



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)

Address

Telephone(s)

Fax(es)

E-mail

Nationality

Date of birth

Gender

Marilena (Ferbinteanu) Cimpoesu

Experience and competences

My main domain is coordination chemistry (synthesis, structural analysis and correlation with properties), having also activity in organometallic and cluster chemistry. The red line of my research and teaching path is the detailed attention devoted to structural aspects, at experimental level (handling X-ray diffraction measurements and interpretation), complemented with transparent modelling, in qualitative heuristic respects or by user friendly computer methods, aiming for property engineering desiderata.

Whenever is possible, I find a path from the current research to major keywords, such as hybridisation, aromaticity (in cluster chemistry), claiming important breakthroughs in magneto-structural correlations on case studies from own chemical outcome.

On the line of interest for special properties I note previous deals in the thermochromism of the coordination compounds and perpetual attention devoted to spectroscopic properties driven by ligand field factors, with concern for potential applications (like light harvesting).

Currently I am interested in the exploration of new areas of the molecular magnetism, from synthesis to analysis, proposing both a new chemistry, devoted to the synthesis and assembling of the *d* and *f* coordination units bearing intrinsic anisotropy, contributing with chemical intuition reasons, by cooperation, to innovative theoretical and methodological developments. The original results afforded to illuminate key parameters of exchange coupling and magnetic anisotropy, the mechanism driving the Single Molecule Magnets and Single Chain Magnets phenomena, developing new technical and heuristic rationales.

Work experience

Dates

2008-present/ 1998-2008/1998-1991

Occupation or position held

Associate Professor/ Lecturer/ Assistant

Main activities and responsibilities

Teaching and research activities, projects coordinator

Teaching activities:

•*Clusters and Inorganic Ring Systems*,

at the *Chemistry of Advanced Materials* Master Programme in English language, University of Bucharest, Faculty of Chemistry, lectures, seminars and experimental, actual activity;

•*Inorganic Materials and Coordination Compounds with Special Properties*,

at M. S. level, University of Bucharest, Faculty of Chemistry, lectures, seminars and experimental, before 2007;

•*Structure-properties correlation in inorganic, coordinative and hybrid materials*,

at Molecular materials Master programme, University of Bucharest, Faculty of Chemistry, lectures, seminars and experimental, 2008-2010;

Main activities and responsibilities	<ul style="list-style-type: none"> •<i>Synthetic Strategy and Self-assembling in the Chemistry of Polynuclear Coordination Compounds</i>, at M. S. level, University of Bucharest, Faculty of Chemistry, lectures, seminars and experimental, before 2004; •<i>The Structure of Inorganic Compounds</i>, at fourth year bachelor level, University of Bucharest, Faculty of Chemistry, Physical Chemistry section, pre-Bologna, lectures, seminars and experimental, before 2007; •<i>The Chemistry of metals</i>, at second year bachelor level, University of Bucharest, Faculty of Chemistry, Medical and Pharmaceutical Chemistry sections, lectures and seminars, 2021-actual activity; •<i>Inorganic stereochemistry</i>, at third year bachelor level, University of Bucharest, Faculty of Chemistry, Chemistry section, lectures, seminars and experimental, 2017-actual activity; •<i>Inorganic compounds in chemotherapy</i>, at third year bachelor level, University of Bucharest, Faculty of Chemistry, Medical and Pharmaceutical Chemistry sections, lectures, seminars and experimental, 2020-actual activity; •<i>Guidelines for authors and information dissemination</i>, at second year bachelor level, University of Bucharest, Faculty of Chemistry, lectures, 2020-actual activity; •<i>General Chemistry</i>, at first year bachelor level, University of Bucharest, Faculty of Geology and Geophysics, lectures, seminars and experimental, 2007-2017.
Name and address of employer	University of Bucharest, Panduri Road, no. 90, Sector 5, Bucharest 050663, Romania Romania
Department	Faculty of Chemistry, Department of Inorganic Chemistry, Organic Chemistry, Biochemistry and Catalysis
Education and training	
Dates	2004-2006
Title of qualification awarded	Japan Society for Promotion Science (JSPS) Fellowship Awarded,
Principal subjects covered	<i>Design and Advanced Studies of New Single Chain Magnets.</i>
Name and type of organisation providing education and training	Tohoku University, Sendai, Japan, (Prof. Masahiro Yamashita)
Dates	2003-2004
Title of qualification awarded	Postdoctoral research stage, CREST researcher
Principal subjects covered	<i>Development and Application of Nano-Molecular Quantum Magnets.</i>
Name and type of organisation providing education and training	Tokyo Metropolitan University, Tokyo, Japan, (Prof. Masahiro Yamashita)
Dates	2002-2003
Title of qualification awarded	Postdoctoral research stage
Principal subjects covered	<i>The Chemistry of the Thermochromic and Solvatochromic Coordination Compounds. New Classes, Synthetic Strategies and Advanced Structural Investigations.</i>
Name and type of organisation providing education and training	Ochanomizu University, Tokyo, Japan, (Prof. Yutaka Fukuda)
Dates	1999-2001
Title of qualification awarded	Alexander von Humboldt Fellowship Awarded
Principal subjects covered	<i>Hard and Soft Interactions for generating new catalysts.</i>
Name and type of organisation providing education and training	Institut für Anorganische Chemie der Universität Göttingen, Göttingen, Germany (Prof. Herbert W. Roesky)
Dates	1998
Title of qualification awarded	PhD, Inorganic Chemistry

