



LISTA DE LUCRARI

Prof. Dr. Chim. Ioana Lacatusu

I. TEZA DE DOCTORAT

„Colectorii multipolari de tip oxima utilizati in flotatia ionica”, coordonator Prof. dr. Ligia Stoica, Dr. Chim./din Iulie 2006.

Doctor in Chimie, Diploma nr. 102/06.09.2006, Seria E, Nr. 0001352, emisă de Universitatea ”Politehnica” Bucuresti în baza Ordinului Ministrului Educației și Cercetării 4871/07.08.2006.

II. TEZA DE ABILITARE

“Hybrid materials and lipid nanocarriers enriched in bioactive herbal principles: synthesis, characterisation and pharmaceutical performance”.

Doctor Habilitat – Conducator de doctorat în domeniul *Inginerie chimica*.

Domeniul de Studii Universitare de doctorat *Inginerie chimica*, Nr. 4615/30.07.2019, emis de Ministerul Educatiei Nationale.

III. ARTICOLE PUBLICATE IN REVISTE INTERNATIONALE

A. Reviste de specialitate de circulatie internatională indexate ISI Thomson Reuters

1. Badea N., Samayoa D., Morosan A., Ott C., **Lacatusu I.***, Hybrid Carbohydrate–Lipid Nanocarriers: In Vitro Efficacy Gene-Rated by Association of UV-Absorbers and Raspberry Polyphenols Rich-Fraction, *Pharmaceuticals* **2025**, 18(1), 16, FI/2024 = 4.3.
2. Tincu R., Mihaila M., Bostan M., Istrati D., Badea N., **Lacatusu I. ***, Hybrid Albumin-Decorated Lipid-Nanocarrier-Mediated Delivery of Polyphenol-Rich *Sambucus nigra* L. In a Potential Multiple Antitumoral Therapy, *Int. J. Mol. Sci.* **2024**, 25(20), 11206, FI/2024 = 4.9.
3. Crisan S, Pop A.L., Hentes P., **Lacatusu I.**, Badea N., Zetu C, Penes O.N., Varlas V., Ozon, E.A., Udeanu D., Pre-formulation, formulation and pilot scale-up studies to establish the qualitative and quantitative composition of an innovative nanoform dietary supplement for menopausal therapy, *Farmacia*, **2024**, 72, 2, 369 – 380, WOS:001226515100015 ISSN 0014-8237, FI/2022 = 1.4.
4. Tincu R., Mihaila M., Bostan M., Teodorescu F., Istrati D., Badea N., **Lacatusu* I.** Novel Bovine Serum Albumin-Decorated–Nanostructured Lipid Carriers Able to Modulate Apoptosis and Cell-Cycle Response in Ovarian, Breast, and Colon Tumoral Cells, *Pharmaceutics*, **2023**, 15(4), 1125, WOS:000977802900001, FI/2022 = 6.525.

