

1 Postdoctoral Researcher Position: New Material Concepts in Sustainable Catalysis

Department Chemie und Pharmazie, Erlangen, TV-L E 13, Vollzeit, Befristete Anstellung,
Bewerbungsschluss: 31.03.2026

Description

The position focuses on surface science studies of innovative model catalysts designed to maximize noble metal efficiency and enable the sustainable use of precious materials. Synchrotron based XPS will be a key component of the experimental toolbox. Where appropriate, additional techniques such as spectroscopic methods (vibrational spectroscopy, diffraction methods, other photon-based methods) and microscopy methods (scanning tunneling microscopy, atomic force microscopy) may be employed as well.

The successful candidate will design and execute surface science experiments on model catalysts, perform and analyze the related measurements (e.g. at international synchrotron facilities) develop robust data analysis workflows, collaborate within an interdisciplinary team, present results at conferences, and contribute to manuscripts and student mentoring. We offer a vibrant, international research environment with access to state of the art laboratories and outstanding instrumentation, close interaction with leading synchrotron facilities, and excellent conditions for independent, high impact research.

Qualifications

Necessary qualifications:

We value flexibility, commitment, communication skills, and the ability to work effectively in a team. Applicants must hold a PhD (or equivalent) in chemistry, physics, materials science, or chemical engineering. Expertise in synchrotron techniques (e.g. XPS) or surface-science methods is welcomed; however, candidates without direct experience in this field are also encouraged to apply. The position is limited to one year with the option of extension for a further two years.

Supplementary description

The Friedrich-Alexander-Universität Erlangen-Nürnberg FAU (www.fau.eu) ranks among Germany's leading universities in chemistry research and among the most innovative German universities with an outstanding track record in knowledge transfer (THE Ranking 2023, global number 1 in "industry, innovation, infrastructure"). The Erlangen Center for Interface Research and Catalysis ECRC (www.ecrc.fau.eu) advances cutting edge research on catalysis and interfaces from basic science to process development. Within this environment, the Libuda Group (www.ecrc.fau.eu/libuda-group) explores complex model interfaces across surface science, electrocatalysis, photochemistry, and in

situ/operando methodologies, aiming at mechanistic insight into processes relevant to energy conversion and storage, sustainable chemical production, and advanced materials.

Interessiert?

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