Principal subjects/occupational skills covered

Name and type of organisation providing education and training

Dates

Title of qualification awarded

Principal subjects

Name and type of organisation providing education and training

Visiting professor and short stages

Personal Skills and competences

Mother tongue(s)

Other language(s)

Self-assessment

European level (*)

English

German

French

Japanese

Coordination Compound Displaying Thermochromic Properties.

University of Bucharest; Faculty of Chemistry

1991

Chemist

Chemistry, specialization MS Inorganic Chemistry.

University of Bucharest; Faculty of Chemistry

University of Amsterdam, Van 't Hoff Institute for Molecular Sciences, SusChem Team- John van Geuns Foundation Lecture, Netherlands, February 2016 (<http://suschem.uva.nl/about-suschem/visiting-professors/visiting-professors.html>), December 2018 (invited member in the PhD comitee); Max-Planck Institute for Chemical Physics of Solid, Dresden, Germany, November 2010, December 2011; Nanjing University of Posts & Communications, Institute of Advanced Materials, Nanjing, China October 2010, October 2011; Leiden University, Leiden, Netherlands, December 2006.

Romanian

Understanding			Speaking				Writing	
Listening	Reading		Spoken interaction		Spoken production			
fluent	C2	fluent	C2	fluent	C2	fluent	C2	fluent
medium	C1	medium	B1	medium	B1	medium	B1	medium
medium	C1	medium	B1	medium	B1	medium	B1	medium
beginner	A1	beginner	A1	beginner	A1	beginner	A1	beginner

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

8 research grants as main investigator in national and international competition.

National grants, obtained by competition as a leader team

- *A new generation of paradigms in the molecular magnetism and material sciences. The magnetic anisotropy in complex units, supramolecular systems and at nano-scale.* sponsored by NURC(CNCSIS) 9/2010-2013, 7000000RON (~2 mil. Euro).
- *Applied Structural Chemistry. Structural-properties correlations in extended coordinative system with special magnetic and optical properties,* funded by University of Bucharest, 2014, 45800RON
- *New synthetic strategies and structural models in the coordination and supramolecular chemistry of lanthanides. The rationalization and control of the stereo- and magneto-chemical complexity,* sponsored by NURC(CNCSIS) 467/2009-2010, 550000RON.
- *New treatments in inorganic stereochemistry. Structural correlation, synthetic and theoretical aspects,* sponsored by NURC(CNCSIS) 703A/2002-2004, 5400000RON, 2002-2004.
- *Nano and mono-dimensional magnetic material,* sponsored by NURC(CNCSIS) 46000RON(2005) 50600RON(2006), 886A/2005-2006.

International projects, obtained by competition as a leader team or member team

- *Toward the Rational Design of Special Properties at Molecular and Nano-Scale Level. Synthesis, Characterization and Structural Correlations for New Organic, Coordination and Hybrid Compounds,* (TRADE-SPEC-PRO) funded by NURC-CNCSIS during 2011-2012, Assoc. Prof. Dr. Marilena Ferbinteanu Cimpoesu as project coordinator for the Romanian Team and Acad. Prof. Dr. Wei Huang as project coordinator for the Chinese Team.
- as member in the Romanian research team Grant INTAS 2001-2003 (*Synthesis, magneto-optical study, and theoretical analysis of d-f clusters with ferromagnetic properties*; with teams from Belgium (Prof. A. Ceulemans), Italy (Prof. D. Gateschi), Moldova (Prof. C. Turta) and Russia (Prof. V. Mironov); general leader team Prof. A. Ceulemans,
- as member in the international research team CREST project 2003-2006 (Core Research for Evolutional Science and Technology), Aria: Creation of Nanodevice / Material / System for Overcoming Integration / Function Limits in Data Processing and Communications, Section Development and Application of Nano-Molecular Quantum Magnets, (Prof. M. Yamashita).
- as co-leader team, Grant-in-aid 2004-2006 JSPS (Japan Society for Promotion Science) *Design and Advanced Studies of New Single Chain Magnets*, together with Prof. Masahiro Yamashita, Tohoku University, Sendai, Japan)
- project coordinator, together with Prof. H. W. Roesky for the project: *Hard and Soft Interactions for generating new catalysts*, sponsored by A. v. Humboldt Foundation, 1999-2001
- European COST Project, Action CM1305, Nominated National Members Committee, 2014-2018.
- Involved as coworker in 15 research grants supported by the Roumanian Academy, Roumanian National Council of University Research, Soros Foundation, Roumanian Ministry of Research and Technology, Volkswagen Stiftung, INTAS.

Organizing international meetings

- International Workshop on *Advances in Structure-Property Correlation, the Gate for Special Properties at Molecular and Nano Level* (ADSPECPRO2012), September 20-21, 2012.
- International work-shop *Monodimensional magnetic material*, Bucharest, October 16-20, 2005, special guest professor Masahiro Yamashita (*Nano-sciences of Advanced Metal Complexes: Single-Chain Quantum Magnets and Gigantic Optical Nonlinearity of Nano-Wire Metal Complexes*).
- Invited lectures in the Molecular Advanced Materials Master Program, special guests Professor Masahiro Yoshimura, National Cheng Kung University, Taiwan (2017), Professor Yutaka Fukuda, Ochanomizu University, Tokyo (2009) and Professor Tamio Endo, Mie University, Japan (2008).
- ACS Festival of Chemistry-Bucharest, September 28th 2018, October 12th 2019, September 24th 2021 and November 5-7th 2021.

Scientometric indicators	114 publication (9 on the name Marilena Cimpoesu and 105 Marilena Ferbinteanu), from which 82 publications indexed in the Web of Science, 4 local text books (University Bucharest Press and Ars Docendi), 1 book (Structural Chemistry at Springer) and 11 chapters (Apple Academic & CRC Press, Springer, IGI Global), 14 papers non ISI. The number of citations is more than 2060 and the Hirsch index is 23 (according to Scopus data base and both names used in authored publications). http://www.researcherid.com/rid/B-3387-2011 ; http://orcid.org/0000-0002-7019-4635
Technical skills and competences	General expertise: good experience in handling of air sensitive materials with vacuum line, glove box, Schlenk and septum techniques; good experience in instrumental analysis, spectral recording (UV-VIS and FTIR), thermogravimetry, handling and interpretation of data with specific computer programs; good experience in magnetic measurement (recording and analysis-Squid systems); experience in recording and handling crystallographic data (single X-ray analysis)
Computer skills and competences	Experience in routine electron structure calculation (DFT, Gaussian, ADF, NBO, AIM)
Professional Memberships	Member of The Chemical Society of Japan. Member of the American Chemical Society (vice-president of Romanian ACS Chapter) Member of the Romanian Chemical Society. Member of the Romanian "Alexander von Humboldt" Club (committee member). Member of the JSPS Alumni Romania (founder member).
Other information	University of Bucharest award for research activity in 2007-2010; Referee of the Journal of the American Chemical Society, Inorganic Chemistry, Dalton Transaction, Polyhedron, Crystal Growth & Design, New Journal of Chemistry, Chemical Papers. Expert for the evaluation of the UEFISCDI- Romanian National University Research Council applications, Romanian-American Foundation (RAF)-ARTIE-POC fellowship program, Science Council Chile grants applications. Member in the Editorial Boards of <i>Magnetochemistry</i> , ISSN: 2312-7481; of <i>Frontiers in Chemistry</i> , ISSN 2296-2646; of <i>New Frontiers in Chemistry</i> , ISSN 2393-2171; ISSN-L 2393-2171.
Social skills and competences	Ability to work under pressure; Ability to adapt to multicultural environments through international collaborations and projects; Ability to coordinate a team.

Note that the passport name is Marilena Cimpoesu, while the publication name is Marilena Ferbinteanu.

Dr. Marilena (Ferbinteanu) Cimpoesu



Associate Professor
University of Bucharest; Faculty of Chemistry;
Department of Inorganic Chemistry,
Organic Chemistry, Biochemistry and Catalysis;
Panduri Road, no. 90,
Sector 5, Bucharest 050663, Romania
Tel.: 0040-726757187
Fax: 0040-21-3159249
E-mail: marilena.cimpoesu@g.unibuc.ro