

## Stage II (2018): Preparing of N-heterocycle siloxane ligands

### Expected vs Achieved results

Deadline: 31.12.2018



### Expected Research Activities

Act 2.1 - Spacers: synthesis of bis(vinyl)siloxanes with different spacers (e.g., methylphenyl, diphenyl siloxanes); characterization of proligands obtained by spectral analysis (IR, NMR), GPC.

Act 2.2 - Functionalization of siloxane substrates with N-heterocycles by "click chemistry" (thiol-ene addition); characterization of resulting ligands by elemental and spectral (IR, MN, UV-Vis) analysis and single crystal X-ray diffraction (if applicable); evaluation of hydrophilic-hydrophobic balance of ligands obtained on the basis of the established structure; the study of the behavior of ligands obtained in solution.

Act 2.3 - Synthesis of N-heterocyclic ligands by nucleophilic substitution of chloroderivatives with thiol derivatives; optimizing the synthesis; characterization of reaction products by elemental and spectral (IR, NMR) analysis and single crystal X-ray diffraction (if applicable).

Act 2.4 - Reporting and dissemination activities: Centralizing data, interpreting and preparing them for reporting, presenting to scientific events, and publishing.