

Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **IOAN, IORDACHE**
Address(es) BI. MVP-C-13, No. 22, REGINA MARIA Street, postcode 240141, Rm. Valcea, ROMANIA
Telephone(s) - Mobile: 0040740008695
Fax(es) +40250732746
E-mail iordache2001ro@yahoo.co.uk ; iordache.ioan@icsi.ro
Nationality Romanian
Date of birth 28, Nov, 1976
Gender male

Desired employment / Occupational field **Doctor in the field of chemistry, chemical dipl. engineer / Scientific Researcher**

Work experience

- 2007- present: **Ph.D., Dipl. Eng., National Hydrogen & Fuel Cell Center** , National R&D Institute of Cryogenics and Isotopic Technologies -ICIT, Rm. Valcea, ROMANIA,
- 2006-2007: **Project Manager:** R&D Department, OLTCHIM, Rm. Valcea, ROMANIA,
- 2003-2006: Chemist Dipl. Engineer, OLTCHIM **Researcher Center**, Rm. Valcea, ROMANIA,
- 2001-2003: Technology teacher in pre-university school, Iasi, ROMANIA,
- 2000-2001: Chemist Dip. Engineer, Water treatment Department, OLTCHIM Chemical Society, Rm. Valcea, ROMANIA,
- 1997-2000: **Director of the Romanian National Reservation "Repedea Hill"**, Iasi, ROMANIA.

Education

- 2001-2007: Ph.D., chemistry, Department of Chemistry-Physics, Faculty of Industrial Chemistry, Technical University "Gh. Asachi", Iasi, ROMANIA,
- 2000-2001: M.S., Department of Environmental Engineering, Faculty of Industrial Chemistry, Technical University "Gh. Asachi", Iasi, ROMANIA,
- 1997-2000: Pedagogical and Didactical College, Technical University "Gh. Asachi" Iasi, ROMANIA, as a second specialization.
- 1995-2000: B.S., Dipl. Eng., Department of Environmental Engineering, Faculty of Industrial Chemistry, Technical University "Gh. Asachi" Iasi, ROMANIA.

Training

- 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: “Formator COR 241205”, 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,

Society Memberships

- Romania Delegate to the States Representatives Group (SRG) of the Fuel Cells and Hydrogen Joint Undertaking (FCH JU), *European Commission*.
- Romanian Association for Hydrogen Energy, Executive Director (CEO),
- Romanian Society of Chemistry, Member of Governing Committee,
- European Physical Society,
- Romanian Physical Society
- The General Association of Engineers in Romania (AGIR)

Reviewer

(I have reviewed articles in:)

- International Journal of Hydrogen Energy,
- Journal of Hazardous Materials,
- Chemical Engineering Journal,
- Applied Catalysis B: Environmental,
- Sustainable Environment Research.

Conference committees

- **European Fuel Cell “Piero Lunghi” Conference & Exhibition, Rome, Italy** (Scientific Committee)
- **Romanian National Chemistry Conference, Caciulata-Calimanesti, Romania** (Local Committee)

Books

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

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

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,

Personal skills and competences

Mother tongue(s)	Romanian
Other language(s)	English (good knowledge of spoken and written); French (basic range).
Social skills and competences	Good communication and inter-personal skills and ability to work in a team. I have worked in various types of teams and projects from projection and building of environmentally industrial plants to scientifically research in the field of hydrogen, fuel cells or wastewater treatment. All teams involved a diversity of nationalities (e.g. Norwegian, Czechs, French, Italian, German, Belgian, American, Korean, etc.) and qualifications (chemist, physicist, electrician, economists, administrator, etc.)
Organisational skills and competences	I am a doctor in the field of chemistry and chemical engineering which also involves organizing teams to carry out various work projects.
Technical skills and competences	Experience (two MC fellowships) in chemical technology and environmental analysis of pollutants (i.e. GC, GC-MS, GC-MS/MS, HPLC, microLC, FT-IR, UV_VIS, TOC). Practical skills in field of source apportionment methods, determine contributions of various pollution sources to a location of interest (e.g., outdoor, indoor, or personal exposure measurement).
Computer skills and competences	MS Office (Word, Excel), MathCAD, Internet
Other skills and competences	Certificate in the emergency aid and fire prevention
Driving licence	B category ($\leq 3500\text{kg}$, 1+ 8 Seats), I am a holder of a Romania Driving Licence.

