

Post-doctoral position PHENIX – IC2MP

A microfluidic platform for the generation and screening of chemical libraries in acidic conditions

Duration: 12 months

Starting date: October 2018

Flow microreactor systems are quite effective for controlling reactions involving highly reactive reagents. Furthermore, microreactor technology is capable of performing a wide range of single and multiphase organic reactions, requiring small quantities of reagents. The sub-millimeter reaction channels allow for precise control of variables such as reagent mixing, flow rates, reaction time and heat and mass transfer. They are amenable to integrated reaction monitoring and to semi-preparative scale-up and also reduce hazardous risks. In this context, many reactions in fine chemical synthesis occur under very acidic and harsh conditions. The main objective of this project is to set-up a flow chemistry platform for developing chemical synthesis including glycosylation under these conditions.

PHENIX laboratory (Sorbonne University) has developed since several years a recognized knowledge and expertise on chemical reactivity using microreactor technology. IC2MP (Poitiers University) has a unique expertise in organic synthesis under superacidic conditions. For this project and in the frame of the collaborative ANR SWEETCAT (PI Prof. Yves Blériot, IC2MP), a microfluidic platform which has been thought and designed in PHENIX will be implemented in IC2MP at Poitiers University for synthesis in strong acidic conditions.

Applications are invited for a post-doctoral Research Fellow position between Physico-Chimie des Electrolytes et Nanosystèmes Interfaciaux (PHENIX UMR CNRS 8234) and the Institute of Chemistry of Poitiers (IC2MP UMR CNRS 7285) / University of Poitiers to work on this project. The applicant will be hired by PHENIX but the assembly of the microfluidic platform will be achieved in IC2MP.

Profile:

Applicants must have completed a Ph.D. in chemical engineering or organic synthesis with expertise in chemical reaction engineering, and mass and heat transfer. Additional experiences in microreactors and flow chemistry would be appreciated (desirable criteria). The successful applicant should have the drive and enthusiasm to lead the project from fundamental research to design. S/he should be able to work independently and as a member of a multidisciplinary team. The optimal candidate will be inquisitive and enjoy problem solving and developing novel technologies with personal creativity and innovation.

Application:

Interested and highly motivated applicant should forward a cover letter stating why the applicant is interested in this position, a complete CV with a publication list and 2 academic referees (with address, phone number and email). Salary: 2000 € net (depends on the experience)

Contacts :

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