5. Crisan S., Pop A.L., **Lacatusu I.**, Badea N., Mustaciosu C., Radu M., Varlas V.N., Pene O.N., Ciobanu A.M., Ghica M., Voicu S.N., Udeanu D.I., Safety of Innovative Nanotechnology Oral Formulations Loaded with Bioactive Menopause Molecules: Influence of Genotoxicity and Biochemical Parameters on a Menopausal Rat Model, *Nutrients* **2023**, 15(23), 4951, WOS:001116044200001, FI/2022 = 5.9.
6. Iordache T.-A., Badea N., Mihaila M., Crisan S., Pop A.L., **Lacatusu* I.**, Polygonum cuspidatum Loaded Nanostructured Lipid Carriers for Dual Inhibition of TNF- α - and IL-6 Cytokines and Free Radical Species, *Materials*, **2023**, 16, 3492, WOS:000987499300001, FI/2022 = 3.748.
7. Lite M.C., Constantinescu R., Tănăsescu E.C., Kuncser A., Romanitan C., Mihaiescu D.E., **Lacatusu I.**, Badea N., Phytochemical Synthesis of Silver Nanoparticles and Their Antimicrobial Investigation on Cotton and Wool Textiles, *Materials*, **2023**, 16(11), 3924, WOS:001005160700001, FI/2022 = 3.748.
8. Pop A.L., Crișan S., Henteș P., Pali M.A., **Lacatusu I.**, Badea N., Ciobanu A.M., Nasui B.A., Peneș O.N., Udeanu D.I., Comparative dissolution study of a solid pharmaceutical form containing nanostructured lipid carrier (NLC) incorporating diosgenin – conventional versus biorelevant dissolution media, *Farmacia*, **2023**, 71(1), 116-129, FI/2022 = 1.550.
9. Lite M.C., Constantinescu R.R., Tănăsescu E.C., Kuncser A., Romanitan C. **Lacatusu I.**, Badea N., Design of Green Silver Nanoparticles Based on Primula Officinalis Extract for Textile Preservation, *Materials*, **2022**, 15(21), 7695, FI/2022 = 3.748.
10. **Lacatusu I.**, Balanuca B., Serafim A., Ott C., Prodana M., Badea N. Salicin and Hederacoside C-Based Extracts and UV-Absorbers Co-Loaded into Bioactive Lipid Nanocarriers with Promoted Skin Antiaging and Hydrating Efficacy, *Nanomaterials*, **2022**, 12(14): 2362, FI/2022 = 5.719, WOS:000831780700001.
11. Coc L.M.C., **Lacatusu I.**, Badea N., Penes O., Cobelschi C.P., Pop A., Meghea A., Curcumin Co-Loaded With A Lipid Mediator In The Same Nanostructured Lipid Delivery System, *Farmacia*, **2022**, 70(5), 932-943, FI/2022 = 1.550.
12. Iordache T.-A. Coc L., Mihai A. L., Badea N., **Lacatusu* I.**, Meghea A. The influence of vegetable oil and self-organizing agents' composition on obtaining stable nanostructured lipid carriers, *UPB Sci. Bull., Series B: Chemistry and Materials Science* **2022**, 84(1), 97-108, ISSN: 1454-2331, WOS:000813376200007.
13. **Lacatusu I.**, Iordache T.A., Mihaila M., Mihaiescu D.E., Pop A.L., Badea N., Multifaced Role of Dual Herbal Principles Loaded-Lipid Nanocarriers in Providing High Therapeutic Efficacy, *Pharmaceutics* **2021**, 13(9), 1511, FI/2022 = 6.525, WOS: 000701582700001.
14. Iordache T.A., Badea N., Mihaila M., Crisan S., Pop A.L., **Lacatusu* I.**, Challenges in coopted hydrophilic and lipophilic herbal bioactives in the same nanostructured carriers for effective bioavailability and anti-inflammatory action, *Nanomaterials*, **2021**, 11 (11), 3035, FI/2022 = 5.719, WOS: 000726664900001.
15. Coc L.M.C., **Lacatusu I.**, Badea N., Barbinta-Patrascu M.E., Meghea A., Effective Lipid Nanocarriers Based on Linseed Oil for Delivery of Natural Polyphenolic Active, *Journal of Nanomaterials*, **2021**, 8853941, FI/2022 = 3.791, DOI: 10.1155/2021/8853941, WOS: 000621082400001.
16. **Lacatusu I.**, Istrati D., Bordei N., Popescu M., Seciu A.M., Panteli L.M., Badea N., Synergism of plant extract and vegetable oils-based lipid nanocarriers: Emerging trends in development of advanced cosmetic prototype products, *Materials Science and Engineering C*, **2020**, 110412, FI/2022 = 8.457, ISSN 09284931, WOS:000510956400041.

17. Arsenie L.V., **Lacatusu I.**, Oprea O., Bordei N., Bacalum M., Badea N.* Azelaic acid-willow bark extract-panthenol – Loaded lipid nanocarriers improve the hydration effect and antioxidant action of cosmetic formulations, *Industrial Crops and Products*, **2020**, 154, 112658, FI/2022 = 6.449, ISSN 09266690, WOS:000554526900045.
18. Bratu A., Ott C.*, Balanuca B., Badea N., **Lacatusu I.**, The association effect of cocoa butter with vegetable oils on the obtaining of lipid nanocarriers loaded with antidepressant and antipsychotic drugs, *Rev. Roum. Chim.*, **2020**, 65(1), 57-67, FI/2022 = 0.410, WOS:000548815700006. **Lacatusu I.**, N. Badea N., Udeanu D., Coc L., Pop A., Cioates Negut C., Tanase C., Stan R., Meghea A. Improved anti-obesity effect of herbal active and endogenous lipids co-loaded lipid nanocarriers: Preparation, *in vitro* and *in vivo* evaluation, *Materials Science and Engineering C*, **2019**, 99, 12-24, FI/2022 = 8.457, ISSN 09284931, WOS:000463121200002, DOI: 10.1016/j.msec.2019.01.071.
19. **Lacatusu I.**, Badea N., Badea G., Mihaila M., Ott C., Stan R., Meghea A., Advanced bioactive lipid nanocarriers loaded with natural and synthetic anti-inflammatory actives, *Chemical Engineering Science*, **2019**, 200, 113-126, FI/2022 = 4.889, ISSN 00092509, WOS:000461418000011, DOI: 10.1016/j.ces.2019.01.044.
20. **Lacatusu I.**, Arsenie L.V., Badea G., Popa O., Oprea O., Badea N.*, New cosmetic formulations with broad photoprotective and antioxidative activities designed by amaranth and pumpkin seed oils nanocarriers, *Industrial Crops and Products*, **2018**, 123, 424-433, FI/2022 = 6.449, ISSN 09266690, WOS:000447103900048, DOI 10.1016/j.indcrop.2018.06.083.
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22. Badea G., Badea N., Brasoveanu L., Mihaila M., Stan R., Istrati D., Balaci T. and **Lacatusu I.***, Naringenin improves the sunscreen performance of vegetable nanocarriers, *New Journal of Chemistry*, **2017**, 41, 480-492, FI/2022 = 3.925, ISSN 1144-0546, WOS:00039388720001, DOI: 10.1039/c6nj02318e.
23. **Lacatusu I.**, Badea N.*, Badea G., Brasoveanu L., Stan R., Ott C., Oprea O. and Meghea A., Ivy leaves extract based – lipid nanocarriers and their bioefficacy on antioxidant and antitumor activities, *RSC Advances*, **2016**, 6, 77243-77255, FI/2022 = 4.036, ISSN 2046-2069, WOS:000382482200015, DOI: 10.1039/c6ra12016d.
24. Istrati D., **Lacatusu I.**, Bordei N., Badea G., Oprea O., Stefan L.M., Stan R., Badea N.*, Meghea A., Phyto-mediated nanostructured carriers based on dual vegetable actives involved in the prevention of cellular damage, *Materials Science and Engineering C*, **2016**, 64, 249-259, FI/2022 = 8.457, ISSN 09284931, WOS:000376547700030.
25. Ott C., **Lacatusu I.**, Badea G., Grafu I.A. Istrati D. Babeanu N., Stan R., Badea N.*, Meghea A. Exploitation of amaranth oil fractions enriched in squalene for dual delivery of hydrophilic and lipophilic actives, *Industrial Crops and Products*, **2015**, 77, 342-352, FI/2022 = 6.449, ISSN 09266690, WOS:000366065200041, DOI: 10.1016/j.indcrop.2015.08.057.
26. **Lacatusu I.**, Badea N., Badea G., Oprea O., Mihaila M.A., Kaya D.A., Stan R.*, Meghea A., Lipid nanocarriers based on natural oils with high activity against oxygen free radicals and

