

PERSONAL INFORMATION

Ioan Iordache



 Ramnicu Valcea, ROMANIA



Nationality Romanian

POSITION

GENERAL DIRECTOR
Research-Development and Testing National Institute for Electrical Engineering
ICMET Craiova

WORK EXPERIENCE

2019-2022

Director of ICSI Business Department

National Research & Development Institute for Cryogenics & Isotopic Technologies – ICSI Rm. Valcea, Uzinei street, no.4, Ramnicu Valcea, Romania, www.icsi.ro

- Coordinating the activity of the teams within the Department
- Analyzing the orders received and directing them to the adequate compartments
- Identifying, developing and securing new business opportunities
- Maintaining relationship with clients

2022-present

Chair of Clean Hydrogen JU States' Representatives Group

Clean Hydrogen Partnership, Avenue de la Toison d'Or 56-60 - BE 1060 Brussels, www.clean-hydrogen.europa.eu

- to organise, schedule, conduct meetings and moderate discussions the SRG's activities;
- to represent the SRG at the Clean Hydrogen Joint Undertaking's Governing Board meetings

2019-present

Associate Professor

University Politehnica of Bucharest, www.upb.ro

- Carrying out teaching activities in accordance with the mission, objectives, standards and values of the University "Politehnica" of Bucharest, Romania

2007 – 2018

Scientific Researcher, National Center for Hydrogen and Fuel Cell

National Research & Development Institute for Cryogenics & Isotopic Technologies – ICSI Rm. Valcea, Uzinei street, no.4, Ramnicu Valcea, Romania, www.icsi.ro

2000 - 2007

Project Manager, Engineer

S.C. OLTCHIM S.A., Uzinei street, no.1, Ramnicu Valcea, Romania

- Industrial development projects, responsible for project implementation
- Participant in research and technological and industrial development projects

1997-2000

Manager, Volunteering activity

The Romanian National Reservation "Dealul Repedea"

- Administrative activities
- Greening activities
- Development of projects and proposals to the Environment Agency for the arrangement of various areas, etc.

EDUCATION AND TRAINING

- 2010 – 2015 **PhD in Industrial Engineering**
Faculty of Entrepreneurship, Business Engineering & Management, University "POLITEHNICA" of Bucharest
- 2001 – 2007 **PhD in Chemistry**
Faculty of Industrial Chemistry, Technical University "Gh. Asachi" of Iasi
- 2000 – 2001 **Master's Degree in Environmental Engineering**
Faculty of Industrial Chemistry, Technical University "Gh. Asachi" of Iasi
- 1995 – 2000 **Bachelor's Degree in Environmental Engineering**
Faculty of Industrial Chemistry, Technical University "Gh. Asachi" of Iasi

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills Good communication and inter-personal skills, easy adaptability to new environments, gained from working with different teams of different nationalities and with diverse qualifications. The relationship with the twenty-person team within the department I coordinate relies on communication, so this experience helped me gain and strengthen my communication skills, together with my experience as a university teacher.

Organisational / managerial skills Between 2000-2007 I worked as a Project Manager, and I had to plan and develop the project idea, to monitor the progress of the project, to coordinate my team's activities, and to manage the budgets. Since 2019, I am the coordinator of ICSI Business, a 20-person team Department, where I organize daily activities. I direct and work alongside my team to achieve the department's objectives.

Job-related skills Experience in various teams and projects, from the design and construction of environmentally friendly industrial facilities, to scientific research in the field of hydrogen, fuel cells or wastewater treatment; Various skills acquired as a result of professional experience and qualifications: doctor in chemistry, doctor in industrial engineering, researcher, reviewer for scientific articles, etc.

Computer skills Microsoft Office TOOLS
Multimedia software & Internet browsers
Operating Systems
Google Workspace

Driving licence ▪ B category

ADDITIONAL INFORMATION

Seminars (Trainings/Fellowships)	Annex 1
Books	Annex 2
Publications	Annex 3
Projects	Annex 4
Conferences	Annex 5
Memberships	<ul style="list-style-type: none"> • The States Representatives Group (SRG) of Clean Hydrogen Partnership, <i>European Commission</i>, Chair, Romania Delegate • Romanian Association for Hydrogen Energy, Executive Director (CEO) • IAHE Nuclear Hydrogen, Division President • Romanian Society of Chemistry • European Physical Society • Romanian Physical Society • The General Association of Engineers in Romania (AGIR).
Guest Editor	<ul style="list-style-type: none"> • International Journal of Hydrogen Energy, ICH2P-2019 Special Issue
Reviewer	<ul style="list-style-type: none"> • International Journal of Hydrogen Energy • Journal of Hazardous Materials • Journal of Energy Storage • Chemical Engineering Journal • Applied Catalysis B: Environmental • Sustainable Environment Research • Renewable & Sustainable Energy Reviews • Renewable Energy • Agronomy Research • Sustainable Production and Consumption • Ecological Engineering
Committees	<ul style="list-style-type: none"> • European Fuel Cell “Piero Lunghi” Conference & Exhibition, Rome, Italy (Scientific Committee International Journal of Hydrogen Energy) • Hydrogen Days Conference, Prague, Czech Republic (Honorary Committee) • Modern Science and Energy, SME, Cluj-Napoca, Romania (Scientific Committee) • Romanian National Chemistry Conference, Caciulata-Calimanesti, Romania

Annex 1: Seminars (Trainings/Fellowships)

- 2011, 9-10 March: Certificate of competence “*MICROREACTIVITY Reference, training course for equipments*”, PID Eng&Tech, Madrid, SPAIN.
- 2011, 14-25 February: Training Program “*Handlungsorientierung in der beruflichen Bildung*” International Institute for Vocational Training, An institute of the ministry of culture, youth and sport Baden-Wurttemberg, Mannheim, GERMANY.
- 2011, 15-30 January: Training program, Certificate of TRAINER (RO: Formator COR 24120), CNT Eduexpert, Craiova, ROMANIA
- 2010: Seminar and workshop: “*The investigation, remediation and monitoring of soil and groundwater contamination; exchange of ideas and development of cooperative research projects*”, Catholic University of Korea, 18-28 October, Seoul, S. KOREA
- 2008: Workshop: “*The advanced treatment of water and wastewater with ultrasound*”, Korea University, 3-8 November, Seoul, S. KOREA
- 2008: Workshop on *Regional Development And Hydrogen Projects* – organized by Roads2HyCom in co-operation with HyRaMP, 29 May, Royal Academy of Science, Brussels, BELGIUM
- 2007: *Global Wastewater Technology Summit*, London Business Conferences, 26 - 27 March, London, U.K.,
- **2005: Marie Curie Training Fellowship (European FP5 scholarship), Laboratoire de Physico-at Toxico-Chemie des Systèmes Naturels, University Bordeaux I, Talence, FRANCE,**
- **2004: Marie Curie Training Fellowship (European FP5 scholarship), Department of Chemistry, University of Oslo, Oslo, NORWAY**

