Laboratoire de Synthèse Organique de l'École Polytechnique

Asymmetric Palladium-Catalyzed Cycloadditions of Zwitterionic Dipoles

- Master 2 Internship 2022 -

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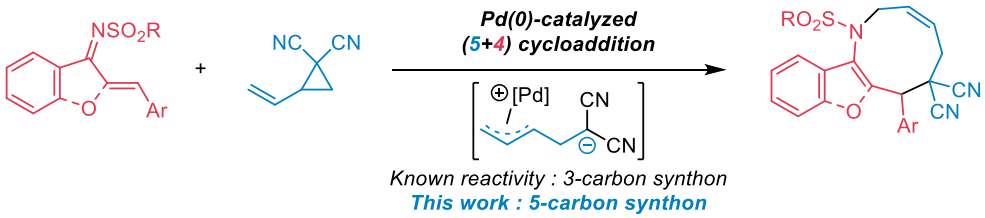
Due to their ability to engage in both hydrogen-bond donation and acceptance, nitrogen-containing heterocycles display better interactions with biological targets and therefore are prone to be effective pharmacological agents.[1] In our research group, we focus on the development of original transformations relying on cycloaddition strategies towards the rapid construction of azacycles such as oxazocines and azonanes *via* a (4+4) and (5+4) palladium-catalyzed cycloaddition, respectively.[2]



We are currently pursuing our endeavours towards the development of original transition-metal catalyzed cycloadditions involving pi-allylpalladium zwitterionic intermediates and are looking for a motivated M2 student to tackle an asymmetric catalysis project using chiral metal ligands.

The applicant must have a strong background in the field of organic chemistry and knowledge of good laboratory practice. Fundings are available for this M2 internship and for a potential PhD within our doctoral school. Please send an email with a resume, a motivation letter and academic records (L3, M1).

[1] Njardarson *et al. J. Chem. Ed.* **2010**, *87*, 1348.
[2] Scuiller, A.; Karnat, A.; Casaretto, N.; Archambeau, A. *Org. Lett.* **2021**, *23*, 2332-2336. b) Scuiller, A.; Liu, X.; Cordier, M.; Garrec, J. *Synlett* **2021**, *32*, 981-986.