- tumor cell proliferation, *Materials Science and Engineering C*, **2015**, 56, 88-94, FI/2021 = 8.457, ISSN 09284931, WOS:000359873900011, DOI: 10.1016/j.msec.2015.06.019.
27. Badea G., **Lacatusu I.***, Ott C., Badea N., Grafu I., Meghea A., Integrative approach in prevention and therapy of basal cellular carcinoma by association of three actives loaded into lipid nanocarriers, *J. of Photochemistry and Photobiology B: Biology*, **2015**, 147, 1-8, FI/2022 = 6.814, ISSN 10111344, WOS:000354156000001, DOI: 10.1016/j.jphotobiol.2015.03.007.
 28. Badea G., **Lăcătușu I.***, Badea N., Ott C., Meghea A. Use of various vegetable oils in designing photoprotective nanostructured formulations for UV protection and antioxidant activity, *Industrial Crops and Products*, **2015**, 67, 18-24, FI/2022 = 6.449, ISSN 09266690, WOS:000352039600004, DOI: 10.1016/j.indcrop.2014.12.049.
 29. Badea G., Bors A.G., **Lacatusu I.**, Oprea O., Ungureanu C., Stan R.* , Meghea A., Influence of basil oil extract on the antioxidant and antifungal activities of nanostructured carriers loaded with nystatin, *Comptes Rendus Chimie*, **2015**, 18(6), 668-677, FI/2022 = 2.55, ISSN 16310748, WOS:000357703400012, DOI: 10.1016/j.crci.2014.09.012.
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 35. Niculae G., **Lacatusu I.**, Badea N., Meghea A., Stan R.* , Influence of vegetable oil on the synthesis of bioactive nanocarriers with broad spectrum photoprotection, *Central European Journal of Chemistry* (transformat in *Open Chemistry*), **2014**, 12(8), 837-850, FI/2022 = 1.977, ISSN 1895-1066, WOS:000335552400004, DOI: 10.2478/s11532-014-0503-9.
 36. Mihaly M., **Lacatusu I.**, Olteanu N.L., Meghea A.* , A systematic methodology to design silica templates: Silica microemulsion formulation and nanodroplet type and size estimation, *Comptes Rendus Chimie* **2014**, 17, 342-351, FI/2022 = 2.55, ISSN 1631-0748, WOS:000334155600007, DOI: 10.1016/j.crci.2013.09.018.
 37. Stanescu A.-M., Stoica L., Constantin C., **Lacatusu I.**, Oprea O., Miculescu F. Physicochemical characterization and use of heat pretreated commercial instant dry baker's

- yeast as a potential biosorbent for Cu(II) removal, *Clean – Soil, Air, Water*, **2014**, 42(11), 1632-1640, FI/2022 = 2.404, ISSN 1863-0650, WOS:000344777700019, DOI: 10.1002/clen.201300484.
38. **Lacatusu I.**, Mitrea E., Badea N.*, Stan R., Oprea O., Meghea A., Lipid nanoparticles based on omega-3 fatty acids as effective carriers for lutein delivery. Preparation and *in vitro* characterization studies, *Journal of Functional Foods*, **2013**, 5(3), 1260-1269, FI/2022 = 5.223, ISSN 1756-4646, WOS: 000322691600027, DOI: 10.1016/j.jff.2013.04.010.
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