Annex 2: List of published books

1. Hydrogen and Natural Gas in Romania, (Romanian), Authors: Iordache Ioan and Dumitru Chisalita, Published by: Didactică și Pedagogică, 2022, ISBN 978-606-31-1539-4
2. Hydrogen in an International Context, Vulnerabilities of Hydrogen Energy in Emerging Markets, Editor and co-Author: Iordache Ioan, Published by: River Publishers, 2017, ISBN 978-879-337-998-5
3. The hydrogen, energy vector (*Romanian*), Authors: Iordache Ioan, Stefanescu Ioan, Gheorghe Adrian, Iordache Mihaela, Published by: AGIR, Bucharest, Romania, 2016, ISBN 978-973-720-628-2

4. The hydrogen production. Methods and processes (Romanian), Authors: Iordache Ioan and Stefanescu Ioan, Published by: AGIR, Bucharest, Romania, 2011, ISBN 978-973-720-405-9
5. Advanced technologies for water treatment and hydrogen separation (Romanian), Authors: Iordache Ioan and Stefanescu Ioan, Published by: AGIR, Bucharest, Romania, 2010, ISBN 978-973-720-341-0
6. Sonochemistry in energy-intensive wastewater treatment methods (Romanian), Authors: Iordache Ioan and Iordache Mihaela, Published by Casa Cartii de Stiinta, Cluj-Napoca, Romania, 2009, ISBN 978-973-133-611-4,

Annex 3: List of publications (articles)

1. "Sonochemical enhancement of cyanide ions degradation from wastewater in the presence of hydrogen peroxide", I. Iordache, M. Nechita, N. Aelenei, I. Rosca, G. Apostolescu, M. Peptanariu, Polish journal of environmental studies [ISSN 1230-1485], Vol. 12, No. 6 (2003), 735-737.
2. "Sonoelectrochemical degradation of cyanide ions from wastewater", I. Iordache, M. T. Nechita, N. Aelenei, D. Sutiman, M. Peptanariu, Journal of Balkan Ecology [ISSN 1311-0527, (www.ecobalk.hit.bg)], v. 6, No. 3 (2003), 316-319.
3. "The sonochemical degradation of cyanide ions using atmospheric oxygen as oxidising agent", I. Iordache, M. Nechita, N. Aelenei, I. Rosca, M. Peptanariu, Environmental Engineering and Management Journal [ISSN 1582-9596], 2, 2 (2003), 131-136.
4. "Sonochemical enhancement of cyanide oxidation methods", M. Nechita, I. Rosca, I. Iordache, Environmental Engineering and Management Journal [ISSN 1582-9596], 4,2 (2003), 333-344.
5. "pH influence on sonochemical degradation of cyanides with H₂O₂ and O₂", Ioan Iordache, Mircea Teodor Nechita, Nicolae Aelenei, Gabriela Apostolescu, Ioan Rosca, Environmental Engineering and Management Journal [ISSN 1582-9596], 2, 3 (2004), 95-100,
6. "Ultrasound Assisted Electrochemical Degradation of Cyanides: Influence of Electrode Type", I. Iordache, M. Nechita, I. Rosca, N. Aelenei, Turkish Journal of Engineering and Environmental Sciences, 28, (2004), 377-380.
7. „Cercetări privind obținerea radiolitică a nano-particulelor de aur depuse pe suport de carbon” (The obtain of gold nana-particles using the radiolysis synthesis), G. A. Apostolescu, M. T. Nechita, M. Vizitiu, I. Iordache, Analele Universității "Aurel Vlaicu" Arad, (1-5), 2004, ISSN 1582-3415,
8. "Epurarea sonoelectrochimică a apelor ce conțin cianuri" (Sonoelectrochemical removal of cyanide ions from wastewater), I. Iordache, M. T. Nechita, C. Cojocaru, Analele Universității "Aurel Vlaicu" Arad, (301-306), 2004, ISSN 1582-3415.
9. "Nitrous oxide decomposition over Fe-ZSM-5 catalysts prepared by different methods", M. T. Nechita, I. Rosca, D. Sutiman, G. Apostolescu, I. Iordache, Environmental Engineering and Management Journal [ISSN 1582-9596], 4, 4 (2005) 429-436.
10. "Cyanide treatment in sonic field", Nechita Mircea Teodor and Ioan Iordache, Bulletin of Polytechnic Institute of Iasi, tom L (LV), 5 (2006), 147-152.
11. "Comparison of Fenton and sono-Fenton BPA degradation", Iordache Ioan, Steven Wilson, Elsa Lundanes, Aelenei Neculai, Journal of Hazardous Materials, 142 (2007), 559-563,
12. "The electrochemical behaviour of some unobtainable alloys in Fusayama artificial saliva", Sutiman Dan, Mareci Daniel, Nechita Mircea Teodor, Iordache Ioan, Julia Claudia Mirza Rosca, Macedonian Journal of Chemistry and Chemical Engineering [ISSN 1857-5552], Vol 26, No 1 (2007), 57-63.
13. "Corrosion behavior of some low-carbon steels in organic environment in the presence of succinic and adipic acids", Daniel Sutiman, Mircea Teodor Nechita, Daniel Mareci, Ioan Iordache, Environmental Engineering and Management Journal [ISSN 1582-9596], 7, 1, (2008) 69-72.
14. "Removal of Bis(1-chloro-2-propyl)ether from wastewater using sonodegradation and biodegradation", Mihaela Iordache, Vasile Lucian Pavel, Lim Myunghee, Ioan Iordache, Environmental Engineering and Management Journal [ISSN 1582-9596], 8, .2, (2009) 201-206.
15. "The fenton and sono-fenton processes applied for pesticide degradation", Ioan Iordache, Steven Wilson, Elsa Lundanes, Mihaela Iordache, Vasile Lucian Pavel, Neculai Aelenei, Environmental Engineering and Management Journal [ISSN 1582-9596], 9, 4, (2010) 519-525.
16. "Development of the membrane permeator for hydrogen production to ICIT - Rm. Valcea", Iordache Ioan, Raceanu Mircea, Curuia Marian, Cho Jong Soo, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPRO, GALE, INSPEC, INIS Romania], 13, 2, (2010) 79-87.
17. "Mesoporous SBA-15 supported platinum catalysts for alcohols oxidation", Violeta Niculescu, Ramona Ene, Ioan Iordache, Viorica Parvulescu, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPRO, GALE, INSPEC, INIS Romania], 14, 2, (2011) 95-101.
18. "The hazardous substance environmental impact in the industrial area of Rm. Valcea", Iordache Mihaela, Branzoi Ioan Viorel, Iordache Ioan, Dobre Georgeta, Totea Georgeta, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPRO, GALE, INSPEC, INIS Romania], 15, 1, (2012) 79-87.
19. "Hybrid materials obtained by nickel immobilization on mesoporous MCM-41 and their application in alcohols oxidation", Violeta Niculescu, Ramona Ene, Ioan Iordache, Viorica Parvulescu, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPRO, GALE, INSPEC, INIS Romania], 15, 1, (2012) 37-43.
20. "Variation of the Olt River Quality Into the Industrial Complex Area of Ramnicu Valcea", Mihaela Iordache, Ioan Viorel Branzoi, Ioan Iordache, Luisa Popescu, Maria Taralunga, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPRO, GALE, INSPEC, INIS Romania], 15, 2, (2012) 65-71.
21. "Development of an experimental model based simulation on nanostructured hydrides for hydrogen storage", Ioan Iordache, Gabriel Rasoi, Vasile Anghel, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPRO, GALE, INSPEC, INIS Romania], 16, 1, (2013) 35-43.
22. "Potential studies of ultrasounds effects in fuel cells", Dorin Schitea, Gheorghe Amza, Ioan Iordache, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPRO, GALE, INSPEC, INIS Romania], 16, 1, (2013) 25-34.
23. "The efficient catalytic conversion of glycerol into valuable chemicals", Adriana Marinou, Elena Carcadea, Claudia Cobzaru, Ioan Iordache, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPRO, GALE, INSPEC, INIS Romania], 16, 1, (2013) 43-50.
24. "Towards a hydrogen economy in Romania: statistics, technical and scientific general aspects", Ioan Iordache, Adrian Gheorghe, Mihaela Iordache, International Journal of Hydrogen Energy, 38 (2013) 12231-12240.
25. "Hydrogen and Fuel Cell R&D Programs and Projects in Romania Between 2000 and 2012", Ioan Iordache, Alexandru Rizoiu, Mihai Balan, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPRO, GALE, INSPEC, INIS Romania], 16, 2, (2013) 29-38.

