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Instituția unde este titular: **Universitatea “Alexandru Ioan Cuza” din Iași**

Facultatea: **Chimie**

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L I S T A LUCRĂRILOR ȘTIINȚIFICE

A. Teza de doctorat

Acil-CoA Dehidrogenaze: studii asupra mecanismul de reacție al acil-CoA dehidrogenazelor care acționează asupra substratelor cu lanț mediu, 2005, Universitatea Konstanz, Konstanz, Germania

B. Cărți și capitole în cărți publicate în ultimii 5 ani (2021-2025)

C. Lucrări indexate ISI/BDI publicate în ultimii 5 ani (2021-2025)

1. Culita, T., Bucatariu, F., Grădinaru, V.R. (2025), Beyond the aromatic amino acid violet-blue fluorescence: a spectroscopic and optical microscopy study, *Acta Chemica Iasi*, 33 (2), 143-166.
2. Grădinaru, V.-R., Bercea, M., Grădinaru, L.M., Pui, A., Lupu, A., Petre, B.A. (2025) Targeting Injectable Hydrogels: The Role of Diphenylalanine Peptide Derivative in the Gelation Dynamics of Pluronic® F127, *Polymers*, 17, 930.
3. Lupu, A., Grădinaru, L.M., Balan-Porcarasu, M., Darie-Ion, L., Petre, B.A., Grădinaru, V.-R. (2025) The hidden power of a novel collagen octapeptide: Unveiling its antioxidant and cofactors releasing capacity from polyurethane based systems, *Reactive and Functional Polymers*, 207, 106131
4. Lupu, A., Bercea, M., Avadanei, M., Grădinaru, L.M., Nita, L.E., Grădinaru, V.R. (2024) Temperature Sensitive Pluronic F127-Based Gels, Incorporating Natural Therapeutic Agents, *Macromol. Mater. Eng.*, 2400341.
5. Jitaru, S.-C., Enache, A.-C., Cojocaru, C., Drochioiu, G., Petre, B.-A., Grădinaru, V.-R. (2024) Self-Assembly of a Novel Pentapeptide into Hydrogelated Dendritic Architecture: Synthesis, Properties, Molecular Docking and Prospective Applications, *Gels*, 10(2), 86.
6. Mihalcea, E., Enache, A.C., Grădinaru, V.R., Drochioiu, G. (2024), Simultaneous determination of protein and essential amino acids in biological samples, *Acta Chemica Iasi*, 32 (1), 1-12.
7. Lupu, A., Grădinaru, L.M., Grădinaru, V.R., Bercea, M. (2023) Diversity of Bioinspired Hydrogels: From Structure to Applications. *Gels*, 9, 376.
8. Bercea, M., Plugariu I.-A., Grădinaru, L.M., Avadanei, M., Doroftei, F., Grădinaru, V.R. (2023) Hybrid Hydrogels for Neomycin Delivery: Synergistic Effects of Natural/Synthetic Polymers and Proteins. *Polymers*, 15(3), 630.
9. Grădinaru, L.M., Bercea, M., Lupu, A., Grădinaru, V.R. (2023) Development of Polyurethane/Peptide-Based Carriers with Self-Healing Properties, *Polymers*, 15, 1697.

