



**Europass
Curriculum Vitae**

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Personal information

First name(s) / Surname(s) **PAULA BARBU(PRIOTEASA)**
Telephone(s) +40213468297/129 Mobile: 0733426700
Fax(es) +40213468299
E-mail paula.prioteasa@icpe-ca.ro

Nationality Romanian

Date of birth 11.09.1979

Gender Female

Desired employment / Occupational field **Research and Development /
Electrochemistry and Corrosion; Renewable energy;
Supercapacitors; Electrochemical technologies; Batteries; Materials
Science**

Work experience 11 years

Dates **2015-present**

Occupation or position held **Senior Scientific
Researcher Grade III**

Main activities and responsibilities Electrochemical Measurements; Research in the field of Advanced and Ecological Energy Sources & Systems - Fuel Cell Technology, membrane-electrode assembly MEA, first and second generation batteries, supercapacitors, redox flow batteries

Name and address of employer National Institute for Research and Development in Electrical Engineering
INCDIE ICPE-Advanced Research, 313 Splaiul Unirii, 030138, District 3,
Bucharest, ROMANIA

Type of business or sector Research & Development in electrical engineering

Dates **2007-2015**

Occupation or position held **Scientific Researcher**

Main activities and responsibilities Generally, research activities and interests include electrochemical technologies (electrochemical deposition with functional role, anodic oxidation, metallic foils obtaining, ornamental finishing), Ionic liquids based on choline chloride, with applications in electrochemical deposition of metals (Sn, Ag, Ni, Zn-Sn alloy).
- Research in the nickel metal hydride NiMH batteries
- Electrochemical Measurements
- Conducting polymers coatings onto metallic surfaces, for example PPy, and polyaniline for Supercapacitors Applications

Name and address of employer National Institute for Research and Development in Electrical Engineering INC DIE ICPE-Advanced Research, 313 Splaiul Unirii, 030138, District 3, Bucharest, ROMANIA

Type of business or sector Research & Development in electrical engineering

Dates **2005 – 2007**

Occupation or position held **Assistant Researcher**

Main activities and responsibilities Electrochemical Measurements; Electrodeposition of metals and alloys, organic and inorganic synthesis

Education and training

Dates **2005-2011**

Title of qualification awarded **PhD of thesis “Electrode processes at induced and abnormal deposition of some nickel alloys,,**

Principal subjects/occupational skills covered Electrochemistry and Corrosion, Deposition of alloys(Ni alloys) using aqueous electrolytes and ionic liquids (at room temperature) ,their characterization and application;

Name and type of organisation providing education and training University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Applied Physical Chemistry and Electrochemistry

Level in national or international classification ISCED 6 (International Standard Classification of Education)

Dates **2004-2005**

Title of qualification awarded **MSc**

Principal subjects/occupational skills covered Theoretical Electrochemistry, Applied Electrochemistry, Corrosion Science and Engineering, Applied physics and thermodynamics Chemistry
Electrochemistry and Corrosion; Electrodeposition of metals and alloys

Name and type of organisation providing education and training University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Applied Physical Chemistry and Electrochemistry

Dates **1999-2004**

Title of qualification awarded **BSc**

Principal subjects/occupational skills covered Special Mathematics, Chemistry, Inorganic, Organic Chemistry, Electrochemistry, Electrochemical technology, Engineering and Chemical Reactors, Inorganic Substances Technology

Name and type of organisation providing education and training University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science, Inorganic Substances Technology Department

Dates **1994-1998**

Title of qualification awarded **Baccalaureate degree**

Principal subjects/occupational skills covered Accounting, Economics, Statistics, Informatics

Name and type of organisation providing education and training School economic-administrative of Rosiori de Vede , Teleorman

Personal skills and competences

Mother tongue(s) **Romanian**

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

Self-assessment <i>European level</i> (*)	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
Language B ₂	Independent speaker	Independent speaker	Independent speaker	Independent speaker	Independent speaker
Language B ₁	Independent speaker	Independent speaker	Elementary speaker	Elementary speaker	Elementary speaker

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences **Teamwork, good communication, Team spirit ; Adaptability**

- Organisational skills and competences
- Project and team management skills (achieved by involvement and/or coordination of research projects)
 - Pedagogy Certificate acquired within University POLITEHNICA of Bucharest after following the pedagogy courses and practical applications - 2004
 - International Summer School of Magnetism, September 2005, Constanta
 - Assistant Manager Diploma conferred by Managerial Agency for Scientific Research, Innovation and Technology Transfer from Romania – 2006
 - Management of Research Projects Diploma conferred by National School of Administrative and Political Studies – 2006
 - International Summer School „Micro and Nano Deposition” (MINDE COURSE) 14-18 October 2007, Athens, Greece
 - Supervisor of a student team which participated at Student Conference organized by University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science
 - Member of professional associations: Romanian Society of Biomaterials
 - Reviewer at Journal of Materials and Design
 - Reviewer of Journal of Energy and Power Engineering
 - Reviewer of Journal of Organic Chemistry