26. "Hazardous substances in water and Sediments of Olt river, downstream from Rm. Valcea", Mihaela Iordache, Ioan Iordache, Luisa Roxana Popescu, Diana Costinel, Progress of Cryogenics and Isotopes Separation - ISSN 1582-2575 [indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPPIO, GALE, INSPEC, INIS Romania], 16, 2, (2013) 117-126.
27. "Evaluation of the Soil Mercury Pollution Induced by the Chloro-Alkany Activities in Chemical Industrial Areas", Luisa-Roxana Popescu, Eleonora Mihaela Ungureanu, Mihaela Iordache, Georgiana-Anca Inel, Ioan Iordache, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPPIO, GALE, INSPEC, INIS Romania], 16, 2, (2013) 127-133.
28. "PEM Fuel Cells in Automotive Applications - Realizations and Perspective within ICSI Rm. Valcea", Ioan Iordache, Mihai Culcer, Mariana Iliescu, Mircea Răceanu, Adrian Enache, Maria Simona Mosteanu, Mihai Varlam, Ioan Stefanescu, Electromotion [ISSN 1223-057X; indexed in IET (Institution of Engineering and Technology) – INSPEC, UK], 20, 1-4, (2013) 109-112.
29. "Evaluation of Contamination with Priority Hazardous Substances of Water and Sediment of the Olt River on the industrial platform of Ramnicu Valcea", Mihaela Iordache, Aurelia Meghea, Silvia Neamțu, Luisa Roxana Popescu, Ioan Iordache, Revista de Chimie (Rev. Chim. Bucharest), 65, 1, (2014) 87-93.
30. "Romania's participation to Fuel Cell and Hydrogen Joint Undertaking projects and calls", Ioan Iordache, Dorin Schitea, Mihaela Ramona Buga, Mihai Balan, Progress of Cryogenics and Isotopes Separation - ISSN 1582-2575 [indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPPIO, GALE, INSPEC, INIS Romania], 17, 1, (2014) 5-14.
31. "A comparative simulation and sensitivity analysis study of hydrogen production by steam methane reforming", Mihaela Buga, Mihai Balan, Ioan Iordache, Mihai Varlam, Progress of Cryogenics and Isotopes Separation - ISSN 1582-2575 [indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPPIO, GALE, INSPEC, INIS Romania], 17, 1, (2014) 15-22.
32. "Carbon dioxide reusing for methane fuel obtaining over heterogeneous catalysts as a possible source of energy", Adriana Marinouiu, Elena Carcadea, Roxana Ionete, Mircea Raceanu, Claudia Cobzaru, Ioan Iordache, Constantin Teodorescu, Adrian Enache, Progress of Cryogenics and Isotopes Separation - ISSN 1582-2575 [indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPPIO, GALE, INSPEC, INIS Romania], 17, 1, (2014) 23-30.
33. "The Application of Pollution Indexes in the Assessment of Heavy Metal Pollution in Sediments", Mihaela Iordache, Luisa Roxana Popescu, Ioan Iordache, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPPIO, GALE, INSPEC, INIS Romania], 17, 2, (2014) 129-141.
34. "Hydrogen underground storage in Romania, potential directions of development, stakeholders and general aspects", Ioan Iordache, Dorin Schitea, Adrian Gheorghe, Mihaela Iordache, International Journal of Hydrogen Energy, 39 (2014) 11071-11081.
35. "A new approach for optimizing the main components for PEM fuel cell", Adriana Marinouiu, Dorin Schitea, Claudia Cobzaru, Irina Petreanu, Ioan Iordache, Simona Mosteanu and Laurentiu Pătularu, Bulletin of The Polytechnic Institute of Iasi [ISSN: 0254 – 7104, Ranked B+ by CNCSIS], Tomul LX (LXIV), Fasc. 1, 2014, 9-17.
36. "Study about the development of a portable fuel cell system containing an integrated hydrogen generator", Adriana Marinouiu, Claudia Cobzaru, Simona Mosteanu, Irina Petreanu, Mircea Raceanu, Cătălin Capris and Ioan Iordache, Bulletin of The Polytechnic Institute of Iasi [ISSN: 0254 – 7104, Ranked B+ by CNCSIS], Tomul LX (LXIV), Fasc. 1, 2014, 17-29.
37. "Evaluation of the quality of environmental factors, soil and water in the Parang Mountains, Romania", Mihaela Iordache, Luisa Roxana Popescu, Florentina Pascu, Carol Lehr, Silvia Neamțu, Ioan Iordache, Revista de Chimie (Rev. Chim. Bucharest), 66, 7, (2015) 1009-1015.
38. "The environmental risk assessment in sediments from Jiu River, Romania", Mihaela Iordache, Luisa Roxana Popescu, Luoana Florentina Pascu, Ioan Iordache, Revista de Chimie (Rev. Chim. Bucharest), 66, 8, (2015) 1247-1252.
39. "Estimated transfer of volatile organochlorine substances in the ecosystems water, sediment, biota using the concept of fugacity", Mihaela Iordache, Luisa Roxana Popescu, Luoana Florentina Pascu, Ioan Iordache, Progress of Cryogenics and Isotopes Separation [ISSN 1582-2575; indexed in: Contemporary Science Association (CSA), EBSCO, ULRICH'S, SCIPPIO, GALE, INSPEC, INIS Romania], 18, 1, (2015) 99-114.
40. "Numerical analysis of Cu and Ni based catalysts in the hydrogenation process of glycerol", Adriana Marinouiu, Claudia Cobzaru, Elena Carcadea, Mircea Raceanu, Catalin Capris, Vasile Tanislav, Constantin Teodorescu, Ioan Iordache, Environmental Engineering and Management Journal, 14, 9, (2015) 2201-2211.
41. "Insights, perspectives and general aspects for renewable hydrogen development in Romania", Dorin Schitea, Ioan Iordache, Adrian Gheorghe, Gabriel Dumitru, Gabriel Iacobescu, U.P.B. Sci. Bull. (Series D), 78, 1, (2016) 221-232.
42. "Evaluation of heavy metal pollution into a complex industrial area from Romania", Mihaela Iordache, Ioan Viorel Branzoi, Luisa Roxana Popescu, Ioan Iordache, Environmental Engineering and Management Journal, 15, 2 (2016), 389-394.
43. "Progress of the IAHE Nuclear Hydrogen Division on international hydrogen production programs", A. Odukoya, G.F. Naterer, M. Roeb, C. Mansilla, J. Mougín, B. Yu, J. Kupecki, Ioan Iordache, J. Milewski, International Journal of Hydrogen Energy, 41, 19 (2016) 7878-7891.
44. "Assessment of pollution with organochlorine substances in the accumulation lakes on the Olt River, using the Fugacity Model", Mihaela Iordache, Luisa Roxana Popescu, Silvia Neamtu, Luoana Florentina Pascu, Ioan Iordache, Revista de Chimie (Rev. Chim. Bucharest), 67, 6, (2016) 1186-1190.
45. "Hydrogen refueling station infrastructure roll-up, an indicative assessment of the commercial viability and profitability", Ioan Iordache, Dorin Schitea, Mihaela Iordache, International Journal of Hydrogen Energy, 42 (2017) 4721-4732.
46. "Ultrasonic irradiation a chlorinated organic compounds (Tetrachlorethylene, Tetrachloroethene, 1, 1, 2 Trichloroethane) from water", Mihaela Iordache, Luisa Roxana Popescu, Luoana Florentina Pascu, Ioan Iordache, Adriana Marinouiu, Revista de Chimie (Rev. Chim. Bucharest), 68, 5, (2017), 1019-1022.
47. "Hydrogen refuelling station infrastructure roll-up, an indicative assessment of the commercial viability and profitability in the Member States of Europe Union", Mihaela Iordache, Dorin Schitea, Ioan Iordache, International Journal of Hydrogen Energy, 42 (2017), 29629-29647.
48. "Chemical sonoreactors in environmental applications", Ioan Iordache, Dorin Schitea, Mihaela Iordache, Gheorghe Amza, Jong Soo Cho, Environmental Engineering and Management Journal, December 2018, Vol.17, No. 12, 1855-1861,
49. „An integrated ARAS and interval type-2 hesitant fuzzy sets method for underground site selection: Seasonal hydrogen storage in salt caverns”, Mihaela Iordache · a · , Dorin Schitea · , Muhammet Deveci · , İbrahim Zeki Akyurt · , Ioan Iordache, Journal of Petroleum Science and Engineering, 175 (2019) 1088–1098.
50. „Hydrogen mobility roll-up site selection using intuitionistic fuzzy sets based WASPAS, COPRAS and EDAS”, Schitea D, Deveci M, Iordache M, Bilgili K, Akyurt IZ, Iordache I., International Journal of Hydrogen Energy, 44 (2019) 8585-8600.
51. "The hydrogen context and vulnerabilities in the central and Eastern European countries", Ioan Iordache, Karel Bouzek, Martin Paidar, Karin Stehlik, Johannes Töpfer, Mirosław Stygar, Juliusz Dąbrowa, Tomasz Brylewski, Ioan Stefanescu, Mihaela Iordache, Dorin Schitea, Sergey A. Grigoriev, Vladimir N. Fateev, Viacheslav Zgonnik, International Journal of Hydrogen Energy, 44 (2019) 19036-19054.

