

Laboratory of Oxide Compounds and Materials Science

Lucrări publicate în reviste clasificate ISI/ Scientific Papers in ISI ranked journals

2024

1. R. E. Pătru, C.A. Stanciu, V.A. Surdu, E.M. Soare, B.Ş. Vasile, A.I. Nicoară, L. Trupină, I. Pasuk, M. Botea, N. Horchidan, L. Mitoşeriu, L. Pintilie, I. Pintilie, A.C. Ianculescu, *Downscaling grain size toward the nanometre range – A key-factor for tuning the crystalline structure, phase transitions, dielectric and ferroelectric behaviour in $Ba_{0.8}Sr_{0.2}TiO_3$ ceramics*, Prog. Solid State Chem., 74(1), 2024, 100457 (FI 9.1)
2. D. Lincu, S. Ioniţă, M. Deaconu, F. Papa, B. Trică, C. Matei, D. Berger, R.-A. Mitran*, *Optimizing nanocasting techniques for stable bismuth-mesoporous silica composites in thermal energy storage application*, Sustain. Mater. Technol., 42, 2024, e01157. (FI 8.6)
3. T. Tabakova, D. Nikolova, I. Ivanov, E.M. Anghel, D. Karashanova, Y. Karakirova, A.M. Venezia, J. Vakros, M. Crişan, K. Tenchev, M. Gabrovska, *Study of ceria-doped Au/TiO_2 catalysts for boosting hydrogen production by water-gas shift reaction*, Int. J. Hydrogen Energy 70, 2024, 389-403. (FI 8.1)
4. R. Ianchiş, M.M. Marin, R. Alexa Leu, I.C. Gîfu, E. Alexandrescu, G. Pîrcălăbioru Grădişteanu, G. M. Vlăsceanu, G. M. Teodorescu, A. Serafim, S. Preda, C.L. Nistor, C. Petcu, *Nanoclay-reinforced alginate/salecan composite inks for 3D printing applications*, Int J Bioprint., 2024 176-198 (FI 6.8)
5. A.-M. Brezoiu, M. Deaconu, R.-A. Mitran, N.K. Sedky, F. Schiets, P. Marote, I.-S. Voicu, C. Matei, L. Ziko, D. Berger, *The Antioxidant and Anti-Inflammatory Properties of Wild Bilberry Fruit Extracts Embedded in Mesoporous Silica-Type Supports: A Stability Study*, Antioxidants, 13, 2024, 250. (FI 6.7)
6. M. Deaconu, A.-M. Prelipcean, A.-M. Brezoiu, R.-A. Mitran, A.-M. Seciu-Grama, C. Matei, D. Berger, *Design of Scaffolds Based on Zinc-Modified Marine Collagen and Bilberry Leaves Extract-Loaded Silica Nanoparticles as Wound Dressings*, Int. J. Nanomed., 19, 2024, 7673-7689 (FI 6.6)
7. I. Atkinson, A.-M. Seciu-Grama, A. Serafim, S. Petrescu, M. Voicescu, E.M. Anghel, C. Marinescu, R.A. Mitran, O.C. Mocioiu, J.P. Cusu, D. Lincu, A.-M. Prelipcean, O. Craciunescu, *Bioinspired 3D scaffolds with antimicrobial, drug delivery, and osteogenic functions for bone regeneration*, Drug Deliv. Transl. Res., 14, 2024, 1028-1047. (FI 5.7)
8. M. Chelu, Jose M. Calderon Moreno, A. Magdalena Musuc and M. Popa*, *Natural Regenerative Hydrogels for Wound Healing*, Gels, 10(9), 2024, 547, (FI 4.9)
9. S. Ioniţă, R.C. Popescu, I. N. Irimescu, M. Deaconu, N. Tarbă, C. Matei, M. Mihăilescu, D.I. Savu, D. Berger, *Role of mesoporous silica functionalized with boronic acid derivative in targeted delivery of doxorubicin and co-delivery of doxorubicin and resveratrol*, Micropor. Mesopor Mat., 375, 2024, 113176. (FI 4.8)
10. C.I. Codrea, D. Baykara, R.A. Mitran, A.C.Ç. Koyuncu, O. Gunduz, A. Ficai, *3D-Bioprinted Gelatin Methacryloyl-Strontium-Doped Hydroxyapatite Composite Hydrogels Scaffolds for Bone Tissue Regeneration*, Polymers, 16, 2024, 1932. 1-16. (IF 4.7)
11. C.I. Codrea, D. Lincu, V.L. Ene, A.I. Nicoară, M.S. Stan, D. Ficai, A. Ficai, *Three-Dimensional-Printed Composite Scaffolds Containing Poly-ε-Caprolactone and*

