

## Curriculum Vitae

**Last name, First name: Rodica-Mariana Ion**

**Gender: Female**

**Nationality: Romanian**

### Overall Scientific Expertise:

Full Professor of Nanomaterials, Director of Academic Council of Doctoral School (Vice-Rector) and Ph.D. Supervisor at „Valahia,, University from Targoviste and Senior Scientist at ICECHIM - Bucharest, Head of Nanomedicine Research Group. 40 years' experience in analytical chemistry, physical chemistry / photochemistry (laboratory / clinical photodynamic therapy of cancer with lasers, lamps and LED sources), regulatory aspects of chemicals and nanomaterials (chemical safety and environmental protection), analysis of soils, water and depollution methods. Evaluator/reviewer for UE projects (Marie Curie, Horizon). Experience in synthesis/characterization of organic/inorganic chemicals, dose-response relationships, photochemistry and light effect on humans and animals, nanotoxicology, assessment of chemicals (toys, textiles, cosmetics, food contact materials), drugs toxicology and risk assessment.

### Professional Experience

Years employed from – to	Title of position	Employer – name and location	Areas of professional specialisation♦
2021-ongoing	Director of Council of Academic Doctoral Studies (Vice-Rector)	„Valahia,, University from Targoviste, Romania	Management of Doctoral Academic studies
2021-ongoing	Member of Advisory Board for Research-Development and Innovation - CCCDI	Ministry of Research, Innovation and Digitalization, Romania, Advisory Board for Research-Development and Innovation - CCCDI	Strategy and Policy Maker Contribution at Regulations, Information
2013-present	Head of Nanomedicine Research Group	National Institute of R&D for Chemistry and Petrochemistry – ICECHIM, Bucharest, Romania	Medicinal chemistry, nanoscience and nanomaterials. Cancer/oncology, nanomedicine, Health and environmental impacts of nanomaterials (biophysics, photomedicine (therapy), nanotoxicology, drug interactions, medical technologies and devices.
2012-present	Member	Ministry of National Education, National Council for the Recognition of Degrees, Diplomas and Certificates, Materials Engineering Commission	Ph.D. thesis evaluation on nanomaterials, nanomedicine and risk assessment
2008-2004	Manager of Analytical Department	National Institute of R&D for Chemistry and Petrochemistry – ICECHIM, Bucharest, Romania	Environmental science (water and soil quality, climate change). Toxicology, testing strategies for chemicals, uncertainty analysis
2008-present	Board Vicepresident and President of Scientific Council	National Institute of R&D for Chemistry and Petrochemistry - ICECHIM, Bucharest, Romania	Scientific Research and management activity
2007-present	Ph.D. Supervisor	Valahia University, Targoviste	Profesor and supervisor of PhD thesis based on nanomaterials production, risk tests, analytical characterization
2004-present	Full profesor	Valahia University, Targoviste	Nanoscience and nanomaterials, nanotechnologies; chemistry (inorganic)

2001-1992	Head of Photochemistry Laboratory	S.C. ZECASIN S.A., Bucharest	Chemistry (Physical-chemistry, analytical, Organic); Nonconventional technologies
1984-1992	Junior scientist	ICECHIM – Institute of Chemical and Biochemical Energetics, Bucharest, Romania	Chemistry (organic, physical chemistry, engineering, synthetic)
1984-1982	Chemist	Factory of Synthetic Fibers, IFA-VISCOFIL, Bucharest, Romania	Chemistry (analytical) Environmental science (waste treatment).

### Educational Background

Year	Degree awarded	Educational Institution – name and location	Areas of educational specialisation*
2021	Specialist in imaging techniques and artifacts investigations	CHSOS Viagrande, Italy	Practical methods for Art and Archaeology Scientific Examination
2010	Diploma of master	Academy of Economical Sciences, Bucharest, Romania	University Management
2008	Certificate	FIATEST S.A., Bucharest, Romania	Management of internal and international projects
2006	Certificate	RENAR S.A., Bucharest, Romania	Quality Auditor for ISO 9001 and ISO SR EN 17025:2005 standards Uncertainty analysis
1994-1995	Post-Doctoral Fellowship Analytical Methods and characterization of surfaces and films	Polytechnica University of Bucharest, Chemical Engineering Faculty	Chemistry (analytical, organic)
1988-1989:	Post-graduate Course on Physics	University of Bucharest, Physics Faculty,	Physics (solid state)
1987-1988	Post-graduate Course on Photochemistry	Polytechnic Institute, Bucharest,	Chemistry (physical, organic)
2006	Visiting profesor	Marie-Curie University, Paris, France	Chemistry (organic) Drug interactions Medicinal chemistry
1999	Invited Profesor	Universitatea Mustafa-Kemal, Antakya-Hatay, Turcia	Natural toxins Medicinal chemistry
2000	Invited Profesor	Lisbon University, Lisbon, Portugal	Inorganic chemistry
1998	Invited Profesor	Technical University Istanbul, Turcia.	Chemistry (inorganic, organic) Medicinal chemistry
1998	NATO Fellowship	Technical University Istanbul, Turkey;	Chemistry (inorganic, organic) Medicinal chemistry
1999	Visiting Professor	Mustafa Kemal University, Antakia-Hatay, Turkey	Chemistry (inorganic, organic) Medicinal chemistry
1996	Visiting Professor	Poznan Technical University, Poland	Biophysics Toxicology (Alternative methods ( <i>in vitro</i> ))
1997	Visiting Professor	Poznan Technical University, Poland	Biophysics Toxicology (Alternative methods ( <i>in vitro</i> ))

