

Europass Curriculum Vitae	Insert photograph. Remove heading if not relevant (see instructions)	
Personal information		
First name(s) / Surname(s)	PAULA PRIOTEASA (BARBU)	
Telephone(s)	+40213468297/129 Mobile: 0732351109	
Fax(es)	+40213468299	
E-mail	paula.prioteasa@icpe-ca.ro	
Nationality	Romanian	
Date of birth	11.09.1979	
Gender	Female	
	Research and Development / Electrochemistry and Corrosion; Renewable energy; Supercapacitors;Electrochemical tehnologies; Batteries; Materials Science	
Work experience	15 years	
Dates	2015-prezent	
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	• •	
	030138, District 3, Bucharest, ROMANIA Research & Development in electrical engineering	
Dates	030138, District 3, Bucharest, ROMANIA Research & Development in electrical engineering 2007-2015	
	030138, District 3, Bucharest, ROMANIA Research & Development in electrical engineering 2007-2015	

Main activities and responsibilities	Generally, research activities and interests include electrochemical technologies (electrochemical deposition with functional role, anodic oxidation, metalic 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 INCDIE ICPE-Advanced Research, 313 Splaiul Unirii, 030138, District 3, Bucharest, ROMANIA
Type of business or sector	Research & Development in electrical engineering
Dates Occupation or position held Main activities and responsibilities	2005 – 2007 Assistant Researcher Electrochemical Measurements; Electrodeposition of metals and alloys, organic and inorganic synthesis
Education and training	
	2005-2011 PhD of thesis "Electrode processes at induced and abnormal deposition of some nickel alloys,,
	Electrochemistry and Corrosion, Deposition of alloys(Ni alloys) using aqueous electrolytes and ionic liquids (at room temperature), their characterization and application;
	University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Applied Physical Chemistry and Electrochemistry
classification	ISCED 6 (International Standard Classification of Education)
	2004-2005
Title of qualification awarded	MSC
	Theoretical Electrochemistry, Applied Electrochemistry, Corrosion Science and Engineering, Applied physics and thermodynamics Chemistry Electrochemistry and Corrosion; Electrodeposition of metals and alloys
	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

	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	Understanding	Speaking	Writing
European level (*)	Listening Reading	Spoken Spoken interaction production	1
Language	Independent E Independen B ₂ speaker ² speaker	B Independent ₂ Independe speaker ₂ Speaker	nt Independer speaker
Language	Independent Endependen B ₁ speaker speaker	^t A Elementary A Elementa ₂ speaker ₂ speaker	
	(*) <u>Common European Frame</u>	work of Reference for Languag	<u>yes</u>

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 – 2005
- Diploma of participation in the conference "55 years of activity of the ICPE group in the development of the electrical sector" September 20, 2005;
- Management of Research Projects Diploma conferred by National School of Administrative and Political Studies – 2006
- Summer School "Opportunities for collaboration within the ERA in the field of energy production with hydrogen and fuel cell technologies" June 14-16, 2006 Constanta;
- International Summer School "Micro and Nano Deposition" (MINDE COURSE) 14-18 October 2007, Athens, Greece
- Scientific authority course Faculty of applied Chemistry and Materials Science, from the Polytechnic University of Bucharest, June 25-26, 2009
- Project Manager Diploma conferred by Managerial Agency for Scientific Research, Innovation and Technology Transfer from Romania – 2015
- 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
- Reviewer at Journal of Chemical Engineering and Materials Science
- Reviewer at Asian Journal of Chemical Sciences

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 deposition of Sn and Zn- Sn alloy in ionic liquids based on choline chloride ' elaborated in RTS no. 4 / 2009, Partnerships project 31-066/2007 "Environmentally friendly ionic liquids with applications in electrochemical surface treatments for high performance."
	Responsible for the working procedure, "Stanari of metals from ionic liquids based on choline chloride ,, code: PL-4.3-01 dated 04. 09. 2010 , elaborated within the PNII Partnerships project no. 31-166 / 2007, "Environmentally friendly ionic liquids with applications in high performance surface electrochemical treatments"
	Responsible for the control procedure, "Tin coating control", code: PL- 4.3-02 dated 04. 09. 2010 , elaborated within the PNII Partnerships project no. 31-166 / 2007, " Environmentally friendly ionic liquids with applications in electrochemical surface treatments for high performance."
	Technical specification "Ferromagnetic components with matrices based on multicomponent alloys CoNiMnP for MEMS applications" elaborated within the PNII Partnerships project no 12-086 / 2008 "Ferromagnetic components for microelectromechanical systems,,
	Development of new technology: "Technology deposition of NiCoMnP alloy in magnetic field,, elaborated in RTS /2017, Partnerships project PN-II-PT-PCCA-2013,249/2014 Partnerships project "Electromagnetic actuators and electrodynamics processed by LIGA technology ,,
	Technical specification ST 116 / 08.08.2017- "Nanostructred coatings based on Ag-TiO ₂ antimicrobial activity,,- 2.7 corrosion resistance Certification report no. 44 / 25.09. 2017 "Nanostructured coatings based on Ag-TiO ₂ Antimicrobial Activity,,- Determination of Corrosion resistance-responsible tests(Nr. 7b/29.08. 2017)

