



INTERNSHIP PROGRAM FOR INTERNATIONAL STUDENTS

INTERNSHIP SUBJECT FORM

Name of the Host Laboratory	Laboratory of Organic Synthesis (LSO)
Website of the Host Laboratory	http://lso.polytechnique.fr/
Research Group	Six Team https://yvansix7.wixsite.com/sixteam
Internship Supervisor	Dr Yvan Six
Internship Subject	Titanium-mediated expedient synthesis of complex nitrogen heterocycles
Student's level	<input checked="" type="checkbox"/> Advanced Undergraduate Students (3 rd or 4 th year) <input checked="" type="checkbox"/> Master's students (1 st or 2 nd year) <input checked="" type="checkbox"/> PhD students
Proposed Duration	<input checked="" type="checkbox"/> 3 months <input checked="" type="checkbox"/> 4 months <input checked="" type="checkbox"/> 5 months <input checked="" type="checkbox"/> 6 months
Prerequisites	High motivation. Strong background and good theoretical knowledge in Organic Chemistry. Good communication skills.
Internship description (max. 15 lines)	<p>In this internship, the student will work with one of our PhD students, whose research goal is the development of an ambitious extension of our earlier work on thioamides. From well-chosen substrates, we will try to generate cyclised metallated iminium intermediates. This process can lead to the production of highly functionalised heterocyclic compounds, with the formation of two new carbon-carbon bonds, in a single synthetic step.</p> <p>Diastereoselectivity and enantioselectivity aspects will be investigated, and all the new products will be included in the national chemical library for future biological activity tests.</p> <p>Keywords: Heterocycles, Titanium, Organometallic Chemistry, Alkynes.</p>

The boxes marked with cross implies eligible