

Open call for Ph.D. and post-doctoral positions: 'Networking reactions for organic synthesis of the future'

The Laboratory of Complex Systems in Synthesis & Catalysis (CosyCAT) at the Institute of Science and Supramolecular Engineering (ISIS), University of Strasbourg, seeks to hire outstanding researchers at the Ph.D. and post-doctoral level. The main research thrust of this newly established laboratory is the development of a new approach to organic synthesis based on networking multiple reactions within one vessel. This strategy, which mimicks the efficiency of a single cell, will enable more efficient and productive synthetic methodologies than those that are currently in use. The successful candidates will be involved in the realization of the envisioned reaction networks involving multiple catalysts and organic reactions. This work will require the development of innovative tools and methodologies to control the properties of (transition metal) catalysts, specifically, the control of temporal activity, substrate-dependent activity, substrate selectivity, reaction selectivity etc. Such systems will operate within one reaction compartment or within multiple, semi-communicated compartments. The studies will comprise of organic and inorganic synthesis, engineering, catalyst development and optimization through detailed mechanistic studies, involving in situ spectroscopic analysis, kinetic analysis and molecular modelling. Such interdisciplinary projects will require collaborative work and will ensure successful candidates a balanced development of skills and a rich research experience.

Strasbourg has a long tradition of scientific excellence, particularly in Chemistry, built over centuries by renowned scientists such as Louis Pasteur, Charles Gerhardt and Nobel Laureates Adolf von Baeyer, Emil Fischer, Hermann Staudinger, Jean-Marie Lehn and Martin Karplus. Consequently, the University of Strasbourg has always been a world-renowned center of excellence in molecular sciences, currently with a top-twenty worldwide ranking.

We offer:

- The possibility to be involved in cutting-edge projects, using state-of-the-art technology in a highly motivated research team
- A stimulating, diverse and international research environment
- Advanced training opportunities
- A competitive salary (a Ph.D. candidate: 1400-1500 EUR per month, a post-doc: 2100-2300 EUR per month, depending on the experience)

We require:

- M.Sc. (or equivalent)/ Ph.D. in chemistry for a Ph.D. student/ postdoctoral candidate, respectively
- strong background in organic and inorganic chemistry, homogenous catalysis or engineering
- experience of interdisciplinary research, computer programming skills and molecular modeling skills will be considered as an advantage
- commitment and capacity for team work and critical thinking
- fluent written and verbal communication skills in English

Starting date: 1 September 2016 or later

Duration of contract: 3 years for a Ph.D. candidate and 1-2 years for a post-doc, with the possibility of extension

Applications written in English should be submitted to Dr. Pawel Dydio – the director of the laboratory (dydiolab@gmail.com) by **1 June 2016**, and should include (combined as one pdf file):

- (1) cover letter
- (2) CV (including your scientific skills, your research experience and publications)
- (3) a 2-page summary of your Master thesis/ a 3-page summary of your PhD Thesis
- (4) for a prospective Ph.D. candidate a transcript of results from the university-level courses taken
- (5) contact information for 2 referees (Recommendation letters can be sent directly to dydiolab@gmail.com)