Driving licence

Additional information <u>Contact References</u>

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. <u>P. PRIOTEASA</u>, 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, <u>**P. PRIOTEASA**</u>, "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. <u>P. PRIOTEASA</u>, 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. <u>P. PRIOTEASA</u>, 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, <u>**P.PRIOTEASA</u>** "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*)</u>

6. <u>P. PRIOTEASA</u> 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. <u>P. PRIOTEASA</u>, 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 **<u>P.PRIOTEASA</u>** 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 MÓNIKA, 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 <u>, P. PRIOTEASA</u>, 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, <u>**PAULA PRIOTEASA</u>**, ALEXANDRU TEIŞANU, 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*)</u>

12. **<u>P.PRIOTEASA</u>**, 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<u>, **P.PRIOTEASA**</u>, 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, <u>P. PRIOTEASA</u>, 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, <u>**P. PRIOTEASA**</u>, 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, <u>**P.PRIOTEASA(BARBU)**</u>, 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. <u>Paula BARBU</u>, Mirela Maria CODESCU, Mihai IORDOC, Virgil MARINESCU, Eugen MANTA, Cristinel ILIE, Marius POPA, "Electrodeposition of CoNiMnP Thick Films for Micromachined Magnetic Device Applications", REV-CHIM Bucharest, (2018), vol. 69, no. 6,pp1355-1362 (Impact factor: 1.412)

18. Elena Chiţanu, Cristina Banciu, Gabriela Sbârcea, Virgil Marinescu, Adela Băra, <u>Paula BARBU</u> (<u>Prioteasa</u>) "Hydrothermal synthesis and characterization of hybrid ZnO/3D graphene structures", REV-CHIM Bucharest, (**2018**), vol. 69, no. 12,pp 3376-3381 (*Impact factor: 1.412*)

19. Magdalena Valentina Lungu, Arcadie Sobetkii, Arcadii A. Sobetkii, Delia Pătroi, <u>Paula PRIOTEASA</u>, Ioana Ion, Constantin Cătălin Negrilă, Mariana Carmen Chifiriuc "Functional properties improvement of Ag-ZnO thin films using Inconel 600 interlayer produced by electron beam evaporation technique", Thin Solid Films, Elsevier ISSN 0040-6090 Vol.667, pp. 76-87, (2018) (Impact factor: 1,939)

Published papers in journals CNCSIS

1. N. IBRIS, **<u>P. PRIOTEASA</u>**, 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. <u>P. PRIOTEASA</u>, 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, <u>**P. PRIOTEASA**</u>, 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. <u>P.PRIOTEASA</u>, 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. <u>P. PRIOTEASA</u>, 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, <u>PAULA</u> <u>PRIOTEASA</u>, 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

7. MIHAI IORDOC, GEORGIANA MARIN, GEORGETA STOIANOVICI, <u>PAULA PRIOTEASA*</u>, CRISTINEL BALAN, MARIAN GUTA, RADU FURTUNA, *Increasing Corrosion Resistance of Pressure Vessels at the Hydrostatic PressureTesting by Using Inhibitors,* Rev. Chim., 72 (1),2021, 1-17,https://doi.org/10.37358/RC.21.1.8399, Online *ISSN*: 2668-8212. Print *ISSN*: 0034-7752

Published book chapter abroad

1. N. Elezovic, G. Kartal, P. Moller, J. Koza, P. Smith, <u>**P. Prioteasa**</u>, "*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<u>. P. Prioteasa</u>, *Corrosion of dental alloys in biological media*, Student Meeting, May **2004**, University POLITEHNICA of Bucharest, Section Applied Physical Chemistry and Electrochemistry, **oral presentation**;

2. <u>P.PRIOTEASA</u> "Electroformation and physico-chemical characterization of the flexible metallic foils from the Ni–W alloys, Student Meeting, May **2005**, University POLITEHNICA of Bucharest, Section Applied Physical Chemistry and Electrochemistry, **oral presentation**;

3. L. ANICAI, A. PETICA, <u>**P. PRIOTEASA**</u>, S. VISAN, "Aspects regarding Ni-W alloys electrodeposition and anticorrosive characteristics", in volumul "Proceedings of Romanian Int. Conf. on Chem. and Chem. Eng., RICCCE-14, 22-24 September (2005), Bucharest", Vol. 2, Section 10, p.47-52; ISBN 973-718-286-3, poster presentation;

4. <u>P. PRIOTEASA</u>, 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, ISBN: 973 –718 – 481 –5, oral presentation;