52. "Mathematical modeling of the glycerol hydrogenolysis using copper chromite catalysts. The effect of additional bases", Adriana Marinou, Claudia Cobzaru, Elena Carcadea, Mircea Raceanu, Adrian Enache, Mihai Varlam, Ioan Iordache, Environmental Engineering and Management Journal – **in Press**, accepted for publication.
53. "Developing a novel fuzzy neutrosophic numbers based decision making analysis for prioritizing the energy storage technologies", Dragan Pamucar, Muhammet Deveci, Dorin Schitea, Levent Erişkin, Mihaela Iordache, Ioan Iordache, International Journal of Hydrogen Energy, 45 (2020) 23027-23047.
54. "A New Hybrid Fuzzy Multi-Criteria Decision Methodology Model for Prioritizing the Alternatives of the Hydrogen Bus Development: A Case Study from Romania", Dragan Pamucar, Mihaela Iordache, Muhammet Deveci, Dorin Schitea, Ioan Iordache, International Journal of Hydrogen Energy, 46 (2021) 29616-29637.
55. "Prioritizing the alternatives of the natural gas grid conversion to hydrogen using a hybrid interval rough based Dombi MARCOS model", Mihaela Iordache, Dragan Pamucar, Muhammet Deveci, Dumitru Chisalita, Qun Wu, Ioan Iordache, International Journal of Hydrogen Energy, 47 (2022) 10665-10688.

Annex 4: List of projects

International projects:

1. "TeachHy, Teaching Fuel Cell and Hydrogen Science and Engineering Across Europe within Horizon 2020", H2020-JTI-FCH-2017-1., Coordinator University of Birmingham, 2017-2021; Experience as **Romanian Coordinator** (Romanian partner is University POLITEHNICA of Bucharest – UPB)
2. "HyLAW, Identification of legal rules and administrative processes applicable to Fuel Cell and Hydrogen technologies' deployment, identification of legal barriers and advocacy towards their removal", Fuel Cells and Hydrogen Joint Undertaking ('FCH JU') Project, Coordinator Hydrogen Europe, 2017-2019; Experience as **Romanian Coordinator**
3. "Strengthening Competencies in Hydrogen Technologies in V4", International Visegrad Fund, Coordinator Czech Hydrogen Technology Platform, 2015-2016; Experience as **Romanian Coordinator**
4. "Upgrading Capacity to Develop and Implement the Technology for Tritium Removal from Heavy Water at the Cernavoda Nuclear Power Plant, ROM 2009", 2012-2013, International Atomic Energy Agency (IAEA); Experience as **Project Manager**
5. "Assessment of the potential, the actors and relevant business cases for large scale and seasonal storage of renewable electricity by hydrogen underground storage in Europe (HyUnder)", Fuel Cells and Hydrogen Joint Undertaking ('FCH JU') Project, Coordinator Fundación para el Desarrollo de las Nuevas Tecnologías del Hidrógeno en Aragón (FHa), 2012-2014; Experience as **Romanian Coordinator**
6. "Clean Hydrogen Production with Water Splitting Technologies", Coordinator University of Ontario Institute of Technology (UOIT), Start date: 1 Jan. 2012, – Experience as **Romanian Coordinator**
7. "System Development of Wastewater Reuse and Biogas Production", Coordinator Water Engineering & Consulting, Inc., Seoul, Korea, 2011-2012, – Experience as **Romanian Coordinator**
8. "The investigation, remediation and monitoring of soil and groundwater contamination; exchange of ideas and development of cooperative research project", (Korea-Romania), 2009-2011,- Experience as **Project Manager**
9. "The advanced Treatment of Water and Wastewater with Ultrasound", (Korea-Romania), 2007-2009, Experience as **Romanian Coordinator**
10. "Organic Contaminants in the Environment" (FP5 contract number: HPMT-CT 2001-00393) - Experience as **PhD. Student, Marie Curie Training Fellowship**, Laboratoire de Physico-at Toxico-Chemie des Systèmes Naturels, University Bordeaux I, Talence, **FRANCE**, 2005
11. "Oslo Analytical Miniaturization Doctoral Training Site" (FP5 contract number: EVK-CT-2000-57121) - Experience as **PhD. Student, Marie Curie Training Fellowship**, Department of Chemistry, University of Oslo, Oslo, **NORWAY**, 2004

