

Maria-Gabriela ALEXANDRU, PhD

University Politehnica of Bucharest, Faculty of Chemical Engineering and Biotechnologies,
Department of Inorganic Chemistry, Physical Chemistry and Electrochemistry,
1-7 Gh. Polizu Street, 011061 Bucharest, ROMANIA

Brainmap code: U-1700-036X-6537

<https://orcid.org/0000-0001-8640-5807>

Scopus Author ID: 19638463400

EDUCATION AND TRAINING

Ph.D. in Chemistry (2006 - 2009), University Politehnica of Bucharest, Faculty of Chemical Engineering and Biotechnologies (FCEB).

M.S. in Inorganic Chemistry (2006 - 2008), University Politehnica of Bucharest, FCEB.

B.S. in Chemical Engineering (2001 - 2006), University Politehnica of Bucharest, FCEB.

Training

- Zurich School of Crystallography, 06 - 22.06.2013

- Molecular materials: synthesis and theoretical approach. Magnetic, chiral materials, University of Bucharest, 31.03 - 04.04.2014.

PROFESSIONAL EXPERIENCE

Lecturer (2013 - present), Teaching Assistant (2009 - 2013) and Associate Teaching Assistant (2006 - 2009) at University Politehnica of Bucharest, FCEB, Department of Inorganic Chemistry, Physical Chemistry and Electrochemistry.

RESEARCH EXPERIENCE

Fields of interest / research:

Coordination chemistry – with an emphasis on the design and synthesis of heterometallic complexes by self-assembly processes between complementary building-blocks

Crystal engineering of coordination polymers

Molecular magnetism – particularly towards molecular (nano)magnets, spin-crossover and photomagnetic molecular materials, irregular spin-state structures.

Research stages

- **at University of Valencia, Spain, Coordination Chemistry Group, Professor Miguel Julve (10 - 11.2022, 2017, 2016; 11.2018 - 12.2018, 2014, 2013; 06.2015 - 07.2015, 2013, 09.2012 - 12.2012, as invited scientist) on *Molecular magnetism***

- **at Sorbonne University, France, Professor Rodrigue Lescouëzec (11.2022, 10 - 11.2021, as invited scientist) on *Molecular magnetism***
- **at University of Belgrade, Biochemistry Department (09.2008 - 10.2008), Professor Tanja Ćirković Veličković, on *Cell biology techniques for coordination compounds***
- **Erasmus scholarship at Ecole Normale Supérieure, Département de Chimie, Activation Moléculaire et Réactivités, Paris (09.2007 - 12.2007), scientific adviser: Olivier Buriez, Chargé de recherche. Research subject: *Study of oxo-complexes by cyclic voltammetry.***

Research projects

➤ As principal investigator/director:

UEFISCDI, Young research teams, PN-III-P1-1.1-TE-2019-0352 (09.2020 - 09.2022).

Host institution: University Politehnica of Bucharest.

UEFISCDI, Researcher mobility project, PN-III-P1-1.1-MC-2018-1877 (11.2018 - 12.2018) at University of Valencia. Host institution: University Politehnica of Bucharest.

UEFISCDI, Young research teams, PN-II-RU-TE-2014-4-1556 (10.2015 - 09.2017). Host institution: University Politehnica of Bucharest.

UEFISCDI, Postdoctoral research project, PN-II-RU-PD-2012-3-0177 (05.2013 - 10.2015), scientific advisor: Acad. Marius Andruh, University of Bucharest. Host institution: University of Bucharest.

Postdoctoral Fellowship, POSDRU/89/1.5/S/58852 (10.2010 - 03.2013), scientific advisor: Acad. Marius Andruh, University of Bucharest. Host institution: University of Bucharest.

CNCSIS, Young PhD students project, TD 245/2007.

➤ As team member: PN-III-P4-ID-PCE-2020-2324; PN-II-RU-TE-2011-3-0126; COST Action CA15128 - MOLSPIN; ID 1043/2007.

The scientific activity is illustrated by 42 ISI papers, with more than 570 citations (*h*-index = 14, Web of Science), from which:

- **34 articles as main author (21 articles as corresponding author), in the last twelve years**
- **30 articles placed in top 50% of all journals published in AIS based hierarchy**
- **4 invited articles (*Eur. J. Inorg. Chem.* – 2 as corresponding author and *CrystEngComm* – as corresponding author) and 4 cover pictures (*Eur. J. Inorg. Chem.*, *Dalton Trans.*, *Inorg. Chem.*, and *CrystEngComm*.)**
- **1 book - L. Alexandrescu, O. Oprea, M. Alexandru, C. Covaliu, I. Jitaru, 2009, Modele in vitro de metaloenzime și inhibitori de metaloenzime, Ed. Printech, ISBN-978-606-521-340-1**

- **6 oral presentations** **Oral presentation at:** *VIth European Conference on Molecular Magnetism (ECMM)*, **2017**, Bucharest, Romania; *RICCCE 20*, **2017**, Poiana Braşov, Romania; *ROMPHYSICHEM 16*, **2016**, Galaţi, Romania - keynote lecture; *Crystal Engineering of Multifunctional Molecule-Based Materials Workshop*, **2016**, Sinaia, Romania; *RICCCE 19*, **2015**, Sibiu, Romania - keynote lecture; *New Trends in Materials Science Workshop*, **2012**, Bucharest, Romania; more than **10 poster communications** at international conferences.

Other relevant information:

- Foreign languages: English - advanced (TOEFL CBT); French – intermediate.
- Computer software: OPUS, Spectral Analysis, Diamond, Olex2, Origin, Kaleida Graph, MestRec.
- Member of the Romanian Chemical Society.
- Researcher of the year, **2017**, FCEB, UPB.
- Member of the Organizing Committee ECMM **2017**, Bucharest, Romania.
- Member of the Nenitescu committee, Inorganic Chemistry section, **2022**.
- Chairperson at RICCCE 21, **2019**, Constanta, Romania.
- Reviewer for *Inorganic Chemistry*, *Dalton Transaction*, *Crystal Growth and Design*, *RSC Advances*, *POLYHEDRON*, *Journal of Molecular Structure*, *Journal of Chemical Crystallography*, *Revue Roumaine de Chimie*.