



Europass Curriculum Vitae

Personal information

Surname(s) / First name(s) **LAZAR MIHAELA DIANA**
Official Address(es) 65-103 Donath Street, 400293, Cluj-Napoca, ROMANIA
Telephone(s) 0040 264 584037 Mobile
Fax(es) 0040 264 420042
E-mail diana.lazar@itim-cj.ro
Nationality Romanian
Date of birth April 27 1968
Gender Female

Occupational field **Research and Development**

Work experience

Dates	Ian 2013 – present Senior Scientific Researcher I Oct. 2011 – dec 2012 Senior Scientific Researcher II 2002 - oct 2011 Senior Scientific Researcher III
Occupation or position held	Senior Scientific Researcher I
Main activities and responsibilities	- preparation of supported metal catalysts using various methods: impregnation, coprecipitation, deposition-precipitation, sol-gel technique; - preparation and characterization of metal nanoparticles - graphene composites; - catalysts characterization; determination of: total surface area and porosity (BET method) metal surface area and dispersion (chemisorption), particles size (TEM, XRD); - surface reactions: temperature-programmed desorption (TPD), temperature-programmed reduction (TPR), temperature-programmed oxidation (TPO); - determination of catalytic parameters (activity, selectivity, deactivation rate, carbon deposition, re-activation) in heterogeneous catalytic processes (hydrogenations, H/D isotopic exchange, steam reforming, water-gas shift, NO _x reduction, etc).
Name and address of employer	National Institute for Research and Development of Isotopic and Molecular Technologies, 65-103 Donath Street, Cluj-Napoca, Romania, www.itim-cj.ro
Type of business or sector	Research
Dates	2005-2006
Occupation or position held	Visiting scientist
Main activities and responsibilities	Study of isocyanides adsorption and stability on metal surfaces using IR spectroscopic techniques. Study of the gold catalyzed oxidative reaction of isocyanides with amines.
Name and address of employer	Iowa State University, Ames Iowa, United States of America

Type of business or sector | Research and Teaching

Dates | 1995 - 2002

Occupation or position held | Research assistant (1995-1998) and scientific researcher (1998 -2002)

Main activities and responsibilities | Use of H/D isotopic exchange for the preparation of totally or partially deuterated large molecules and for the study of metal/support catalysts

Name and address of employer | National Institute for Research and Development of Isotopic and Molecular Technologies, 65-103 Donath St., Cluj-Napoca, Romania, www.itim-cj.ro

Type of business or sector | Research

Education and training

Dates | July 2010

Title of qualification awarded | PhD

Principal subjects/occupational skills covered | Studies of supported metal catalysts by H/D isotopic exchange

Name and type of organisation providing education and training | Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering, 11, Arany Janos St., Cluj-Napoca, 400028, Cluj, Romania

Level in national or international classification | ISCED 6

Dates | July 1994

Title of qualification awarded | Bachelor of Science

Principal subjects/occupational skills covered | Chemical Science

Name and type of organisation providing education and training | Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering, 11, Arany Janos St., Cluj-Napoca, 400028, Cluj, Romania

Level in national or international classification | ISCED 5A

Personal skills and competences

Mother tongue(s) | **Romanian**

Other language(s) self-assessment
European level (*)
English

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user

(*) Common European Framework of Reference for Languages

Social skills and competences | Team work; good ability to adapt to multicultural environments; experience in working in national and international research teams.

Organisational skills and competences	Good organizer, research and teaching abilities, ability to respect schedules and deadlines, able to manage multiple tasks
Technical skills and competences	Chemistry laboratory works, measurements and control, data processing and statistics applied to chemistry.
Computer skills and competences	Ms Office, Internet,
Other skills and competences	Affiliation: member in the Romanian Chemistry Society, Romanian Catalysis Society and Romanian Association for Hydrogen Energy

Additional information

Publications:

62 scientific articles (42 in ISI journals, 7 in ISI indexed conference proceedings and 13 in BDI journals)

40 papers presented as poster or oral presentations at international conferences

1 book chapter published at Willey VCH Verlag

1 patent

2 patent application

the address of the **researcherid.com profile**: <http://www.researcherid.com/rid/B-7578-2011>

Relevant publications:

1. *Mihaela Lazar*, Robert J. Angelici, Gold Metal-Catalyzed Reactions of Isocyanides with Primary Amines and Oxygen: Analogies with Reactions of Isocyanides in Transition Metal Complexes, *J. Am. Chem. Soc.* 128 (10613-10620) 2006

2. *Mihaela Lazar*, Bolin Zhu, Robert Angelici, Non-nanogold Catalysis of Reactions of Isocyanides, Secondary Amines, and Oxygen to Give Ureas. *J. Phys. Chem. C*, 111 (4074 - 4076) 2007

3. Bolin Zhu, *Mihaela Lazar*, Brian G. Trewyn, Robert J. Angelici, Aerobic oxidation of amines to imines catalyzed by bulk gold powder and by alumina-supported gold, *J. Catal.*, 260 (1-6) 2008

4. Dan Lupu, Ovidiu Ardelean, Gabriela Blanita, Gheorghe Borodi, *Mihaela D. Lazar*, Alexandru R. Biris, Coldea Ioan, Maria Mihet, Ioan Misan, Gabriel Popeneacu, Synthesis and hydrogen adsorption properties of a new iron based porous metal-organic framework, *Int.J.Hydrogen energy*, 36 (3586-3592) 2011

5. Monica Dan, Maria Mihet, Alexandru R. Biris, Petru Marginean, Valer Almasan, George Borodi, Fumiya Watanabe, Alexandru S. Biris, *Mihaela D. Lazar*, Supported nickel catalysts for low temperature methane steam reforming: comparison between metal additives and support modification, *Reac. Kinet. Mech. Cat.*, 105 (173–193) 2012

6. Alexandru R. Biris, Stefania Ardelean, *Mihaela D. Lazar*, Enkelada Dervishi, Fumiya Watanabe, Anindya Gosh, Abhijit Biswas, Alexandru S. Biris, Synthesis of few layer graphene over gold nanoclusters supported on MgO, *Carbon*, 50 (2252-2263) 2012

7. *Mihaela D. Lazar*, Alexandru R. Biris, George Borodi, Cezara Voica, Fumiya Watanabe, Enkelada Dervishi, Alexandru S. Biris, Magnesia supported Au and Ag catalysts for the preparation of few-layer graphene-metal nanocomposites: relationship between catalyst structure and the properties of graphene composites, *J. Mater. Sci.*, 48 (2013) 7409-7421

8. Maria Mihet, *Mihaela D. Lazar*, Effect of Pd and Rh promotion on Ni/Al₂O₃ for NO reduction by hydrogen for stationary applications, *Chemical Engineering Journal*, 251 (2014) 310-318

9. Monica Dan, Lacrimioara Senila, Marius Roman, Maria Mihet, *Mihaela D. Lazar*, From wood wastes to hydrogen – Preparation and catalytic steam reforming of crude bio-ethanol obtained from fir wood, *Renewable Energy*, 74 (2015) 27-36

10. Monica Dan, Maria Mihet, Zsolt Tasnadi-Asztalos, Arpad Imre-Lucaci, Gabriel Katana, *Mihaela D. Lazar*, Hydrogen production by ethanol steam reforming on nickel catalysts: Effect of support modification by CeO₂ and La₂O₃, *Fuel*, 147 (2015) 260-268

Relevant projects:

Project coordinator:

1. PN II "Parteneriate" Program: Hydrogen production from hydroxylic compounds resulted as biomass processing wastes – project coordinator (PI) (2012-2016)

2. NUCLEU Program: Study of nanostructured catalysts efficient for hydrogen involving reactions: hydrogen production and H/D isotopic exchange - project coordinator (PI) (2009-2013)

3. Romania – Dubna (Russia) agreement; theme: Investigations of Nanosystems and Novel Materials by Neutron Scattering Methods – coordinator for INCDTIM (2009-2011 and 2012-2016);

4. PN II "Parteneriate" Program: Research and Development of a membrane reactor for ultra pure hydrogen production for fuel cells applications – coordinator for INCDTIM (2007-2010);

As team member I worked in the last 10 years in:

- 3 "CEEX" projects;

- 2 "PN II Parteneriate" projects;

- 3 "PN II Idei" projects;

- 2 international projects (one in INCDTIM Cluj and one in Iowa State University).