Technical skills and competences High experience in using, measuring and monitoring equipments in electrochemistry and corrosion (Electrochemical Combine VoltaLab 40 Radiometer Analytical with the following techniques: Cyclic Voltametry, Potentiodynamic polarization, Open Circuit Potential, Electrochemical Impedance Spectroscopy, ChronoAmperometry, ChronoPotentiometry, ChronoCoulometry)

- Computer skills and competences
- High operating experience with MS-OFFICE
 - High experience in experimental data acquisition and processing with VoltaMaster 4, Zview

Artistic skills and competences

Other skills and competences Development of new technology: "Technology to achieve the deposition of Sn and Zn-Sn alloy in ionic liquids based on choline chloride 'delivered in RTS no. 4 / 2009, 31-066/2007 Partnerships project "environmentally friendly ionic liquids with applications in electrochemical surface treatments for high performance."

Driving licence

Additional information Contact References

Teodor VISAN – Professor, University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Applied Physical Chemistry and Electrochemistry, 1-7 Polizu, 011061, Block E, District 1, Bucharest, E-mail: t_visan@catedra.chfiz.pub.ro

Anca COJOCARU – Lecturer, University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Applied Physical Chemistry and Electrochemistry, 1-7 Polizu, 011061, Block F, District 1, Bucharest, E-mail: a_cojocaru@catedra.chfiz.pub.ro

Liana ANICAI – University Politehnica of Bucharest, Center for Surface Science and Nanotechnology, 1st level senior scientist Project Manager
E-mail: lanicai@itcnet.ro

Annexes See Annex 1.

Annex 1. List of publications

Published papers in ISI journals

1. **P. PRIOTEASA**, N. IBRIS, T. VISAN, "The influence of chemical nature on the corrosion behaviour of some dental alloys in Fusayama–Meyer artificial saliva", Journal of Optoelectronics and Advanced Materials, vol. 9, No.11, (2007), p. 3405-3410; ISSN 1454-4164; (**Impact factor: 0.827**)
2. E. GATIN, C. BERLIC, B. IORDACHE, **P. PRIOTEASA**, "Study of the corrosion process for some dental metal alloys under artificial saliva enriched with yeast and streptococcus Mutans bacteria", Journal of Optoelectronics and Advanced Materials, Vol. 11, No. 11, (2009), p. 1870-1873; (**Impact factor: 0.433**)
3. **P. PRIOTEASA**, F. GOLGOVICI, G. SBIRCEA, L. ANICAI, T. VISAN, „Electrodeposition, structure and corrosion behaviour of Ni-Mo alloy obtained from aqueous solutions”, Rev. Chim.(Bucuresti), vol. 61, No. 11, (2010), p. 1046-1053, (**Impact factor: 0.693**)
4. **P. PRIOTEASA**, A. PETICA, M. POPA, I. CRISTINEL, T. VISAN, "Electrochemical deposition of nickel for micro-mechanical systems", Rev.Chim. (Bucuresti) 62 (5) (2011) p. 543-548, (**Impact factor: 0.599**)
5. G.TELIPAN, L.PISLARU, V.MARINESCU, **P. PRIOTEASA** "Gas sensing properties of 1-D ZnO obtained by hydrothermal process,, Optoelectronics and Advanced Materials – Rapid Communications vol. 5, No. 6, (2011), p. 643 – 647; (**Impact factor: 0.304**)
6. **P. PRIOTEASA** M. M. CODESCU ,E. PATROI ,D. PATROI, V. MARINESCU "Electroplating in Magnetic Field and Characterization of NiCoMnP Alloy Films with Permanent Magnet" Optoelectronics and Advanced Materials – Rapid Communications Vol. 7, No. 1-2, January - February (2013), p. 90 – 95;

(Impact factor: 0.449)

