



At LIKAT Rostock there are **doctoral-candidate positions** to be filled.

Conducting basic and applied research, particularly in homogeneous and heterogeneous catalysis, and also promoting technical implementation of that research – these are the goals formulated in the Articles of Association of the Leibniz Institute for Catalysis at the University of Rostock (LIKAT Rostock). In bringing this objective to life, LIKAT operates at the interface of basic research and applied research. Today the Leibniz Institute for Catalysis is one of the largest publicly-funded research institutes in Europe in the realm of applied catalysis. Its areas of expertise are oriented both towards methodologies and also the study of materials.

By applying high-performance catalysts, chemical reactions produce increased yield, avoid by-products and reduce the specific energy requirement, in a way that spares resources. Global demand for efficient use of all resources can only be met with the help of efficient research into catalysis. Already four out of every five chemical products undergo a catalysis cycle during their manufacture. Increasingly, alongside use in chemistry, catalytic applications are also found in the life sciences and in the supplying of energy, as well as in protection of the climate and of the environment.

Among the research topics currently being explored at LIKAT are the following: catalytic water-splitting; catalytic reactions with carbon dioxide or carbon monoxide respectively; homogeneous and heterogeneous selective oxidations, metal-organic C-C coupling reactions; homogeneous and heterogeneous asymmetric catalyses; metallocene chemistry; reaction engineering and high-throughput methods; preparation of catalytically active materials of new kinds; *in-situ* studies on catalysts' modes of operation under real conditions, as well as the functionalisation of renewable resources. In this context, the work undertaken ranges from catalyst preparation, via mechanistic studies, through to development and optimisations of processes. What is available for this purpose is special – in some instances unique - infrastructure, especially in relation to analytics, reaction engineering, high-throughput technology and high-pressure chemistry.

The posts to be filled serve the objective of completing a doctorate dissertation. The employment post has a three-year limited duration. Remuneration is in accordance with the public-service collective agreement for Germany's Federal States (TVL) or it takes the form of a scholarship. Social-security benefits are provided on the basis that is customary for public service.

LIKAT Rostock is striving to raise women's share of total scientific personnel, emphatically urging qualified female scientists to apply. Other criteria of suitability being equal, employment is offered to severely-disabled individuals on a preferential basis.

Please submit your complete application to the address stated below, writing directly to the head of the research area that interests you: Prof. Matthias Beller (Applied Homogeneous Catalysis); Dr. Sebastian Wohlrab (Heterogeneous Catalytic Processes); Prof. Johannes G. de Vries (Catalysis with Renewable Resources); Prof. Angelika Brückner (Catalytic *In-Situ* Studies); Dr. David Linke (Catalysis Discovery and Reaction Engineering); Prof. Jennifer Strunk (Heterogeneous Photocatalysis); Prof. Uwe Rosenthal (Modern Technologies); PD Dr. Torsten Beweries (Coordination Chemistry and Catalysis); Prof. Armin Börner (Hydrations and Hydroformylations); Prof. Paul Kamer (Bioinspired Homo- & Heterogeneous Catalysis); Dr. Wolfgang Baumann (Analytical Methods). We are also happy to receive your application via e-mail. Please use the e-mail address, adapted to your activity area of interest, as follows: [firstname.familyname@catalysis.de](mailto:firstname.familyname@catalysis.de)

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You can obtain further information about LIKAT at <http://www.catalysis.de>