



Europass Curriculum Vitae

Personal information

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E-mail adriana.marinoiu@icsi.ro
Nationality Romanian
Date of birth 16.01.1977
Gender Female

Occupational field

Work experience

Dates	2016 - present
Occupation or position held	Scientific Researcher 2nd degree
Main activities and responsibilities	<ul style="list-style-type: none">▪ Manager and scientific responsible of national projects in the National Center for Hydrogen and Fuel Cells▪ Development of catalysts based on noble and non-noble metals▪ Syntheses of graphene doped metal/non-metal for use as electrodes in PEM Fuel Cells▪ Development of new methods for catalyst deposition for proton exchange fuel cells PEM Fuel Cells▪ Developing of new procedures for realization of electrodes for the fuel cell using various spray techniques▪ Elaboration of a competitive technology for the production of the membrane electrode assemblies MEA▪ Developing new techniques for characterizing fuel cell materials▪ Characterization of PEM Fuel Cells using Electrochemical Measurements such as polarization curves (I-V), Impedance Spectroscopy (EIS)▪ Research regarding the energetic technologies: fuel cell development:
Name and address of employer	National Research & Development Institute for Cryogenics & Isotopic Technologies, National Centre for Hydrogen and Fuel Cell, Uzinei street, no.4, Ramnicu Valcea, Romania
Type of business or sector	Academic research and development
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Dates	2012 - 2016
Occupation or position held	Scientific Researcher 3rd degree
Main activities and responsibilities	<ul style="list-style-type: none">▪ Applied research in the field of proton exchange membrane fuel cells▪ Syntheses of graphene based materials for use as electrodes in PEMFC▪ Characterization of total surface area by specific surface area, porosity and particle size distribution▪ Studies for fuel cell systems for increasing the performance based on parameters optimization▪ Preparation and characterization of new catalytic materials for the retention of carbon monoxide from the gaseous hydrogen mixture▪ Methods and technologies for hydrogen separation and purification▪ Investigations on new methods for hydrogen obtaining and hydrogen storage▪ Preparation and characterization of new catalytic materials for catalytic reaction between hydrogen and carbon dioxide, with the formation of methane. Research on development and implementation of pilot or industrial-scale technologies
Name and address of employer	National Research & Development Institute for Cryogenics & Isotopic Technologies, Uzinei street, no.4, Ramnicu Valcea, Romania

Type of business or sector	Research & Development
Dates	2006 - 2012
Occupation or position held	Scientific Researcher
Main activities and responsibilities	<ul style="list-style-type: none"> ▪ Scientific research in the field of industry and energy usage ▪ Syntheses of organic and inorganic compounds, experimental studies on catalytic hydrogenation ▪ Development of various technologies for polyether polyols preparation ▪ Catalysts preparation and testing in the hydrogenation of glycerol ▪ Research activities to reduce negative environmental impacts caused by industrial activities
Name and address of employer	Research Center -OLTCHIM SA , Uzinei street, no.1, Ramnicu Valcea, Romania
Type of business or sector	Research & Development
Dates	2000-2006
Occupation or position held	Chemical Engineer
Main activities and responsibilities	<ul style="list-style-type: none"> ▪ Research activities in the field of reliability and risk assessment for industrial plants (e.g. propenoxyde and propylene glycol plants, polyols polyethers installations); ▪ Studies regarding the impact of industrial activities on the environment; ▪ Supervision and coordination of investment works in order to enlarge the industrial capacity ▪ Process engineering in industrial plant regarding polyether polyols obtaining ▪ Participation at writing and implementing quality assurance in industrial plant system
Name and address of employer	Industrial plant OLTCHIM SA , Uzinei street, no.1, Ramnicu Valcea, Romania
Type of business or sector	Research & Development
Education and training	
Dates	15-22.05.2015 / 12-25.06.2017
Title of qualification awarded	Training in Surface area and pore size analysis
Principal subjects/occupational skills covered	
Name and type of organisation providing education and training	Quantachrome Instruments Inc.Boynton Florida SUA
Level in national or international classification	Level 6 - Second stage of tertiary education
Dates	11-14.06.2012
Title of qualification awarded	Training in ultrasonic spray systems for applying precise, thin film coatings
Principal subjects/occupational skills covered	
Name and type of organisation providing education and training	Sono-Tek Corporation SUA
Level in national or international classification	Level 6 - Second stage of tertiary education
Dates	2001 – 2009
Title of qualification awarded	PhD in Chemical Engineering Title of doctoral thesis: Catalytic Hydrogenation of Glycerol
Principal subjects/occupational skills covered	Catalysts development, Syntheses of organic and inorganic compounds, experimental studies on catalytic hydrogenation
Name and type of organisation providing education and training	„Gh. Asachi” Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection
Level in national or international classification	Level 6 - Second stage of tertiary education
Dates	2002 - 2006
Title of qualification awarded	Bachelor degree- Public Administration
Main activities and responsibilities	Learning Public Administration
Name and address of employer	„Al.I. Cuza” University of Iasi, Faculty of Economics and Business Administration
Type of business or sector	
Dates	2000 – 2001
Title of qualification awarded	Master in Ecological Catalysis