L. ANICAI, M. DUTU, <u>P. PRIOTEASA</u>, 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), oral presentation;

6. L.Anicai, A.Petica, **P.Prioteasa** "*Sn-Pb alloys flexible foils produced by electroforming*" 57th Annual Meeting of the Int. Soc.of Electrochemistry, Edinburgh, UK, 27 Aug -1 Sept, **(2006)**, **poster presentation;**

7. L. ANICAI, <u>**P. PRIOTEASA**</u>, 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, ROMPHYSCHEM 12, Bucharest, 6-8 September (2006), section 6, poster presentation;

8. N.Ibris, <u>P.Prioteasa</u>, T.Visan, "Corrosion study of dental alloys in artificial saliva. The influence of fluoride ions", Conference of Corrosion and Anticorrosive Protection, 26-28 oct (2006), Cluj Napoca, poster presentation;

9. <u>P. Prioteasa</u>, N. Ibris, T. Visan, "The influence of chemical nature on the corrosion behaviour of some dental alloys in Fusayama-Meyer artificial saliva", Int. Conf. Biomaterials & Medical Devices -BIOMED'2006, 9-11 November (2006), Iaşi, poster presentation;

10. A.Petica, L.Anicai, G.Hristea, <u>P.Prioteasa</u> "Alternative materials usable for the realization of bipolar plates from PMFC combustion cells", at the symposium "Fuel cells and hydrogen - alternative energy sources" Bucharest, 16. 11. **2006**, UPB- - Faculty of Applied Chemistry and Materials Science, **oral presentation**;

11. A. Petica, M. Lungu, L. Anicai, **P.Prioteasa** "Silver nanoparticles obtained by electrosynthesis in aqueous media under protection of a mix a stabilisers", ISE Spring Meeting, Dublin, Ireland 30.04-4.05.2007, poster presentation

12. L. ANICAI, A. PETICA, G. HRISTEA, <u>**P PRIOTEASA**</u>, 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, poster presentation;

13. L. ANICAI, <u>**P. PRIOTEASA**</u>, A. PERTACHE, T. VISAN, "Investigation of induced codeposition of nickeltungsten and nickel-molybdenum alloys", Int.Conf. INTERFINISH 2007, Nanotechnology and Innovative Coatings, 18-19 October (2007), Athens, Greece, poster presentation;

14. L. ANICAI, <u>P. PRIOTEASA</u>, "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 presentation;

15. P.Prioteasa, L.Anicai, Comparative study of nickel-molybdenum alloy electrodeposiion from aqueous solution and from ionic liquids as electrolytic media, Europene Conference Junior EuroMat ,14-18July **2008**, Lausanne, Switzerland, section "Corrosion and wear biocompatibility, **oral and poster presentation**;

16.G. Telipan, V. Marinescu, <u>P. Prioteasa</u>, G. Zarnescu, *Synthesis and characterization of the 1-D ZnO obtained by hydrothermal process with the tetra-n buthylammoniu bromide surfactant*, Conference of Physical Chemistry -ROMPHYSCHEM 13, 3-5 Sept **2008**, Bucharest, **poster presentation**

17 B. IORDACHE, <u>**P. PRIOTEASA**</u>, 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 presentation

18. A. Petica, L. Anicai, A. Florea, <u>**P.Prioteasa**</u> T. Visan, *"Some aspects regarding tin and nickel electrodeposition from choline chloride based ionic liquids*" "First Regional Symposium on Electrochemistry of South – East Europe, RSE - SEE", Rovinj, Istria–CROATIA, 04.05 - 08.05.2008, ISBN 978-953-6894-33-8, **poster presentation**

19. L.Anicai, A. Petica, <u>P. Prioteasa</u> "Aspects regarding electroformation and corrosion behaviour of several metallic alloys flexible foils", International Conference on corrosion and modern technologies in the military, ICCMTM, 5-8.11.2008, Bucharest, Romania, poster presentation

20. A. Petica, A. Florea, <u>P. Prioteasa</u>, L. Anicai, "*Environmentally friendly technologies for metals surface treatment - tin and nickel electrodeposition from choline chloride based ionic liquids*", 1st International Workshop "Inovation and Evolution by R&D – SMEs Strategic Partnership, Bucharest, Romania, September 10-12, **(2009)**, Book of abstracts, pag. 90, **poster presentation**

21. **P. Prioteasa**, F. Golgovici, L. Anicai, T. Visan, "*Electrodeposition of nickel-molybdenum alloys from molybdate contained Watts bath*", 1st International Workshop Inovation and Evolution by R&D – SMEs

Strategic Partnership, Bucharest, Romania, September 10-12, (2009), Book of abstracts, pag. 93, poster presentation ;

22. <u>**P. Prioteasa**</u>, 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, **poster presentation**;

23. Gabriela Telipan, Virgil Marinescu, <u>Paula Prioteasa</u>, George Zarnescu, *"Synthesis and characterization of the 1-D ZnO obtained by hydrothermal process with the tetra-n buthylammonium bromide surfactant*, International Conference on Physical Chemistry RomPhysChem-13, Bucharest, Romania, september3-5 2009, poster presentation

