Zaharia, G. Prodan, C. Lungu, C. Porosnicu, A. Caraiane, V. Barna, G. Dinescu, *FTIR and TEM study regarding the effect of Coca-Cola regular beverage on the human dental enamel: an in vitro study*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 19 June, 2015, Bucharest, Romania. **(Oral presentation)**.
 14. V. Dinca, **V. Marascu**, M. Icriverzi, L. Rusen, A. Roseanu, M. Dinescu, *Degradable thin films containing Lactoferrin and Cisplatin effect on murine melanoma cells*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 19 June, 2015, Bucharest, Romania. **(Oral presentation)**.
 15. I. Tirca, **V. Marascu**, N. L. Dumitrescu, A. Bonciu, S. Brajnicov, V. Ion, M. Dinescu, *Curcumin loaded biodegradable copolymer coatings by MAPLE technique*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 19 June, 2015, Bucharest, Romania. **(Oral presentation)**.
 16. N. L. Dumitrescu, I. Tirca, A. Bonciu, **V. Marascu**, S. Brajnicov, L. Rusen, M. Dinescu, V. Dinca, *The study of different solvents on the chemical and morphological characteristics of Hydroxyapatite coatings deposited by MAPLE*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 19 June, 2015, Bucharest, Romania. **(Oral presentation)**.
 17. **V. Mărăscu**, A. Lazea-Stoyanova, V. Barna, C. Stancu, G. Dinescu, *Synthesis of nanometric and micrometric particles for fusion research using atmospheric pressure plasma*, The 14th edition of the Nanoscience and Nanotechnologies National Seminar (SNN 2015), 26 March, 2015, Romanian Academy, Bucharest, Romania. **(Poster)**.
 18. **V. Marascu**, E.S. Barna, I. Chitescu, S. D. Stoica, A. Lazea-Stoyanova, G. Dinescu, *Analysis of complex 2D topographies by MatLab algorithms*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 20 June, 2014, Book of Abstracts pag. 105, Bucharest, Romania. **(Oral presentation)**.
 19. **V. Marascu**, N. Cotfas, E.S. Barna, M. D. Ionita, B. Mitu, G. Dinescu, *2D Fast Fourier Transform function for analysis of distribution of polystyrene nanoballs assembled on a substrate*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 20 June, 2014, Book of Abstracts pag. 150, Bucharest, Romania. **(Oral presentation)**.
 20. Mijaela Acosta Gentoiu, **V. Marascu**, L. Ion, D. Stoica, G. Dinescu, *Properties of the carbon layers deposited by RF plasma jet discharge at different substrate temperatures*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 20 June, 2014, Book of Abstracts pag. 165, Bucharest, Romania. **(Oral presentation)**.
 21. **V. Mărăscu**, I. Chitescu, E.S. Barna, B. Mitu, G. Dinescu, *Chemical characterization using the Fourier transform infrared (FT-IR) technique*, Annual Scientific Conference of Faculty of Physics, University of Bucharest, 21-22 June, 2013, Book of Abstracts pag. 165, Bucharest, Romania. **(Oral presentation)**.

- **Annex 6- List of specialisation (courses, summer schools, trainings...)**

1. 25th October 2019, Bucharest, Romania: **Industrial workshop - Recent advances in technical textiles**, in the frame of MANUNET TexEMFiRe Transnational Project, Capital Plaza Hotel.
2. 28 - 30 June 2019, Bucharest, Romania: **3rd Conference on Recent Advances in Artificial Intelligence (RAAI 2019)**, Faculty of Mathematics and Computer Science, Bucharest University.
3. 19 - 21 June 2019, Bucharest, Romania: **Innovative Enterprise Week (IEW19)**, „Politehnica” University of Bucharest.
4. 29 - 30 September 2016, Magurele Romania, **Workshop1: History, Status and Future of Laser Ignited Combustion Engines, Project LASIG-TWIN (691688), Laser Ignition - A Twinning Collaboration For Frontier Research In Eco-Friendly Fuel-Saving Combustion**, National Institute for Laser, Plasma and Radiation Physics.
5. 8 - 9 July 2016, Bochum, Germany, **The Second “Meet & Greet” – Women in Plasma**, Ruhr- University Bochum.
6. 13th - 17th June 2016, Kudowa-Zdrój, Poland, **13th Kudova Summer School “Towards fusion energy”**.
7. 20 - 21 March 2015, Dusseldorf, Germany- **The first “Meet & Greet”- Women in Plasma**, Melia Hotel, Dusseldorf.
8. 5 - 10 October 2013, Bad Honnef, Germany- **The 18th European Summer School: “Low Temperature Plasma Physics: Basics and Applications”**, Physikzentrum Bad Honnef.
9. 8 October 2013, Bad Honnef, Germany- **"Hands on a Boltzmann solver”**, Physikzentrum Bad Honnef.
10. 10 - 12 October 2013, Bad Honnef, Germany- **Master Class: "Biomedical Applications of Cold Plasmas"**, Physikzentrum Bad Honnef.

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Valentina MARASCU