Principal subjects/occupational skills covered																											
Name and type of organisation providing education and training	Gh. Asachi" Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection																										
Level in national or international classification	Level 5 - First stage of tertiary education																										
Dates	1995 - 2000																										
Title of qualification awarded	Bachelor degree																										
Principal subjects/occupational skills covered	Organic Chemical Engineering																										
Name and type of organisation providing education and training	"Gh. Asachi" Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection																										
Level in national or international classification	Level 5 - First stage of tertiary education: ISCED 5A																										
Personal skills and competences																											
Mother tongue(s)	Romanian																										
Other language(s)																											
Self-assessment																											
European level (*)																											
English	<table border="1"> <thead> <tr> <th colspan="2">Understanding</th> <th colspan="2">Speaking</th> <th colspan="2">Writing</th> </tr> <tr> <th colspan="2">Listening</th> <th colspan="2">Reading</th> <th colspan="2">Spoken interaction</th> <th colspan="2">Spoken production</th> <th colspan="2">Writing</th> </tr> </thead> <tbody> <tr> <td>B2</td> <td>Independent user</td> <td>C1</td> <td>Proficient user</td> <td>C1</td> <td>Proficient user</td> <td>B2</td> <td>Independent user</td> <td>B2</td> <td>Independent user</td> </tr> </tbody> </table> <p>(*) Common European Framework of Reference for Languages</p>	Understanding		Speaking		Writing		Listening		Reading		Spoken interaction		Spoken production		Writing		B2	Independent user	C1	Proficient user	C1	Proficient user	B2	Independent user	B2	Independent user
Understanding		Speaking		Writing																							
Listening		Reading		Spoken interaction		Spoken production		Writing																			
B2	Independent user	C1	Proficient user	C1	Proficient user	B2	Independent user	B2	Independent user																		
Social skills and competences	Friendly, Trustworthy, Hard-working, Communicative, Highly organized, Problem solver, Team player – in the expertise area																										
Organisational skills and competences	Competent organizer and coordinator, empathic with colleagues, innovative in projects development																										
Technical skills and competences	Technical skills in the area of fuel cells and electrodes for PEM Fuel Cells: development of catalysts based on noble and non-noble metals; electrochemical techniques for characterizing fuel cell materials using polarization curve (I-V), electrochemical Measurements Impedance Spectroscopy (EIS); Technical skills in the area of carbon materials preparation: graphene base materials synthesis, characterization of total surface area by specific surface, porosity, particle size distribution, BET isotherms																										
Computer skills and competences	Operation system: Microsoft Windows XP & Microsoft Windows 7; Productivity suite: Microsoft Office 2003 & 2007; Multimedia software & Internet browsers																										
Other skills and competences	Open-minded, curious and inventive																										
Driving licence	B category																										
Annexes	<p>Annex 1: List of <i>Published papers indexed by Thomson Reuters Master Journal List (ex-ISI Master Journal List) with impact factor (IF)</i></p> <p>Annex 2: List of published books/chapters</p> <p>Annex 3: The experience accumulated in research projects</p> <p>Annex 4: Awards</p>																										