24. A.Petica, <u>P.Prioteasa</u>, L.Anicai, "*Coatings based on dispersed Ag-TiO*₂ *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, **poster presentation ;**

25. <u>P. Prioteasa</u>, 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"*, in vol. Second Regional Symp. On Electrochemistry, Soth-East Europe, June 6-10, **(2010)**, Belgrade, Serbia, Book of Abstracts, p. 126, **poster presentation**;

26. A. Petica, <u>P. Prioteasa</u>. G Sbarcea *"ELECTRODEPOSITION OF TIN FROM IONIC LIQUIDS BASED ON CHOLINE CHLORIDE,*,participation in the demonstration workshop organized at University POLITEHNICA of Bucharest, Section Applied Physical Chemistry and Electrochemistry,9 sept **2010, oral presentation**

27. A. Petica, <u>**P. Prioteasa</u>**, 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, **oral presentation**</u>

28. A. Petica, St. Costovici, A. Cojocaru, **P.Prioteasa**, L. Anicai, T. Visan , *"Studies regarding tin based alloys involving choline chloride based ionic liquids,,* -th National Conference with International participation "Corrosion and Anticorrosion protection", 16-18 sept. **2010**, Cluj-Napoca, **oral presentation**;

29. <u>P. PRIOTEASA, M.POPA, 'Electrochemical deposition of nickel for mico-mechanical systems</u>" in proceeding of the 1st MEMS and NEMS Symposium of Junior Researchers, Bucharest ,26-27 may (2011), p31, ISSN 2069-1505 oral presentation;

30. A.PETICA, <u>**P.PRIOTEASA**</u>, A.FLOREA, C.R.IONESCU, L.ANICAI, "*Dispersed Ag -TiO*₂ nanocomposite coatings with photocatalytic, antifungal and antibacterial characteristics", in Proceedings of 10th International Conference of Colloids and Surface Chemistry, 9-11 june (2011), Galati, Rominia, poster presentation;

31. 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)**, Galati, Rominia, **poster presentation**;

32. G.TELIPAN, L.PISLARU, G. ZARNESCU ,V. MARINESCU, <u>**P. PRIOTEASA**</u>, ,,*CeO*₂- Y_2O_3 binary oxides obtained by sol gel method used in CO_2 detection" Eurosensors XXV, sept .4-7, (2011), Athens, Greece, ISSN1877-7058, poster presentation;

33. <u>P. PRIOTEASA</u>, 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;

34. **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**;

35. G. TELIPAN, L. PISLARU-DANESCU, D. OVEZEA, <u>**P. PRIOTEASA**</u>, V. MARINESCU, J. PINTEA "Synthesis characterization and gas sensing properties of $CeO_2 - Y_2O_3$ 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;

36. L. ANICAI, A. PETICA, S. COSTOVICI, <u>P. PRIOTEASA</u>, 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, poster presentation;

37. L. ANICAI, M.L. MARES (BADEA), A. COJOCARU, <u>P. PRIOTEASA</u>, 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, **poster presentation**;

38. M.BADEA, A. COJOCARU, L. ANICAI, <u>P. PRIOTEASA</u>, 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., RICCCE, 4-7 September (2013), Sinaia", Romania, book of abstracts, S3-43, ISSN 2344-1895- ISSN-L-2247-5389, poster presentation

39. M. IORDOC , <u>P. PRIOTEASA</u>, A. TEISANU, "*Electrozi negativi pentru acumulatori de tip NiMH*", Confernta Nationala de Surse noi si regenerabile de energie, editia a XIV-a, Tirgoviste, 7-9 noiembrie (2013), oral presentation;

40. G. HRISTEA, C. PARASCHIV, M. IORDOC, <u>P.PRIOTEASA</u> "Alternative approaches for Zno-graphene nanocomposites designed for supercapacitors", 5th EuCheMS Chemistry Congress 2014 on August 31-September 4, (2014), Istanbul, Turkey, poster presentation ;

41. I.SIN, A. S. CATRANGIU <u>, P. PRIOTEASA</u>, 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, **poster presentation**;

42. A. S. CATRANGIU, <u>**P. PRIOTEASA**</u>, 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 -16october, **(2014)**, Dubrovnik, Croatia, **poster presentation**

43. S.COSTOVICI, L. ANICAI, <u>P. PRIOTEASA</u>, T. VISAN, "*Electrodeposition of Co and NiCo alloy coatings using choline chloride based ionic liquids – Evaluation of corrosion behavior*", 65-th Annual Meeting of the Interanational Society of Electrochemistry, 31 Aug. – 5 Sept. (**2014**), Lausanne, Switzerland, Book of abstracts pag. s09-022, **poster presentation**;

44. M. Iordoc, A. Teisanu, <u>P.Prioteasa</u>, "Coin cell-type symmetric supercapacitors", Workshop on Nanostructured Materials for Energy Storage and Biomedical Applications, 30th - 31st October (2014), University of Cyprus, Nicosia, Cyprus - oral presentation;

