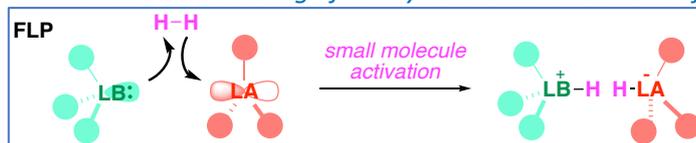


# Seeking for A PhD candidate in organic synthesis

## Catalytic Hydrogenation of Unsaturated Compounds by Frustrated Lewis Pairs as an Alternative to Transition Metals

### **The project:**

In the context of an Initiative d'excellence (IdEx) grant from the A\*Midex foundation of Aix Marseille University, we are seeking for a highly motivated PhD candidate to join our research team at iSm2 in collaboration with ICR. This project concerns the development of modern tools for homogeneous catalysis, based on original structures containing a Lewis base and a Lewis acid. These platforms will be utilized in organic catalysis based on the activation mode of frustrated Lewis pairs (FLP), notably for the activation of dihydrogen molecules. Specifically, the main theme of this project revolves around the organic synthesis of small molecules that will serve in the efficient construction, within a few steps, of a library of chiral organic catalysts, based on preliminary results from the laboratory (*Chem. Sci.*, **2019**, *10*, 6524; *Dalton Trans.*, **2019**, *48*, 17605; *J. Am. Chem. Soc.*, **2012**, *134*, 17892). The candidate will carry out innovative research to design, characterize, and evaluate the performance of original catalysts. *We are looking for an enthusiastic student who wish to contribute significantly to the advancement of main group catalysis.*



### **Job description:**

- Synthesis of original FLP catalysts;
- Characterization of original FLP catalysts (NMR, MS, IR,...);
- Evaluation of the catalytic performance of original FLP catalysts;
- Collaboration & integration within a team of researchers from theoretical and analytical background;
- Providing oral & written reports;
- Participation in writing publications;
- Dissemination of results at conferences in English & French;
- Contribution to the effective functioning of the laboratory;
- Working under health & safety conditions.

Join our team if you like challenges and want to be a part of a dynamic, inclusive and supporting research group.

### **The candidate:**

The candidate must be serious, meticulous, dynamic, and motivated to successfully carry out this project. A strong background in organic synthesis is necessary. Experience in homogeneous catalysis would be a plus but not required. The candidate must be capable of working in a team and communicating results during group seminars. The candidate should have at least a "mention assez-bien" (fairly good grade) in Master 1 and Master 2 in Organic Chemistry. Furthermore, a very good proficiency in English and French (B2 level) is essential.

### **Terms and conditions:**

A 36-month non-renewable doctoral contract.

Access to state-of-the-art equipment and a stimulating research environment.

Beginning of the thesis is scheduled for October 1, 2024.

**Localization:** [Institut des Sciences Moléculaires de Marseille](#), Aix Marseille Université, France

**How to apply:** Send CV, cover letter, grade transcripts (M1 & M2), and two letters of recommendation to Dr. Olivier Chuzel (iSm2, [olivier.chuzel@univ-amu.fr](mailto:olivier.chuzel@univ-amu.fr)), and Dr. Gaëlle Chouraqui (iSm2, [gaelle.chouraqui@univ-amu.fr](mailto:gaelle.chouraqui@univ-amu.fr)).