

2024

Lista capitole de carte/carti editate in strainatate

1. **M. Chelu***, **A. M. Musuc**, "Biomaterials-based hydrogels for therapeutic applications" in "Biomaterials in Microencapsulation" edited by Ashutosh Sharma, IntechOpen, 2024 doi: 10.5772/intechopen.1004826.
2. **A. M. Musuc**, M. Mititelu, **M. Chelu**, Eds. Published: December 2024'' Hydrogel for Sustained Delivery of Therapeutic Agents'', <https://doi.org/10.3390/books978-3-7258-27374>, MDPI, ISBN978-3-7258-2738-1 (Hardback), ISBN978-3-7258-2737-4 (PDF), Basel, Switzerland, Nr. pagini: 228 (Carte editata in strainatate, Editors).

Lucrari publicate in reviste clasificate ISI/Papers in ISI ranked journals

A. Autorul de corespondenta este din Laboratorul 3

1. **C. Movileanu**, **V. Giurcan***, D. Razus, **A. M. Musuc**, **C. Hornoiiu**, **P. Chesler**, **M. Mitu**, Hydrogen influence on confined explosion characteristics of hydrocarbon-air mixtures at sub-atmospheric pressures, Int. J. Hydrog. Energy, 2024, 67, 150-158, <https://doi.org/10.1016/j.ijhydene.2024.04.128>. (F.I. – 8.1)
2. **M. Mitu***, J. Foerster, S. Zakel, Inertization parameters for alcohols and ketones with nitrogen and carbon dioxide, Process Safety and Environmental Protection, 2024, 185, 1286–1302. <https://doi.org/10.1016/j.psep.2024.03.120>. (F.I. – 6.9)
3. **V. Giurcan**, **C. Movileanu***, **M. Mitu**, D. Razus, The impact of H₂-enrichment on flame structure and combustion characteristic properties of premixed hydrocarbon-air flames, Fuel, 2024, 376, 132674, <https://doi.org/10.1016/j.fuel.2024.132674>. (F.I. – 6.7)
4. Burloiu, A.M.; Ozon, E.A. *; **Musuc, A.M. ***; Anastasescu, M.; Socoteanu, R.P.*; Atkinson, I.; Culita, D.C.; Anuta, V.; Popescu, I.A.; Lupuliasa, D.; et al. Porphyrin Photosensitizers into Polysaccharide-Based Biopolymer Hydrogels for Topical Photodynamic Therapy: Physicochemical and Pharmacotechnical Assessments. Gels 2024, 10, 499. <https://doi.org/10.3390/gels10080499>. (F.I. – 5.0)
5. **M. Chelu***, Hydrogels with Essential Oils: Recent Advances in Designs and Applications, Gels, 2024, 10, 636, <https://doi.org/10.3390/gels10100636>. (F.I. – 5.0)
6. Ilić-Stojanović, S.*; Damiri, F.*; **Musuc, A.M.***; Berrada, M. Polysaccharide-Based Drug Carriers—A Patent Analysis. Gels 2024, 10, 801. <https://doi.org/10.3390/gels10120801>. (F.I. – 5.0)
7. **Musuc, A.M.***; Mititelu, M.; **Chelu, M.** Hydrogel for Sustained Delivery of Therapeutic Agents. Gels 2024, 10, 717. <https://doi.org/10.3390/gels10110717>. (F.I. – 5.0) (Editorial)
8. Fatimi, A.*; Damiri, F.; Berrada, M.; **Musuc, A.M.** Patent Overview of Innovative Hyaluronic Acid-Based Hydrogel Biosensors. Biosensors 2024; 14(12):567. <https://doi.org/10.3390/bios14120567>. (F.I. – 4.9)
9. Olteanu, G.; Ciucă-Pană, M.-A.; Busnatu, Ș.S.; Lupuliasa, D.; Neacșu, S.M.; Mititelu, M.; **Musuc*, A.M.**; Ioniță-Mîndrican, C.-B.; Boroghina, S.C. Unraveling the Microbiome–Human Body Axis: A Comprehensive

