



magdi El Fergani

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Bd. Regina Elisabeta nr. 4-12, 030018, Bucharest, Romania

● EDUCATION AND TRAINING

01/10/2017 – CURRENT – Bd. Regina Elisabeta nr. 4-12, Bucharest, Romania

PHD STUDENT - CATALYSIS – University of Bucharest, Faculty of chemistry, Doctoral School in Chemistry

The work was aimed to exploring catalytic systems and conditions, which could be feasible to used for aerobic oxidation of derived biomass to platform molecules.

Field(s) of study

◦ Natural sciences, mathematics and statistics : *Chemistry*

ACID-BASE MATERIALS FOR GREEN AND SUSTAINABLE CHEMICAL PROCESSES | <https://unibuc.ro/>

01/10/2015 – 30/06/2017 – Bd. Regina Elisabeta nr. 4-12, Bucharest, Romania

MASTER'S DEGREE - CHEMISTRY OF ADVANCED MATERIALS (ENGLISH) – University of Bucharest, Faculty of Chemistry

Catalysts preparation: Two catalytic systems based on Nb - as catalytic active phase and molecular sieves – as carrier, were prepared for dehydrogenation reactions, catalytic tests: conversion of glucose to biochemicals (alpha-hydroxyacids, levulinic acid and 5-hydroxymethylfurfural (HMF)). The characterization of the solid: X ray diffraction, FTIR Spectroscopy, BET, XPS and TG/DTA.

Field(s) of study

◦ Natural sciences, mathematics and statistics : *Chemistry*

arithmetic mean of master's degree 9.73, grade of dissertation exam 10, out of 10 scale |

Nb-based molecular sieves: preparation, characterization and catalytic performances. | <https://unibuc.ro/>

01/03/2008 – 01/04/2013 – Benghazi, Libya

BACHELOR'S DEGREE – University of Benghazi, Faculty of Science

Field(s) of study

◦ Natural sciences, mathematics and statistics : *Chemistry*

arithmetic mean of Bachelor's degree 3.54, grade of dissertation exam 4, out of 4 scale |

Corrosion inhibition of mild Steel in 11% hydrochloric Acid Solutions by using Black pepper | <https://uob.edu.ly/ar/>

2005 – 2007 – Benghazi , Libya

HIGH SCHOOL DIPLOMA – 1st September High School - Medical and Basic Sciences

arithmetic mean of the degree 76.09, out of 100 scale

● WORK EXPERIENCE

09/2020 – 08/2022 – Bucharest, Romania

RESEARCH ASSISTANT – UNIVERSITY OF BUCHAREST, FACULTY OF CHEMISTRY, CATALYSIS AND CATALYTIC PROCESSES RESEARCH CENTRE

Catalytic transformation of glucose to adipic acid-key intermediate for the synthesis of polyamide Nylon 6.6
project: PN-III-P1-1.1-TE-2019-1933, Nr.69/2020

10/2018 – 05/2021 – Bucharest , Romania

RESEARCH ASSISTANT – UNIVERSITY OF BUCHAREST, FACULTY OF CHEMISTRY, CATALYSIS AND CATALYTIC PROCESSES RESEARCH CENTRE

Energetic efficiency biogas plants improvement by integrated system: biogas-microalgae-biofuels in frame of biorefinery concept (algalbiogasconceptenergy)

Project: PN-III-P1.2-PCCDI-2017-0541, Nr. 32PCCDI/2018

12/2017 – 10/2018 – Bucharest , Romania

MEMBER OF THE PROJECT RESEARCH TEAMS – UNIVERSITY OF BUCHAREST, FACULTY OF CHEMISTRY, CATALYSIS AND CATALYTIC PROCESSES RESEARCH CENTRE

Multi-functional core-shell magnetic nanoparticles for the direct synthesis of furan-2, 5- dicarboxylic acid (FDCA) from cellulose

Project: PN-III-P4-ID-PCE-2016-0533, Nr. 116/2017

14/02/2021 – CURRENT – Basel , Switzerland

REFEREE FOR MDPI – MOLECULAR DIVERSITY PRESERVATION INTERNATIONAL

Reviewer at MDPI publishing house for Catalysts scientific journal.

