



PhD student position
“De novo design of artificial transition metalloenzymes for homogeneous catalysis”
419-01/2017

The Leibniz Institute for Catalysis (LIKAT) is one of the leading European research institutions in the field of homogeneous and heterogeneous catalysis. Several materials concepts are currently being investigated to connect both disciplines. Major goals of our scientific work are the elaboration of knowledge in basic research in all areas of catalysis as well as the transfer of results into technical applications. In this regard, LIKAT offers a PhD-student position for a period of 3 years with the topic “de novo design of artificial transition metalloenzymes for homogeneous catalysis”.

The PhD-student will investigate the ‘de novo’ design of transition metalloenzymes, by functionalising proteins with phosphorus and / or nitrogen ligands and binding them to late transition metals. Adjusting the structures of the biomolecule and the ligand will optimise the catalytic performance of these artificial enzymes. We aim to apply techniques from homogeneous catalysis, organic and organometallic chemistry, biological chemistry and molecular biology to optimise the catalytic performance of artificial metalloenzymes in selective transition metal catalysed reactions. The research will be performed in collaboration with the group of Prof. Uwe Bornscheuer at the University of Greifswald.

We offer challenging PhD position in an international research group in an excellent environment at the LIKAT Rostock. The position is restricted to 3 years. The candidate will be granted a scholarship.

A diploma degree in chemistry or an international equivalent is required. The candidate should have experiences in homogeneous catalysis, organic synthesis or biochemistry. Experiences in the field of molecular biology or computational studies are desirable. Solid knowledge in computing, interpretation of data and their presentation is necessary.

Please send a complete application (CV, certificates etc.) in one pdf file to Prof. Paul C. J. Kamer (E-mail: paul.kamer@catalysis.de) or contact him for further information.

The application deadline is the **15 of January 2018**. We particularly encourage applications from women and handicapped people.