7. **P. PRIOTEASA**, C.ILIE, M.POPA, M.IORDOC, G.SBARCEA "Electrodeposition of nichel for fabrication of microfluidic pumps" Rev. Chim.(Bucuresti) vol. 64, nr. 3, (2013), p. 275; **(Impact factor: 0.677)**
8. L.ANICAI A.PETICA S.COSTOVICI **P.PRIOTEASA** T.VISAN "Electrodeposition of Sn and NiSn Alloys Coatings using Choline Chloride Based Ionic Liquids – Evaluation of Corrosion Behavior" Electrochimica Acta 114 (2013) 868– 877, **(Impact factor: 4.086)**
9. LINGVAY JÓZSEF, SZATMÁRI ILONA, **PRIOTEASA PAULA**, LINGVAY MÓNICA, TUDOSIE LIANA MIHAIELA, „ Az Aspergillus niger fonalas penészgomba kihatásai az S235J2G3 acél korróziójára „Aspergillus niger filamentous fungi initiated corrosion of S235J2G3 carbon steel” Korróziós Figyelő, vol 54(1),(2014), pp15-21. ISSN: 0133-2546 ,(**Impact factor: 0.143**)
10. A. COJOCARU, M. L. MARES ,**P. PRIOTEASA**, L. ANICAI, T. VISAN “Study of electrode processes and deposition of cobalt thin films from ionic liquid analogues based on choline chloride” J Solid State Electrochem 19(2015), pp. 1001-1014, **(Impact factor:2.446)**
11. MIHAI IORDOC, ADELA BARA, **PAULA PRIOTEASA**, ALEXANDRU TEIȘANU, VIRGIL MARINESCU, “Electropolymerization of Conducting Polypyrrole on Carbon Nanotubes / Silicon Composite for Supercapacitor Applications”, Rev. Chim.(Bucharest) , vol 66, nr 2 (2015), p 196,(**Impact factor: 0.810**)
12. **P.PRIOTEASA**, V. MARINESCU, A. BARA, M. IORDOC , A.TEISANU, C. BANCIU and V. MELTZER “ Electrodeposition of polypyrrole on carbon nanotubes/Si in the presence of Fe catalyst for application in supercapacitors”, Rev. Chim.(Bucharest) , vol 66, nr 6, (2015), p 820-824,(**Impact factor: 0.810**)
13. L.ANICAI, A.PETICA, D.PATROI, V.MARINESCU, **P.PRIOTEASA**, S. COSTOVICI „Electrochemical Synthesis of TiO2 nanopowder involving choline chloride based ionic , Materials Science and Engineering B 199 (2015) 87–95 ,(**Impact factor: 2.122**)
14. A. COJOCARU, A. S. CATRANGIU, I.SIN, **P. PRIOTEASA**, A. COTARTA, L. ANICAI, T. VISAN “Studies of antimony-tellurium and copper–tellurium films electrodeposition from choline chloride-containing ionic liquids”, Thin Solid Films 611 (2016) pp.88–100 ,(**Impact factor:1.761**)
15. G. TELIPAN, L. PÎSLARU-DĂNESCU, V. MARINESCU, **P. PRIOTEASA**, D. OVEZEA “ Synthesis, Characterization and Gas Sensing Properties of CeO₂-Y₂O₃ Binary Oxides” Sensor Letters, Volume 14, Number 2, February 2016, pp. 114-121, **(Impact factor: 0.558)**
16. A. COJOCARU, **P.PRIOTEASA(BARBU)**, I. SZATMARI, E.RADU, O.UDREA, T. VISAN „EIS studies on biocorrosion of some steels and copper in Czapek-Dox medium with Aspergillus niger filamentous fungus” REV-CHIM Bucharest, (2016), vol. 67 no.7, pp1264-1270, (**Impact factor: 0.956**)
- 17.**Paula BARBU**, Mirela Maria CODESCU, Mihai IORDOC, Virgil MARINESCU, Eugen MANTA, Cristinel ILIE, Marius POPA, "Electrodeposition of CoNiMnP Thick Films for Micromachined Magnetic Device Applications", in press REV-CHIM Bucharest, (2018), vol. 69, no. 6. **(Impact factor: 1.232)**

Published papers in journals CNCSIS

1. N. IBRIS, **P. PRIOTEASA**, T. VISAN , “Study of corrosion of dental alloys in artificial saliva. Influence of fluoride ions”, Corrosion and Anticorrosive Protection, vol. II, Nr 2, (2007), p. 18-21, ISSN 1842-0346;
2. **P. PRIOTEASA**, L. ANICAI, F.' GOLGOVICI, T. VISAN, “Synthesis and corrosion characterisation of electrodeposited Ni-Mo alloys obtained from aqueous solutions”, UPB Sci.Bull., Series B, Vol. 72, No. 4, (2010), 11-24. ISSN 1454-2331.