45. M. Iordoc, <u>**P. Barbu**</u>, A. Teisanu, M.V. Lungu, I. Iordache "*Effect of ZrO*₂ 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, **poster presentation**;

46. Iordoc Mihai, <u>**Paula Barbu**</u>, 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, poster presentation;

47. Aristofan Teisanu, <u>Paula Barbu</u>, 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, poster presentation;

48. <u>Paula Barbu</u>, 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, poster presentation;

49.G. Hristea, C. Paraschiv, M. Iordoc, <u>**P.Prioteasa**</u>, "Graphene hybrids designed for energy storage applications", 16th International Conference of Physical Chemistry ROMPHYSCHEM-16, September 21 - 24, (2016), Galaţi – ROMANIA, poster presentation;

50. 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)**, **poster presentation**;

51. Aristofan TEISANU, Antonela BANCIU, Mihai IORDOC, <u>Paula BARBU</u>, 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), poster presentation

52. <u>Paula BARBU</u>, Antonela BANCIU 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), poster presentation

53.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, poster presentation

54. M. Iordoc, A. Teisanu, S, Vizireanu, <u>P.Barbu</u>, A. Bara, G. Rimbu, "*Noble metal decorated carbon nano-walls / 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, **poster presentation**;

55. A. Teisanu, M. Iordoc, S, Vizireanu, <u>**P.Barbu**</u>, 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, **poster presentation**

56. Mihai Iordoc, Aristofan Teişanu, <u>Paula Barbu</u>, Adela Băra, Gabriela Sbârcea, Virgil Marinescu, Marius Lungulescu *"Hybrid asymmetric supercapacitor with novel 3D oriented graphite based nanocomposite electrodes"* Proceedings of 18th International Balkan Workshop on Applied Physics and Materials Science IBWAP, Constanta, Romania, July 10- 13, 2018 p. 328, issue 18, **2018, poster presentation**

57. J. G. Stockholm, M. Nedelcu, J. Glick, M. Iordoc, <u>P. Prioteasa</u>, A. Jelea, M. Apostol, A. Cojocaru, "Do high efficiency kW pulsed thermoelectric generators exist?", International Thermoelectric Conference (ICT- 2018), 18-24 July, (2018), Caen, FRANCE – Invited paper;

58. Mihai IORDOC, Aristofan TEISANU, <u>Paula BARBU</u>, Gimi RIMBU, Gabriela HRISTEA, "*Redox-Flow batteries*", PRODUCTICA 2018, 25-26 May, (2018), Mioveni, Romania. - *oral presentation;*

59. <u>Paula BARBU</u>, Aurora PETICA, Stefania COSTOVICI, Liana ANICAI, " Acoperiri electrochimice de staniu utilizând lichide ionice analoge,, PRODUCTICA 2018, 25-26 May, (2018), Mioveni, Romania. - oral presentation;

60. M. Iordoc, A. Teisanu, S, Vizireanu, <u>**P.Barbu**</u>, A. Bara, G. Rimbu, "*Platinum decorated 3D carbon nanostructure / polypyrrole modified electrode for asymmetric supercapacitor application*", 18th European Conference on Applications of Surface and Interface Analysis, September 15-20, **(2019)**, Dresden, Germany, EU, **poster presentation**;

61. Gabriela SBARCEA, Mihai IORDOC, Aristofan TEISANU, Virgil MARINESCU, Dan GHITA, Mihai STRATICIUC, Marius LUNGULESCU, Robert DUCU, Nicoleta NICULA, <u>Paula BARBU</u>, "Growth and Characterization of Zirconia Ceramic Film Formed by Zr Ion Beam Implantation on Biomedical 316L Stainless Steel", 18th European Conference on Applications of Surface and Interface Analysis, September 15-20, (2019), Dresden, Germany, EU, poster presentation;

62. Adela BĂRA, Cristina BANCIU, Mihai IORDOC, Aristofan TEISANU, **Paula BARBU**, Mihai BĂDIC, Cristian MORARI, Virgil MARINESCU, Delia PĂTROI, Marius LUNGULESCU, *"CARBON BASED MATERIALS AND THEIR APPLICATIONS IN ENERGY CONVERSION AND STORAGE"*, 18th National Seminar on Nanoscience and Nanotechnology SNN2019 24-25 October **(2019)**, Iasi, Romania, **oral presentation;**

Anexa 2 Chapters in published books

CC1. N. ELEZOVIC, G. KARTAL, P. MOLLER, J. KOZA, P. SMITH, <u>P. PRIOTEASA</u>, "*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

