Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	Marinoiu Teodora Adriana
Address(es)	Tudor Vladimirescu, 93, Baile Govora, Valcea, Romania, ROMANIA
Telephone(s)	+4-0350-414095; +4-0250-732744
Fax(es)	+4-0250-732746
E-mail	adriana.marinoiu@icsi.ro
Nationality	Romanian
Date of birth	16.01.1977
Gender	Female

Occupational field

Academic (research)

Work experience

Dates	**April 2019-present**
Occupation or position held	**Scientific Researcher 1st degree**
Main activities and responsibilities	o Manager and scientific responsible of national project in the ICSI Energy Department; o Developing of one step synthesis of noble metal nanoparticles supported on reduced graphene oxide using an eco-friendly microwave-assisted process; o Developing of chemical routes for metal nanoparticles decorated on graphene/ graphene oxide; o Developing of metal nanoparticles decorated on carbon nanofiber using electrospinning;
Name and address of employer	**National Research & Development Institute for Cryogenics & Isotopic Technologies**, ICSI ENERGY, Uzinei street, no.4, Ramnicu Valcea, Romania
Type of business or sector	Academic research and development

Dates	**March 2018-present**
Occupation or position held	**Coordinator of Research Group "New materials for H_2 energy"**
Main activities and responsibilities	o Manager and scientific responsible of national projects in the ICSI Energy Department; o Management of human resources; o Developing of new methods for graphene-based materials preparation using a low-time consuming procedure; o Developing a carbon fibre manufacturing technology by electrospinning;
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

Dates	**2016 - 2019**
Occupation or position held	**Scientific Researcher 2nd degree with a permanent position**
Main activities and responsibilities	o
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

Dates	**2012 - 2016**

Occupation or position held	**Scientific Researcher 3rd degree with a permanent position** o Manager and scientific responsible of national projects in the National Center for Hydrogen and Fuel Cells; o Development of catalysts based on noble and non-noble metals; o Syntheses of graphene doped metal/non-metal for use as electrodes in PEM Fuel Cells; o Development of new methods for catalyst deposition for proton exchange fuel cells PEM Fuel Cells; o Developing of new procedures for realization of electrodes for the fuel cell using various spray techniques; o Elaboration of a competitive technology for the production of the membrane electrode assemblies (MEAs); o Developing new techniques for characterizing fuel cell materials; o Characterization of PEM Fuel Cells using Electrochemical Measurements such as polarization curves (I-V), Impedance Spectroscopy (EIS); Research regarding the fuel cell development.
Main activities and responsibilities	o Applied research in the field of proton exchange membrane fuel cells; o Synthesis of graphene based materials for use as electrodes in PEMFC; o Characterization of total surface area by specific surface area, porosityand particule size distribution; o Studies for fuel cell systems for increasing the performance based on parameters optimization; o Preparation and characterization of new catalytic materials for the retention of carbon monoxide from the gaseous hydrogen mixture; o Methods and technologies for hydrogen separation and purification; o Investigations on new methods for hydrogen obtaining and hydrogen storage; o 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	o Scientific research in the field of industry and energy usage; o Syntheses of organic and inorganic compounds, experimental studies on catalytic hydrogenation; o Development of various technologies for polyether polyols preparation; o Catalysts preparation and testing in the hydrogenation of glycerol; o 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	o Research activities in the field of reliability and risk assessment for industrial plants (e.g. propenoxyde and propylene glycol plants, polyols polyethers installations); o Studies regarding the impact of industrial activities on the environment; o Supervision and coordination of investment works in order to enlarge the industrial capacity; o Process engineering in industrial plant regarding polyether polyols obtaining; o 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**
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**
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**

Self-assessment	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Spoken production			
English	B2	Independent user	C1	Proficient user	C1	Proficient user	B2	Independent user	B2	Independent user