DATE:

2018

SIGNATURE:

1. **Marinoiu A**, Răceanu M, Carcadea E, Varlam M, Stefanescu I. Low cost iodine intercalated graphene for fuel cells electrodes. *Appl Surf Sci* **2017**; 424:93-100 doi:10.1016/j.apsusc.2017.01.295. (IF=3.387)
2. **Marinoiu A**, Răceanu M, Carcadea E, Varlam M, Balan D, Ion-Ebrasu D, Stefanescu I, Enăchescu M, Iodine-Doped Graphene for Enhanced Electrocatalytic Oxygen Reduction Reaction in Proton Exchange Membrane Fuel Cell Applications. *J Electrochem Energy Convers Storage* **2017**;14:31001. doi:10.1115/1.4036684. (IF=0.817)
3. **Marinoiu A**, Gatto I, Răceanu M, Varlam M, Moise C, Pantazi A, Jianu C, Stefanescu I, Low cost iodine doped graphene for fuel cell electrodes. *Int J Hydrogen Energy* **2017**. doi:10.1016/j.ijhydene.2017.07.036. (IF=3.582)
4. **Marinoiu A**, Răceanu M, Carcadea E, Varlam M, Soare A, Stefanescu I. Doped Graphene as Non-Metallic Catalyst for Fuel Cells. *Mater Sci* **2017**;23:108–13. doi:10.5755/j01.ms.23.2.16216. (IF=0.393)
5. Rahul Krishna, Diana M. Fernandes, **Adriana Marinoiu**, Joao Ventura, Cristina Freire, Elby Titus, Facile synthesis of well dispersed Pd nanoparticles on reduced graphene oxide for electrocatalytic oxidation of formic acid, *Int J Hydrogen Energy*, 2017, 42 (37): 23639-23646
6. Fierascu, I , Avramescu, SM , Petreanu, I, **Marinoiu, A** , Soare, A , Nica, A , Fierascu, RC, Efficient removal of phenol from aqueous solutions using hydroxyapatite and substituted hydroxyapatites, *Reaction Kinetics, Mechanisms and Catalysis*, **2017**, 122(1): 155-175, DOI: 10.1007/s11144-017-1197-8
7. Iordache, M , Popescu, LR , Pascu, LF , Iordache, I , **Marinoiu, A** , Ultrasonic Irradiation a Chlorinated Organic Compounds (Trichloroethylene, Tetrachloroethene, 1, 1, 2-Trichloroethane) from Water, *REVISTA DE CHIMIE* **2017**, 68(5): 1019-1022
8. Irina Petreanu, **Adriana Marinoiu**, Claudia Sisui, Mihai Varlam, Radu Fierascu, Paul Stanescu, Mircea Teodorescu, Synthesis and testing of a composite membrane based on sulfonated polyphenylene oxide and silica compounds as proton exchange membrane for PEM fuel cells, *Materials Research Bulletin* **2017** 96:136–142
9. **Adriana Marinoiu**, Elena Carcadea, Claudia Cobzaru, Corina Cernatescu, Numerical Approach for Catalytic Conversion of CO₂ to Methane over Nickel Base Catalysts, *REV. CHIM.* (Bucharest), 68, No. 1, **2017**, pp. 128-133, ISSN: 0034-7752
10. Gheorghe Ionita, Irina Wagner, Ioan Stefanescu, Adriana Marinoiu and Ciprian Bucur, Aspects Concerning Manufacture Of Reproducible and Homogeneous Batches of Pt/C/PtFe Catalyst For Hydrogen-Water Isotopic Exchange *Fusion Science and Technology*, **2017**, vol. 71, issue 4, Pages 649-653, ISSN: 1536-1055
11. Elena Carcadea, Mihai Varlam, Derek Ingham, Mohammed Ismail, Laurentiu Patularu, **Adriana Marinoiu**, Dorin Schitea, The effects of cathode flow channel size and operating conditions on PEM fuel performance: a CFD modelling study and experimental demonstration, *International Journal Of Energy Research*, acceptat spre publicare