10. Lupu, A.; Rosca, I.; Gradinaru, V.R.; Bercea, M. (2023) Temperature Induced Gelation and Antimicrobial Properties of Pluronic F127 Based Systems. *Polymers*, 15(2), 355.
11. Jitaru, S.-C., Neamtu, A., Drochioiu, G., Darie-Ion, L., Stoica, I., Petre, B.-A.; Gradinaru, V.-R. (2023) A Diphenylalanine Based Pentapeptide with Fibrillating Self-Assembling Properties. *Pharmaceutics*, 15, 371.
12. Munteanu, I.G., Gradinaru, V.R., Apetrei, C. (2022) Development of a Chemically Modified Sensor Based on a Pentapeptide and Its Application for Sensitive Detection of Verbascoside in Extra Virgin Olive Oil, *International Journal of Molecular Sciences*, 23 (24), 15704.
13. Petrila, L.-M., Grădinaru, V. R., Bucatariu, F., and Mihai, M. (2022) Polymer/Enzyme Composite Materials—Versatile Catalysts with Multiple Applications, *Chemistry*, 4 (4),1312-1338.
14. Munteanu, I.G., Gradinaru, V.R., Apetrei, C. (2022) Sensitive Detection of Rosmarinic Acid Using Peptide-Modified Graphene Oxide Screen-Printed Carbon Electrode, *Nanomaterials*, 12(19), 3292.
15. Mocanu, C.S., Darie-Ion, L., Petre, B.A., Gradinaru, V.R., Drochioiu, G. (2022) A computational study of metal ions interaction with amyloid- β 1–42 peptide structure in hyperpyrexia: Implications for Alzheimer disease, *Journal of King Saud University - Science*, 34(6), 102184.
16. Mocanu, C.S., Petre, B.A., Darie Ion, L., Drochioiu, G., Niculaua, M., Stoica, I., Homocianu, M., Nita, L.E., Gradinaru, V.R. (2022), Structural Characterization of a New Collagen Biomimetic Octapeptide with Nanoscale Self-assembly Potential: Experimental and Theoretical Approaches, *ChemPlusChem*, Feb;87(2):e202100462.
17. Bercea, M., Gradinaru, L.-M., Morariu, S., Plugariu, I.-A., Gradinaru, R.V. (2022) Tailoring the properties of PVA/HPC/BSA hydrogels for wound dressing applications, *Reactive&Functional Polymers*, 170, 105094.
18. Darie-Ion, L., Jayathirtha, M., Hitruc, G.E., Zaharia, M.M., Gradinaru, R. V., Darie ,C., Pui, A., Petre, B.A (2021) A Proteomic Approach to Identify Zein Proteins upon Eco-Friendly Ultrasound-Based Extraction, *Biomolecules*,11(12),1838.
19. Bercea M., Plugariu I.-A., Nita L.E., Morariu S., Gradinaru R.V. (2021), On the Interactions between Bovine Serum Albumin and Reduced Glutathione in Solution, 9th E-Health and Bioengineering Conference, EHB 2021.

D. Lucrări publicate în ultimii 5 ani (2021-2025) în reviste și volume de conferințe cu referenți (neindexate)

- Selecție cu maximum 20 lucrări în volume de conferințe

1. Jitaru, SC., Enache, A.C., Drochioiu, G., Petre, B.A., Gradinaru, V.R. (2024). Dendritic-Like Self-assembling Pentapeptide with Potential Applications in Emerging Biotechnologies. In: Costin, HN., Magjarević, R., Petroiu, G.G. (eds) *Advances in Digital Health and Medical Bioengineering. EHB 2023. IFMBE Proceedings*, vol 111. Springer, Cham.
2. Darie-Ion, L., Drochioiu, G., Pui, A., Mihalcea, E., Gradinaru, V.-R. (2021), Zein conjugates of biomedical interest: synthesis and characterization by MALDI-TOF mass spectrometry and Fourier transform infrared spectroscopy, *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*, 21 (6.1),155-162.

3. Bercea M., Plugariu I.-A., Nita L.E., Morariu S., Gradinaru R.V. (2021), On the Interactions between Bovine Serum Albumin and Reduced Glutathione in Solution, 9th E-Health and Bioengineering Conference, EHB 2021.

E. Brevete obținute în întreaga activitate

Zaharia, M., Gradinaru, R., Zaharia E. A., Murariu, M., Drochioiu, G, (2015) Metodă colorimetrică de determinare a activității agenților decuplanți ai fosforilării oxidative, Nr. înregistrare A/00057/27.01.2015, RO131288B1, anul obținerii 2023, OSIM București.

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