National projects (Romanian):

1. "New boranes and hydrides for hydrogen storage", *The National Project Code: PN 2 72-195/2008-2011* - Experience as collective coordinator
2. "The research and the development of a membrane reactor for ultrapure hydrogen production that supply the fuel cells", *The National Project Code: PN 2 21-004/2007-2010* - Experience as PhD. chemist coordinator
3. "Innovative System Energy Production by Acetic Acid Steam Reforming using High Temperature Proton Exchange Membrane Fuel Cells", *The National Project Code: PN 2 22-079/2008-2011* - Experience as PhD chemist coordinator
4. "Architectural Design and Development of Regenerative Electrolyser-Fuel Cell Energy Converter", *The National Project Code: PN 2 21-030/2007-2010* - Experience as PhD chemist researcher
5. "Low-cost hydrogen production through proton exchange membrane electrolysis", *The National Project Code: MENER 703/2006-2008* - Experience as PhD chemist researcher
6. "Isotopes for hydrogen energy - Towards the understanding of the specifics of reactions involved in the Hydrogen Fuel Cell integrated system using Steady-State Isotope Transient Kinetic Analysis" - Proof-of-concept for a hydrogen fuel cell power station/RomHylso, Contract no. 119/02.06.2010, (Instrumente Structurale), 2010-2012 - Experience as PhD chemist researcher
7. "AUTO-FORM - The increasing of the Romanian competitiveness in the field of automotive education, teachers formations at European standard", Contract no. POSDRU/87/1.3/S/61991, 2011-2013 - Experience as trainer.
8. National PN –project coordinator: (1) Hydrogen, Alternative Energy Vector, Interaction with Critical Infrastructures, Reducing Risks and Improving Resilience of the Energy Sector (2016-17), PN 16 36 03 02, (2) Electrochemical separation and storage of hydrogen, new and emerging technique (2018) PN 18 12 01 03.

Annex 5: List of conferences

1. "Denocivisation cyanides wastewater which organic substances", I. Iordache, N. Aelenei, I. Cretescu, The 27th National Chemistry Conference, Caciulata-Calimanesti, October, 23-25, **2002**,
2. "Electrooxidation cyanides from wastewater" I. Iordache, N. Aelenei, I. Cretescu, University 'Gh. Asachi' Conference, Iasi, November, 13-15, **2002**,
3. "Electrooxidation cyanides from wastewater in the alkaline pH", I. Iordache, N. Aelenei, I. Cretescu, University 'Al. I. Cuza' Conference, Iasi, November, 1-2, **2002**,

