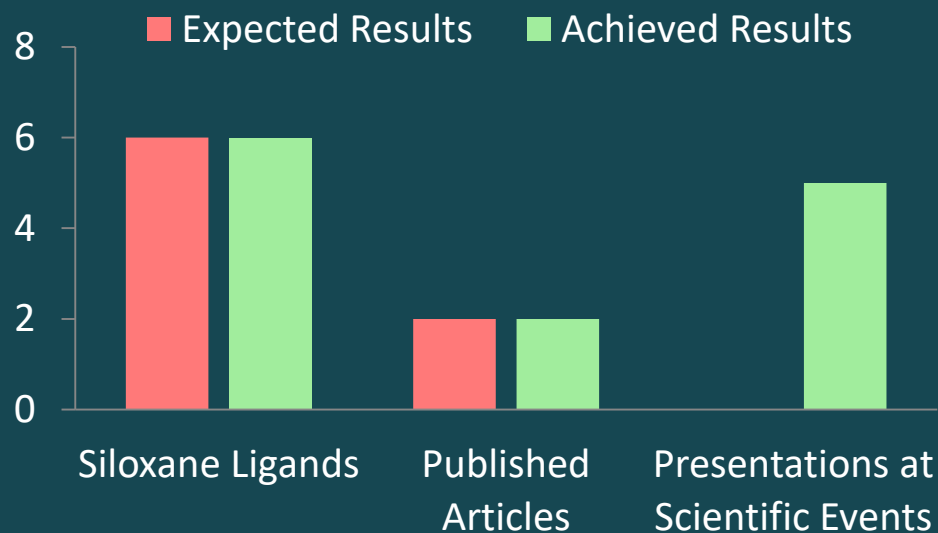


Stage I (2017): Synthesis of poly carboxylate ligands siloxane spacers

Expected vs Achieved results



Published Articles

Deadline: 31.12.2017

1. M.F. Zaltariov, V. Vieru, M. Zalibera, M. Cazacu, N. M. R. Martins, L. M. D. R. S. Martins, P. Rapta, G. Novitchi, S. Shova, A. J.L. Pombeiro, V. B. Arion. *Eur. J. Inorg. Chem.* 2017, 4324–4332.
2. S. Shova, A. Vlad, M. Cazacu, J. Krzystek, L. Bucinsky, M. Breza, D. Darvasiová, P. Rapta, J. Cano, J. Telser, V. B. Arion. *Dalton Trans.*, 2017, 46, 11817–11829.

Expected Research Activities

1.1. Functionalization of siloxane substrates with carboxyl groups by click chemistry (thiol-ene addition): thiol-ene addition of 3-mercaptopropionic acid and thioglycolic acid to the vinyl groups of the siloxane substrates with different architectures: cyclic (V3, V4) or linear (DVS); characterization of the resulted ligands by elemental, spectral (IR, NMR, UV), and X-ray (if applicable); evaluation of hydrophilic-hydrophobic balance of the obtained ligands on the basis of established structure; study of behavior in solution of the obtained ligands.

1.2. Carrying out tests for the complexation of metal ions with polycarboxylic silicone ligands; characterization of complexes obtained by elemental analysis, spectral (IR, NMR, UV) and X-ray single crystal diffraction (where applicable).

1.3. Reporting and dissemination activities: centralization of data, interpretation and preparation of their reporting, publication and presentation at scientific.