Examination of Therapeutic Strategies, Interactions and Implications. *Int. J. Mol. Sci.* 2024, 25, 5561. <https://doi.org/10.3390/ijms25105561>. (F.I. – 4.9)

10. G.Olteanu†, S. M. Neacșu†, F.A. Joița *, **A. M. Musuc ***, E. C. Lupu, C.-B.Ioniță-Mîndrican, D.Lupuliasa, M.Mititelu Advancements in regenerative hydrogels in skin wound treatment: A comprehensive review, *Int. J. Mol. Sci.* 2024, 25, 3849. <https://doi.org/10.3390/ijms25073849>. (F.I. – 4.9)

11. Ungureanu, A.R.; Ozon*, E.A.; **Musuc***, **A.M.**; Anastasescu, M.; Atkinson, I.; Mitran, R.-A.; Rusu, A.; Popescu, L.; Gîrd, C.E. Preparation and Preliminary Analysis of Several Nanoformulations Based on Plant Extracts and Biodegradable Polymers as a Possible Application for Chronic Venous Disease Therapy. *Polymers* 2024, 16, 1362. <https://doi.org/10.3390/polym16101362>. (F.I. – 4.7)

12. F. Damiri*, A. Fatimi, A. M. **Musuc**, A. C. Paiva Santos, S. Paszkiewicz, C. Igwe Idumah, S. Singh, R. S. Varma, M. Berrada, Nano-hydroxyapatite (nHAp) scaffolds for bone regeneration: Preparation, characterization and biological applications, *Journal of Drug Delivery Science and Technology*, 2024, 105601, <https://doi.org/10.1016/j.jddst.2024.105601>. (F.I. – 4.5)

13. Neacșu, S.M.; Mititelu, M.; Ozon, E.A.; **Musuc***, **A.M.**; Iuga, I.D.M.; Manolescu, B.N.; Petrescu, S.; Pandele Cusu, J.; Rusu, A.; Surdu, V.-A.; et al. Comprehensive Analysis of Novel Synergistic Antioxidant Formulations: Insights into Pharmacotechnical, Physical, Chemical, and Antioxidant Properties. *Pharmaceutics* 2024, 17, 690. <https://doi.org/10.3390/ph17060690>. (F.I. – 4.3)

14. **Musuc**, **A.M.*** Cyclodextrins: Advances in Chemistry, Toxicology, and Multifaceted Applications. *Molecules* 2024, 29, 5319. <https://doi.org/10.3390/molecules29225319>. (F.I. – 4.2)

15. **Negoescu, D.; Bratan, V.***; Gherendi, M.; Atkinson, I.; Culita, D.C.; Neacsu, A.; Baran, A.; Petrescu, S.; Parvulescu, V.* Iron Promoted TiO₂-Activated Carbon Nanocomposites for Photocatalytic Degradation of Congo Red in Water. *Catalysts* 2024, 14, 844. <https://doi.org/10.3390/catal14120844>. (F.I. – 3.8)

16. **Vasile, A.***; Dobrescu, G.; **Bratan, V.**; Teodorescu, M.; Munteanu, C.; Atkinson, I.; Negrila, C.; Papa, F.*; Balint, I.* Fractal Behavior of Nanostructured Pt/TiO₂ Catalysts: Synthesis, Characterization and Evaluation of Photocatalytic Hydrogen Generation. *Catalysts* 2024, 14, 619. <https://doi.org/10.3390/catal14090619>. (F.I. – 3.8)

17. E.A. Ozon, E. Mati, O. Karampelas, V. Anuta*, I. Sarbu*, **A.M. Musuc***, R.-A. Mitran, D.C. Culita, I. Atkinson, M. Anastasescu, D. Lupuliasa, M.A. Mitu, The development of an innovative method to improve the dissolution performance of rivaroxaban, *Heliyon*, 2024, 10(12), E33162. <https://doi.org/10.1016/j.heliyon.2024.e33162>. (F.I. – 3.4)