Annex 3. 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, <u>P.Prioteasa</u>
- 2. Title : Composite material with carbon nanotubes for supercapacitors and process for obtaining it Patent application No.A/00643/21.08.2014 Inventor(s): A.Bara, M.Iordoc, <u>P.Prioteasa</u>, 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, <u>P.Prioteasa</u>
- **4**.Title : **Supercapacitors with gel electrolyte** Patent application No.A /00931/28.11.**2014** Inventor(s): M.Iordoc, A.Teisanu, A.Bara, <u>P.Prioteasa,</u> 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, <u>P.Barbu(Prioteasa)</u>

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.
- 9. Title: Redox flow type battery with stripped electrodes Patent application No. A/00433/14.06.2018 Inventor(s): TEISANU A A; IORDOC M N; RIMBU G A; PRIOTEASA P I
- **10.** Title: Graphene material for supercapacitors and obtaining process for it Patent application No. A/00814/17.10.2018 Inventor(s): BARA A; IORDOC M N; BANCIU C A; PRIOTEASA P I; MARINESCU V E.
- **11.** Title: **High power and efficiency thermoelectric generator pulsatingly operated** Patent application No. A/00336/05.06.2019 Inventor(s): NEDELCU M; TEISANU A A; IORDOC M N; **PRIOTEASA P I.**

- 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, <u>P.Prioteasa</u>
- 2) Title: Composite material for the spacecraft structure elements with screening properties against ionizing and electromagnetic radiation

PATENT GRANTED registered at OSIM No. 131958/2018 Inventor(s): TEISANU A A; BARA A; IORDOC M N; BARBU P I(PRIOTEASA); CARAMITU A R; MITREA S A; BANCIU C A.

3)Title: Process for obtaining self-assembly membrane PATENT GRANTED registered at OSIM No. 131108/2018 Inventor(s): G.Hristea, M.Iordoc, P.Prioteasa

4)Title: Supercapacitors with gel electrolyte

PATENT GRANTED registered at OSIM **No. 131245/2019** Inventor(s): Iordoc Mihai Nicolae Teişanu Aristofan Alexandru Băra Adela <u>Prioteasa Paula</u> <u>Ionela</u> Banciu Cristina Antonela

5)Title: Composite material with carbon nanotubes for supercapacitors and process for obtaining it PATENT GRANTED registered at OSIM No. 130923/30.07.2019 Inventor(s): A.Bara, M.Iordoc, <u>P.Prioteasa</u>, A.A. Teisanu

6)Title: Material for orthopaedic implant PATENT GRANTED registered at OSIM No. 129839/28.02.2020 Inventor(s): M.Iordoc, M.Codescu, A.A. Teisanu, P.Prioteasa

Annex 4. 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. DIPLOMA OF EXCELLENCE awarded 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)**.

14. DIPLOMA OF EXCELLENCE at the 10th edition of the European Exhibition of Creativity and Innovation EUROINVENT 2018, May 17-19, **2018**, Iaşi, Romania for patent entitled "*Composite material for the spacecraft structure elements with screening properties against ionizing and electromagnetic radiation*,,

15. DIPLOMA OF EXCELLENCE at the 10th edition of the European Exhibition of Creativity and Innovation EUROINVENT 2018, May 17-19, **2018**, Iaşi, Romania for patent entitled *'' Manufacturing method for miniature gear wheels with cycloid toothing profile.*,

16. SILVER MEDAL at the 47th International Exhibition of Inventions of Geneva 10th - 14th April (2019), Geneva, Switzerland for patent entitled *"Composite material for the spacecraft structure elements with screening properties against ionizing and electromagnetic radiation"*

17. SILVER MEDAL at the 11th edition of the European Exhibition of Creativity and Innovation EUROINVENT, May 16-18, **2019**, Iaşi, Romania for patent entitled "*Stack of 1.5KW based on redox-type cells in continuous recirculation,,*

18. BRONZ MEDAL at the 11th edition of the European Exhibition of Creativity and Innovation EUROINVENT 2018, May 16-18, **2019**, Iaşi, Romania for patent entitled *"Process for obtaining self-assembly membrane*,,

19.DIPLOMA OF MERIT at the 47th International Exhibition of Inventions of Geneva 10th - 14th April (2019), Geneva, Switzerland for patent entitled *"Composite material for the spacecraft structure elements with screening properties against ionizing and electromagnetic radiation,,*

20. Certificate of participation at the 11th edition of the European Exhibition of Creativity and Innovation EUROINVENT, May 16-18, **2019**, Iaşi, Romania for patent entitled *"Process for obtaining self-assembly membrane,,*

21. Certificate of participation at the 11th edition of the European Exhibition of Creativity and Innovation EUROINVENT, May 16-18, **2019**, Iaşi, Romania for patent entitled "*Composite material for the spacecraft structure elements with screening properties against ionizing and electromagnetic radiation,,*

22. GOLD MEDAL at the 18th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 18-20 november (**2020**), Cluj-Napoca, Romania for patent entitled *"Carbonic sensor for carbendazime detection*,,

23. GOLD MEDAL at the 18th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 18-20 november (**2020**), Cluj-Napoca, Romania for patent entitled "*Supercapacitor with electroactive material electrodes based on graphene like materials,*,

