



Dr. Alexandra Bargan

Research Assistant

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Brainmap codes: (UEFISCDI ID (UEF-ID): **U-1700-039Q-1815**)

Research topics

Specialist in the field of chemistry, subdomains polymer chemistry/inorganic chemistry, with experience in materials characterization using methods such as: infrared spectroscopy, proton and carbon nuclear magnetic resonance, single crystal X-ray diffraction, thermogravimetric measurements, X-ray fluorescence, dynamic vapour sorption and surface tension measurements, scanning electron microscopy, atomic force microscopy, differential scanning calorimetry etc. The researcher has experience in the field of Schiff bases ligands derived from silicon compounds and their metal complexes, synthesis of functionalized silica nanostructures and preparation of silicone composites.

Scientific research

Author and co-author of **76 ISI articles** (**38 in Q1 zone** and **20 in Q2 zone**), **4 book chapters**, **6** articles in proceedings, **2** patent applications, **50** posters, **30** oral communications, special prize, 2 gold and 1 silver medals at international conference INVENTICA, member in **20 research national/international grants** and **Project Leader** for 1 national grant (Contract type „PED”, PN-III-P2-2.1-PED-2021-3900, „Intelligent tools for design, processing and optimization of new PS-POSS-IL (polysulfone-silsesquioxanes impregnated with ionic liquids) type membranes applied in CO₂ gas separation”, AI-Syn-PPOSS: PN-III-P2-2.1-PED-2021-3900), 672 citations (HI = 17).

Visibility

<https://www.brainmap.ro/alexandra-bargan-nistor> ; <https://orcid.org/0000-0002-9433-9595> ; <https://www.webofscience.com/wos/author/record/B-8981-2019>; https://scholar.google.com/citations?hl=en&user=FW1vhAIAAAAJ&view_op=list_works&sortby=pubdate ; <https://www.webofscience.com/wos/author/record/B-8981-2019>

SELECTED RELEVANT SCIENTIFIC ARTICLES

- Bargan, A.**, Onofrei, M.D., Stoica, I., Doroftei, F., Dunca, S., Filimon, A., „Materials based on Quaternized Polysulfones with potential applications in biomedical field: structure-properties relationship”, *International Journal of Molecular Sciences*, **2022**, 23(9), 4721, <https://doi.org/10.3390/ijms23094721> , F.I.=5.924, (Q2).
- David, G., **Bargan, A.**, Drobotă, M., Bele, A., Rosca, I., “Comparative Investigation of Collagen-Based Hybrid 3D Structures for Potential Biomedical Applications”, *Materials*, **2021**, 14(12), 3313, <https://doi.org/10.3390/ma14123313>, F.I.=3.623, (Q1).
- Bargan, A.**, Cazacu, M., Dascalu, M., Macsim, A.M., Soroceanu, A., Macsim, I.F., „Synthesis, structural characterization and properties evaluation of two new zwitterionic siloxane compounds”, *Polyhedron*, **2020**, 179, 114356, <https://doi.org/10.1016/j.poly.2020.114356> , F.I. =2.284, (Q2).
- Bargan, A.**, Zaltariov, M.F., Vlad, A., Dumitriu, A.M.C., Soroceanu, A., Macsim, A.M., Dascalu, M., Varganici, C.D., Cazacu, M., Shova, S., „Keto-enol tautomerism in new silatranes Schiff bases tailed with different substituted salicylic aldehyde”, *Arabian Journal of Chemistry*, **2020**, 13 (1), 3100-3111, <https://doi.org/10.1016/j.arabjc.2018.09.001> , F.I.=3.298, (Q2).

5. Ciubotaru, B.I., Zaltariov, M.F., Dascalu, M., Bele, A., Bargan, A., Cazacu, M., „Amino-functionalized silicones processed as porous dual covalent/supramolecular networks for pressure sensing” *Reactive and Functional Polymers* **2024**, 194, 105792 (FI = 5.1), (Q1)
6. Zaltariov, M.F., Turtoi, M., Peptanariu, D., Macsim, A.M., Clima, L., Cojocaru, C., Vornicu, N., Ciubotaru, B.I., Bargan, A., Calin, M., Cazacu, M., „Chemical attachment of 5-nitrosalicylaldimine motif to silatrane resulting in an organic-inorganic structure with medicinal significance”, *Pharmaceutics* **2022**, 14(12), 2838, <https://doi.org/10.3390/pharmaceutics14122838> , (FI= 6.525) (Q1).
7. Cazacu, M., Racles, C., Zaltariov, M. F., Dascalu, M., Bele, A., Tugui, C., Bargan, A., Stiubianu, G., From amorphous silicones to Si-containing highly ordered polymers: some Romanian contributions in the field, *Polymers* **2021**, 13(10), 1605, <https://doi.org/10.3390/polym13101605> , F.I.=4.329, (Q1).