12. **Marinoiu A**, Răceanu M, Carcadea E, Varlam M, Stefanescu I. Iodinated carbon materials for oxygen reduction reaction in proton exchange membrane fuel cell. Scalable synthesis and electrochemical performances. *Arab J Chem* **2016**. doi:10.1016/j.arabjc.2016.12.002. (IF=3.153)
13. **A. Marinoiu**, M. Răceanu, E. Carcadea, D. Marinescu, C. Teodorescu, A. Mellichio, M. Varlam, I. Stefanescu, Convenient graphene based materials as potential candidates for low cost fuel cell catalysts, *Reac Kinet Mech Cat*, **2016**, 118:281–296, DOI 10.1007/s11144-016-0999-4, factor impact: 1,170
14. **A. Marinoiu**, C. Cobzaru, E. Carcadea M. Răceanu, I. Atkinson, M. Varlam, I. Stefanescu, An Experimental Approach for Finding Low Cost Alternative Support Material in PEM Fuel Cells, *Rev. Roum. Chim.*, **2016**, 61(4-5), 433-440
15. E. Georgescu, A. Nicolescu, F. Georgescu, S. Shova, **A. T Marinoiu**, F. Dumitrascu, Fine tuning the outcome of 1,3-dipolar cycloaddition reactions of benzimidazolium ylides to activated alkynes, *Tetrahedron* **72** (2016) 2507e2520, factor impact 2.641
16. C. Cobzaru, **A. Marinoiu**, G.A. Apostolescu, R.E. Tataru-Farmus, N. Apostolescu and C. Cernatescu, Behaviour of Pre-treated Clinoptilolite Volcanic Tuff used in Ion Exchange Process with Ca²⁺, Ni²⁺ and NH₄⁺ Ions Described by a Numerical Study, *Rev. Roum. Chim.*, **2016**, 61(4-5), 427-432
17. C. Cernatescu, C. Cobzaru, G.A. Apostolescu, N. Apostolescu, **A. Marinoiu**, Quaternization of N-Methylated Phenyl-Benzimidazole Azomethines to Benzimidazolium Salts, *Rev. Roum. Chim.*, **2016**, 61(61-67), 591-596
18. **A. Marinoiu**, C. Cobzaru, M. Răceanu, M. Varlam, E. Carcadea, C. Cernatescu, I. Stefanescu, Carbon dioxide conversion to methane over supported nickel base catalysts, *Rev. Roum. Chim.*, 60(2-3), **2015**, 249-256. factor impact: **0,311**
19. **A. Marinoiu**, C. Cobzaru, E. Carcadea, M. Răceanu, D. Schitea, M. Varlam, I. Stefanescu, New catalysts used in the hydrogenolysis reaction of glycerol, *Environmental Engineering and Management Journal*, accepted, **2015**, <http://omicron.ch.tuiasi.ro/EEMJ/>
20. **A. Marinoiu**, C. Cobzaru, E. Carcadea, M. Răceanu, C. Capris, V. Tanislav, C. Teodorescu, I. Iordache, Numerical analysis of Cu and Ni based catalysts in hydrogenation process of glycerol, *Environmental Engineering and Management Journal*, **2015**, Vol.14, No. 9, 2201-2211 <http://omicron.ch.tuiasi.ro/EEMJ/> factor impact: **1,065**
21. Cobzaru C., **Marinoiu A.**, Cernatescu C., Apostolescu G., The behaviour of dealuminated natural zeolites in sorption process with Cu(II) ions studied by mathematical model *Rev. Roum. Chim.*, **2015**, 60(7-8), 823-835
22. Cernatescu C., Apostolescu A.G., Cobzaru C., Tătaru-Fărmus R.E., Apostolescu N., Marinoiu A., Synthesis and physico-chemical behaviour studies for a new benzimidazole azo dye *Rev. Roum. Chim.*, **2015**, 60(7-8), 837-844.