4. "Sonochemical removal of cyanide ions from wastewater", Iordache Ioan, Mircea Teodor Nichita, 4th International Conference of the Chemical Societies of the Southeast European Countries, Belgrade, Serbia and Montenegro, July 18-21, **2004**,
5. "Interaction study of NO_x with Fe-ZSM-5 zeolites", Mircea Teodor Nichita, Rosca Ioan, Ioan Iordache, Daniel Sutiman, Adrian Cailean, The 28th National Chemistry Conference, Caciulata-Calimanesti, October, 6-8, **2004**,
6. "Study of iron-nitro-silica complexes developed in ZSM-5 zeolites", Mircea Teodor Nichita, Rosca Ioan, Ioan Iordache, Gabriela Apostolescu, The 28th National Chemistry Conference, Caciulata-Calimanesti, October, 6-8, **2004**,
7. "Sonoelectrochemical removal of cyanide ions from wastewater", Iordache Ioan, Mircea Teodor Nichita, Cojocaru Corneliu, University AUREL VLAICU Conference, Arad, November, 3-4, **2004**,
8. "The obtain of gold nano-particles using the radiolysis synthesis", Apostolescu Gabriela Antoaneta, Rosca Ioan, Mircea Teodor Nichita, Vizitiu Mihaela, Sibiescu Doina, Iordache Ioan, University AUREL VLAICU Conference, Arad, November, 3-4, **2004**,
9. "Direct N₂O decomposition over Fe-ZSM-5 catalysts, influence of preparation method", Nechita Mircea Teodor, Rosca Ioan, Sutiman Daniel, Apostolescu Gabriela, Iordache Ioan, University 'Al. I. Cuza' Conference Iasi, October, 29-30, **2004**,
10. "Cyanide treatment in sonochemical field", Mircea Teodor Nechita, Ioan Iordache, National Conference of Applied Physical, December, Iasi, December, 4-5, **2004**,
11. "Tailoring the platinum nanoparticles dimensions by radiolytic synthesis method", G.A. Apostolescu, M.T. Nechita, N. Apostolescu, I. Iordache, International Conference On Materials Science & Engineering, Bramat, Braşov, February, 24-26, **2005**,
12. "Ultrasound irradiation: a simple method to improve the efficiency of cyanide electrooxidation and electrochlorination", G. Apostolescu, I. Iordache, A. Cailean, N. Apostolescu, M. T. Nechita, International Conference On Materials Science & Engineering, Bramat, Braşov, February, 24-26, **2005**,
13. "Different preparation methods of metal supported catalysts for NO_x decomposition", Nicolae Apostolescu, Mircea Teodor Nechita, Ioan Iordache, Gabriela Apostolescu, Ioan Rosca, The 9th "Zilelor Academice Timişene" Conference, Timisoara, May, 26-27, **2005**,
14. "Surfactant influence on silver nanoparticles prepared by irradiation in aqueous solution", Gabriela Apostolescu, Mircea Teodor Nechita, Nicolae Apostolescu, Ioan Iordache, Ioan Rosca, The 9th "Zilelor Academice Timişene" Conference, Timisoara, May, 26-27, **2005**,
15. "Cyanide treatment in sonic field", Ioan Iordache, Igor Cretescu, Nicolae Aelenei and Mircea Teodor Nechita, The 9th "Zilelor Academice Timişene" Conference, Timisoara, May, 26-27, **2005**,
16. "Stability of low alloy steels in the organic medium with succinic and adipic acids", Daniel Mircea Sutiman, Teodor Mircea Nechita, Ioan Iordache, 5th International Conference of the Chemical Societies of the Southeast European Countries, Ohrid, Macedonia, September, 10-14, **2006**,
17. "The electrochemical behavior of some ennobles alloys in Fusayama artificial saliva", Daniel Mircea Sutiman, Daniel Mareci, Teodor Mircea Nechita, Ioan Iordache, 5th International Conference of the Chemical Societies of the Southeast European Countries, Ohrid, Macedonia September, 10-14, **2006**,
18. "P.O. wastewater decantation, neutralization and filtration experiments at the pilot scale", C. Teodorescu, I. Iordache, D. Marinescu, The 29th National Chemistry Conference, Caciulata-Calimanesti, October, 4-6, **2006**,
19. "Modern wastewater treatment methods: The kinetic of sonochemical cyanide oxidation", Ioan Iordache, Mihaela Iordache, Mircea Teodor Nichita, Romanian International Conference on Chemistry and Chemical Engineering (RICCCE), Sinaia, September, 18-22, **2007**,
20. "The fuel cell industrial application: Energy saving and environmental protection in electrochemical chlor-alkali plants using PEMFC", Iordache Ioan, Adrian Schervan, Alessandro Delfrate, Iordache Mihaela, First Regional Symposium on Electrochemistry of South-East Europe, Crveni Otok, Rovinj, Istria, Croatia, May 4-8, **2008**,
21. "Modern wastewater Treatment methods: sonochemical processes", Iordache Ioan, Iordache Mihaela, Nichita Mircea Teodor, Patularu Laurentiu, NUCLEAR 2008, Annual International Conference on Sustainable Development through Nuclear Research and Education Piteşti, Romania, May 28-30, **2008**,
22. "Effect of frequency on ultrasonic degradation of 2-Chlorophenol solution" Myunghee Lim, Younggyu Son, Iordache Ioan, Jinghai Guo and Jeehyeong Khim, 11th Meeting of the European Society of Sonochemistry, La Grande - Motte, France, June 1-5, **2008**,
23. "Fenton and sono-Fenton degradation of bisphenol A", Iordache Ioan, Iordache Mihaela, Steven Wilson, Elsa Lundanes, Aelenei Neculai, Environmental Research and Mitigation of Water Pollution in Romania and in the Lower Danube Region, September 3-5, **2008**,
24. "Catalytic method of hydrogenating glycol", Adriana Marinou, Spiridon Oprea, Ioan Iordache, Daniela Marinescu, The 6th International Conference of the Chemical Societies of the South-Eastern European Countries, Sofia, 10-14, September, **2008**,
25. "Water and wastewater treatment methods: biodegradation and sonodegradation of removal bis(1-chloro-2-propyl)ether from water", Iordache Ioan, Iordache Mihaela, Nichita Mircea Teodor, Patularu Laurentiu, The 6th International Conference of the Chemical Societies of the South-Eastern European Countries, Sofia, Bulgaria, 10-14, September, **2008**,
26. "Laboratory research for organic wastewaters treatment using coagulation, flocculation and adsorption", Iordache Ioan, Gaspar Costinela, Marinescu Daniela, Iordache Mihaela, The 30th National Chemistry Conference, Caciulata-Calimanesti, October, 8-10, **2008**,
27. "Study of the 1, 2 dichloride propane stability influenced by humidity and atmospheric oxygen in the presence of stainless steel", Iordache Ioan, Marinou Adriana, Iordache Mihaela, Teodorescu Constantin, Patularu Laurentiu, Marinescu Daniela The 30th National Chemistry Conference, Caciulata-Calimanesti, October, 8-10, **2008**,
28. "Copper recovery from waste catalysts of CuCl₂/Al₂O₃", Iordache Ioan, Teodorescu Constantin, Marinescu Daniela, Iordache Mihaela, Marinou Adriana, Patularu Laurentiu, The 30th National Chemistry Conference, Caciulata-Calimanesti, October, 8-10, **2008**,
29. "Poly (2,6-dimethyl-1,4- phenylene oxide) sulphonated membranes for PEM FC", Daniela Ebrasu, Irina Petreanu, Ioan Iordache, Ioan Stefanescu, Costinela-Laura Gáspár, Daniela Militaru, The 30th National Chemistry Conference, Caciulata-Calimanesti, October, 8-10, **2008**,
30. "Effect of Frequency on Ultrasonic Degradation of Phenol Solution", Myunghee Lim, Younggyu Son, David Elena, Iordache Ioan, Jeehyeong Khim, The 14th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, 29-31 October **2008**,
31. "Energy-intensive treatment methods: treatment of water with ultrasound", Iordache Ioan, Jeehyeong Khim, Iordache Mihaela, Patularu Laurentiu, Ebrasu Daniela, Petreanu Irina, The 14th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, 29-31 October **2008**,
32. "Propylene glycol obtaining by glycerol hydrogenolysis", Adriana Marinou, Ioan Iordache, Mihaela Iordache, Constantin Teodorescu, Spiridon Oprea, The 14th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, 29-31 October **2008**,
33. "Industrial fuel cell system, premise for a hydrogen community", Iordache Ioan, Alessandro Delfrate, Ebrasu Daniela, Petreanu Irina, Patularu Laurentiu, Iordache Mihaela, The 14th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, 29-31 October **2008**,
34. "Development of the sulphonated poly (2,6-dimethyl-1,4- phenylene oxide membranes) for PEM fuel cell", Daniela Ebrasu, Irina Petreanu, Ioan Iordache, Ioan Stefanescu, Costinela-Laura Gáspár, Daniela Militaru The 14th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, 29-31 October **2008**,
35. "The effect of sonication on chlorine disinfection in the inactivation of E.coli", H.L. Phan, H. Kim, M. Lim, I. Iordache and J. Khim, The 29th Symposium on Ultrasonic Electronics, Sendai, Japan, 11-13 November **2008**.

