



## Elena-Daniela LOTOS

**PhD Student**

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PhD thesis topic: *Polysaccharide-based micro- and nanostructured biomaterials for medical applications, Coordinator Acad. Bogdan C. Simionescu*

### Research topics

Synthesis and characterization of hydrogels based on gelatin and hyaluronic acid, study of hydrogels with shape memory. Knowledge in synthesis and evaluation of biomaterials/bioactive compounds and utilization of these compounds in implementation of biotechnological processes. Studies of the biopolymers solubility in different solvents mixtures and at different pH; characterization of biopolymers solutions/dispersions by polyelectrolytic titrations, turbidimetric measurements, size and zeta potential determination. Trained to use the following instruments: Drop Shape Analyzer-DSA25 (Kruss GmbH, Germany), Particle Charge Detector-PCD 03 (Mütek GmbH, Germany), Zetasizer Nano (Malvern Panalytical, UK), Electrospinning equipment type TL PRO BM (Tonglitech).

### Visibility

<https://www.brainmap.ro/elena-daniela-lotos;>

<https://orcid.org/0000-0001-9192-9920;>

<https://www.webofscience.com/wos/author/record/AGX-5642-2022;>

### Relevant results

- PhD student member in research project PCE 87/2021 Zwitterzein, March 2022-December 2023.
- Participation with oral communication at The 20<sup>th</sup> National Symposium POLYMERS 2022, 5-8 July 2022, Velingrad, Bulgaria.
- Research internship on "Porous polymeric materials for medical and environmental applications" at the Institute of Polymers of the Bulgarian Academy of Sciences, Sofia, Bulgaria, in the Laboratory of Bioactive Polymers, Department of Polymeric Biomaterials, 9 May - 8 June 2022.
- Award - First place for the paper "Hydrogels based on gelatin and hyaluronic acid with potential applications in skin tissue engineering" at the BENG Conference, 17-20 May 2017, Iași, România.