Dr. Loredana E Nita

Senior Scientist I

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Research topics

L.E. Nita has experience in materials characterization using methods such as: dimensional analysis and spatial distribution in polymeric structures using Mastersizer, Nanosizer ZS and NIR-CI equipment. Her activity was perform both from a fundamental as well applied standpoint, using a multidisciplinary approach, allowing her to develop the following research directions: - obtaining of pH and thermo-sensitive hydrogels by adjusting the chemical functionality of the gel structure by inclusion of a second interpenetrating network and/or specific entrapped structures, - obtaining hydrogels with a multi-membrane organization through a multi-stages gelation process; - obtaining and testing systems that have encapsulated drugs, starting from advanced functional macromolecular structures made by self - assembling process; - testing possibilities for the use of hydrogels as a controlled drug delivery system.

Profile address: https://publons.com/institution/23809/

Scientific research

Articles published in international peer-reviewed journals (ISI ranked and included in international data bases): 129 (out of which 45 articles as main author and 30 articles as corresponding author). 37 Articles/Studies published full-text in international conference volumes: 1450 citations (without self-citation) of the published papers in international ISI ranked journals, Hirsch index, H= 22 in SCOPUS, H=21 in ISI Web of Science databases, H=23 in Google Scholar). Patents (national): 14 patent application at OSIM Bucharest. Research and development projects based on national grants: 25 projects, of which: 6 as project leader and 19 as member of the project. In 2013 she received “Nicolae Teclu” award of the Romanian Academy. Highlighted publications: Int J Biol Macromol (2024, 2023, 2021), Pharmaceutics 2021, J Polym Environ 2020, Biomacromolecules 2020, Polymers 2020, Macromol Biosci 2019, Int J Biol Macromol 2019, Mater. Chem. Phys 2018, Expert Opin Drug Deliv 2017, Int J Biol Macromol 2017, Materials Sci & Eng C 2015, Mater Chem Phys 2016, etc.

Relevant 5 publications

1. Nita L.E., Nacu I., Ghilan A., Rusu A. G., Serban A.M., Bercea M., Verestiuc L., Chiriac A. P., Evaluation of hyaluronic acid-polymacrolactone hydrogels with 3D printing capacity, Int J Biol Macromol, 181, 561-571 (2024), (Q1 journal: Polymer Science).
2. Nita L.E., Croitoriu A., Serban A.M., Bercea M., Rusu A.G., Ghilan A., Butnaru M., Mititelu-Tartau L., Chiriac A.P., New Hydrogels Based on Agarose/Phytagel and Peptides, MACROMOLECULAR BIOSCIENCE, 23 (3) 2200451 (2023) (Q2 journal: Polymer Science).
3. Nita L.E., Cretu B.E.B., Serban A.M., Rusu A.G., Rosca I., Pamfil D., Chiriac A.P., New cryogels based on poly (vinyl alcohol) and a copolymacrolactone system. II. Antibacterial properties of the network embedded with thymol bioactive agent, REACTIVE & FUNCTIONAL POLYMERS, 182, (2023) (Q1 journal: Polymer Science).
4. Nita L.E., Chiriac A. P., Ghilan A., Rusu A. G., Tudorachi N., Timpu D.. Alginate enriched with phytic acid for hydrogels preparation, Int J Biol Macromol, 181, 561-571 (2021), (Q1 journal: Polymer Science).
5. Nita L. E., Chiriac A. P., Rusu A. G., Ghilan A., Dumitriu R. P., Bercea M., Tudorachi N. Stimuli responsive scaffolds based on carboxymethyl starch and poly(2-dimethyl ami-noethyl methacrylate) for antiinflammatory drug delivery, Macromol Biosci, Art.1900412/1-12 (2020), (Q1 journal: Polymer Science).