24. GOLD MEDAL at the 18th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 18-20 november (**2020**), Cluj-Napoca, Romania for patent entitled "*Redox flow type battery with stripped electrodes,*,

25. GOLD MEDAL 13th edition of the European Exhibition of Creativity and Innovation EUROINVENT may20-21(2021), , Iaşi, Romania for patent entitled *"Thermoelectric generator of high power and efficiency, pulsating operation,,*

26. GOLD MEDAL 13th edition of the European Exhibition of Creativity and Innovation EUROINVENT may 20-21(2021), , Iaşi, Romania for patent entitled *"Graphene material for supercapacitors and obtaining process for it,,*

27. GOLD MEDAL at the 19th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 20-21 oct (**2021**), Cluj-Napoca, Romania for patent entitled *"Thermoelectric generator of high power and efficiency, pulsating operation,,*

28. GOLD MEDAL at the 19th International Exhibition of Research, Innovation and Inventions PRO INVENT, Cluj-Napoca, 20-21 oct (**2021**), Cluj-Napoca, Romania for patent entitled *"Graphene material for supercapacitors and obtaining process for it,,*

Participation in national and international fairs and exhibitions

Product: LaNi5 battery - participation in the following exhibitions:

1) Polifest, Faculty of Electrical Engineering, Polytechnic University of Bucharest October 17-19, 2012

2) Romanian Research Exhibition, within the National Conference of Research and Innovation, National Library of Romania in Bucharest, 7-9 Nov **2012**;

Product: Electroactive material of polymer hybrid type - CNT, for electrodes in supercapacitors participation in the following exhibition:

1) Romanian Research Salon - Inventika, October 15-18, 2014, Bucharest, pavilion C2

Project major MINI-SUPERCAPACITOR DEVELOPMENT TECHNOLOGY BASED ON POLYMER ELECTROACTIVE NETWORKS - CNT / CNF- Romanian Research Salon - Inventika, October 15-18, 2014, Bucharest, pavilion C2

Annex 4. Representative projects

Programme/Draiact	Position	Period: from to
Programme/Project		
Project PN18240201/ 2018 "Efficient energy conversion and storage systems for electrical engineering applications" - Redox flow type battery	Key person	2018
Project Romanian Space Agency (ROSA - STAR 614/2016 "Pulse Operated, High Efficiency Thermoelectric Generator based on ultrafast thermal charging supercapacitors useful as power source for launchers,,	Assistant Manager	2017 - 2019
Project PN-II-PT-PCCA-2013-4-2066 220/2014 "Quick Charging Redox Battery as a primary energy source for electric vehicles"	Key person	2016-2017
Project PN-II-PT-PCCA 147/2014 "Immunobiosensors for the rapid detection of carbamic pesticide residues (carbaryl, carbendazim) in horticultural products,,	Research team member	2016-2017
Project PN-II-PT-PCCA-2013-4-1292, "Nanostructured materials and coatings with the innovative antimicrobial activity for medical applications"	Research team member	2014-2017
Project PN-II-PT-PCCA-2013,249/2014 "Electromagnetic actuators and electrodynamics processed by LIGA technology,,	Key person	2014-2017
Project ESA 40/2014 "PLANAR HEATER BASED ON ELECTROCONDUCTIVE CARBON FIBRES DESIGNED FOR SATELLITE THERMAL MANAGEMENT"	Research team member	2014 - 2016
Project external no: 248 / 29.08.2014, Beneficiary-SC INTELECTRO SRL "Research services for the determination of the interface properties of hybrid microelectrodes,,	Research team member	2014-2015
Project Nucleu PN 09350201 : "Study, experiments Pb accumulators - acid with high energy densities Composite materials for support grids (anode and cathode,,	Research team member	2014
Project 7-035/2012 (4282/2012) MNT-ERA NET "Mini-supercapacitors technology, based on hybrid CNT/CNF - electroactive polymer networks"	Research team member	2012 - 2014
Project Nucleu PN 5201/2009 entitled:	Key person	2012-2013