- Strontium-Doped Hydroxyapatite for Osteoporotic Bone Restoration*. Polymers, 16, 2024,1511. 1-22. (IF 4.7)
12. E. Rusen, A. Mocanu, A. Dinescu, A. Boldeiu, C. Romanitan, S. Iordanescu, M. Aldrigo, R. Somoghi, R. Mitran, A. Ghebaur, *Different morphologies of super-balls obtained to form photonic crystals of cholesteryl benzoate liquid crystals*, Nanoscale Adv., 6, 2024, 4814-4824. (FI 4.6)
 13. M. Deaconu, A. Abduraman, A.M. Brezoiu, N.K. Sedky, S. Ioniță, C. Matei, L. Ziko, D. Berger, *Anti-Inflammatory, Antidiabetic, and Antioxidant Properties of Extracts Prepared from Pinot Noir Grape Marc, Free and Incorporated in Porous Silica-Based Supports*, Molecules, 29(13), 2024, 3122. (FI 4.2)
 14. S. Ioniță , M. Pătrașcu , E. M. Soare, D. Lincu, I. Atkinson, A. Rusu , M. M. Pop , C. Iordache, C.-D. Ușurelu, A. S. Baltac , R.-A. Mitran, J. Pandele-Cușu, V. Fruth, *Rapid Synthesis and Evaluation of Resveratrol-Piperazine Cocrystals by Ultrasound and Microwave Methods*, Pharm. Res., 41(9), 2024, 1843–1853. (FI 3.5)
 15. R.A. Mitran, S. Ioniță, D. Lincu, E.M. Soare, I. Atkinson, A. Rusu, J. Pandele-Cușu, C. Iordache, I. Pongratz, M.M. Pop, V. Fruth, *Mechanochemical Synthesis of Resveratrol–Piperazine Cocrystals*, Materials, 17, 2024, 3145. (FI 3.4)
 16. N. Saca, L. Radu, R. Calotă, R.-A. Mitran, C. Romanițan, R. Trușcă, C. Răcănel, I. Radu, *An investigation of the physic-mechanical properties of the expanded perlite mortars with thermal-activated concrete waste and microencapsulated paraffin*, Heliyon, 10, 2024,e39720.(FI 3.4)
 17. N. Terenti, N. Nedelko, E. Melnic, S. Preda, V. Fruth, J. Latuch, V. Kravtsov, A. Ślawska-Waniewska, A. Lazarescu, V. Lozan, *Heterometallic Co–Sr –2,3-pyridinedicarboxylate complex and its related perovskite oxide: Synthesis, structural characterization and magnetic properties*, J. Solid State Chem., 331, 2024, Art. No. 124538. (FI 3.2)
 18. A. Abduraman, A.-M. Brezoiu, R. Tatia, A.-I. Iorgu, M. Deaconu, R.-A. Mitran, C. Matei, D. Berger, *Mesoporous Titania Nanoparticles for a High-End Valorization of Vitis vinifera Grape Marc Extracts*, Inorganics, 12 (2024) 263. (FI 3.1)
 19. C.I. Codrea, D. Lincu, I. Atkinson, D.C. Culita, A.M. Croitoru, G. Dolete, R. Trusca, B.S. Vasile, M.S. Stan, D. Ficai, A. Ficai, *Comparison between Two Different Synthesis Methods of Strontium-Doped Hydroxyapatite Designed for Osteoporotic Bone Restoration*. Materials, 17, 2024, 1472. 1-23. (FI - 3.1)
 20. C.M. Vladut, D. Lincu, D. Berger, C. Matei, R.-A. Mitran*, *Molten Bismuth–Bismuth/Zinc Oxide Composites for High-Temperature Thermal Energy Storage*, Inorganics, 12, 2024, 126. (FI 3.1)
 21. O.C. Mocioiu, I. Atkinson, L. Aricov, V. Bratan, AM. Mocioiu, I.A. Tudor, D.I. Băilă, *Hydrophobic and Transparent Tantalum Pentoxide-Based Coatings for Photovoltaic (PV) Solar Panels*. Coatings, 14, 2024, 273. (FI 2.9)
 22. C. M. Vlăduț, C. Anastasescu, S. Preda, O.C. Mocioiu, S. Petrescu, J. Pandele-Cușu, D. Culiță, V. Brătan, I. Balint, M. Zaharescu, *Mn-doped ZnO nanopowders prepared by sol–gel and microwave-assisted sol–gel methods and their photocatalytic properties*, Beilstein J. Nanotechnol., 15, 2024, 1283–1296 (FI 2.6)
 23. D.T. Ungur, A. Lanza, D. Stam, C. Guguta, C. Iordache, V. Fruth, G. Santiso-Quinones, M.M. Pop, *Crystal structure of febuxostat marketed polymorph determined by electron diffraction and reinforced by X-ray crystallography*, CrystEngComm, 2024, 26 (32), 4295 – 4304 (FI 2.6)
 24. T. Sandu, E.A. Olaru, R.-A. Mitran, A. Miron, S.-V. Dolana, A. Zaharia, A.-M. Gavrilă, M.V. Dumitru, A.-L. Chiriac, A. Sârbu, T.-V. Iordache, *Composite*

Copolymer Beads Incorporating Red Mud for Water Amendment by Adsorption—Oxidation Processes, Applied Sciences, 14 (2024) 6386. (FI 2.5)

25. L. Todan, M. Voicescu, D.C. Culita, I. Atkinson, E.M. Soare, S. Ionita, D. Radu, *Layered Double Hydroxides Matrix as host for curcumin loading - Structural and spectroscopic investigations*, Chemical Papers , vol 78, pag 5485-5500, 2024 (FI 2.1)
26. L. Todan, D. C. Culita, M. E. Soare, R. M. Ion, R. C. Fierascu, and M. Maganu, *Immobilization of natural betalain pigments in inorganic hosts*, J. Serb. Chem. Soc., 89(1), 2024, 29–38, (FI 1.1)
27. A. Rusu, L. Predoană, S. Preda, D.C. Culiță , M. Zaharescu , *FT-IR Spectroscopy study of the TiO₂ Based Powders Prepared by the sol-gel Method*, Rev. Roum. Chim., 69(10-12), 2024, 629-634, DOI: 10.33224/rch.2024.69.10-12.13 (FI 0.4)