18. Simeonov, S.; Szekeres, A.; Covei, M.; Stroescu, H.*; Nicolescu, M.; **Chesler, P.***; **Hornoiu, C.**; Gartner, M.* Sol-Gel Multilayered Niobium (Vanadium)-Doped TiO₂ for CO Sensing and Photocatalytic Degradation of Methylene Blue. *Materials* 2024, 17, 1923. <https://doi.org/10.3390/ma17081923>. (F.I. – 3.1)

19. **Mitu, M.*** Effect of Initial Temperature and Pressure on the Explosion Characteristics and Intermediate Reaction Products of Formic Acid Mixtures: A Theoretical Study. *Fire* 2024, 7, 290. <https://doi.org/10.3390/fire7080290>. (F.I. – 3.0)

20. Mititelu†, M.; Popovici†, V.; Neacșu*, S.M.; **Musuc***, **A.M.**; Busnatu, Ș.S.; Oprea, E.; Boroghina, S.C.; Mihai, A.; Streba, C.T.; Lupuliasa, D.; et al. Assessment of Dietary and Lifestyle Quality among the Romanian Population in the Post-Pandemic Period. *Healthcare* 2024, 12, 1006. <https://doi.org/10.3390/healthcare12101006>. (F.I. – 2.4)

21. F. A. Joița#, E. Oprea#, **A. M. Musuc**#, M. Mititelu*, F. Marinescu, D. Lupuliasa, L. Hîncu, A. C. Roșca, S. C. Boroghina, I. A. Popescu, Development of antimicrobial hydrogels using alginate-chitosan matrix enhanced with essential oils, *Farmacia*, 2024, 72(4), 906-916. <https://doi.org/10.31925/farmacia.2024.4.19>. (F.I. – 1.6)
22. F.A. Joita#, M.Mititelu#, **A.M.Musuc**#, E.Oprea, F.Marinescu, D.Lupuliasa, L.Hincu, T.O.Nicolescu, A.L.Pop, I.A.Popescu, Investigation of antimicrobial activity and rheological properties of chitosan- and alginate- based hydrogels enriched with volatile oils for biomedical applications, *Farmacia*, 2024, 72(3), <https://doi.org/10.31925/farmacia.2024.3.7>. (F.I. – 1.6)

B. Colaborare interna, autorul de corespondenta nu este din Laboratorul 3

1. **Chelu, M.**; Calderon Moreno, J.M.*; **Musuc, A.M.**; Popa, M.* Natural Regenerative Hydrogels for Wound Healing. *Gels* 2024, 10, 547. <https://doi.org/10.3390/gels10090547>. (F.I. – 5.0)
2. Patrinoiu, G.*, **Musuc, A.M.**, Calderon-Moreno, J.M., Florea, M., Neatu, F., Ionita, P.* Honey-Derived Hydrochar Containing 2,2,6,6-tetramethylpiperidine-1-oxyl Free Radical for Degradation of Aqueous Organic Pollutants. *Environ. Process.* 11, 60 (2024). <https://doi.org/10.1007/s40710-024-00731-5>. (F.I. – 3.7)
3. Mocioiu, O.C.*; Atkinson, I.; Aricov, L.; **Bratan, V.**; Mocioiu, A.-M.; Tudor, I.A.; Băilă, D.I. Hydrophobic and Transparent Tantalum Pentoxide-Based Coatings for Photovoltaic (PV) Solar Panels. *Coatings* **2024**, *14*, 273. <https://doi.org/10.3390/coatings14030273>. (F.I. – 2.9)
4. Vlăduț, C. M.*; Anastasescu, C.; Preda, S.; Mocioiu, O. C.; Petrescu, S.; Pandele-Cusu, J.; Culita, D.; **Bratan, V.**; Balint, I.; Zaharescu, M.* *Beilstein J. Nanotechnol.* **2024**, *15*, 1283–1296. doi:10.3762/bjnano.15.104. (F.I. – 2.6)

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