3. C. ILIE, M. POPA, **P. PRIOTEASA**, I. CHIRITA, N. TANASE, „ *Applications of Liga technology for the development of micromechanical systems*” UPB Sci. Bull., Series D: Mechanical Engineering, Vol. 73, No. 4, (2011), 137-15, ISSN 1454-2358
4. **P. PRIOTEASA**, A. PETICA, L. ANICAI, A. FLOREA " *Tin electrodeposition from choline chloride based ionic liquids, Corrosion and Anticorrosive Protection*", vol. 6 (3) (2011) p. 37-48
5. **P. PRIOTEASA**, M. LINGVAY, I. SZATMARI N. BURUNTEA, I. LINGVAY „ *Coroziunea otelului carbon in prezenta mucegaiului Aspergillus niger*” revista EEA vol. 62 (2014), nr 2 ISSN 1582-5175
6. ILONA SZATMÁRI, LIANA-MIHAIELA TUDOSIE, ANCA COJOCARU, MÓNIKA LINGVAY, **PAULA PRIOTEASA**, TEODOR VISAN, " *Studies on biocorrosion of stainless steel and copper in Czapek Dox medium with Aspergillus niger filamentous fungus*", U.P.B, Sci. Bull, Series B, volumul 77 (2015) ISSN 1454-2331

Published book chapter abroad

1. N. Elezovic, G. Kartal, P. Moller, J. Koza, P. Smith, **P. Prioteasa**, " *Development of an electrodeposition process for the production of magnetic write heads*", capitol în volumul: "MINDE – Micro and Nano Deposition 2005-2008", EAST Academy, Schwabisch Gmund, Germany, (2009), p. 325-333.

Papers presented at national and international conferences

1. L. ANICAI, A. PETICA, **P. PRIOTEASA**, S. VISAN, " *Aspects regarding Ni-W alloys electrodeposition and anticorrosive characteristics*", (poster) in volumul "Proceedings of Romanian Int. Conf. on Chem. and Chem. Eng., RICCCCE-14, 22-24 September (2005), Bucharest", Vol. 2, Section 10, p.47-52; ISBN 973-718-286-3.
2. **P. PRIOTEASA**, L. ANICAI, " *Influence of some alloying elements on corrosion resistance of dental alloys in chloride solutions*", " *Int. Conference URB – CORR, Târgu Mures, 18-20 May (2006)*, p. 258 – oral communication, P. Prioteasa; ISBN: 973 –718 –481 –5;
3. L. ANICAI, M. DUTU, **P. PRIOTEASA**, T. VISAN, " *A comparative study of Ni-W alloys electrodeposition from aqueous electrolytes and ionic liquids*", 57th Annual Meeting of the Int. Soc. of Electrochemistry, Edinburgh, UK, 27 Aug -1 Sept, (2006), poster;
4. L. ANICAI, **P. PRIOTEASA**, A. PETICA, S. VISAN, M. DUTU, A. MANEA, T. VISAN, " *Comparative study of electroforming and corrosion behaviour of Ni–W alloys in aqueous solutions and in choline chloride ionic melts*", Int. Conf. of Physical Chemistry, ROMPHYSICHEM 12, Bucharest, 6-8 September (2006), section 6, poster;
5. N. Ibris, **P. Prioteasa**, T. Visan, " *Corrosion study of dental alloys in artificial saliva. The influence of fluoride ions*", poster, Conference of Corrosion and Anticorrosive Protection, 26-28 oct (2006), Cluj Napoca;
6. **P. Prioteasa**, N. Ibris, T. Visan, " *The influence of chemical nature on the corrosion behaviour of some dental alloys in Fusayama-Meyer artificial saliva*", poster, Int. Conf. Biomaterials & Medical Devices - BIOMED'2006, 9-11 November (2006), Iași;
7. L. ANICAI, A. PETICA, G. HRISTEA, **P. PRIOTEASA**, M. IORDOC " *Graphite Intercalation Compounds-GICs, as Materials for Bipolar Plates in PEM Fuel Cells*", in Proceedings of The 5th Conference "New Research Trends in Material Science" ARM-5, (2007), Vol. II, p 554.
8. L. ANICAI, **P. PRIOTEASA**, A. PERTACHE, T. VISAN, " *Investigation of induced codeposition of nickel-tungsten and nickel-molybdenum alloys*", Int. Conf. INTERFINISH 2007, Nanotechnology and Innovative Coatings, 18-19 October (2007), Athens, Greece, poster;