"Increasing the Efficiency of Equipment		
and Technological Processes for energy		
conversion from renewable sources,,		
Project MIS ETC CODE 128 - "Joint study	Research team member	2011 - 2013
-	Research team member	2011 - 2013
regarding an electro-generator system		
powered by water turbine for cross-		
border ecological electrical transport		
system"	Desserveb to sm member	2000 2011
Project FP7-REGPOT-229906/2009 "ICPE- HYFC (Developing RTD potential of	Research team member	2009-2011
INCDIE ICPE-CA in the field of hydrogen		
and fuel cell technologies)"		
Project12-086/2008 PNCDI	Key person	2008-2011
II Partnership "Ferromagnetic		
components for microelectromecanic		
systems"		
Project PN II-PARTNERSHIPS, 32-168 /	Research team member	2008-2011
2008, "Breathable superhydrophobic	Research team member	2000 2011
nanostructures,,		
Project no. 12-134 / 2008 PN II	Research team member	2008-2011
Partnerships		
" Oxide semiconductor nanodevices for applications in nanoelectronics and		
nanomedicine,,		
Project 31-066/ PNCDI	Key person	2007-2010
II Partnerships <i>"Environmentally friendly</i>		
ionic liquids with applications in		
electrochemical surface treatments for		
high performance."		
Project PN II capacities 58 / cp / I / 2007	Research team member	2007-2010
"Laboratory destined to microprocessing		
through LIGA technology,,		
Project PNCDI II no. Intern 7009/2007,	Research team member	2007-2010
"Center of competence in the characterization of materials through		
nuclear technologies and new analytical		
tools of European level, for IMS		
applications (Industry, Environment,		
Health),,		
Draiget Inneuration No. 070/0000 DNODU	Doooorob toom monthem	2000 2040
Project Innovation No. 279/2008, PNCDII Partnerships " Coating technology based	Research team member	2008-2010
on dispersed photocatalytic		
nanostructured systems with self-		
cleaning and antimicrobial role for		
construction applications",		
	Descent	0000
CNCSIS Grant type A, code 79, GR49 /	Research team member -	2008
2008, code UPB CH41-06-06 " <i>Electrodeposition of nanoalloys with</i>	PhD student	
applications in microelectronics and		
thermoelectricity,,		
Phase 2008: "Establishment of specific		
technological conditions for the		

		ī
preparation of nanostructures for		
different applications of alloys containing Ni (NiW, NiMo) or Sb (BiSb,		
SbTe, BiSbTe, ZnSb, CoSb) and final		
recommendations,		
Project PN II no. 71-146/2007, Partnerships	Research team member	2007-2010
"Advanced biomaterials based on		-
bioactive protein structures,		
nanostructured, doped with metallic		
nanoparticles,,		
Project Nucleu, DN 00.25 0202 internet	Decearch team member	2009-2010
Project Nucleu PN 09-35-0303, internal number 5303/2009, DEVICE FOR CO2	Research team member	2009-2010
DETECTION AND RETENTION,,		
ProjectPARTNERSHIPS, PNII 41-059 /	Research team member	2007-2009
2007, Bio / non-bio interactions involved		
in hard tissue design,,		
Project Partnerships PNII no: 71-147 / 2007	Research team member	2007-2010
internal no 7029/2007 ,, "Development of		2007-2010
new biomaterials with doped		
supramolecular collagen structures, with		
piezoelectric properties, of liquid,		
electrical and magnetic crystals, used in		
bioengineering "		
Project PN II capacities 58 / cp / I / 2007	Research team member	2007-2010
"Laboratory destined to microprocessing		
through LIGA technology,,		
CNCSIS Grant type A, code 79, GR69 /	Research team member -	2007
2007, UPB code CH41-06-06,	PhD student	
'Electrodeposition of nanoalloys with		
applications in microelectronics and		
thermoelectricity,, Phase 2007:		
"Preparation under constant current or		
pulse conditions and characterization		
physical-structural, mechanical, as well		
as anticorrosive and thermoelectric		
(where applicable) of NiW, BiSb, SbTe		
and BiSbTe alloys		
Project CEEX-M3-Code 12874/2006	Research team member	2006-2008
185/2006, '' Promoting a partnership for		
FP7 projects in the field of micro / nano		
advanced multifunctional composite		
materials,,		
CNCSIS Grant type A, code 79, GR36 /	Research team member -	2006
2006, UPB code CH41-06-06,	PhD student	
'Electrodeposition of nanoalloys with applications in microelectronics and		
thermoelectricity,, Phase 2006:		
Experimental studies		
and theory on co-deposition processes		
in some Ni (NiW) alloys		
and Sb (BiSb, SbTe, BiSbTe)		

Project Nucleu PN 09350201 /2006 ,, Advanced multifunctional materials of carboaerogel type with applications in the field of electrical engineering (energy conversion, hydrogen storage, water purification,,	Research team member	2006
CEEX Project, 88/2005, "Low cost multifunctional alternative materials, for polymer electrolyte fuel cells (PEMFC) operating at temperatures higher than 180 °C,,	Research team member	2005-2008
Project CEEX-MATNANTECH no. Internal 4184/2006 ,, Polymeric nanostructured composite materials for use in environmental monitoring,,	Research team member	2005-2008
FP6-2004-ACC-SSA-2 "Strengthening of the RDI potential for advanced materials and composites to enhance the performance of the electrical industry " - INDUMAT INCO-CT-2005- 017240	Young researcher	2005 - 2008
Partnerships project no. 169 (305) / 2003 "Technologies for obtaining flexible metal foils of Ni-W (Mo) and Sn-Pb (Cu) type by electroforming,,	Young researcher	2005
CERES Project no 68/15.10.2001, ,,Procedures and methodes of biomaterials analyse and characterization by analysis with accelarated fascicles";	Student	2002-2004

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