Additional information Projects

International:

1. **“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
2. **“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), Start date: 18 June 2012, – Experience as Romanian Coordinator
3. **“Clean Hydrogen Production with Water Splitting Technologies”**, Coordinator University of Ontario Institute of Technology (UOIT), Start date: 1 Jan. 2012, – Experience as Romanian Coordinator
4. **“System Development of Wastewater Reuse and Biogas Production”**, Coordinator Water Engineering & Consulting, Inc., Seoul, Korea, Start date: 1 Dec. 2011, – Experience as Romanian Coordinator
5. **“The investigation, remediation and monitoring of soil and groundwater contamination; exchange of ideas and development of cooperative research project” (Korea-Romania)** – Experience as Project Manager
6. **“The advanced Treatment of Water and Wastewater with Ultrasound”**, (Korea-Romania) – Experience as Romanian Coordinator
7. **“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
8. **“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 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 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 chemist researcher,
5. **“Low cost hydrogen production through proton exchange membrane electrolysis”**, *The National Project Code: MENER 703/2006-2008*
- Experience as 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 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.

Annexes-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, Vol. 12, No. 6 (2003), 735-737, ISSN 1230-1485,
2. "Sonoelectrochemical degradation of cyanide ions from wastewater", I. Iordache, M. T. Nechita, N. Aelenei, D. Sutiman, M. Peptanariu, Journal of Balkan Ecology, v. 6, No. 3 (2003), 316-319, ISSN 1311-0527, (www.ecobalk.hit.bg)
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, 2, 2 (2003), 131-136, ISSN 1582-9596,
4. "Sonochemical enhancement of cyanide oxidation methods", M. Nechita, I. Rosca, I. Iordache, Environmental Engineering and Management Journal, 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, 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 nano-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. Cojocar, 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, 4, 4 (2005,) 429-436, ISSN 1582-9596,
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, Vol 26, No 1 (2007), 57-63, ISSN 1857-5552,
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, 7, 1, (2008) 69-72, ISSN 1582-9596,
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, 8, .2, (2009) 201-206, ISSN 1582-9596,
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, 9, 4, (2010) 519-525, ISSN 1582-9596,
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, 13, 2, (2010) 79-87, ISSN 1582-2575.
17. "Mesoporous SBA-15 supported platinum catalysts for alcohols oxidation", Violeta Niculescu, Ramona Ene, Ioan Iordache, Viorica Parvulescu, Progress of Cryogenics and Isotopes Separation, 14, 2, (2011) 95-101, ISSN 1582-2575.
18. "The hazardous substance environmental impact in the industrial area of Rm. Valcea", Iordache Mihaela, Branzoi Ioan Viorel, Iordache Ioan, Dobre Nicoleta Georgeta, Totea Georgeta, Progress of Cryogenics and Isotopes Separation, 15, 1, (2012) 79-87, ISSN 1582-2575.
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, 15, 1, (2012) 37-43, ISSN 1582-2575.
20. "Variation of the Olt River Quality Into the Industrial Complex Area of Ramnicu Valcea", Mihaela Iordache, Ioan Viorel Branzoi, Ioan Iordache, Luisa Roxana Popescu, Maria Taralunga, Progress of Cryogenics and Isotopes Separation, 15, 2, (2012) 65-71, ISSN 1582-2575.
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, 16, 1, (2013) 35-43, ISSN 1582-2575.
22. "Potential studies of ultrasounds effects in fuel cells", Dorin Schitea, Gheorghe Amza, Ioan Iordache, Progress of Cryogenics and Isotopes Separation, 16, 1, (2013) 25-34, ISSN 1582-2575.
23. "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

Annexes- 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 Marinoiu, 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, Marinoiu 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 $CuCl_2/Al_2O_3$ "*, Iordache Ioan, Teodorescu Constantin, Marinescu Daniela, Iordache Mihaela, Marinoiu 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 Marinoiu, 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 Marinoiu, 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 Marinoiu, 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 Marinoiu, 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 Marinoiu, 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 Marinoiu, 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 Marinoiu, 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, Răceanu 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 Marinoiu, 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 Marinoiu, 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, Răceanu 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), 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 Marinoiu, 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 Cr^{3+} and Fe^{3+} 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 Instalatii 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, 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, Iași, November 28-30, **2012**

75. "Selective hydrogenolysis of glycerol to propylene glycol. Effect of base additives", A. Marinoiu, C. Cobzaru, I. Iordache, 100th Anniversary of Faculty of Chemical Engineering and Environmental Protection - International Conference CENTENARY OF EDUCATION IN CHEMICAL ENGINEERING , Romania, Iași, 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**

Date:

----/----/2013

Signature:

