

Publications 2025

1. G. O. Isopencu, D. E. Duță, G. D. Criveanu-Stamatie, R. A. Mitran, A. Stefan, C. Romanitan, O.A. Brincoveanu, R.G. Soare, A. Mocanu, *Integrating bacterial cellulose in artisanal ice cream: a farm-to-fork sustainable approach*, npj Science of Food, 9, **2025**, 191. <https://doi.org/10.1038/s41538-025-00536-2> (IF = 7.8)
2. C. Tucureanu, E. Ghibu, V. Tofan, E.D. Giol, R. Mitran, F.A. Jerca, V.V. Jerca, *Assessing protein antifouling performance and hemocompatibility of poly(2-isopropenyl-2-oxazoline) based hydrogels*, Appl. Mater. Today, 48, **2026**, 103031. <https://doi.org/10.1016/j.apmt.2025.103031> (IF = 6.9)
3. D. E. Radulescu, B. S. Vasile, V. A. Surdu, R. D. Trusca, A. C. Birca, C. I. Ilie, L. M. Ditu, L. Motelica, I. A. Neacsu, I. Boerasu, S. Brajnicov, C. I. Codrea, E. Andronescu, *Hydroxyapatite-doped coatings with antimicrobial properties by matrix assisted pulsed laser evaporation*, J. Mater. Res. Technol., 38, **2025**, 2534-2555, ISSN 2238-7854, <https://doi.org/10.1016/j.jmrt.2025.08.093>. (IF = 6.6)
4. E. M. Soare, C. A. Stanciu, R. E. Pătru, V. A. Surdu, L. Pădurariu, N. Horchidan, A. I. Nicoară, L. Trupină, B. Ș. Vasile, R. D. Trușcă, L. Mitoșeriu, A. C. Ianculescu, *Grain size effects in $BaTi_{0.90}Hf_{0.10}O_3$ ceramics with phase coexistence: the influence of nanostructuring and of the internal stress on the functional properties*, J. Mater. Res. Technol., 38, **2025**, 5389–5408. <https://doi.org/10.1016/j.jmrt.2025.08.195> (IF = 6.6)
5. E. M. Soare, C. A. Stanciu, R. E. Pătru, V. A. Surdu, N. Horchidan, L. Mitoșeriu, I. Pintilie, B. Ș. Vasile, A. I. Nicoară, R. D. Trușcă, A. C. Ianculescu, *Composition-dependent structural, microstructural and functional characteristics of fine-grained $BaTi_{1-x}Hf_xO_3$ ceramics consolidated by Spark Plasma Sintering*, J. Eur. Ceram. Soc., 45 (15), **2025**, 117600. <https://doi.org/10.1016/j.jeurceramsoc> (IF = 6.2)
6. C. E. Stavarache, A. Khosravi, M. M. Marin, J. Pandele-Cusu, S. E. Lazar, F. Papa, V. Fruth, D. Culita, N. I. Cristea, S. Karakoulia, K. Triantafyllidis, M. N. Verziu, *Catalytic synthesis of lactic acid from cellulose over easily-prepared niobium-doped titania by solution combustion synthesis*, Biomass and Bioenergy 194, **2025**, 107687. <https://doi.org/10.1016/j.biombioe.2025.107687> (IF = 5.8)
7. M. Chelu, M. Popa, J. M. Calderón Moreno, *Next-Generation Natural Hydrogels in Oral Tissue Engineering*, Pharmaceutics, 17(10), **2025**, 1256. <https://doi.org/10.3390/pharmaceutics17101256> (IF = 5.5)
8. M. Chelu, M. Popa, J. M. Calderón Moreno, *Applications of Hydrogels in Emergency Therapy*, Gels 11(4), **2025**, 234. <https://doi.org/10.3390/gels11040234> (IF = 5.3)
9. J. M. Calderón Moreno, M. Chelu, M. Popa, *Eco-Friendly Conductive Hydrogels: Towards Green Wearable Electronics*, Gels 11(4), **2025**, 220. <https://doi.org/10.3390/gels11040220> (IF = 5.3)
10. J. M. Calderon Moreno, M. Chelu, M. Popa, *Biocompatible Stimuli-Sensitive Natural Hydrogels: Recent Advances in Biomedical Applications*, Gels, 12(11), **2025**, 993. [10.3390/gels11120993](https://doi.org/10.3390/gels11120993) (IF = 5.3)

11. A. M. Seciu-Grama, S.E. Lazăr, S. Petrescu, O.C. Mocioiu, O. Crăciunescu, I. Atkinson, *Impact of Vitamin D3 Functionalization on the Osteogenic Capacity of Bioinspired 3D Scaffolds Based on Ce-Doped Bioactive Glass and Spongia Agaricina*, J. Funct. Biomater. 16, **2025**, 141. <https://doi.org/10.3390/jfb16040141> (IF = 5.2)
12. V. A. Neacșu, M. M. Marin, A. Dumitru, C. E. Stavarache, E. Olareț, E. Blanzeanu, D. Culița, V. Fruth, F. Papa, M. Huve, P. Granger, M. N. Verziu, *Spent coffee ground-derived biochar with trimodal porosity: green biochar supported highly dispersed TiO₂ and Nb₂O₅ nanoparticles as an efficient novel catalyst for lactic acid synthesis*, RCS Sustainability, **2026** DOI:10.1039/d5su00687b (IF = 4.9)
13. I. Procop, V. Musat, E.M. Anghel, N. Tigau, F. Stan, I. Atkinson, D.C. Culita, A. Cantaragiu Ceoromila, E.M. Herbei, R. Piticescu, G. Ionita, P. Alexandru, *Influence of Zeolite-A doping and solvent mixing ratio for electrospun PVDF membranes*, Molecules 30(22), **2025**, 4353; <https://doi.org/10.3390/molecules30224353> (IF = 4.6)
14. A. S. Baltac, R.-A. Mitran, *Gamma Radiation in the Synthesis of Inorganic Silica-Based Nanomaterials: A Review*, Nanomaterials, 15, **2025**, 218. <https://doi.org/10.3390/nano15030218> (IF = 4.2)
15. C. I. Codrea, V. Fruth, *Three-Dimensionally Printed Scaffolds and Drug Delivery Systems in Treatment of Osteoporosis*, Biomimetics **2025**, 10, 429. <https://doi.org/10.3390/biomimetics10070429> (IF = 3.9)
16. D. T. Ungur, C. A. Iordache, C. A. Brăilă, D. A. Pop, M. C. David, J. Pandele-Cușu, V. Fruth, I. Pongratz, B. –C. Iacob, E. Bodoki, M. M. Pop, *Structural Insights into the Resveratrol-Piperazine Cocrystal Forms Enabling the Cocrystallization Process Development from Solution*, Cryst. Growth Des., 25, **2025**, 1330-1343. <https://doi.org/10.1021/acs.cgd.4c01113> (IF = 3.4)
17. L. Predoană, J. Pandele-Cușu, I. Atkinson, S. Petrescu, O. C. Mocioiu, D. C. Culita, D. A. Karajz, V. O. Odhiambo, H. H. Lemago, A. P. Barreto Gomes, Z. I. Várady, M. Bohus, R. M. Costescu, I. M. Szilágyi, G. Pokol, M. Zaharescu, *Comparative study of the Cu-TiO₂ nanostructures obtained by sol-gel and microwave assisted sol-gel methods*, J. Sol-Gel Sci. Technol., 114, **2025**, 965–982. <https://doi.org/10.1007/s10971-025-06757-x> (IF = 3.2)
18. A. Ilie, L. Predoană, C. Anastasescu, S. Preda, I.S. Hosu, R.M. Costescu, D.C. Culiță, V. Brătan, I. Balint, M. Zaharescu, *Layered Perovskite La₂Ti₂O₇ Obtained by Sol–Gel Method with Photocatalytic Activity*, Applied Sciences (Switzerland), 15 (14), **2025**, 7665. <https://doi.org/10.3390/app15147665> (IF = 2.5)
19. L. Todan., M. Voicescu, D. C. Culita, I. Atkinson, E. M. Soare, I. Raut, M. Constantin, *Natural Pigments in Anionic Layerd Clays as Fluorescent Indicator for Volatile Amines with Antimicrobial properties*, Chem. Pap., 75, **2025**, 7117–7125, <https://doi.org/10.1007/s11696-025-04251-w> (IF = 2.5)
20. A. Ilie, L. Predoană, C. Anastasescu, J. Pandele-Cușu, S. Preda, A. Rusu, D.C. Culiță, V. Brătan, V.A. Mărăloiu, V.Ș. Teodorescu, I. Balint, M. Zaharescu, *Photocatalytic degradation of ethanol driven by pristine and metal-modified TiO₂ obtained by sol-gel method*, 70 (7–8), **2025**, 385–394, Rev. Roum. Chim., (IF = 0.6)
21. E. M. Soare, R. D. Trușcă, M. Anastasescu, A. Ianculescu, M. Gartner, C. A. Stanciu, *Structural and optical characterization of Ce-doped BaTiO₃ thin films prepared by the sol-gel method*, accepted for publication in UPB Sci. Bull., Ser. B: Chem. Mater. Sci., **2025**; ISSN: 1454-233. (IF = 0.3)