



Subject proposal for Erasmus student in Chemistry

POLYMERIZATION OF RENEWABLES RESSOURCES IN AQUEOUS MEDIUM

A large variety of polymers is synthesized by metal catalysis. The polymerizations are usually performed under anhydrous reaction conditions due to the poisoning effect of water toward the metal centre. Recent advances have demonstrated that water can be a suitable polymerization solvent when using appropriate catalysts. The increasing awareness toward sustainable growth and the related economical constraints favour the use of water over organic solvents.

The goal of this project is to develop a new strategy for the catalytic polymerization of renewable monomers in water.

The candidate will have access to analysis facilities including NMR spectroscopy, size exclusion chromatography and MALDI ToF mass spectroscopy notably.

Keywords: Green chemistry, Homogeneous Catalysis, Polymerization

Level required: Licence or Master

Time schedule: available all along the year

Contact: Philippe Zinck (philippe.zinck@ensc-lille.fr)
Zahia Turpin (zahia.turpin@ensc-lille.fr)