● LANGUAGE SKILLS

Mother tongue(s): ARABIC

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2
ROMANIAN	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● DRIVING LICENCE

Driving Licence: B

● COMMUNICATION AND INTERPERSONAL SKILLS

Member of the research teams

Versatile, efficient and considerate, either as a team member or on independent assignments

Desire to learn more

Good communication skill

Good adaptability

● CREATIVE WORKS

Job-related skills

- a) Teaching using multimedia tools
- b) Other practical skills in fields like: computers, mechanical equipment, thermo-mechanical processes, materials, science:
 - Chemical synthesis.
 - Heterogeneous catalysis.
 - Fine chemicals synthesis, Biomass Valorization.
 - Analytical methods: GC, GC-MS, HPLC and ICP.
 - Determination of surface and bulk properties of the solid materials: BET, RAMAN, XRD, UV-Visible spectroscopy, CO₂/NH₃ TPD and FTIR.

● DIGITAL SKILLS

Microsoft Office | Microsoft Excel | Microsoft Word | Zoom | Social Media | Google Docs | Skype | LinkedIn | Outlook | Power Point | Organizational and planning skills | Motivated | Team-work oriented | Presenting | Strategic Planning | Good Communication | Creativity | Research and analytical skills

● CONFERENCES AND SEMINARS

25/04/2017 – 30/04/2017 – Cluj, Romania

International Conference “Students for Students” 14th edition

M. E. Fergani, V. I. Parvulescu and S. M. Coman.
The synthesis of HMF in the presence of Nb-based zeolites nanocomposite.
(Poster) received an award (**Best poster**)

26/05/2017 – Bucharest, Romania

Sesiunea de Comunicari Stiintifice Studentesti, Editia a XIII-a

M. E. Fergani, N. Candu, V. I. Parvulescu and S. M. Coman.
Synthesis of Nb-based molecular sieves: catalytic properties-catalytic performances correlation.
(ORAL PRESENTATION) received an award (**3rd place**)

16/05/2017 – 19/05/2017 – La Rochelle, France

Contribution to international conference La Rochelle, France, The International Symposium on Green Chemistry (ISGC)

M. E. Fergani, M. Verziu, V. I. Parvulescu and S. M. Coman.
Nb-based zeolites nanocomposite for glucose dehydration to HMF.
(ORAL PRESENTATION) as coauthor

03/05/2018 – 05/05/2018 – Budapest, Hungary

Young Researchers' International Conference on Chemistry and Chemical Engineering (YRICCCE II)

M. E. Fergani, S. M. Coman and V. I. Parvulescu.
Recent advances in production of succinic acid from glucose using Nb-based zeolites nanocomposite.
(ORAL PRESENTATION) received the “**Oral Lecture Prize**”, awarded by RSC (**Best Presentation**)

25/06/2018 – 29/06/2018 – Liblice Castle, Czech Republic

EFCATS school on catalysis

N. Candu, M. E. Fergani, S. M. Coman and V. I. Parvulescu.
One-pot synthesis of succinic acid from glucose using Nb-based zeolites.
(ORAL PRESENTATION) as co-author

05/08/2018 – 10/08/2018 – Yokohama, Japan

The 8th Tokyo Conference on Advanced Catalytic Science and Technology (TOCAT)

S. M. Coman, M. E. Fergani, N. Candu and V. I. Parvulescu.

Nb-Beta zeolite catalysts for the efficient transformation of glucose to multiple platform molecules.
(ORAL PRESENTATION) as co-author

13/05/2019 – 17/05/2019 – La Rochelle, France

4rd International Symposium on Green Chemistry (ISCG 2019)

M. E. Fergani, N. Candu, V. I. Parvulescu and S. M. Coman.

Recent advances in production of succinic acid from glucose using Nb-based zeolites nanocomposite.
(ORAL PRESENTATION) as co-author

04/08/2019 – 07/08/2019 – Bangkok, Thailand

The 8th Asia Pacific Congress on Catalysis (APCAT-8)

N. Candu, M. E. Fergani, A. Tirsoaga, V. I. Parvulescu and S. M. Coman.

The direct catalytic synthesis of dicarboxylic acids from glucose.
(ORAL PRESENTATION) as co-author

05/06/2019 – 07/06/2019 – Bucharest, Romania

The 12th International Symposium of the Romanian Catalysis Society (ROMCAT)

N. Candu, M. E. Fergani, A. Tirsoaga, V. I. Parvulescu and S. M. Coman.

5-Hydroxymethylfurfural(HMF) oxidation to dicarboxylic acids in the presence of (Mn, Co)-based Fe₃O₄@SiO₂catalysts.
(ORAL PRESENTATION) as co-author.

