



Post-doc position available within IDEAS PLUS grant

Concurrent Catalysis in Metal-Organic Frameworks

Institution: University of Warsaw, Faculty of Chemistry, Biological and Chemical Research Centre

Contract duration: 12 months with possible extension

Salary: 5.000 - 6.500 PLN brut

Deadline for application: 30 September 2016

Scientific tasks:

MOFs (Metal-Organic Frameworks) are easily tunable, regular, porous architectures, which provide unique nanoenvironment for catalysis. Within the "IDEAS PLUS" grant from the Ministry of Science and Higher Education we would like to demonstrate that the immobilisation of homogeneous catalysts inside MOFs greatly facilitates the development of new tandem catalytic systems by preventing the catalysts from mutual deactivation. To reach this strategic goal we plan to immobilise a range of known catalysts (transition metal catalysts, organocatalysts) inside MOFs and then study their catalytic properties with particular focus on tandem reactions.

Recent paper: „Metathesis@MOF: Simple and Robust Immobilization of Olefin Metathesis Catalysts inside (Al)MIL-101-NH₂”, *ACS Catalysis* **2016**, ASAP Article, DOI 10.1021/acscatal.6b01048.

We expect from Candidates:

- PhD in chemistry (preferentially in the field of homogeneous/enantioselective catalysis)
- experience in organic synthesis, purification and characterization of organic compounds, practical experience with various reactions catalysed by transition metal catalysts and/or in organocatalysis, ability to select model reactions for the evaluation of catalytic activity of investigated materials, optimise their conditions and follow their progress and enantioselectivity by GC, HPLC or NMR.
- track record of scientific experience (publications, participation in conferences, posters and presentations)
- high motivation for scientific work, interest in the research program of the group, resourcefulness, independence, creativity, responsibility, good organization, capability to work as a part of the team
- excellent knowledge of English language

Work place:

Modern, well-equipped research laboratories in the newly constructed building of the Biological and Chemical Research Centre of the University of Warsaw (part of the Faculty of Chemistry)

For more information go to www.mchmielewski.pl

Development opportunities in the group:

- participation in preparation of scientific publications and grant proposals
- acquisition of experience in supervision of graduate and undergraduate students
- acquisition of experience and knowledge in the field of organic synthesis, catalysis, MOFs and supramolecular chemistry
- training in the use of modern laboratory equipment (such as GC, HPLC, flash chromatograph, NMR, PXRD, supercritical dryer, microwave reactor)

Requested documents:

1. CV (with list of publications)
2. Copy of PhD Diploma
3. Motivation letter
4. Two recommendation letters

Project leader:

Dr Michał Chmielewski, (www.mchmielewski.pl)

Address for sending application: mchmielewski@chem.uw.edu.pl

Please, include subsequent clause in the application documents:

„Hereby, I agree to process my personal data included in this application for the present recruitment procedure, according to the Protection of Personal Data Law of 29 August 1997, of Republic of Poland, Journal of Laws number 133 position 883.”

We reserve the right to contact selected Candidates only.