



Dr. Mihaela Dascalu
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Specialist in synthesis of siloxane monomers and oligomers; chemical modification of siloxane oligomers; polymerization techniques: sol-gel, ring opening polymerization, ionic, radical, polycondensation; nanostructural organic-inorganic hybrid materials (siloxane-silica composites, siloxane-organic ionic networks, siloxane-metal complexes); synthesis of silver nanoparticles of different shapes and sizes; Schiff bases metal complexes containing siloxane units; silicone materials for actuation and energy harvesting. I have experience in materials characterization using various methods (FT-IR, NMR, single crystal X-ray diffraction, XRF, GPC, UV, MS, TGA, DSC) of organic and macromolecular compounds containing siloxane bonds.

Scientific contributions: **44** articles published in international peer-reviewed journals (ISI ranked and included in international data bases) (out of which **13** articles as main author and **9** articles as corresponding author; total impact factor: **117.385**); **2** book chapter, **11** conference proceedings, conference presentations (**26** talks & **38** posters) at national and international conferences. Member in **17** projects (**4** - international projects, **13** - national projects).

Scientific visibility: H-index: **12** (according to ISI Web of Science) and **13** (according to Google Scholar and Scopus); **Sum of the times cited:** **421** (**350** without self-citations) (according to ISI Web of Science, April 2020)

SELECTED SCIENTIFIC ARTICLES

- J.E.Q. Quinsaat, I. Burda, R. Krämer, D. Häfliger, F.A. Nüesch, **M. Dascalu**, D.M. Opris, Conductive silicone elastomers electrodes processable by screen printing, *Sci. Rep.*, **9**, Article Number 13331, 2019. (I.F. = 4.011)

- C. Racles, **M. Dascalu**, A. Bele, V. Tiron, M. Asandulesa, C. Tugui, A.L. Vasiliu, M. Cazacu, All-silicone elastic composites with counter-intuitive piezoelectric response, designed for electromechanical applications, *J. Mater. Chem. C*, **5**(28), 6997-7010, 2017. (I.F. = 6.641)

- A. Bele, **M. Dascalu**, C. Tugui, M. Iacob, C. Racles, L. Sacarescu, M. Cazacu, Dielectric silicone elastomers filled with in situ generated polar silsesquioxanes: Preparation, characterization and evaluation of electromechanical performance, *Materials & Design*, **106**(15), 454-462, 2016. (I.F. = 5.77)

- **M. Dascalu**, S.J. Dünki, J.-E.Q. Quinsaat, Y.S. Ko, D.M. Opris, Synthesis of silicone elastomers containing trifluoropropyl groups and their use in dielectric elastomer transducers, *RSC Adv.*, 2015, **5**, 104516-104523. (I.F. = 3.049)

- J.E.Q. Quinsaat, **M. Alexandru**, F.A. Nüesch, H. Hofmann, A. Borgschulte, D.M. Opris, Highly stretchable dielectric elastomer composites containing high volume fraction of silver nanoparticles, *J. Mater. Chem. A*, 2015, **3**, 14675-14685. (I.F. = 10.733)