23. C. Cobzaru, **Adriana Marinoiu**, Corina Cernatescu, Sorption of vitamin C on acid modified clinoptilolite, *Rev. Roum. Chim.*, 60(2-3), **2015**, 241-247
24. C. Cobzaru, G. Bordeianu, **A. Marinoiu**, G.A. Apostolescu, C. Cobzaru, R.E. Tataru-Farmus, D. Ungureanu, C. Cernatescu, N. Apostolescu, The Effect of Storage Time on The Composition of The Olive and Sunflower Oils, *Key Engineering Materials*, Vol 660, **2015**, pp 132-137
25. **A. Marinoiu**, C. Cobzaru, M. Raceanu, M. Varlam, E. Carcadea, C. Cernatescu, I. Stefanescu, Carbon dioxide conversion to methane over supported nickel base catalysts, *Rev. Roum. Chim.*, 60(2-3), **2015**, 249-256.
26. C. Cobzaru, **A. Marinoiu**, C. Cernatescu, Sorption of vitamin C on acid modified clinoptilolite, *Rev. Roum. Chim.*, 60(2-3), **2015**, 241-247.
27. **A. Marinoiu**, M. Raceanu, C. Cobzaru, C., Teodorescu D. Marinescu, A. Soare, M. Varlam, Low temperature CO retention using hopcalite catalyst for fuel cell applications. *Reaction Kinetics, Mechanisms and Catalysis* **2014**; 112(1):37-50
28. **A. Marinoiu**, C. Cobzaru, E. Carcadea, M. Raceanu, C. Capris, V. Tanislav, C. Teodorescu, I. Iordache, Numerical analysis of Cu and Ni based catalysts in hydrogenation process of glycerol, *Environmental Engineering and Management Journal*, accepted, **2014**, <http://omicron.ch.tuiasi.ro/EEMJ/>
29. **A. Marinoiu**, C. Cobzaru, E. Carcadea, M. Raceanu, A. Enache, M. Varlam, I. Iordache Mathematical modeling of the glycerol hydrogenolysis using copper chromite catalysts. The effect of additional bases. *Environmental Engineering and Management Journal*, accepted, **2014**, <http://omicron.ch.tuiasi.ro/EEMJ/>
30. C. Cobzaru, C. Cernatescu, **A. Marinoiu**, Dealuminated natural zeolites for applications in wastewater purifications. I. The acid treatment of the native clinoptilolite and its Na form, *Revue Roumaine de Chimie*, 59(6-7), **2014**, 597-602;
31. **A. Marinoiu**, C. Cobzaru, E. Carcadea, M. Raceanu, I. Petreanu, M. Varlam, Study about glycerol hydrogenolysis using copper chromite catalysts mixed with bases, *Revue Roumaine de Chimie*, 59(8), **2014**, 657-662;
32. C. Cobzaru, C. Cernatescu, **A. Marinoiu**, Modified clinoptilolite used for removing azomethines from wastewaters. II. Adsorption of azomethines from wastewaters on clinoptilolite, *Rev. Roum. Chim.*, 59(11-12), **2014**, 1091-1098.
33. **A. Marinoiu**, C. Cobzaru, E. Carcadea, C. Capris, V. Tanislav, M. Raceanu, Hydrogenolysis of glycerol to propylene glycol using heterogeneous catalysts in basic aqueous solutions. *Reaction Kinetics, Mechanisms and Catalysis*, **2013**, 109 (1), 63-73.
34. **A. Marinoiu**, G. Ionita, C.-L. Gaspar, C. Cobzaru, D. Marinescu, C. Teodorescu, S. Oprea, Selective hydrogenolysis of glycerol to propylene glycol using heterogeneous catalysts, *Reaction Kinetics Mechanisms and Catalysis* 99(1), **2010**, 111-118;
35. **A. Marinoiu**, G. Ionita, C.-L. Gaspar, C. Cobzaru, S. Oprea, Glycerol Hydrogenolysis to Propylene Glycol, *Reaction Kinetics and Catalysis Letters*, 97, **2009**, 315-320;
36. C. Cobzaru, C. Cibotaru, A. Rotariu, **A. Marinoiu**, S. Oprea, Kinetic study of the sorption process with Cu(II) ions on clinoptilolite and analcime. Effects of temperature and particle size, *Chemical Industry & Chemical Engineering Quarterly* 15 (2), **2009**, p.63-67