9. L. ANICAI, **P. PRIOTEASA**, "Investigation of the corrosion resistance of Ni-W alloys and Ni-Mo electrodeposited", National Conference on Corrosion and Corrosion Protection, 26-28 October (2007), Piatra Fântânele, Bistrita, oral communication, P. Prioteasa;
10. L. ANICAI, **P. PRIOTEASA**, A. PERTACHE, T. VISAN, "Investigation of induced codeposition of nickel-tungsten and nickel-molybdenum alloys", European Conf., Junior Euromat, 13-18 July (2008), Lausanne, Switzerland, section „Corrosion and wear biocompatibility”, oral communication, P. Prioteasa;
11. B. IORDACHE, **P. PRIOTEASA**, N. IBRIS, T. VISAN, "Comparative study of corrosion behaviour for Ni alloys in artificial saliva containing yeast and *Streptococcus Mutans* bacteria", National Conference on Corrosion and Corrosion Protection, (2008), Piatra Fântânele, Bistrita, oral communication, P. Prioteasa;
12. A. Petica, A. Florea, **P. Prioteasa**, L. Anicai, "Environmentally friendly technologies for metals surface treatment - tin and nickel electrodeposition from choline chloride based ionic liquids", 1st International Workshop „Innovation and Evolution by R&D – SMEs Strategic Partnership, Bucharest, Romania, September 10-12, (2009), Book of abstracts, pag. 90, poster
13. **P. Prioteasa**, F. Golgovici, L. Anicai, T. Visan, "Electrodeposition of nickel-molybdenum alloys from molybdate contained Watts bath", 1st International Workshop Innovation and Evolution by R&D – SMEs Strategic Partnership, Bucharest, Romania, September 10-12, (2009), Book of abstracts, pag. 93, poster;
14. **P. Prioteasa**, L. Anicai, F. Golgovici, T. Visan, "Synthesis and corrosion characterisation of electrodeposited Ni-Mo alloys obtained from aqueous solutions", poster, 16- th Romanian Int. Conf.on Chemistry and Chem. Eng., September 9–12, (2009), Sinaia, Romania;
15. A.Petica, **P.Prioteasa**, L.Anicai, „Coatings based on dispersed Ag-TiO₂ nanocomposite systems with photocatalytic, antifungal and antibacterial characteristics", International Conference on Functional Nanocoatings – Nanocoatings 2010, Dresden, March 28-31, (2010), Book of abstracts, pag. 104
16. **P. Prioteasa**, A.Florea, F.Golgovici, L.Anicai, T.Visan, „Corrosion studies of Ni-Mo alloys electrodeposited from citrate aqueous solutions and ionic liquid electrolytes based on choline chloride", poster, in vol. Second Regional Symp. On Electrochemistry, Soth-East Europe, June 6-10, (2010), Belgrade, Serbia, Book of Abstracts, p. 126.
17. A. Petica, **P. Prioteasa**, A. Florea, L. Anicai, "Tin electrodeposition from choline chloride based ionic liquid", V-th National Conference with International participation "Corrosion and Anticorrosion protection", 16-18 sept. (2010), Cluj-Napoca;
18. **P. PRIOTEASA**, M.POPA, "Electrochemical deposition of nickel for micro-mechanical systems" in proceeding of the 1st MEMS and NEMS Symposium of Junior Researchers, Bucharest ,26-27 may (2011), p31, oral communications-P.Prioteasa, ISSN 2069-1505
19. A.PETICA, **P.PRIOTEASA**, A.FLOREA, C.R.IONESCU, L.ANICAI, "Dispersed ag -TiO₂ nanocomposite coatings with photocatalytic, antifungal and antibacterial characteristics", in Proceedings of 10th International Conference of Colloids and Surface Chemistry, 9-11 june (2011), poster presentation
20. A.FLOREA, L. ANICAI, **P. PRIOTEASA**, T. VISAN "Choline chloride based ionic liquids – synthesis, characterisation and applications as environmentally friendly solvents" in proceedings of 10th international conference of colloids and surface chemistry, 9-11 JUNE (2011), POSTER PRESENTATION
21. G.TELIPAN, L.PISLARU, G. ZARNESCU ,V. MARINESCU, **P. PRIOTEASA**, „CeO₂-Y₂O₃ binary oxides obtained by sol gel method used in CO₂ detection" Eurosensors XXV, sept .4-7, (2011), Athens, Greece, poster presentation, ISSN1877-7058;

- 22. P. PRIOTEASA**, C. ILIE, M. POPA, M. IORDOC, G. SBARCEA, "Electrodeposition of nichel for fabrication of microfluidic pumps" in Proceedings of Third Regional Symposium on Electrochemistry: South-East Europe, RSE-SEE-3, 13-17 May, **(2012)**, Bucharest, Romania, book of abstracts pag. SDE-P-08; poster presentation;
- 23. P. PRIOTEASA**, M. M. CODESCU, E. PATROI, D. PATROI, V. MARINESCU "Electroplating in Magnetic Field and Characterization of NiCoMnP Alloy Films with Permanent Magnet" in Proceedings of 7th International Conference on Advanced Materials – ROCAM, 28 - 31 Aug. **(2012)**, Brasov, Romania, book of abstracts pag. 7, poster presentation;
- 24. G. TELIPAN, L. PISLARU-DANESCU, D. OVEZEA, P. PRIOTEASA, V. MARINESCU, J. PINTEA** "Synthesis characterization and gas sensing properties of CeO₂-Y₂O₃ binary oxides" in Proceedings of 7th International Conference on Advanced Materials – ROCAM, 28 - 31 Aug. **(2012)**, Brasov, Romania, book of abstracts pag. 88, oral presentation;
- 25 L. ANICAI, A. PETICA, S. COSTOVICI, P. PRIOTEASA, T. VISAN** "Electrodeposition of Sn and NiSn Alloys Coatings using Choline Chloride Based Ionic Liquids", in Proceedings of 18th World Interfinish Congress & Exhibition, Interfinish, 14-16 november **(2012)**, Milan, Italy, book of abstracts, pag. S07-02
- 26. L. ANICAI, M.L. MARES (BADEA), A. COJOCARU, P. PRIOTEASA, T. VISAN,** "Electrodeposition of chromium and cobalt, from ionic liquids based on choline chloride", in Proceedings at Fourth Regional Symposium on Electrochemistry: South-East Europe, RSE-SEE-4, May 26-30, **(2013)**, Ljubljana, Slovenia, Book of abstracts, Session 6:SDE-P-04, pp. 81;
- 27. M. BADEA, A. COJOCARU, L. ANICAI, P. PRIOTEASA, ALEXANDRU LIXANDRU, TEODOR VISAN,** "Studies of Electrode Processes during Deposition of Cobalt from Ionic Liquids based on Choline Chloride", in "Proceedings of 18th Romanian Int. Conf. on Chem. and Chem. Eng., RICCE, 4-7 September **(2013)**, Sinaia", Romania, book of abstracts, S3-43, ISSN 2344-1895- ISSN-L-2247-5389
- 28. M. IORDOC, P. PRIOTEASA, A. TEISANU,** "Electrozi negativi pentru acumulatori de tip NiMH", Conferinta Nationala de Surse noi si regenerabile de energie, editia a XIV-a, Tirgoviste, 7-9 noiembrie **(2013)**
- 29. G. HRISTEA, C. PARASCHIV, M. IORDOC, P. PRIOTEASA** "Alternative approaches for Zn-graphene nanocomposites designed for supercapacitors", 5th EuCheMS Chemistry Congress 2014 on August 31-September 4, **(2014)**, Istanbul, Turkey
- 30. I. SIN, A. S. CATRANGIU, P. PRIOTEASA, A. COTARTA, A. COJOCARU, L. ANICAI, T. VISAN,** "Studies of antimony-tellurium and copper-tellurium electrodeposition from choline chloride-oxalic acid ionic liquid", 10th European Symposium on Electrochemical Engineering, 28 september-2 october, **(2014)**, Sardinia, Italy
- 31. A. S. CATRANGIU, P. PRIOTEASA, A. COTARTA, A. COJOCARU, L. ANICAI, T. VISAN** "Studies of antimony-tellurium and copper-tellurium films electrodeposition from choline chloride-containing ionic liquids", 16th International Conference on Thin Films, 13 -16 october, **(2014)**, Dubrovnik, Croatia
- 32. S. COSTOVICI, L. ANICAI, P. PRIOTEASA, T. VISAN,** "Electrodeposition of Co and NiCo alloy coatings using choline chloride based ionic liquids – Evaluation of corrosion behavior", 65th Annual Meeting of the International Society of Electrochemistry, 31 Aug. – 5 Sept. **(2014)**, Lausanne, Switzerland, poster, Book of abstracts pag. s09-022
- 33. M. Iordoc, P. Barbu, A. Teisanu, M.V. Lungu, I. Iordache** "Effect of ZrO₂ coating on the electrochemical behavior and surface properties of 316L stainless steel", 10th International Conference on Photoexcited Processes and Applications, August 29 – September 2, **(2016)**, Brasov, Romania.