### Memberships in Scientific Advisory Bodies/Committees/Panels (if any):

- Member of Romanian Commission of Research and Development in Nanomedicine (2015-)
- Member, National Scientific Commission Materials Engineering and Nanotechnology (2012 – present), Ministry of Education and Science, Romania
- Scientific expertise activity as member of expert committee at the Ministry of Science and Education of Romania (IDEI, CAPACITIES, PNII) - 2000-2014
- Evaluation committee of FP7 HORIZON Marie-Curie Fellowship, Bruxelles, 2016, 2015, 2014

- National Projects competition Montenegro - 2014; Poland: 2014; Bulgaria: 2007
- Expert and lecturer in international project “IRRESISTIBLE” - (FP7-SCIENCE-IN-SOCIETY-2013-1): 2014 - present
- Romanian Representant of SUSChem Platform: 2009-present:
- Official representant of Romania in Management Committee of COST Actions: D8, D18, D20, D39, TD 1002; MC 1202: 1998-present
- Coordinator of Working Group WG0012-02, of COST D20: 2006-2010.

**Memberships in Learned Societies (if any):**

- Romanian Society of Chemistry
- Romanian Toxicology Society (Society of Pharmaceutical Sciences)
- EUCHEMs – full member, Representative of Romanian Society of Chemistry.
- Romanian Society of Analytical Chemistry

**Memberships in Editorial Boards (if any):**

- 1) Guest Editor *Coatings* (SI: Science and Technology of Roman Historical Buildings' Coating Materials)
- 2) Guest Editor *Heritage* (SI: Nanotechnology and Nanomaterials for Heritage Conservation)
- 3) Member in Editorial Board *Heritage*; <https://www.mdpi.com/journal/heritage/editors>
- 4) Guest-Editor Special Issue in *Coatings: Syntheses, Properties, and Applications of Organic Dyes and Pigments*
- 5) Guest-Editor Special Issue in *Materials: Analytical Characterization of Functionalized Surfaces*
- 6) Guest Editors: Rodica-Mariana Ion, Tebello Nyokong, G. Gyulkhandanyan, Danuta Wrobel; <http://www.hindawi.com/journals/ijp/osi.html>, *International J. Photoenergy*, 2011 “Photomedicine and Photo Nanosystems”;
- 7) BRAIN. Broad Research in Artificial Intelligence and Neuroscience, ISSN 2067-3957, volume 1, October 2010, Special Issue on Advances in Applied Sciences, Eds Barna Iantovics, Marius Marusteri, Rodica-M. Ion, Roumen Kountchev;

**List of Publications:**

**Papers:** 275 published papers in ISI journals; 200 non-ISI published papers

**HIRSCH index:** 34 (SCHOLAR GOOGLE); 24 (SCOPUS), 24 (ISI WEB OF KNOWLEDGE)

**Books:** 6 books and 24 book chapters

**Patents:** 75 national patents; 1 european patent

1. Biocompatible and Antimicrobial Cellulose Acetate-Collagen Films Containing MWCNTs Decorated with TiO<sub>2</sub> Nanoparticles for Potential Biomedical Applications. *Nanomaterials* **2022**, 12, 239.
2. In vitro Cytotoxic Protective Effect of Alginate Encapsulated Capsaicin Might Improve Skin Side Effects Associated with Topical Application of Capsaicin, *Molecules* **2021**, 26 (1), 1-12.
3. Revisiting Tetra-p-Sulphonated Porphyrin as Antimicrobial Photodynamic Therapy Agent, *Coatings* **2021**, 11, 393.
4. Capsaicin: Physicochemical properties, cutaneous reactions and potential applications in painful and inflammatory conditions. *Exp Ther Med.* **2019** Aug;18(2):916-925. doi: 10.3892/etm.2019.7513.
5. Unveiling Ga (III) phthalocyanine-a different photosensitizer in neuroblastoma cellular model. *J Cell Mol Med.* **2019** Feb;23(2):1086-1094.
6. Combined regimen of photodynamic therapy mediated by Gallium phthalocyanine chloride and Metformin enhances anti-melanoma efficacy, *PloS one* **2017**, 12 (3), e0173241,
7. Impact of multicellular tumor spheroids as an in vivo-like tumor model on anticancer drug response, *International journal of oncology* **2016**, 48 (6), 2295-2302.
8. Melanogenesis and DNA damage following photodynamic therapy in melanoma with two meso-substituted porphyrins, *Journal of Photochemistry and Photobiology B: Biology*, **2016** Aug;161:402-10
9. Toxicological and efficacy assessment of post-transition metal (Indium) phthalocyanine for photodynamic therapy in neuroblastoma, *Oncotarget* **2016**, 9(36):1-15
10. The incorporation of various porphyrins into blood cells measured via flow cytometry, absorption and emission spectroscopy. *Acta Biochimica Polonica*, (1998) 45(3), 833-845. (**480 citations**).

<https://scholar.google.ro/citations?hl=en&user=qNitjmsAAAAJ>  
<https://orcid.org/0000-0002-9842-3321>