

University of Stuttgart
Institute of Materials Science

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Collaborative Research Center 1333
Molecular Heterogeneous Catalysis in
Confined Geometries

Prof. Dr. Joachim Bill
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26.06.2019

Within the Collaborative Research Center (CRC) 1333 – Molecular Heterogeneous Catalysis in Confined Geometries at the Institute of Materials Science (group of Prof. Dr. Joachim Bill), University of Stuttgart, we offer a position as

Scientific Coworker (Doctoral Researcher)
Pay grade 50% 13 TV-L

starting September 01, 2019.

Job Description

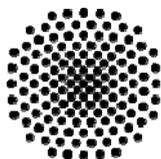
Synthesis of organic/inorganic microtubes with mesoporous channels and tunable geometry for heterogeneous catalysis

Micro- and nano-scaled hollow tubular structures, used in nature as structural elements and fluid channels and responsible to fulfil various functional roles, have gained attention for the synthesis of analogous artificial tubular assemblies for wide range of technological applications. The main aim of the project is to establish a template-based process for the synthesis of organic/inorganic or pure inorganic microtubes with mesoporous channels and tunable geometry as catalyst supports for molecular heterogeneous catalysis. The work includes synthesis and nanostructuring of materials using various self-assembly techniques and low temperature bio-inspired methods for deposition of inorganic materials. After thorough characterization and functionalization of the tubular support materials with catalyst molecules, which will be done in collaborations with intra- and extra-institute partners from the collaborative research center 1333, the catalytic performance in confined space will be studied.

Requirements

The position requires a university Master's degree in chemistry/material science or related fields. Previous experience with nanocrystal synthesis and surface chemistry is an advantage. Specifically, we would like to encourage self-motivated candidates with the following qualifications to apply:

- Analytical skills
- Above average academic achievements
- Identification with the multidisciplinary nature of the collaborative research center (catalysis, materials science, analytical chemistry, theory and simulation science) and the enthusiasm to learn beyond your individual research topic
- Willingness to cooperate with internal and external partners
- Willingness to actively participate in CRC events and qualification measures
- English proficiency is a must, a good command of German would be a plus



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All doctoral researchers of CRC 1333 are part of a structured graduate program integrated within the graduate academy of University of Stuttgart GRADUS. The CRC will ensure an interdisciplinary doctoral education and give opportunity for interdisciplinary scientific exchange.

For more information please contact Dr. Petia Atanasova (atanasova@imw.uni-stuttgart.de), 0711/685-61965.

Please send your application together with all important documents to the Institute of Materials Science, University of Stuttgart, Prof. Dr. Joachim Bill, Heisenbergstr. 3, 70569 Stuttgart or to bill@imw.uni-stuttgart.de. In case you send your application in paper form please make sure you only send copies of important documents as we will not send anything back to you. After completion of the selection process, we will dispose of your documents as required by data protection laws.

The University of Stuttgart is an equal opportunity employer. Applications from women are strongly encouraged. Severely challenged persons will be given preference in case of equal qualifications. Sharing of full-time positions is generally possible. The appointment will be by the central administration office of the University of Stuttgart.