(*) Common European Framework of Reference for Languages

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 PEM fuel cells and electrodes for PEM Fuel Cells: deposition of catalytic inks using ultrasonic technique, membrane electrode assembly (MEA) fabrication; electrochemical techniques for characterizing fuel cell using different measurements, e.g. polarization curve (I-V), cyclic voltammetry (CV), linear sweep voltammetry (LSV), electrochemical impedance spectroscopy (EIS); -*Technical skills* in the area of carbon materials preparation: synthesis of graphene based materials using various chemical procedures and microwave method; -*Technical skills* in the area of catalysts preparation: development of catalysts based on noble and non-noble metals decorated on graphene base materials synthesis; metal nanoparticles functionalized on reduced graphene oxide surface; hybrid nanocomposites prepared by MW process; core-shell micro and nanoparticles - *Technical skills* in preparation of hydrophobic materials for gas diffusion layer (GDL) based on carbon nanofibers obtained via electrospinning process -*Technical skills* on characterization of catalysts: specific surface area (BET), porosity (BJH), particle size distribution
Other skills and competences	Open-minded, curious and inventive
Driving licence	B category
Annexes	**Annex 1:** List of Published papers indexed by Thomson Reuters Master Journal List (ex-ISI Master Journal List) with impact factor (IF); **Annex 2:** Published papers indexed by Thomson Reuters Master Journal List (ex-ISI Master Journal List) without impact factor (IF); **Annex 3:** List of published books/chapters; **Annex 4:** The experience accumulated in research projects; **Annex 5:** Patent applications;
Membru organizații profesionale	Secretar General al Asociatiei pentru Energia Hidrogenului din România Membru Societatea Romana de Chimie

Summary:

Publications: http://orcid.org/0000-0001-5745-8029;

https://www.brainmap.ro/adriana-marinoiu; https://www.mendeley.com/profiles/adriana-marinoiu/

https://www.researchgate.net/profile/Adriana_Marinoiu

61 - papers indexed in Scopus; H-index Scopus = 12;

https://www.scopus.com/authid/detail.uri?authorId=30767637700

36 - papers indexed in WOS (14 Q1; 7 Q2; 15 Q3); Hirsh-index WOS = 10;

https://app.webofknowledge.com/author/record/1404486

104 - papers indexed in Google Scholar; H-index GS = 13, i10-index =20;

https://scholar.google.com/citations?user=D8TY2NgAAAAJ&hl=ro

10 **-** Patent and patent requests

List of relevant published papers

Annex 1:

Published papers indexed by Thomson Reuters Master Journal List (ex-ISI Master Journal List) with impact factor (IF):

[1] **Marinoiu A**., Andrulevicius M., Tamuleviciene A., Tamulevicius T., Raceanu M., Varlam M., Synthesis of well dispersed gold nanoparticles on reduced graphene oxide and application in PEM fuel cells, Applied Surface Science , vol. 504, nr 1, pag 144511, ISBN/ISSN 0169-4332, **2020** Factor Impact: 6.182

[2] **Marinoiu A**, Andrulevicius M, Tamuleviciene A, Tamulevicius T, Carcadea E, Raceanu M, High performance catalytic system with enhanced durability in PEM fuel cell, International Journal of Hydrogen Energy, 45 (17), pp. 10409-10422, **2020,** impact factor: 4,939

[3] **Marinoiu A**, Raceanu M, Carcadea E, Andrulevicius M, Tamuleviciene, A., Tamulevicius, T., Capris C, Varlam M, Efficient method to obtain Platinum–Cobalt supported on graphene oxide and electrocatalyst development, International Journal of Hydrogen Energy, 45 (49), pp. 26226-26237, **2020,** impact factor/ 2019 : 4,939;

[4] **Marinoiu, A**., Carcadea E, Sacca A, Carbone, A., Sisu, C., Dogaru, A, Raceanu M,Varlam M, One-step synthesis of graphene supported platinum nanoparticles as electrocatalyst for PEM fuel cells, International Journal of Hydrogen Energy, **2020**, impact factor: 4,939