05/06/2019 – 07/06/2019 – Bucharest, Romania

The 12th International Symposium of the Romanian Catalysis Society (ROMCAT)

M. E. Fergani, N. Candu, V. I. Parvulescu and S. M. Coman.

Efficient Nb-based zeolites nanocomposite for the one-pot synthesis of succinic acid from glucose.
(POSTER) as co-author

18/08/2019 – 23/08/2019 – Aachen, Germany

14th European Congress on catalysis (EuropaCat)

M. E. Fergani, A. Tirsoaga, V. I. Parvulescu and S. M. Coman.

Catalytic oxidation of 5-hydroxymethylfurfural (HMF) to valuable dicarboxylic acids.
(POSTER) as co-author

12/12/2020 – Bucharest, Romania

A III-a ediție a Conferinței naționale a doctoranzilor (Online)

M. El Fergani, A. Tirsoaga, N. Nuns, P. Simon, P. Granger, V. I. Parvulescu and S. M. Coman.

Multifunctional magnetic nanocomposites for the valorification of HMF to dicarboxylic acids.
(ORAL PRESENTATION)

● PUBLICATIONS

Corrosion inhibition of mild Steel in 11% hydrochloric Acid Solutions by using Black pepper.

Chem. Sci. Trans. 3 (2) (2014) 764-772.

<http://www.e-journals.in/abstract.asp?Totarticle=743> – 2014

M. Rahuma, H. Amir and M. E. Fergani,

Efficient glucose dehydration to HMF onto Nb-BEA catalysts.

Catal. Today. 325 (2019) 109-116.

<https://www.sciencedirect.com/science/article/pii/S0920586118313683> – 2019

N. Candu, M. E. Fergani, M. Verziu, B. Cojocaru, B. Jurca, N. Apostol, C. Teodorescu, V. I. Parvulescu and S. M. Coman,

Nb-based zeolites: efficient bi-functional catalysts for the one-pot synthesis of succinic acid from glucose.

Molecules, 22 (2017) 2218.

<https://www.mdpi.com/1420-3049/22/12/2218> – 2017

M. E. Fergani, N. Candu, S. M. Coman and V. I. Parvulescu,

HMF upgrade to dicarboxylic acids on multifunctional based Fe₃O₄@SiO₂ magnetic catalysts.

ACS Sustain. Chem. Eng., 6(11) (2018) 14292-14301.

<https://pubs.acs.org/doi/abs/10.1021/acssuschemeng.8b02962> – 2018

A. Tirsoaga, M. E. Fergani, V. I. Parvulescu and S. M. Coman,

*- The authors has equal contribution.

Optimized Nb-Based Zeolites as Catalysts for the Synthesis of Succinic Acid and FDCA.

Molecules, 25 (2020) 4885.

<https://www.mdpi.com/1420-3049/25/21/4885> – 2020

M. E. Fergani, N. Candu, M. Tudorache, P. Granger, S. M. Coman, and V. I. Parvulescu,

Multifunctional nanocomposites with non-precious metals and magnetic core for 5-HMF oxidation to FDCA.

Appl. Catal. B-Environ. 278 (2020) 119309.

<https://www.sciencedirect.com/science/article/pii/S0926337320307244> – 2020

A. Tirsoaga, M. E. Fergani, N. Nuns, P. Simon, P. Granger, V. I. Parvulescu and S. M. Coman,

From useless humins by-product to Nb@graphite-like carbon catalysts highly efficient in HMF synthesis

Appl. Catal. A-Gen. 618 (2021) 118130.

<https://www.sciencedirect.com/science/article/pii/S0926860X21001447> – 2021

M. E. Fergani, N. Candu, M. Tudorache, C. Bucur, P. Granger, S. M. Coman,