36. "Catalytic process for glycerol hydrogenation I. Reaction parameters optimization" Adriana Marinouiu, Ioan Iordache, Mihaela Iordache, Constantin Teodorescu, Victor Georgescu, The 15th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, 28-30 October **2009**,
37. "Catalytic process for glycerol hydrogenation II. Selective hydrogenolysis with copper chromite catalysts", Mihaela Iordache, Adriana Marinouiu, Ioan Iordache, Daniela Marinescu, Spiridon Oprea, The 15th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, 28-30 October **2009**,
38. "Catalytic performances of nickel-copper catalysts for glycerol hydrogenolysis", Mihaela Iordache, Adriana Marinouiu, Ioan Iordache, Vasile Georgescu, Claudia Cobzaru, Spiridon Oprea, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, 28-30 October **2009**,
39. "Glycerol hydrogenolysis to propylene glycol using heterogeneous catalysts", Adriana Marinouiu, Mihaela Iordache, Ioan Iordache, Claudia Cobzaru, Spiridon Oprea, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, 28-30 October **2009**,
40. "Adsorption kinetics of phenol onto granular activated carbon in the presence of ultrasound", Junghyun Lim, Mingcan Cui, Ioan Iordache, David Elena, Jeehyeong Khim, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, 28-30 October **2009**,
41. "The investigation, remediation and monitoring of soil and groundwater contaminated sites; Romanian-Korean mutual training and collaboration action", Iordache Ioan, Cho Jong Soo, David Elena, Costinel Diana, Vremera Raluca, The Third Annual International Conference on Sustainable Development through Nuclear Research and Education, Pitești, România 26-28 May **2010**,
42. "Soil and water contamination and their effect on environment", David Elena, Iordache Ioan, Cho Jong Soo, The Third Annual International Conference on Sustainable Development through Nuclear Research and Education, Pitești, România 26-28 May **2010**,
43. "Magnetron sputtering as a feasible technique for palladium deposition and its applications for PEM Fuel Cell Systems", Ioan Iordache, Catalin Ducu, Laurentiu Patularu, Sorin Moga, Daniela Ebrasu, Second Regional Symposium on Electrochemistry of South-East Europe, Belgrade, Serbia, 6-10 June **2010**,
44. "Revamping of existent chlor-alkali plants for conversion of hydrogen to electricity, hydrogen community germination step", Iordache Ioan, Alessandro Delfrate, Patularu Laurentiu, Iordache Mihaela, The 18th World Hydrogen Energy Conference (WHEC 2010), Essen, Germany, 15-21 May **2010**,
45. "Romanian-Korean bilateral environmental chemistry projects, useful mutual trainings and collaboration actions," Iordache Ioan, Cho Jong Soo, Khim Jeehyeong, David Elena, Iordache Mihaela, The 7th International Conference of the Chemical Societies of the South-Eastern European Countries, Bucharest, Romania, 15-17, September, **2010**,
46. "Functions of states representatives group to fuel cells and hydrogen joint undertaking and Romanian perspectives", Ioan Iordache, Mihai Varlam, Ioan Stefanescu, Mihaela Iordache, Laurentiu Patularu, 4 - th European Conference H2-Fuel-Millennium-Convergence 2010, Bucharest, September 20-21, **2010**,
47. "Applications of sonochemistry in advanced oxidation of pollutants from water", Ioan Iordache, Mihaela Iordache, The 31st National Chemistry Conference, Caciulata-Calimanesti, October, 6-8, **2010**,
48. "Catalytic performances of nickel-copper catalysts in glycerol hydrogenolysis", Adriana Marionoiu, Claudia Cobzaru, Ioan Iordache, Spiridon Oprea, The 31st National Chemistry Conference, Caciulata-Calimanesti, October 6-8, **2010**,
49. "Effect of base additives on glycerol hydrogenolysis over copper chromite catalysts", Adriana Marinouiu, Ioan Iordache, Mihaela Iordache, Constantin Teodorescu, Daniela Marinescu, The 16th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 13-15, **2010**,
50. "ICSI Rm. Valcea projects in collaboration with partners from south Korea", Iordache Ioan, Khim Jeehyeong, Cho Jong Soo, Iordache Mihaela, The 16th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 13-15, **2010**,
51. "Development of SMR membrane reactor for hydrogen production to ICIT - Rm. Valcea", Iordache Ioan, Raceanu Mircea, Curuia Marian, Mirica Dumitru, The 16th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 13-15, **2010**,
52. "Effect of base additives on propylene glycol obtaining over nickel catalysts", Ioan Iordache, Adriana Marinouiu, Mihaela Iordache, Claudia Cobzaru, The 16th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 13-15, **2010**,
53. "A kinetic and mass transfer model for glycerol hydrogenolysis", Ioan Iordache, Adriana Marinouiu, Mihaela Iordache, Claudia Cobzaru, The 16th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 13-15, **2010**,
54. "Development of the membrane permeator for hydrogen purification to national hydrogen and fuel cell center from Romanian: Technical aspects", Iordache Ioan, Raceanu Mircea, Varlam Mihai, Iordache Mihaela, 2011 International Conference On Hydrogen Production - I C H 2 P - 11, Thessaloniki, Greece, June, 18-23, **2011**,
55. "Analysis of passive remediation of contaminated groundwater with dimensionless numbers", Jong Soo Cho, Soon Mi Kim, Ioan Iordache, 2011 International Conference on Environment and BioScience (CEBS 2011, IPCBEE vol.21 (2011) © (2011) IACSIT Press, Singapore pg. 120-123.), Cairo, Egypt, October, 21-23, **2011**,
56. "The behaviour of the volcanic tuff based on clinoptilolite in the ion exchange process with Cr³⁺ and Fe³⁺ ions from wastewaters", Claudia Cobzaru, Ioan Iordache, Adriana Marinouiu, The 17th National Conference with International Participation "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 26-28, **2011**,
57. "The mathematical modeling of the ion exchange process on volcanic tuff used in purification of the residual waters containing Cr³⁺ and Fe³⁺ ions", Claudia Cobzaru, Adriana Marinouiu, Ioan Iordache "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 26-28, **2011**,
58. "A kinetic study for glycerol hydrogenolysis to propylene glycol", Adriana Marinouiu, Claudia Cobzaru, Ioan Iordache, Mihaela Iordache, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 26-28, **2011**,
59. "Underground hydrogen storage", Pamfilie Sorin, Ioan Iordache, Ioan Stefanescu, Gheorghe Badea, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 26-28, **2011**,
60. "Alternative sources of hydrogen", Pamfilie Lanna, Ioan Iordache, Ioan Stefanescu, Gheorghe Badea, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 26-28, **2011**,
61. "Environmental projects collaboration with S. Korean partners", Iordache Ioan, Cho Jong Soo, Iordache Mihaela, Soon-Mi Kim, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 26-28, **2011**,
62. "Pollution of Olt river with hazardous pollutants into Rm. Valcea industrial area in the recent years", Mihaela Iordache, Ioan Viorel Branzoi, Ioan Iordache, Andrea Iordache, Dobre Nicoleta Georgeta, Totea Georgeta, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 26-28, **2011**,
63. "Policy and programs in Romania, hydrogen and fuel cell research center", Iordache Ioan, Varlam Mihai, Stefanescu Ioan, Stanciu Vasile, EFC2011 - European Fuel Cell "Piero Lunghi" Conference & Exhibition, Rome, Italy December 14-16, **2011**,