[5] Humelnicu, A.-C., Samoila, P., Asandulesa, M., Cojocaru C, Bele A, **Marinoiu, AT**, Sacca, A., Harabagiu, V., Chitosan-sulfated titania composite membranes with potential applications in fuel cell: Influence of cross-linker nature, Polymers, 12 (5), art. no. 1125, **2020,** Impact factor: 3,426

[6] Carcadea, E., Varlam, M., Ismail, M., Ingham, D.B., **Marinoiu, A.**, Raceanu, M., Jianu, C., Patularu, L., Ion-Ebrasu, D., *PEM fuel cell performance improvement through numerical optimization of the parameters of the porous layers,* International Journal of Hydrogen Energy, 45 (14), pp. 7968-7980., 1879-3487, **2020,** Impact factor: 4.939

[7] Elena Carcadea, Mohammed S Ismail, Derek Bin Ingham, Laurentiu Patularu, Dorin Schitea, **Adriana Marinoiu**, Daniela Ion-Ebrasu, Dan Mocanu, Mihai Varlam, Effects of geometrical dimensions of flow channels of a large-active-area PEM fuel cell: A CFD study, International Journal of Hydrogen Energy, **2020**, Impact factor: 4.939

[8] **Marinoiu, A.,** Raceanu, M., Andrulevicius, M., Tamuleviciene, A., Tamulevicius, T., Nica, S., Bala, D., Varlam, M., *Low-cost preparation method of well dispersed gold nanoparticles on reduced graphene oxide and electrocatalytic stability in PEM fuel cell,* Arabian Journal of Chemistry, vol 13 (1), pp. 3585-3600, ISSN: 18785352, Factor Impact 4.762

[9] Lazar, O.-A., **Marinoiu, A.,** Raceanu, M., Pantazi, A., Mihai, G., Varlam, M., Enachescu, M., *Reduced graphene oxide decorated with dispersed gold nanoparticles: Preparation, characterization and electrochemical evaluation for Oxygen reduction reaction,* Energies, 13 (17), art. no. 4307, Impact factor: 2.702

[10] Bizon, N, Raceanu, M, Koudoumas, E, **Marinoiu, A** Karapidakis, E, Carcadea, E, *Renewable/Fuel Cell Hybrid Power System Operation Using Two Search Controllers of the Optimal Power Needed on the DC Bus,* Energies, 13 (22), Impact factor: 2.702

[11] **Adriana Marinoiu**, Radu Andrei, Irina Vagner, Violeta Niculescu, Felicia Bucura, Marius Constantinescu, Elena Carcadea, One Step Synthesis of Au Nanoparticles Supported on Graphene Oxide Using an Eco-Friendly Microwave-Assisted Process, Materials Science, 26, 3, 249-254, 2020, Impact factor/2019: 0.16

[12] Andrei, R.D., **Marinoiu, A**., Marin, E., Enache, S., Carcadea, E., Carbon nanofibers production via the electrospinning process, Energies, 13 (11), art. no. 3029, DOI: 10.3390/ en13113029, Impact factor/2019: 2,702

[13] **Marinoiu A.**, Raceanu 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 2019;12:868–80, Factor Impact 4.762

[14] Carcadea E., Varlam M., **Marinoiu A**., Raceanu M., Ismail MS., Ingham DB., Influence of catalyst structure on PEM fuel cell performance – A numerical investigation, Int J Hydrogen Energy 2019. Impact factor: 4.939

[15] Vasut Felicia, Oubraham Anisoara, Soare Amalia, **Marinoiu Adriana**, Ion-Ebrasu Daniela, Dragan Mirela, Platinum supported on graphene - PTFE as catalysts for isotopic exchange in a detritiation plant, FUSION ENGINEERING AND DESIGN, Vol. 146 (A) SI, pp 149-152

[16] **Marinoiu, Adriana**; Cobzaru, Claudia; Carcadea, Elena; Raceanu, Mircea; Schitea, Dorin; Varlam, Mihai; Stefanescu, Ioan, New catalysts used in the hydrogenolysis reaction of glycerol , Environmental Engineering & Management Journal (EEMJ) . Jan2019, Vol. 18 Issue 1, pp 195-202. 8p.

[17] Cobzaru C., **Marinoiu A**., Apostolescu GA, Tataru-Farmus RE, Cernatescu C, Mathematical modeling for kinetics of Fe^{3+} exchange ion pretreated analcime, Revue Roumaine de Chimie, May 2019, Vol. 64 Issue 5, pp 403-407

[18] **Adriana Marinoiu**, Mircea Raceanu,Elena Carcadea, MihaiVarlam, Iodine-doped graphene – Catalyst layer in PEM fuel cells**,** *Applied Surface Science*, 456, **2018**, 238-245, (IF=4.439)

[19] **Adriana Marinoiu**, Mihai Varlam, Elena Carcadea, Mircea Raceanu,Amalia Soare, Ioan Stefanescu, A Class of High Performance Electrocatalysts for Oxygen Reduction Reaction of Fuel Cells, using Iodine Doped Graphene, *Materials Today: Proceedings* 5, **2018,** 15915–15922

[20] **Adriana Marinoiu**, Mircea Raceanu, Mindaugas Andrulevicius, Asta Tamuleviciene, Tomas Tamulevicius, Simona Nica, Daniela Bala, Mihai Varlam, Low-cost preparation method of well dispersed gold nanoparticles on reduced graphene

oxide and electrocatalytic stability in PEM Fuel Cell, Accepted, Arabian Journal of Chemistry, ISSN 1878-5352 ; DOI information: 10.1016/j.arabjc.2018.12.009

[21] Carcadea E, Varlam M, Ingham DB, Ismail MS, Patularu L, **Marinoiu A** , Schitea D, T he 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, **2018**, Volume 42, Issue: 8, 2789-2804, DOI: 10.1002/er.4068 (IF=3.009)

[22] Elena Carcadea, Mihai Varlam, **Adriana Marinoiu**, Mircea Raceanu, M. S. Ismail, D.B. Ingham, Influence of catalyst structure on PEM fuel cell performance - A numerical investigation, International Journal of Hydrogen Energy, **2018**, doi: 10.1016/j.ijhydene. 2018.12.155, (IF 4.229)

[23] C. Cobzaru, **A. Marinoiu**, C. Cernatescu, A.C.Puitel, A. Soare, Experimental Studies for the Cinnamaldehyde Adsorption on Dealuminated Clinoptilolite Using as Carrier, REV.CHIM.(Bucharest), 69, No. 3, **2018** (IF=1.412)

[24] **Marinoiu A**, Raceanu 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=4.439)

[25] **Marinoiu A**, Raceanu M, Carcadea E, Varlam M, Balan D, Ion-Ebrasu D, Stefanescu I, Enachescu 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=1.429)

[26] **Marinoiu A,** Gatto I, Raceanu 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=4.229)

[27] **Marinoiu A**, Raceanu 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)

[28] 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 (IF=4.229)

[29] Irina Petreanu, **Adriana Marinoiu**, Claudia Sisu, 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, (IF=2.873)

[30] **Adriana Marinoiu**, Elena Carcadea, Claudia Cobzaru, Corina Cernatescu, Numerical Approach for Catalytic Conversion of CO_2 to Methane over Nickel Base Catalysts*, REV. CHIM*. (Bucharest), 68, No. 1, **2017**, pp. 128-133, ISSN: 0034-7752, (IF=1.412)

[31] **Marinoiu A**, Raceanu 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)

[32] **Marinoiu A**, Raceanu 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)

