



Luminita Marin

Dr. Luminita Marin received the university education from “Al. I. Cuza” University, Iasi, Romania (Chemistry Bachelor’s Degree in 1995 and Master’s Degree in 2002), and the PhD in Polymer Chemistry from Petru Poni Institute of Macromolecular Chemistry, Romanian Academy, Romania (2007), with the thesis theme focused on the synthesis and characterization of new liquid crystals based on azomethine units. In 2006, she performed a PhD stage at Istituto per lo Studio delle Macromolecole, Milan, Italy on the synthesis of low molecular weight semiconductors for field effect transistors, and in 2010-2013 she was enrolled as a PostDoc student in the Petru Poni Institute, with the research topic focused on the obtaining dynamic materials based on chitosan. Over this period, in 2011 and 2013, Dr. Marin performed two postdoctoral stages at European Institute of Membranes (IEM), Montpellier, France with the main research activity focused on new supramolecular architectures for biomedical applications. Starting from this point, Dr. Marin refined her topics through development of chitosan biomaterials designed for targeted applications: chitosan based films, hydrogels, nanofibers and formulations for drug delivery, tissue regeneration, wound healing, packaging, soil conditioners and heavy metal sensors. Currently, Dr. Marin is a Senior Researcher and Group Leader at *Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*.

Throughout her career, Dr. Marin has supervised six doctoral theses, and her scientific output includes over 120 ISI papers, six books and book chapters, three patents, and two patent applications, reflecting both academic depth and a strong commitment to innovation and technology transfer.

She is actively engaged in the scientific community as a board member of the European Chitin Society (EUCHIS) and serves as an editor for Polysaccharides, Polymers, and Chemistry and Application of Chitin and its Derivatives. Her research achievements have been recognized through several distinctions, including the “Costin D. Nenitescu” Award of the Romanian Academy (2006), the Cristofor Simionescu Medal for Excellence in Macromolecular Chemistry awarded by the American Chemical Society (2019), selection on the shortlist of the Luckhurst–Samulski Prize of Liquid Crystals (2015), and inclusion in the World Ranking of Top 2% Scientists Worldwide by Stanford University (2023, 2024, 2025).

Talk: Chitosan crosslinking with monoaldehydes. Chitosan electrospinning

To create continuity with the previous talk on ionic and covalent crosslinking of chitosan, the first part of the presentation will introduce an approach developed in our laboratory for chitosan crosslinking using monoaldehydes. The second part will focus on electrospinning, covering both general principles and specific considerations related to chitosan. The main routes for obtaining chitosan nanofibers will be highlighted, together with the influence of





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electrospinning parameters and chitosan characteristics on fiber morphology. Additionally, the role of various fillers in modulating fiber morphology and properties for targeted applications will be emphasized.

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