



Europass Curriculum Vitae

Personal information

Surname(s) / First name(s) **LAZAR MIHAELA DIANA**
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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	Oct. 2011 – present Senior Scientific Researcher II 2002 - oct 2011 Senior Scientific Researcher III
Occupation or position held	Senior Scientific Researcher II
Main activities and responsibilities	- preparation of supported metal catalysts using various methods: impregnation, coprecipitation, deposition-precipitation, sol-gel technique - catalysts characterization; determination of: total surface area and porosity (BET method) metal surface area (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 St., 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 on metal surfaces using IR spectroscopic techniques. Study of the oxidative reaction of isocyanides with amines on the surface of gold catalysts.
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 October 1989 - 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

French

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
B1	Independent user	B1	Independent user	B1	Independent user	B1	Independent user	B1	Independent 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 and Romanian Catalysis Society

Additional information

Publications:

22 scientific articles (12 in ISI indexed journals, 4 in conference proceedings and 6 in non-ISI journals)

40 papers presented as poster or oral presentations at international conferences

1 book chapter published at Willey VCH Verlag

1 patent application

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

Relevant publications:

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

3. **Mihaela Lazar**, Valer Almasan, Stelian Pinteaa, Bogdan Barz, Catalin Ducu, Viorel Malinovschi, Xie Yaning, Nicolae Aldea, Preparation and Structural Characterization by XRD and XAS of the Supported Gold Catalysts, *J. Optoelectron. Adv. M.*, 10 (2244 - 2452) 2008

4. Robert J. Angelici, **Mihaela Lazar**, Isocyanide Ligands Adsorbed on Metal Surfaces: Applications in Catalysis, Nanochemistry and Molecular Electronics, *Inorg. Chem.* 47 (9155 - 9165) 2008

5. 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

6. Anca Peter, Monica Baia, Felicia Toderas, **Mihaela Lazar**, Lucian Barbu Tudoran, Virginia Danciu, Photo-catalysts based on gold-titania composites, *STUDIA UNIVERSITATIS BABEȘ-BOLYAI, CHEMIA*, LIV(3) (161-171) 2009

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

8. **Mihaela D. Lazar**, Monica Dan, Maria Mihet, Valer Almasan, Vasile Rednic, George Borodi, Hydrogen production by low temperature methane steam reforming using Ag and Au modified alumina supported nickel catalysts, *Rev.Roum.Chim*, 56(6) (637-642) 2011

9. Alexandru R. Biris, Meena Mahmood, **Mihaela D. Lazar**, Enkeleda Dervishi, Fumiya Watanabe, Thikra Mustafa, Grigore Baciut, Mihaela Baciut, Simion Bran, Syed Ali, and Alexandru S. Biris, Novel Multicomponent and Biocompatible Nanocomposite Materials Based on Few-Layer Graphenes Synthesized on a Gold/Hydroxyapatite Catalytic System with Applications in Bone Regeneration, *J. Phys. Chem. C*, 115 (18967 - 18976) 2011

Relevant projects:

Coordinator of three research projects:

1. 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);

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

3. NUCLEU Program: Multifunctional nanostructured molecular systems – coordinator of the heterogeneous catalysts topic (2003-2005)

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).