[33] **A. Marinoiu,** ·M. Raceanu, 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

[34] **A. Marinoiu**, C. Cobzaru, E. Carcadea M. Raceanu, I.Atkinson, M. Varlam, I. Stefanescu, An Experimental Approach for Finding Low Cost Alternative Support Material in PEM Fuell Cells, *Rev. Roum. Chim.*, **2016**, *61*(4-5), 433-440

[35] 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

[36] 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 Ca^{2+}, Ni^{2+} and NH^{4+} Ions Described by a Numerical Study, *Rev. Roum. Chim.*, **2016**, *61*(4-5), 427-432

[37] C. Cernatescu, C. Cobzaru, G.A. Apostolescu, N. Apostolescu, **A. Marinoiu**, Quaternization of N-Methylated Phenyl-Benzimidazole Azomethines to Benzimodazolium Salts, *Rev.Roum.Chim*., **2016**, 61(61-67), 591-596

[38] **A. Marinoiu,** ·M. Raceanu, 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, (IF: 1,515)

[39] **A. Marinoiu**, C. Cobzaru, E. Carcadea M. Raceanu, I.Atkinson, M. Varlam, I. Stefanescu, An Experimental Approach for Finding Low Cost Alternative Support Material in PEM Fuell Cells, *Rev. Roum. Chim.*, **2016**, *61*(4-5), 433-440, (IF: 0.37)

[40] **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. factor impact: **0,311**

[41] **A. Marinoiu,** C. Cobzaru, E. Carcadea, M. Raceanu, 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/

[42] **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*, **2015**, Vol.14, No. 9, 2201-2211 http://omicron.ch.tuiasi.ro/EEMJ/ factor impact: **1,065**

[43] 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

[44] 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 azodye *Rev. Roum. Chim*., **2015**, 60(7-8), 837-844.

[45] C. Cobzaru, **Adriana Marinoiu**, Corina Cernatescu, Sorption of vitamin C on acid modified clinoptilolite, *Rev. Roum. Chim*., 60(2-3), **2015**, 241-247

[46] 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

[47] **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.

[48] C. Cobzaru, **A. Marinoiu**, C. Cernatescu, Sorption of vitamin C on acid modified clinoptilolite, *Rev. Roum. Chim*., 60(2-3), **2015**, 241-247.

[49] **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 (IF: 1,515)

[50] **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; (IF: 0.37)

[51] M. Raceanu, **A. Marinoiu**, M. Culcer, M. Varlam, N. Bizon, Preventing reactant starvation of a 5 kW PEM fuel cell stack during sudden load change *Proceedings of the 6th International Conference on Electronics, Computers and Artificial Intelligence* (ECAI), Book Series: International Conference on Electronics Computers and Artificial Intelligence, pp. 55-60, **2014**, ISSN: 2378-7147, ISBN: 978-1-4799-5479-7 DOI: 10.1109/ECAI.2014.7090147

[52] **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

[53] **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/

[54] **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/

[55] 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;

[56] **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;

[57] 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.

[58] **A. Marinoiu**, C. Cobzaru, E. Carcadea, C. Capris, V. Tanislav, M. Raceanu, Hydrogenolisis of glycerol to propylene glycol using heterogeneous catatlysts in basic aqueous solutions. *Reaction Kinetics, Mechanisms and Catalysis*, **2013**, 109 (1), 63-73.

[59] **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 Kinet Kinetics Mechanisms and Catalysis 99(1), **2010**, 111-118;

[60] **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;

[61] 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 conbustibil 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 Iaşi, 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, IEEEXplore, 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 Șișu, Mircea Răceanu, Cătălin Capriș, Vasile Tanislav, Dorin Schitea, Daniela Ebrasu, Laurențiu 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

[24] Pătularu, L.; Schitea, D.; Enache, S.; Varlam, M.; Daniela, Ion-Ebrasu; Carcadea, E.; Marinoiu, A.; Răsoi, G.; Crăciunescu, A., PEMFC Short Stack Development at ICSI Ramnicu Valcea, from Sketch to Applications, Progress of Cryogenics & Isotopes Separation. 2014, Vol. 17 Issue 2, pp. 89-100

[25] Carcadea, Elena; Varlam, Mihai; Stefănescu, Ioan; Pătularu, Laurenţiu; **Marinoiu, Adriana**; Tanislav, Vasile; Enache, Stănică. Effects of Flow Field on PEM Fuel Cell Performance, Progress of Cryogenics & Isotopes Separation, 2014, Vol. 17 Issue 2, pp. 81-88

[26] **Adriana Marinoiu**, Mihai Varlam, Ioan Iordache, Ioan Stefanescu, Utilizare de noi materiale carbonice in cataliza proceselor electrochimice cu aplicatii pentru pilele de combustibil, Volumul Conferintei "Stiinta moderna si energia - Producerea, Transportul si utilizarea energiei", pg. 97-101, ISSN: 2066-4125, 2014, Cluj Napoca

[27] D. Schitea, I. Stefanescu, M. Varlam, L. Patularu, **Adriana Marinoiu**, M. Raceanu, Sisteme de umidificare a gazelor in PEMFC, Volumul Conferinte "Stiinta moderna si energia - Producerea, Transportul si utilizarea energiei", pg. 130-142, ISSN: 2066-4125, 2014, Cluj Napoca

[28] Ioan Stefanescu, Ioan Iordache, Mihaela Buga, Dorin Schitea, **Adriana Marinoiu**, Mihai Balan, Stocarea subterana a hidrogenului, aspect din Romania, Volumul Conferintei "Stiinta moderna si energia - Producerea, Transportul si utilizarea energiei", ISSN: 2066-4125, 2014, Cluj Napoca

[29] M. Raceanu, N. Bizon, M. Iliescu, M. Culcear, **A. Marinoiu**, L. Patularu, D. Schitea, M. Varlam, I. Stefanescu, Performanta pilei de conbustibil 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

[30] E. Carcadea, M Varlam, **A Marinoiu**, I. Stefanescu, M. Raceanu, L. Patularu, D. Ebrasu, V. Tanislav, C. Capris, The Influence of Catalyst Properties, on CO Oxidation, Reaction – A Theoretical Approach, Progress of Cryogenics & Isotopes Separation, 2014, Vol. 17 Issue 1, pp. 31-38, ISSN: 1582-2575

[31] Elena Carcadea, Mihai Varlam, Mircea Raceanu, Mariana Iliescu, Adrian Enache, Mihai Culcer, Daniela Ebrasu, **Adriana Marinoiu**, Vasile Tanislav, Catalin Capris, Energy Systems Based on Renewable Resources and Hydrogen Storage, - an overview and a scenario analysis, Progress of Cryogenics and Isotopes Separation Volume 16, issue 1/2013

[32] **Adriana Marinoiu**, Elena Carcadea, Irina Petreanu, Mircea Raceanu, Laurentiu Patularu, Daniela Ion, Dorin Schitea, The Catalytic Conversion of Renewable Feedstocks, The 19-th Conference "Progress in Cryogenics and Isotopes Separation", 10-11 oct. 2013, Volume 16, issue 1/2013, 39-44, ISSN: 1582-2575

[33] **A. Marinoiu**, E. Carcadea, C. Cobzaru, C. Capris, V. Tanislav, M. Raceanu, I. Iordache, The efficient catalytic conversion of glycerol into valuable chemicals, Progress of Cryogenics and Isotopes Separation, 16 (1), 2013, 43-50

[34] **A. Marinoiu**, C.Cobzaru, E. Carcadea, V. Tanislav, C. Capris, Mathematical Modeling of Catalytic Hydrogenation Process of Glycerol to Propylene Glycol, Progress of Cryogenics and Isotopes Separation, 2012, 15 (2), 35-40, ISSN: 1582-2575

[35] C.Cobzaru, C. Cernătescu, **A. Marinoiu**, G. Bordeianu, Grapes. Chemical composition, extraction and application, Bulletin of the Polytechnic Institute of Iaşi, Section Chemistry and Chemical Engineering, 2013, Tome 59 (3), 2013, ISSN 0254-7104

[36] M. Raceanu, **A. Marinoiu**, C. Cobzaru, E. Carcadea, M. Varlam, D. Schitea, Effect of the catalytic ink preparation method on the performance of membrane electrode assemblies, Bulletin of the Polytechnic Institute of Iaşi, Section Chemistry and Chemical Engineering, 2013, Tome 59 (3), 2013, ISSN 0254-7104

[37] C. Cobzaru, C. Cernătescu, **A. Marinoiu**, Aloe Vera (Aloe Barbadensis Miller) Characterization and Application. Bulletin of the Polytechnic Institute of Iaşi, Section Chemistry and Chemical Engineering, 2013, Tome 59 (4), ISSN 0254-7104

[38] I. Petreanu, **A. Marinoiu**, C. Cobzaru, A. Soare, E. Carcadea, C. Capris, V. Tanislav, M.S.Teodorescu, Sulfonated Aromatic Polymers As Approach To Achieve Proton Exchange Membrane For PEM Fuel Cell, Bulletin of the Polytechnic Institute of Iaşi, Section Chemistry and Chemical Engineering, 2013, Tome 59 (4), ISSN 0254-7104

Annex 3:
List of published books/chapters

[1] **A Marinoiu**, G Mihai, O Lazar, S Rosoiu, M Prodana, C Sisu, M Raceanu, M Enachescu, *Facile Preparation of Graphene-supported Platinum-Cobalt Nanoparticles and their Use as Electrocatalyst in PEM Fuell Cells*/ Nanomaterials - functional properties and applications, Vol. 28 Micro-and Nanoengineering, The 18th edition of the National Seminar for Nanoscience and Nanotechnology

[2] Raceanu M, Bizon N, **Marinoiu A**, Varlam M, Design and Experimental Investigations of an Energy Storage System in Microgrids. Power Systems, Springer Nature Cham; 2020. doi:10.1007/978-3-030-23723-3_9

[3] Mircea Raceanu, Nicu Bizon, **Adriana Marinoiu**, Mihai Varlam, Design and Energy Analysis for Fuel Cell Hybrid Electric Vehicle/ Numerical Methods for Energy Applications. ISBN 978-3-030-62190-2, Mahdavi Tabatabaei and Bizon, Springer, Cham, 2020.

[4] **Adriana Marinoiu**, Elena Carcadea, Mircea Raceanu and Mihai Varlam, **Chapter 5**: Iodine Doped Graphene for Enhanced Electrocatalytic Oxygen Reduction Reaction in PEM Fuel Cell Applications, in **Book**: Advances In Hydrogen Generation Technologies; Published: August 22nd 2018 DOI: 10.5772/intechopen.76495, ISBN: 978-1-78923-535-7

[5] **Adriana Marinoiu**, Mircea Raceanu, Elena Carcadea, Aida Pantazi, Raluca Mesterca, Oana Tutunaru, Simona Nica, Daniela Bala, Mihai Varlam, Marius Enachescu, **Chapter title:** Noble metal dispersed reduced graphene oxide and its application in PEM Fuel Cells, **Book title:** Electrocatalysts for Fuel Cells and Hydrogen Evolution: Theory to Design, , ISBN: 978-953-51-6257-5

Annex 4:
The experience accumulated in research projects

Relevant Research Projects

[1] PN-III-P2-2.1-PED-2019-1894, "Graphene-based electrodes manufactured exclusively by laser techniques for PEM fuel cells produced by laser pyrolysis of a polymer matrix with integrated catalytic organometallic complexes", implementation period implementare: 12.11 - 11.11.2022, statut in echipa: *project manager*

[2] PN-III-P2-2.1-PED-2019-2079, denumire proiect "Associating the quantum selection process with the synthesis of metal-organic networks (MOF) to develop a new isotopic separation technology", implementation period: 23.10 - 22.10.2022, participant

[3] Bilateral Agreement CNR/RA Joint Research Projects 2020-2023, Responsabil partener

[4] Project PN 19 12 02 01, Innovative PEM fuel cell electrodes with improved performance and increased durability based on functionalized graphene materials, 2019, *proiect manager*

[5] Project PN 18 12 01 02, Nanostructured materials based on graphene - metal nanoparticles for ORR electrodes applications in the PEMFC field, 2018, *proiect manager*

[6] Project PN 16 36 01 02, Unconventional electrodes based on graphene materials with applications in PEM type fuel cells, 2016-2017, *proiect manager*

[7] Project PN 09 19 01 11 Prospects and technical-economic opportunities for CO_2 recycling to methane using renewable energy,, Ctr. 19N/2009- 2014, *proiect manager*

[8] 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*

[9] Proiect 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

[10] 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

[11] 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, 2013 participant

Annex 5: Patent and patent requests

[1] Marinoiu Adriana, Carcadea Elena, Raceanu Mircea, Capris Catalin, Varlam Mihai, *Procedeu de obtinere materiale grafenice dopate cu nanoparticule de aur*, A/00536/26.08.2020

[2] Marinoiu Adriana, Raceanu Mircea, Borta Simona, Schitea Dorin, Carcadea Elena, Varlam Mihai, *Procedeu de obținere a stratului de difuzie a gazelor, pe bază de fibre de carbon, pentru pile de combustibil*, A/00569/11.09.2020

[3] Marinoiu Teodora Adriana, Carcadea Elena, Capris Ioan Catalin, Raceanu Mircea, Varlam Mihai, *Procedeu de preparare materiale grafenice functionalizate cu iod în câmp de micround*e, A/00804/03.12.2020

[4] Adriana Teodora Marinoiu, Simona Nica, Elena Carcadea, Catalin Capris, Mihai Varlam, *Grafene covalent funcționalizate cu azulene şi procedeu de obținere a acestora*, A/00804/03.12..2020

[5] Marinoiu A, Carcadea E, Şişu C, Andrei R, Raceanu M, Capriş C, Varlam M, *Procedeu de obținere nanocompozite - fibre de carbon decorate cu nanoparticule de platină prin electrospinning*, A/00856/04.12.2019

[6] Marinoiu A., Carcadea E., Raceanu M., Capriş C., Varlam M., *Procedeu de preparare materiale grafenice dopate cu azot în câmp de microunde*, A/00855/04.12.2019

[7] A. Marinoiu, M. Raceanu, C. Capris, E. Carcadea, S.F. Ion, M. Varlam, *Process for obtaining a nanoparticulate material based on graphene with metallic nanoparticles*, autori: Patent request no. A/01134/18.12.2017

[8] A. Marinoiu, E. Carcadea, M. Raceanu, L. Patularu, M. Varlam, Iodine-doped graphene and process for their preparation, Patent request no A/01133/18.12.2017.

[9] L. Patularu, D. Schitea, M. Varlam, I. Stefanescu, A. Marinoiu, Process for fabrication of bipolar plates with liquid cooling system included for PEM fuel cell assemblies,Patent no 129408, 30/03/2018

[10] Elena Carcadea, A. Marinoiu, A. Chitu, J. Arhip, M. Varlam, Method and system of hydrogen generation by hydrolysis of sodium borohydride, BI nr. 132339/30.07.2020

DATE: 11.02.2021 **SIGNATURE:** Marinoiu Adriana