



## Dr. C.S. Alina Gabriela Rusu

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**Specialist** in materials characterization using methods such as: Dynamic Light Scattering measurements, Infrared spectroscopy, Ultraviolet–visible spectroscopy, proton and carbon Nuclear Magnetic Resonance, thermogravimetric measurements including Thermogravimetric Analysis coupled with Fourier Transform Infrared Spectroscopy and Mass Spectrometry, Scanning Electron Microscopy, etc. The researcher scientific interests cover the fields of the design and preparation of biopolymers-based scaffolds and nanosystems with enhanced bioactivity for drug delivery and tissue engineering applications.

**Scientific contributions:** Articles published in international peer-reviewed journals (ISI ranked and included in international data bases): 50 (out of which 12 articles as main author; **3** book chapters; articles/studies published full-text in international conference volumes: **4**; Patents (national): **6 patent** applications at OSIM Bucharest. Research and development projects based on national grants: **7 projects**, of which: **3 as project leader** and **4 as member** of the project.

**Scientific visibility:** H-index: 15 (according to ISI Web of Science) and 16 (according to Google Scholar and Scopus); Sum of the times cited: 1124 (1001 without self-citations) (according to ISI Web of Science, April 2025).

### SELECTED SCIENTIFIC ARTICLES

1. Loredana Elena Nita, Isabella Nacu, Alina Ghilan, Alina Gabriela Rusu, Alexandru Mihail Șerban, Maria Bercea, Liliana Verestiuc, Aurica P Chiriac, Evaluation of hyaluronic acid-polymacrolactone hydrogels with 3D printing capacity, *International Journal of Biological Macromolecules*, 256, pag. 128279, 2024, *IF*= 7.7
2. Alina Gabriela Rusu, Aurica P Chiriac, Loredana Elena Nita, Alina Ghilan, Daniela Rusu, Natalia Simionescu, Liliana Mititelu Tartau, Nanostructured hyaluronic acid-based hydrogels encapsulating synthetic/natural hybrid nanogels as promising wound dressings, *Biochemical Engineering Journal*, 179, pag. 108341, 2022, *IF*= 3.7
3. Alina Gabriela Rusu, Aurica P. Chiriac, Loredana Elena Nita, Irina Rosca, Mariana Pinteala, Liliana Mititelu-Tartau, “Chitosan derivatives in macromolecular co-assembly nanogels with potential for biomedical applications”, *Biomacromolecules*, 21(10), 4231-4243, 2020, *IF* = 5.5.
4. Alina Gabriela Rusu, Aurica P Chiriac, Loredana Elena Nita, Maria Bercea, Nita Tudorachi, Alina Ghilan, Daniela Pamfil, Daniela Rusu, Florina Daniela Cojocar, “Interpenetrated polymer network with modified chitosan in composition and self-healing properties”, *International Journal of Biological Macromolecules*, 132, 374-384, 2019, *IF* =7.7.
5. Iordana Neamtu, Alina Gabriela Rusu, Alina Diaconu, Loredana Elena Nita, Aurica P. Chiriac, “Basic concepts and recent advances in nanogels as carriers for medical applications”, *Drug Delivery*, 24(1), 539-557, 2017, *IF*= 5.