

Dr. Mirela-Fernanda Zaltariov



Scientific Researcher III

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Brainmap code: (UEFISCDI ID (UEF-ID): **U-1700-039G-2121**)

Research topics

Specialist in the field of chemistry, subdomains polymer chemistry/inorganic chemistry, with experience in synthesis and characterization of metal-organic frameworks (MOFs), coordination polymers and supramolecular structures, functionalized siloxane/silane derivatives, spin crossover complexes, metal complexes and ligands with antimicrobial activity, thiosemicarbazone derivatives and their metal complexes, indoloquinoline and indolobenzazepines derivatives with anticancer activity, investigation of structure-activity relationship, pharmaceutical formulations based on mucoadhesive polymers, biomaterials for controlled drug delivery systems, crystallization techniques, catalysis (obtaining of catalysts or catalyst precursors for oxidation of alcohols, cyclohexane, alkane hydrocarboxylation, photodecomposition of dyes or drugs in wastewater) etc.

Scientific research

Author and co-author of **90 ISI articles** (**54** in Q1/Q2 zone), **4 book chapters**, **4** proceedings, **2** patent applications, **51** posters, **44** oral communications, member in **11 research national/international grants** and Project Leader for 1 national grant (New scaffolds for extension of structure-activity relationship studies of metal-based anticancer drugs - PN-III-P1-1.1-PD-2016-1027, (2018-2020)), 707 citations (HI = 16); **Romanian Academy Award "Gheorghe Spacu"**—the group of papers: "Ligands and coordination polymers with siloxane units"

Visibility

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<https://www.scopus.com/authid/detail.uri?authorId=5533263720>;

<https://scholar.google.com/citations?hl=en&user=mIfh6zEAAAAJ>

SELECTED RELEVANT SCIENTIFIC ARTICLES

1. Mucoadhesive Mesoporous Silica Particles as Versatile Carriers for Doxorubicin Delivery in Cancer Therapy; **M.F. Zaltariov***, B.I. Ciubotaru, A. Ghilan, D. Peptanariu, M. Ignat, M. Iacob, N. Vornicu, M. Cazacu; International Journal of Molecular Sciences 24, 14687 (2023) (**FI₂₀₂₃ = 5.6**) (**Q_{FI} = Q1**) (**AIS₂₀₂₂ = 1.028**) (**Q_{AIS} = Q2**);
2. Hybrid green bionanocomposites based on chitosan/starch/gelatin and metallic nanoparticles for biological applications, D. Filip, D. Macocinschi, S.L. Nica, M. Asandulesa, B. Condurache, E. Stoleru, D.M. Rata, A. Bargan, **M.F. Zaltariov***; International Journal of Biological Macromolecules, 253, 127571 (2023) (**FI₂₀₂₃ = 8.2**) (**Q_{FI} = Q1**) (**AIS₂₀₂₂ = 0.918**) (**Q_{AIS} = Q1**);
3. Silicones with different crosslinking patterns: assessment from the perspective of their suitability for biomaterials, B.-I. Ciubotaru, **M.-F. Zaltariov***, C. Tugui, I.-E. Stoleru, D. Peptanariu, G.-T. Stiubianu, N. Vornicu, M. Cazacu, Surfaces and Interfaces, 32, 102168 (2022) (**FI₂₀₂₃ = 6.2**) (**Q_{FI} = Q2**) (**AIS₂₀₂₂ = 0.696**) (**Q_{AIS} = Q1**)
4. Hydroxypropyl Cellulose/Pluronic-Based Composite Hydrogels as Biodegradable Mucoadhesive Scaffolds for Tissue Engineering, D. Filip, D. Macocinschi, **M.-F. Zaltariov***, B.-I. Ciubotaru, A. Bargan, C.-D. Varganici, A.-L. Vasiliu, D. Peptanariu, M.

- Balan-Porcarasu, M.-M. Timofte-Zorila, Gels, 8(8), 519 (2022) (**FI**₂₀₂₃ = **4.6**) (**Q**_{FI} = **Q1**) (**AI**S₂₀₂₂ = **0.626**) (**Q**_{AIS = **Q1**)}
5. Slow Magnetic Relaxation in {[CoC_xAPy]} 2.15 H₂O}n MOF Built from Ladder-Structured 2D Layers with Dimeric SMM Rungs, A. Arauzo, E. Bartolomé, J. Luzón, P. J. Alonso, A. Vlad, M. Cazacu, **M. F. Zaltariov**, S. Shova, J. Bartolomé, C. Turta, Molecules 26(18), 5626 (2021) (**FI**₂₀₂₃ = **4.6**) (**Q**_{FI} = **Q2**) (**AI**S₂₀₂₂ = 0.660) (**Q**_{AIS = **Q3**)}
 6. Chemical attachment of the 5-nitrosalicylaldimine motif to the silatrane resulting in an organic-inorganic structure of high medicinal significance, **M.-F. Zaltariov***, M. Turtoi, D. Peptanariu, A.-M. Macsim, L. Clima, C. Cojocaru, N. Vornicu, B.-I. Ciubotaru, A. Bargan, M. Calin, M. Cazacu, Pharmaceutics, 14, 2838 (2022) (**FI**₂₀₂₃ = **5.4**) (**Q**_{FI} = **Q2**) (**AI**S₂₀₂₂ = **0.712**) (**Q**_{AIS = **Q2**)}
 7. Photo-oxidative degradation of doxorubicin with siloxane MOFs by exposure to daylight, C. Racles, **M.-F. Zaltariov**, M. Silion, A.-M. Macsim, V. Cozan, Environ. Sci. Pollut. Res. 26, 19684–19696, (2019)) (**FI**₂₀₂₃ = **5.8**) (**Q**_{FI} = **Q1**) (**AI**S₂₀₂₂ = 0.651) (**Q**_{AIS = **Q3**)}