

## **1 PhD Student Position: New Concepts in Catalysis – Operando Spectroscopy, Microscopy, Electrochemistry, Surface Science**

Applications are invited for a PhD student position at the Erlangen Center for Interface Research and Catalysis, Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Group of Prof. Jörg Libuda.

Research topics will cover the following fields: (1) In-situ and operando spectroscopy and microscopy in catalysis; (2) Surface science studied on model catalysts (spectroscopy and microscopy); (3) In-situ studies in electrocatalysis (spectroscopy and microscopy).

All research projects aim at acquiring molecular level understanding of catalytic and electrocatalytic processes using innovative materials concepts. The range of experimental methods will comprise state-of-the-art spectroscopy (vibrational spectroscopy, diffraction methods, photon based methods) and microscopy (scanning tunneling microscopy, atomic force microscopy) both in ultrahigh vacuum, at liquid/solid interfaces, at electrochemical interfaces and gas/solid interfaces. The projects are embedded into interdisciplinary and international cooperations involving partner groups from natural science and engineering.

The Friedrich-Alexander-Universität (FAU) Erlangen-Nürnberg ([www.fau.eu](http://www.fau.eu)) is among the top-ranked Universities in chemistry research in Germany. In particular, FAU is ranked 1<sup>st</sup> in the field of Chemical Solid State and Surface Research (DFG Funding Atlas). We offer leading-edge projects, state-of-the-art equipment and excellent working conditions. The Erlangen Center for Interface Research and Catalysis ([www.ecrc.fau.eu](http://www.ecrc.fau.eu)) covers state-of-the-art research on catalysis and interfaces in all its facets from basic research to process development. At the Chair of Interface Research and Catalysis (Libuda Group, [www.ecrc.fau.eu/libuda-group](http://www.ecrc.fau.eu/libuda-group)) we focus on the fundamental understanding of chemical processes at complex interfaces. The group explores complex model interfaces, covering surface science, electrocatalysis, photochemistry, in-situ and operando studies. Specifically we aim at the mechanistic understanding of chemical processes associated with energy conversion, energy storage, sustainable chemical production and innovative materials synthesis.

We expect flexibility and commitment, but also communication skills and the capability to work in a team. For application as a PhD student, a diploma or master degree in chemistry, physics, chemical engineering, or materials science is required. Specific experience in the research field is not mandatory.

The university promotes gender equality and aims at increasing the fraction of women in science. Handicapped persons are preferred if equally qualified. Please send your CV / list of publication / references / summary of research activities to:

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