

## **Subject Proposal for ERASMUS Student in Chemistry**

This proposal is open for European students that wish to travel and enlarge their knowledge in chemistry through the ERASMUS program.

The chemistry proposed is in the field of organic synthesis using carbon monoxide as advantageous CO building block for the synthesis of carbonyl containing derivatives (ketones, amides, esters ...). The aim of our laboratory is the development of new so called carbonylation reactions that would be useful synthetic tools for fine chemicals preparation. These reactions involve the use of metal based catalysts (Pd, Rh, ...) that can be tuned with ligands and performed with appropriate reaction conditions in order to reach high selectivities in favor of the desired product.

The candidate will have access to high pressure autoclaves for catalytic runs as well as all facilities related to organic synthesis and to the analysis of organic compounds (GC; NMR; ...).

Keywords : Homogeneous catalysis, organic synthesis, CO.

Contact for more informations: Mathieu Sauthier ([mathieu.sauthier@univ-lille1.fr](mailto:mathieu.sauthier@univ-lille1.fr)); Yves Castanet ([Yves.castanet@ensc-lille.fr](mailto:Yves.castanet@ensc-lille.fr))