

Project 2.4. New N-heterocyclic carbene gold complexes: from catalytic activity to medical applications

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Unit: Group V

WWW: www.icho.edu.pl

Background:

The planned research will be mainly focused on the preparation of a new N-heterocyclic carbene gold(I) complexes bearing chelating arm, their characterization by selected spectroscopic methods (nuclear magnetic resonance, X-ray structural analysis), investigation of catalytic properties in selected inter- and intramolecular transformations, and preparation of materials for publication and presentation. The side task will be devoted to the preparation of a series of new gold(I) complexes for evaluation of the biological activity.

Aim:

Synthesis of new chiral gold(I) complexes bearing a chelating arm, their use in inter- and intramolecular transformations, and the study of biological activity.

Requirements:

- have a MSc degree in chemistry
- the candidate must pass the interview for the Doctoral Studies at ICHO PAN (for details, see www.icho.edu.pl)
- have experience in experimental synthetic organic chemistry;
- commitment and capacity for teamwork and critical thinking;
- good oral and written communication skills in English
- CV;
- cover letter;
- summary of research (no more than 3 pages of standard typewritten Times New Roman 10, single line spacing);
- scan of MSc diploma;