

CURRICULUM VITAE

PERSONAL DETAILS

Scientific Researcher II Dr. Ir. JERCA Valentin-Victor

Smart Organic Materials Group

“Costin D. Nenitzescu” Institute of Organic and Supramolecular Chemistry

Romanian Academy

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EDUCATION

2007-2011 – PhD in Polymer Chemistry and Chemical Engineering, Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest

2002-2007 – BSc in Chemical Engineering, Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest

WORK PLACE

2021-present – *Scientific Researcher II and Group Leader* at “Costin D. Nenitzescu” Institute of Organic and Supramolecular Chemistry Romanian Academy

2007-2020 – *Scientific Researcher* at “Costin D. Nenitzescu” Institute of Organic and Supramolecular Chemistry Romanian Academy

2016-2020 – *Postdoctoral researcher* at Ghent University

2014-2015 – *Postdoctoral researcher* at University Politehnica of Bucharest

SCIENTIFIC ACHIEVEMENTS

>80 refereed scientific publications, >30 as leading author, >2000 citations; H-index of 23; 6 patent applications; 4 book chapters

(Co)promoter for Bachelor, Master, and PhD theses, and postdocs.

> 30 oral communications at international conferences out of which > 15 invited lectures

Member of the editorial board of European Polymer Journal (Elsevier), Dyes and Pigments (Elsevier) and Materials (MDPI)

Reviewer for over 30 international journals, including Macromolecules, Polym. Chem., Chem. Sci., JACS Au, Acta Biomaterialia, Biomaterials, Chem. Eng. J., Adv. Mat., Adv. Funct. Mat. and Eur. Polym. J.

Attracted ~ 500,000 euro of research funds in the past 5 years via competitive schemes.

Project evaluator for European Research Council - Starting Grants; Polish National Science Center; Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic and the Slovak Academy of Sciences.

External expert of the Chemistry Committee, National Scientific Council for Research.

AWARDS

2012 – The Romanian Academy Prize “Costin D. Nenitzescu” awarded for the series of papers in the field of “Macromolecular architectures based on oxazoline and azobenzene building blocks”.

SCIENTIFIC CONTRIBUTIONS

Dr. Victor Jerca currently leads the Smart Organic Materials Group (SOM) from Costin D. Nenitzescu” Institute of Organic and Supramolecular Chemistry, Romanian Academy. The research of SOM group aims to bridge the gap between fundamental and applied research in the field of organic materials and to provide solutions to major challenges facing our society. The research activities of SOM center on designing and developing multifunctional materials for cutting-edge applications, including the development of functional monomers, multi-functional materials, photoresponsive materials for photonics and polymeric networks.

The SOM Group is particularly known in the scientific community for pioneering work on poly(2-isopropenyl-2-oxazoline) and for developing smart polymer systems with multifunctional capabilities. These materials are being explored for a wide range of advanced applications, including chemical sensing, nonlinear optics, diagnostics, and next-generation healthcare technologies.

Dr. Jerca has a high track-record of published fundamental and applicative work, with emphasis on synthesis and characterization of functional polymers, and polymeric materials, with particular focus on polyoxazoline-based smart materials. He is author or co-author of over 80 publications in international peer reviewed journals that attracted over 2000 citations leading to an h-index of 23. For the full publication list see <https://orcid.org/0000-0001-6997-4979>.

SELECTED PUBLICATIONS

1. **Jerca VV***, Jerca FA*. Poly(2-Isopropenyl-2-Oxazoline) Taking the Leap From Functional Polymer to Smart Adaptive Materials. *Materials Chemistry Frontiers* 2026, 10(15): 2447-2457.
2. Jerca FA, **Jerca VV***, Hoogenboom R*, Advances and Opportunities in the Exciting World of Azobenzenes. *Nature Reviews Chemistry* 2022, 6(1): 51-69.
3. Xu X, Jerca FA, Van Hecke K, **Jerca VV***, Hoogenboom R*. High Compression Strength Single Network Hydrogels with Pillar[5]arene Junction Points. *Materials Horizons* 2020, 7(2): 566-573.
4. Xu X, Jerca FA, **Jerca VV***, Hoogenboom, R*. Covalent Poly(2-Isopropenyl-2-Oxazoline) Hydrogels with Ultrahigh Mechanical Strength and Toughness through Secondary Terpyridine Metal-Coordination Crosslinks *Advanced Functional Materials* 2019, 29(48): 1904886.
5. **Jerca VV***, Hoogenboom R*. Photocontrol in Complex Polymeric Materials: Fact or Illusion? *Angewandte Chemie-International Edition* 218, 57(27): 7945-7947.

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