Annex 2:

Published papers indexed by Thomson Reuters Master Journal List (ex-ISI Master Journal List) without impact factor (IF)

1. Adriana Marinoiu, Catalin Jianu, Claudia Cobzaru, Mircea Raceanu, Catalin Capris, Amalia Soare, Irina Petreanu, Elena Carcadea, Facile synthesis of well dispersed Au nanoparticles on reduced graphene oxide, *Progress of Cryogenics and Isotopes Separation* Volume 20, p 5-14, issue 2/**2017**
2. Elena Carcadea, Mihai Varlam, Adriana Marinoiu, Mircea Raceanu, Catalin Jianu, Ioan Stefanescu, Patularu Laurentiu, A CFD Investigation Regarding the Catalyst Layer Structure Influence on the PEM Fuel Cell Performance, *Progress of Cryogenics and Isotopes Separation*, Vol. 20, issue 1/**2017**, ISSN: 1582-2575, pp. 45-54
3. Adriana Marinoiu, Elena Carcadea, Mircea Raceanu, Mihai Varlam, Catalin Jianu, *High Performance Electrocatalysts for Oxygen Reduction Reaction of Fuel Cells based on Iodine Doped Graphene*, Proceeding 19th International Conference- School August 27-31.08.**2017**, Lituania, ISSN 1822-7759 pp 132
4. Adriana Marinoiu, Elena Carcadea, Irina Petreanu, Elena Marin, Bianca Sucea, Amalia Soare, Mircea Raceanu, Iodine Doped Graphene Synthesis Via a Facile Electrophilic Substitution. High Performance as Orr Electrocatalyst for PEMFC, *Progress of Cryogenics and Isotopes Separation*, Volume 19, issue 2/**2016**, p 43-52
5. Adriana Marinoiu, Elena Carcadea, Irina Petreanu, Elena Marin, Bianca Sucea, Amalia Soare, Synthesis and Characterization of Iodine Doped Graphene by an Uncatalyzed Reaction, *Progress of Cryogenics and Isotopes Separation* Volume 19, issue 1/**2016**, p 19-26
6. Adriana Marinoiu, Elena Carcadea, Irina Petreanu, Claudia Susu, Constantin Teodorescu, Mircea Raceanu, Preparation of iodine doped graphene as catalyst for PEM fuel cell, IVth International Symposium on *Innovative Materials for Processes in Energy Systems*, IMPRES 2016-087, 23-26 octombrie **2016**, Taormina, Italia, p 221-222, ISBN 978-4-944005-21-5
7. C. Cobzaru, **A. Marinoiu**, G. A. Apostolescu, RE Tataru-Farmus, N. Apostolescu, C. Cernatescu, Ammonia Removal from Aqueous Solution by Ion Exchange using Clinoptilolite and Verification of the Process through a Numerical Study, *Progress of Cryogenics and Isotopes Separation* Volume 19, issue 1/**2016**, 27-34

