



Curriculum Vitae

Full name: Elena-Diana ROTARU

Address: "Petru Poni" Institute of Macromolecular Chemistry, Aleea Grigore Ghica Voda, 41A, 700487, Iasi, Romania

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Citizenship: Romanian

Gender/status: female/unmarried

Education and training:

2025-present - PhD Thesis: " Organosilicon Compounds Containing Imidazole with Optical and Biological Sensitivity", School of Advanced Studies of the Romanian Academy (SCOSAAR) - Institute of Macromolecular Chemistry "Petru Poni", Iasi.

2023-2025 - Master's Degree: Specialization in Clinical Chemistry, "Alexandru Ioan Cuza" University in Iași, Faculty of Chemistry

2020-2023 - Bachelor's Degree: Specialization in Technological Biochemistry, "Alexandru Ioan Cuza" University in Iași, Faculty of Chemistry

2016-2020 – High School Diploma: "Ștefan cel Mare" National Pedagogical College, Bacău, Romania, Specialization in Natural Sciences.

Profession:

2025-present – PhD student – School of Advanced Studies of the Romanian Academy (SCOSAAR) – Department of Inorganic Polymers – "Petru Poni" Institute of Macromolecular Chemistry, Aleea Grigore Ghica Voda, no. 41A, 700487, Iași, Romania.

Expertise:

Organic and inorganic synthesis and structural characterization of imidazole derivatives containing silane/siloxane fragments, Schiff bases, sulfonamides, metal complexes, coordination polymers and metal–organic frameworks (MOFs); crystallization of organic ligands and coordination compounds; design and preparation of functional materials subsequently evaluated for antimicrobial, catalytic and sensing applications; FT-IR, NMR, UV–Vis and fluorescence spectroscopy for structural characterization and investigation of metal–ligand interactions.

Scientific activity:

- **Scientific articles**

1. Zaltariov M.-F., **Rotaru E.-D.**, Voda I., Shova S., Tigoianu I.-R., Cazacu M. One-dimensional Zn(II) coordination polymer based on 1,3-bis(3-carboxypropyl)tetramethyldisiloxane and 1,4-bis((1H-imidazol-1-yl)methyl)benzene: synthesis, structural characterization and applications, *Revue Roumaine de Chimie*, 2025, 70(7–8), 403–409, <https://doi.org/10.33224/rrch.2025.70.7-8.04>

- **Conference presentations**

1. **13th International Scientific Conference “Cultural Heritage of Yesterday – Implications in the Development of a Sustainable Society of Tomorrow”, Iași–Chișinău–Bucharest–Lviv, 11 February 2026**
Oral presentation – “*New Imidazole Derivatives with Strong Antimicrobial Activity*”, **Diana-Elena Rotaru**, Mirela-Fernanda Zaltariov, Mihaela Bălan-Porcărașu, Mihaela Avădanei, Maria Cazacu.
2. **Scientific Session of Students, Master’s and PhD Students “Chemistry – an Open Frontier Towards Knowledge”, 16th Edition, Iași, 19 June 2025**
Poster presentation – “*Zn(II) Coordination Polymer Based on Mixed Siloxane-Containing Dicarboxylate and Bis-Imidazole Ligands as Luminescent Sensor for Fe³⁺ Detection*”, **Elena-Diana Rotaru***, Mirela-Fernanda Zaltariov*, Irina Vodă, Sergiu Shova, Ionuț-Radu Tigoianu, Maria Cazacu, Dorina Amăriucăi-Mantu.
3. **“Cultural Heritage of Yesterday – Implications for the Development of Tomorrow’s Society”, 5th Conference Dedicated to Women’s Contributions in Research – 11 February 2025**
Oral communication – “*New Antimicrobial Agents Derived from Siloxane Precursors for Cultural Heritage Conservation*”, **Elena-Diana Rotaru**, Mirela-Fernanda Zaltariov.
4. **Faculty of Chemistry Conference, IașiChem, 30 October – 1 November 2024**
Poster presentation – “*Synthesis and Characterization of New Imidazole Derivatives Containing Flexible Siloxane Sequences*”, **Elena-Diana Rotaru**, Mirela-Fernanda Zaltariov, Mihaela Bălan-Porcărașu, Mihaela Avădanei, Alexandra Bîrgan, Maria Cazacu, Dorina Amăriucăi-Mantu.
5. **International Scientific Conference “Cultural Heritage of Yesterday – Implications for the Development of Tomorrow’s Sustainable Society”, 10th Edition, Chișinău, 19–20 September 2024 (online presentation)**
Oral presentation – “*Antimicrobial Deep Eutectic Solvents – A Green Route in Cultural Heritage Conservation*”, M. F. Zaltariov, **D. E. Rotaru**, D. Filip, M. Bălan-Porcărașu.