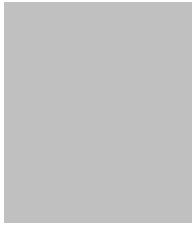



## PERSONAL INFORMATION



## Maria Miheț (born Cîmpean)

 Donat Street 67-103, 400293, Cluj-Napoca, ROMANIA

 0040 264 584037, int. 122

 maria.mihet@itim-cj.ro

Sex F | Date of birth 12/09/1981 | Nationality Romanian

## WORK EXPERIENCE

July 2021 – present  
 July 2016 – June 2021  
 March 2008 – June 2016  
 November 2006 – March 2008

### Scientific researcher II Scientific researcher III Scientific researcher Assistant researcher

National Institute for R&D of Isotopic and Molecular Technologies – INCDTIM, Donat Street, nr. 67-103, Cluj-Napoca, 400293, [www.itim-cj.ro](http://www.itim-cj.ro)

- Preparation of metal/support catalysts using different techniques: impregnation, co-precipitation, deposition-precipitation;
- Characterization of nanostructured materials through: physical methods (specific surface area, specific pore volume, pore size and distribution – BET method), or chemical methods (active metallic surface by H<sub>2</sub> or CO chemisorption, determination of active catalytic centers by temperature programmed desorption – H<sub>2</sub>-TPD, CO<sub>2</sub>-TPD, NO-TPD, NH<sub>3</sub>-TPD, temperature programmed reduction – TPR, temperature programmed oxidation – TPO).
- Catalytic activity of metal/support materials in heterogeneous catalytic processes – gas-solid, liquid-solid: conversion, selectivity, reaction rate, deactivation – regeneration of catalysts (catalytic reduction of NO<sub>x</sub> with H<sub>2</sub>, CO<sub>2</sub> methanation, hydrogenation reactions, formic acid decomposition, etc.)
- Mathematical modelling of chemical processes (MatLAB, COMSOL Multiphysics)
- Design of Experiments (DoE)

Business or sector research – development

26 June 2019 – 12 July 2019

### Research stage

University of Bologna, Italy, Department of Industrial Chemistry „Toso Montanari”, Research group of Prof. Fabrizio Cavani

- Functional characterization of hybrid materials of the type MNP/MOF or MNP/MOF-Al<sub>2</sub>O<sub>3</sub> by DRIFTS (Diffuse Reflectance Fourier Transform Infrared Spectroscopy).

Business or sector research – development

October 2003 – April 2004

### „Leonardo Da Vinci” Scholarship

Umweltforschungszentrum GmbH, Leipzig-Halle, Germany, <https://www.ufz.de>

- Investigation of As containing compounds in the presence of enzymes (arsenious acid (As(III)), dimethyl arsenic acid (DMA), arsenat (As(V)), arsenobetaine (AsB), trimethyl arsenic oxide (TMAO));
- Enzyme-assisted extraction of As containing compounds from plant material: kinetics and efficiency of enzymatic hydrolysis (HPLC-PAD), analysis of As containing compounds from the extracts (IC-ICPMS).

Business or sector research – development

## EDUCATION AND TRAINING

October 2008 – May 2015

### PhD – Chemical Engineering

ISCED 6

„Catalytic reduction of nitrogen oxides from the residual gases of the <sup>15</sup>N separation column”

Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania

2006 – 2007

### Master of Science – Advanced Process Engineering (in English)

ISCED 6

Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania

2000 – 2003; 2004 – 2006

### Bachelor of Science – Chemical Engineering, Chemical Systems Informatics

ISCED 5

Babeș-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania

1996 – 2000

**Bacalaureat**

 National Colege „Decebal”, Deva, *Mathematics-Physics, intensive English teaching*
**PERSONAL SKILLS**

Mother tongue(s)

Romanian / German

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	B1	B1	A2	A2	A2
Spanish	B1	B1	A2	A2	A1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

[Common European Framework of Reference for Languages](#)

Communication skills

- Good communication skills gained through my experience in multicultural and multidisciplinary teams.

Organisational / managerial skills

- Planning and organizing skills gained in the preparation and development of research projects, or in organizing events (scientific conferences, seminars, children camps, etc)

Job-related skills

- Operation and maintainance of equipments: Sorptomatic 1990 (BET), TPDRO Series 1100 (TPD, TPR, TPO), Microactivity Reference Reactor PID&Eng Tech, Quadrupolar Mass spectrometer QMS, PrismaPlus.

Digital skills

- MSOffice, OriginPro, ChemDraw, CorelDraw, MatLab, COMSOL Multiphysics

Other skills

- Text editing skills obtained during multiple contexts (books, guides, etc)

Driving licence

B

**ADDITIONAL INFORMATION**

Publications

- >30 scientific papers
- 2 book chapters, 1 patent, 1 patent request

Presentations/Conferences

- >50 works presented at international conferences (12 oral presentations)

Projects

- Coordinator:

Research projects for promoting Young Independent Teams (TE) – PN-III-P1-1.1-TE-2019-1447, PNCDI – CO<sub>2</sub> methanation by MOF based / derived ordered mesoporous catalysts – CO<sub>2</sub>-OMC, (01.11.2020 – 31.10.2022), project value 431.900 lei

Postdoctoral Project PN-III-P1-1.1-PD-2016-1228 - „From nanoreactor to a high-performance fixed bed reactor using hierarchical MOF based catalysts – MOFReCAT, project value 250.000 lei, project duration 2018-2020.

Member in the research team of 20 R&D projects (2 international)

Memberships

- Member of the Romanian Catalysis Society, since 2007
- Member of the Romanian Chemistry Society, since 2018

Citations

Scopus ID: 35320245000

ORCID ID: <http://orcid.org/0000-0002-3548-2789>

ResearcherID: <http://www.researcherid.com/rid/F-7222-2015>

ResearchGate Profile: [https://www.researchgate.net/profile/Maria\\_Mihet](https://www.researchgate.net/profile/Maria_Mihet)