64. "The study of new environmental technologies as a result of cooperation between ICSI. Rm. Valcea and partners in South Korea", Stefanescu Ioan, Iordache Ioan, Varlam Mihai, "Stiinta Moderna si Energia - SME 2012, XXI", Cluj-Napoca, Romania, May 17-18, **2012**,
65. "The study of new environmental technologies as a result of cooperation between ICSI. Rm. Valcea and partners in South Korea (2)", Stefanescu Ioan, Iordache Ioan, Varlam Mihai, "Conferinta Instalatiei pentru Constructii si Economia de Energie, Editia a XXII-a", Iasi, Romania, July 5-6, **2012**,
66. "Sonochemical installations and reactors, applications in water and wastewater treatment", Ioan Iordache, Mihaela Iordache, Jong Soo Cho, The 32nd National Chemistry Conference, Caciulata-Calimanesti, October 3-5, **2012**,
67. "Glycerol hydrogenolysis to propylene glycol on commercial copper chromite catalysts described by a mathematical model", Adriana Marinouiu, Claudia Cobzaru, Daniela Marinescu, Constantin Teodorescu, Ioan Iordache, Mihaela Iordache, The 32nd National Chemistry Conference, Caciulata-Calimanesti, October 3-5, **2012**,
68. "Hybrid materials obtained by nickel immobilization on mesoporous MCM-41 and their application in alcohols oxidation", Violeta Niculescu, Ramona Ene, Ioan Iordache, Viorica Parvulescu, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 25-26, **2012**,
69. "Glycerol hydrogenolysis of glycerol to propylene glycol on commercial nickel catalysts described by a mathematical model", Adriana Marinouiu, Elena Carcadea, Catalin Capris, Claudia Cobzaru, Vasile Tanislav, Iordache Ioan, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 25-26, **2012**,
70. "Overview on renewable energy sources hydrogen production using the electrolysis process", M. Balan, M. Culcer, I. Iordache, L. Patularu, A. Ciocan, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 25-26, **2012**,
71. "The hazardous substance environmental impact in the industrial area of Rm. Valcea (2)", Mihaela Iordache, Ioan Viorel Branzoi, Ioan Iordache, Nicoleta Georgeta Dobre, Georgeta Totea, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 25-26, **2012**,
72. "Variation of the Olt river quality into the industrial complex area of Ramnicu Valcea (2)", Mihaela Iordache, Branzoi Ioan Viorel, Ioan Iordache, Luisa Roxana Popescu, Maria Taralunga", "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 25-26, **2012**,
73. "Environmental impact of priority hazardous substances accumulating in soil, water and sediment in the industrial area of Ramnicu Valcea", Mihaela Iordache, Ioan Viorel Branzoi, Ioan Iordache, Georgeta Totea, Nicoleta Georgeta Dobre, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 25-26, **2012**,
74. "Production of propylene glycol by glycerol hydrogenolysis catalyzed by heterogeneous catalysts in basic aqueous solutions", A. Marinouiu, C. Cobzaru, I. Iordache, D. Marinescu, C. Teodorescu, 100th Anniversary of Faculty of Chemical Engineering and Environmental Protection - International Conference CENTENARY OF EDUCATION IN CHEMICAL ENGINEERING, Romania, Iasi, November 28-30, **2012**,
75. "Selective hydrogenolysis of glycerol to propylene glycol. Effect of base additives", A. Marinouiu, C. Cobzaru, I. Iordache, 100th Anniversary of Faculty of Chemical Engineering and Environmental Protection - International Conference CENTENARY OF EDUCATION IN CHEMICAL ENGINEERING, Romania, Iasi, November 28-30, **2012**,
76. "Development of the integrated membrane reactor for hydrogen production and steady-state isotope transient kinetic analysis system: technical aspects", Iordache Ioan, Varlam Mihai, Raceanu Mircea, Iordache Mihaela, XX International Conference on Chemical Reactors "CHEMREACTOR-20", Luxemburg, December 3-7, **2012**,
77. "Assesment of priority hazardous substances in water and sediments of Olt River", Mihaela Iordache, Ioan Viorel Branzoi, Georgeta Totea, Nicoleta Georgeta Dobre, Luisa Roxana Popescu, Ioan Iordache, 18th Romanian International Conference on Chemistry and Chemical Engineering, Sinaia, Romania, September 4-7, **2013**,
78. "Long-term pollutant fate of some pahs (naphthalene, anthracene and benzopyrene) in riverbeds for a quasi-continuous release of lowlevel", Mihaela Ramona Buga, Gheorghe Maria, Adriana Marinouiu, Ioan Iordache, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 10-11, **2013**,
79. "Power-to-gas and hydrogen underground storage", Ioan Iordache, Mihai Balan, Dorin Schitea, Mihaela Buga, Adriana Marinouiu, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 10-11, **2013**,
80. "Catalytic system for removing carbon monoxide from hydrogen fuel cell", Adriana Marinouiu, Elena Carcadea, Claudia Cobzaru, Mircea Raceanu, Violeta Niculescu, Marius Constantinescu, Ioan Iordache, "PROGRESS IN CRYOGENICS AND ISOTOPES SEPARATION", Calimanesti-Caciulata, Valcea, Romania, October 10-11, **2013**,
81. "PEM Fuel Cells in Automotive Applications - Realizations and Perspective within ICSI Rm. Valcea", Ioan Iordache, Mihai Culcer, Mariana Iliescu, Mircea Raceanu, Adrian Enache, Maria Simona Mosteanu, Mihai Varlam, Ioan Stefanescu, "10th Jubilee International Symposium on Advanced Electromechanical Motion Systems - ELECTROMOTION 2013", Cluj-Napoca, Romania, October 21-22, **2013**,
82. "Carbon monoxide removal from hydrogen fuel cell using heterogeneous catalyst", Adriana Marinouiu, Claudia Cobzaru, Constantin Teodorescu, Daniela Marinescu, Mircea Raceanu, Ioan Iordache, Mihai Varlam, International Symposium "PRIORITIES OF CHEMISTRY FOR A SUSTAINABLE DEVELOPMENT - PRIOCHEM" 9th Edition, Bucharest, Romania, October 24-25, **2013**,
83. "Possibility of hydrogen underground storage in Romania", Ioan Iordache, Dorin Schitea, and Ioan Stefanescu, EFC2013 - European Fuel Cell "Piero Lunghi" Conference & Exhibition, Rome, Italy December 11-13, **2013**,
84. "Implementing power-to-gas in the new energy context of Romania", Mihai Balan, Adrian Badea, Ioan Iordache, Mihaela Buga, Alexandru Ciocan, "Stiinta Moderna si Energia - SME 2014, XXXIII", Cluj-Napoca, Romania, May 15-16 (Conference Proceedings, Publishing House Risoprint, p. 16), **2014**,
85. "Biological hydrogen production", Mihaela Ramona Buga, Mihai Varlam, Ioan Ștefănescu, Ioan Iordache, "Stiinta Moderna si Energia - SME 2014, XXXIII", Cluj-Napoca, Romania, May 15-16 (Conference Proceedings, Publishing House Risoprint, p. 44), **2014**,
86. "Hydrogen underground storage. Romanian's issues", Ioan Iordache, Ioan Ștefănescu, Mihaela Buga, Dorin Schitea, Adriana Marinouiu, Mihai Balan, "Stiinta Moderna si Energia - SME 2014, XXXIII", Cluj-Napoca, Romania, May 15-16 (Conference Proceedings, Publishing House Risoprint, p. 80), **2014**,
87. "Upgrading Capacity to Develop and Implement the Technology for Tritium Removal from Heavy Water at the Cernavoda Nuclear Power Plant", Iordache Ioan, Ionita Gheorghe, The 7th Annual International Conference on Sustainable Development through Nuclear Research and Education, Pitești, România 28-30 May **2014**,
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