

Position description

1. Position identification

Title of post : Post-doctoral position in organic chemistry

Type of contract : CDD

Category (A,B or C) : A

Contract/project period : 18 months

Expected date of employment : 1st April 2023

Proportion of work : full time

Workplace : Laboratoire d'Innovation Thérapeutique, UMR7200 Université de Strasbourg, Faculté de Pharmacie 74, route du Rhin, 67401 Illkirch Cedex, FRANCE

Desired level of education : PhD degree

Experience required : PhD or PhD+1 year experience

Contact(s) for information on the position (identity, position, e-mail address, telephone) :

Date of publication : 23 November 2022

Dr. Michaela GULEA, Research Director at CNRS gulea@unistra.fr,
33 + (0)368854148

Closing date for the receipt of applications : 30 January 2023

2. Research project or operation

Olefin metathesis is a pivotal transformation in organic chemistry, with numerous applications both in academic research and industrial processes.

This key transformation relies on metal-carbene complexes. Yet, many of the metals required for this purpose are critical raw materials due to the high demand but limited stock. Other issues of metal-carbene complexes are the robustness of the catalyst and the contamination of end products by metal residues. While efforts are currently directed towards the development of catalysts based on first-row transition metal complexes, the search for non-metal alternatives has been almost completely overlooked, with only a handful of papers.

This project aims to develop main-group element-based catalysts for olefin metathesis.

The project funded by the ANR will be carried out in collaboration between three partners from two French universities: Dr. Armen PANOSSIAN (PI of the project, LIMA, UMR 7042 University of Strasbourg), Dr. Mihaela GULEA (LIT, UMR 7200, University of Strasbourg), and Dr. Tsuyoshi KATO (LHFA, UMR 5069, LHFA, UMR 5069, University of Toulouse III).

3. Activities

➤ Description of the research activities :

The recruited person will develop a new method in synthetic organic chemistry. His/her activity will consist of defining and optimizing synthetic protocols.

➤ Related activities :

He/she will write reports, participate to draft manuscripts, and will give oral presentations in group seminars and in scientific events.

4. Skills

➤ **Qualifications/knowledge :**

PhD degree in organic chemistry with not more than 1 year of experience after the thesis defense: Recognised Researcher (R2)

➤ **Operational skills/expertise :**

Experience in organic synthetic chemistry.

Experience in catalysis and heterochemistry will be highly appreciated.

➤ **Personal qualities :**

We are looking for a talented, creative candidate, highly motivated by research, having a good team-spirit.

He/she must be able to communicate fluently in French and/or English.

5. Environment and context of work

➤ **Presentation of the laboratory/unity :**

Visit the website of our laboratory <http://medchem.unistra.fr/laboratoire/accueil/> and that of our team <http://medchem.unistra.fr/synthese-organique-metallo-induite-et-heterochimie-somhet/>

The Laboratory of Therapeutic Innovation (LIT), located at the Faculty of Pharmacy on the Illkirch campus, has as its main missions the design, the synthesis and the characterization of bioactive molecules. In this context, the objective of our team (SOMHet) is to provide new synthetic tools in organic chemistry, based on organometallic catalysis and/or heterochemistry. The team's areas of expertise are the metallocatalysis, the domino and multi-component reactions, the heterochemistry (N, S, P), the asymmetric synthesis.

➤ **Hierarchical relationship :**

The postdoctoral fellow will join the team SOMHet (Metal-mediated Organic Synthesis and Heterochemistry) and work under the supervision of Dr. Mihaela GULEA (head of the team), at the "Laboratory of Therapeutic Innovation" (LIT, UMR 7200), Faculty of Pharmacy, in Strasbourg (France).

➤ **Special conditions of practice (notice attached):** non

To apply, please send your CV, cover letter and diploma to :