8. **Adriana Marinoiu**, Elena Carcadea, Mircea Raceanu, Claudia Cobzaru, Mihai Varlam, Carbon Dioxide Conversion To Methane Over Nickel Base Catalyst Advances in Environmental and Agricultural Science, WSEAS, Energy, Environmental and Structural Engineering Series/ 32, 2015, ISBN: 978-1-61804-270-5, ISBN: 978-1-61804-270-5
9. **A. Marinoiu**, Elena Carcadea, M. Raceanu, I. Petreanu, E. Marin, C. Teodorescu, A review regarding a "man-portable" lightweight flexible fuel cell concept small power supply, Progress of Cryogenics & Isotopes Separation, 2015, vol 18, nr 1, p. 81-88, Abstracting and indexing in: Contemporary Science Association, EBSCO, Ulrich's Periodicals Directory, National Institute of Scientific Information (INIS)
10. **A. Marinoiu**, C. Cobzaru, C. Cernatescu, T. Popescu, Catalytic Hydrogenation of Carbon Dioxide over Pd base catalyst, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, 2015, Tome LXI(LXV), Fasc.2
11. **A. Marinoiu**, I. Petreanu, C. Teodorescu, C. Sisu, M. Varlam, Dezvoltarea de electrozi pe baza de grafene pentru pilele de combustibil de tip PEM, Volumul Conferintei "Stiinta moderna si energia - Producerea, Transportul si utilizarea energiei", Editia 34, pg. 33-41, ISSN: 2066-4125, 2015, Cluj Napoca
12. M. Raceanu, N. Bizon, M. Iliescu, M. Culcer, **A. Marinoiu**, L. Patularu, D. Schitea, M. Varlam, I. Stefanescu, Performanta pilei de combustibil de tip PEM utilizand diferite moduri de alimentare cu hidrogen, Volumul Conferintei "Stiinta moderna si energia - Producerea, Transportul si utilizarea energiei", Editia 34, pg. 73-88, ISSN: 2066-4125, 2015, Cluj Napoca
13. Elena Carcadea, M. Varlam, I. Stefanescu, D. Ingham, **A. Marinoiu**, L. Patularu, M. Raceanu, D. Schitea, A CFD Simulation for an Air Breathing PEMFC for Power Source Portable Applications, ECS Transaction, doi: 10.1149/06917.0971ecst ECS Trans., 2015, vol 69, nr 17, 971-982
14. M. Raceanu, M. Iliescu, M. Culcer, **A. Marinoiu**, M. Varlam, N. Bizon, Fuelling Mode Effect on a PEM Fuel Cell Stack Efficiency, Progress of Cryogenics & Isotopes Separation, 2015, vol 18, nr 1, p. 15-24, Abstracting and indexing in: Contemporary Science Association, EBSCO, Ulrich's Periodicals Directory, National Institute of Scientific Information (INIS)
15. **A. Marinoiu**, C. Cobzaru, S. Mosteanu, I. Petreanu, M. Raceanu, C. Capris, I. Iordache, Study about the development of a portable fuel cell system containing an integrated hydrogen generator, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, 2014, Tome LX(LXIV), Fasc.1. ISSN 0254-7104."
16. **A. Marinoiu**, D. Schitea, C. Cobzaru, I. Petreanu, I. Iordache, S. Mosteanu, L. Pătularu, A new approach for optimizing the main components for Pem fuel cell, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, 2014, Tome LX(LXIV), Fasc.1. ISSN 0254-7104
17. **A. Marinoiu**, C. Teodorescu, D. Marinescu, M. Varlam, C. Cobzaru, A. Soare, C. Ionescu, Graphene-based materials for fuels cell applications, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, 2014, Tomul LX (LXIV), Fasc. 2, p. 9-18, ISSN 0254-7104
18. C. Cernatescu, C. Cobzaru, R. Canta, **A. Marinoiu**, Synthesis of four new hydroxyl azomethines, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, 2014, Tomul LX (LXIV), Fasc. 2, p.57-66, ISSN 0254-7104
19. C. Cobzaru, G. Bordeianu, **A. Marinoiu**, G. Apostolescu, C. Cernătescu, D. Ungureanu, Hemp (Cannabis sativa L.)–The miracle plant, Bulletin of the Polytechnic Institute of Iasi, Section Chemistry and Chemical Engineering, 2014, Tome 60 (3 - 4), Tomul LX (LXIV), Fasc. 3-4, p. 23-33, ISSN 0254-7104
20. Mircea Raceanu, **Adriana Marinoiu**, Mihai Culcer, Mihai Varlam, Nicu Bizon, Preventing reactant starvation of a 5 kW PEM fuel cell stack during sudden load change, IEEEExplore, Published in: Electronics, Computers and Artificial Intelligence (ECAI), 2014 6th International Conference, 2014, pp:55–60, dx.doi.org/10.1109/ ECAI.2014.7090147
21. **A. Marinoiu**, E. Carcadea, R. Ionete, M. Raceanu, C. Cobzaru, I. Iordache, C. Teodorescu, A. Enache, M. Varlam, Carbon Dioxide Reusing for Methane Fuel Obtaining Over Heterogeneous Catalysts as a Possible Source of Energy, Progress of Cryogenics and Isotopes Separation, 17(1), 2014, 23-30, ISSN 1582-2575
22. **Adriana Marinoiu**, Elena Carcadea, Irina Petreanu, Claudia Şişu, Mircea Răceanu, Cătălin Capriş, Vasile Tanislav, Dorin Schitea, Daniela Ebrasu, Laurenţiu Pătularu, Carbon Monoxide Retention for Fuel Cell Application Using Heterogeneous Catalysts, Progress of Cryogenics & Isotopes Separation, vol. 17, nr. 1/2014, pp. 39-50, ISSN: 1582-2575
23. **Adriana Marinoiu**, Elena Carcadea, Mircea Răceanu, Irina Petreanu, Mihai Varlam, The Use of Nickel as Catalyst for Carbon Dioxide Hydrogenation, Progress of Cryogenics & Isotopes Separation, vol. 17, nr. 2/2014, pp. 101-112
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Annex 3:

Published papers indexed by Thomson Reuters Master Journal List (ex-ISI Master Journal List) without impact factor (IF)

A. Marinoiu, C. Teodorescu, E. Carcadea, M. Raceanu, M. Varlam, C. Cobzaru, I. Stefanescu, *Graphene-based Materials Used as the Catalyst Support for PEMFC Applications*, Materials Today: Proceedings, 2(6), 2015, Pg. 3797–3805, The Selected Papers of 10th International Conference on Physics of Advanced Materials, ICPAM-10. doi:10.1016/j.matpr.2015.08.013

Annex 3: The experience accumulated in research projects

Research Projects

Romanian National Research Projects:

- **Project PN 16 36 01 02**, Unconventional electrodes based on graphene based materials with applications in PEM type fuel cells, **2016-2017**, proiect manager
- **Project PN 09 19 01 11** Prospects and technical-economic opportunities for CO₂ recycling to methane using renewable energy, , Ctr. 19N/2009- **2014**, proiect manager
- **Project PN 09 19 01 16** The use of new technologies for the synthesis of nano-composite graphene base materials with catalytic and electrocatalytic properties for PEMFC applications- **2015**, proiect manager
- **Project PNCDI II, Contract nr. 284/2014**, Development of a portable power generator - type feeder, based on hydrogen electrochemistry, designed to maintain energy support of combat equipment in the tactical field, **2014-2016**, participant
- **Project PN 09 19 01 09** "Theoretical and experimental investigations regarding the systems for CO retention at low temperature for PEM fuel cell and their applications"- **2014**, participant
- **Project PN 09 19 01 08** Studies on the development of thermocatalytic processes and types of catalysts used for applications in the field of renewable energy production, Ctr. 19N/2009, durata 1 an - **2013** participant
- **Project PN** " The integration of Renewable Energy using hydrogen based technologies"- **2013**, participant

International Projects:

- **Project HyUnder** JTI09/303417, **UEFISCDI București**/ Fundacion Para El Desarrollo De Las Nuevas Tecnologias Del Hidrogeno En Aragon: "Assessment of the potential, actors and economic opportunities relevant to the large-scale and seasonal storage of renewable electricity through the storage of groundwater in Europe)", **2012-2014** participant

Patent applications

1. **Grafene dopate cu iod si procedeu de obtinere a acestora**, Adriana Marinoiu, Elena Carcadea, Mircea Raceanu, Laurentiu Patularu, Mihai Varlam, cerere de brevet A/01133/2017
2. **Procedeu de obtinere a unui material nano compozit pe baza de grafena cu nanoparticule metalice**, Adriana Marinoiu, Mircea Raceanu, Catalin Capris, Elena Carcadea, Simona Ion, Mihai Varlam, cerere de brevet A/01134/2017
3. **Metoda si sistem de generare a hidrogenului prin hidroliza borohidrurii de sodiu**, Elena Carcadea, Adriana Teodora Marinoiu, Alin-Mugurel Chițu, Janel Arhip, Mihai Varlam, cerere de brevet A/00680/2017

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