34. Iordoc Mihai, **Paula Barbu**, Aristofan Teisanu, Sorin Vizireanu, Adela Bara, "*Advanced electrodes for vanadium redox flow cells based on modified carbon nanowalls*", 2nd INTERNATIONAL CONFERENCE ON ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY, ICOEST (2016), Belgrad, SERBIA.
35. Aristofan Teisanu, **Paula Barbu**, Iordoc Mihai, "*Comparative study regarding power density in redox flow cell versus electrolyte composition*", 2nd INTERNATIONAL CONFERENCE ON ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY, ICOEST (2016), Belgrad, SERBIA.
36. **Paula Barbu**, Iordoc Mihai, Aristofan Teisanu, "*Study regarding proton exchange membrane efficiency in vanadium redox flow cell*", 2nd INTERNATIONAL CONFERENCE ON ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY, ICOEST (2016), Belgrad, SERBIA.
37. Mihai IORDOC, Aristofan TEISANU, **Paula BARBU**, Sorin VIZIREANU, Gimi RIMBU, Adela BARA, "*Advanced electrodes for supercapacitors based on aligned graphenes*", 20th Romanian International Conference on Chemistry and Chemical Engineering Poiana Brasov, ROMANIA - September 6-9, (2017).
38. Aristofan TEISANU, Antonela BANCUI, Mihai IORDOC, **Paula BARBU**, Gimi RIMBU, Adela BARA, "*Organic electrolyte based supercapacitors designed for higher voltage*", 20th Romanian International Conference on Chemistry and Chemical Engineering Poiana Brasov, ROMANIA - September 6-9, (2017).
39. **Paula BARBU**, Antonela BANCUI Mihai IORDOC, Aristofan TEISANU, Gimi RIMBU, Adela BARA, "*Gel electrolyte based supercapacitors with low self discharge effect*", 20th Romanian International Conference on Chemistry and Chemical Engineering Poiana Brasov, ROMANIA - September 6-9, (2017).
40. Gabriela HRISTEA, Mihai IORDOC, Daniel LIPCINSKI, **Paula BARBU(PRIOTEASA)**, Radu TANASA, "*Design of carbon nanoparticles for immunoassay development*" 20th Romanian International Conference on Chemistry and Chemical Engineering Poiana Brasov, ROMANIA - September 6-9, 2017, **section 2- Biochemistry, Food & Health**
41. M. Iordoc, A. Teisanu, S. Vizireanu, **P.Barbu**, A. Bara, G. Rimbu, "*Noble metal decorated carbon nanowalls / polypyrrole (CNWs/PPy) modified electrode for asymmetric supercapacitor application*", The 5th Nano Today Conference (Nano Today 2017), December 6-10, (2017), Waikoloa Beach Marriott, Hawaii, USA.
42. A. Teisanu, M. Iordoc, S. Vizireanu, **P.Barbu**, A. Bara, G. Rimbu, "*Nanostructured thin layer copper/nickel oxide composites on carbon nano walls substrate for supercapacitor application*", The 5th Nano Today Conference (Nano Today 2017), December 6-10, (2017), Waikoloa Beach Marriott, Hawaii, USA

Annex 2. List of patents

Patent application

1. Title: **Material for orthopaedic implant**
Patent application No.A/00308/18.04.2013
Inventor(s): M.Iordoc, M.Codescu, A.A. Teisanu, **P.Prioteasa**
2. Title : **Composite material for supercapacitors**
Patent application No.A/00643/21.08.2014
Inventor(s): A.Bara, M.Iordoc, **P.Prioteasa**, A.A. Teisanu
3. Title : **Process for obtaining self-assembly membrane**
Patent application No.A/ 00929/28.11.2014
Inventor(s): G.Hristea, M.Iordoc, **P.Prioteasa**
4. Title : **Supercapacitors with gel electrolyte**
Patent application No.A /00931/28.11.2014
Inventor(s): M.Iordoc, A.Teisanu, A.Bara, **P.Prioteasa**, C.Banciu

5. Title: Composite material for the spacecraft structure elements with screening properties against ionizing and electromagnetic radiation

Patent application No. A/01019/17.12.2015

Inventor(s): TEISANU A A; BARA A; IORDOC M N; **BARBU P I(PRIOTEASA)**; CARAMITU A R; MITREA S A; BANCIU C A.

6. Title: Stack of 1.5KW based on redox-type cells in continuous recirculation

Patent application No A00956/05.12.2016

Inventor(s): M.Iordoc, A.Teisanu, **P.Barbu(Prioteasa)**

7. Title: Carbonic sensor for carbendazime detection

Patent application No. A/00606/30.08.2017

Inventor(s): HRISTEA G; IORDOC M N; OVEZEA D; **BARBU P I**; LIPCINSKI D; STEFANESCU C A; SUCIU G.

8. Title: Supercapacitor with electroactive material electrodes based on graphene like materials

Patent application No. A/00606/30.08.2017

Inventor(s): IORDOC M N; ION I; TEISANU A A; **BARBU P I**; BARA A; BANCIU C A.

Patent

1) Title: The method of gear wheel with teeth by miniature cycloidal profile

PATENT GRANTED (registered at OSIM No. 128393 / 28.02.2017)

Inventor(s): C. Ilie, M. Popa, I.Chirita, N.Tanase, **P.Prioteasa**

Annex 3. National and international awards

1. GOLD MEDAL at The Belgian and International Trade Fair for Technological Innovation, Brussels Eureka, 15th November **(2014)**, Brussels, Belgium for patent entitled "*Material for orthopaedic implant*"

2. GOLD MEDAL at the 13th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 25-27th March **(2015)**, Cluj-Napoca, Romania for patent entitled "*Material for orthopaedic implant*"

3. SILVER MEDAL at the 43rd International Exhibition of Inventions of Geneva 15th-19nd April **(2015)**, Geneva, Switzerland for patent entitled "*Material for orthopaedic implant*"

4. GOLD MEDAL at the 14th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 25-27th March **(2016)**, Cluj-Napoca, Romania for patent entitled "*Composite material for supercapacitors*"

5. GOLD MEDAL at the 15th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 22-24th March **(2017)**, Cluj-Napoca, Romania for patent entitled "**Supercapacitors with gel electrolyte**"

6. GOLD MEDAL at the 15th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 22-24th March **(2017)**, Cluj-Napoca, Romania for patent entitled "**Composite material for the spacecraft structure elements with screening properties against ionizing and electromagnetic radiation**"

7. The diploma of excellence of the Technical University of Moldova at the 15th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 22-24th March **(2017)**, Cluj-Napoca, Romania for patent entitled "**Process for obtaining self-assembly membrane,**"

8. SILVER MEDAL at the 45rd International Exhibition of Inventions of Geneva , 29 March - 2 April **2017**, Geneva, Switzerland for patent entitled"**Supercapacitors with gel electrolyte ,,**"

9. SILVER MEDAL at the 45rd International Exhibition of Inventions of Geneva 29th March - 2nd April **(2017)**, Geneva, Switzerland for patent entitled "*Supercapacitor with gel electrolyte*"

10. GOLD MEDAL at the 15th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 22-24th March (2017), Cluj-Napoca, Romania for patent entitled *“Composite material for the spacecraft structure elements with screening properties against ionizing and electromagnetic radiation”*

11. GOLD MEDAL at the 15th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 22-24th March (2017), Cluj-Napoca, Romania for patent entitled *“Supercapacitor with gel electrolyte”*

12. DIPLOMA OF EXCELLENCE awarded by the Technical University of Moldova for patent entitled *“Obtaining procedure for self-assembled films”*

13. DIPLOMA OF APPRECIATION awarded by the The Government of Romania, The Ministry of Research and Innovation at National Grant of Romanian Inventions, Bucharest, 20th June (2017).

Annex 4. Representative projects

Programme/Project	Position	Period: from... to...
Romanian Space Agency (ROSA) STAR 151/2017 <i>“Pulse Operated, High Efficiency Thermoelectric Generator based on ultrafast thermal charging supercapacitors useful as power source for launchers”</i>	Assistant Manager	2017 - 2019
PN-II-PT-PCCA-2013-4-2066 220/2014 <i>“Quick Charging Redox Battery as a primary energy source for electric vehicles”</i>	Key person	2016-2017
Project ESA 40/2014 <i>“PLANAR HEATER BASED ON ELECTROCONDUCTIVE CARBON FIBRES DESIGNED FOR SATELLITE THERMAL MANAGEMENT”</i>	Research team member	2014 - 2016
7-035/2012 (4282/2012) MNT-ERA NET <i>“Mini-supercapacitors technology, based on hybrid CNT/CNF - electroactive polymer networks”</i>	Research team member	2012 - 2014
MIS ETC CODE 128 - <i>“Joint study regarding an electro-generator system powered by water turbine for cross-border ecological electrical transport system”</i>	Research team member	2011 - 2013
Contract 12-086/2008 PNCDI II Parteneriate <i>„Ferromagnetic components for microelectromecanic systems”</i>	Research team member	2008-2011
Contract 31-066/2007 PNCDI II Parteneriate <i>„Environmentally friendly ionic liquids with applications in electrochemical surface treatments for high performance.”</i>	Key person	2007-2010
Grant CNCSIS tipA <i>Electrodeposition of nanoalloys with applications in microelectronics and thermoelectricity,,</i>	PhD student	2006-2008
FP6-2004-ACC-SSA-2 <i>“Strengthening of</i>	Young researcher	2005 - 2008

<i>the RDI potential for advanced materials and composites to enhance the performance of the electrical industry " - INDUMAT INCO-CT-2005-017240</i>		
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Date: 01.03.2018

Dr.ing. Paula BARBU(PRIOTEASA)