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At the assistant professorship for Catalytic and Electrocatalytic Systems and Processes at the Friedrich-Alexander University of Erlangen-Nuremberg is searching for a passionate

## PHD CANDIDATE or POST DOC

You are given the opportunity for further scientific development in order to prepare a dissertation, or deepen your expertise.

### Research Area:

We search for a highly talented researcher who fulfils their research in an ERC granted project. This project focuses on developing highly dynamic catalysts and explore their behaviour under forced periodic operation. The main aim is to gain a fundamental understanding of how dynamics can be triggered in the catalysts, and to gain significantly improved catalytic activities by the use of dynamic catalysis.

The project combines catalyst synthesis, classic catalytic testing as well as intense characterization (*ex situ/in situ/operando*).

### Your Tasks:

Your tasks include activities in the field of research and teaching:

- Planning and conducting scientific experiments
- Synthesis, testing and characterization of catalysts
- Guidance for Bachelor and Master students
- Production of publications in scientific journals
- Presentation of research results at national/international congresses and conferences

### Your Qualifications:

- University degree (Master's, Diplom) in chemical engineering, chemistry, process engineering, or a comparable degree in engineering or natural sciences
- High affinity to analytical methods (e.g. TPD/R/O, XRD, XAS, IR)
- Knowledge of chemical-reaction technology issues and their analysis
- Experience in working in chemical laboratories
- Strong interest in research, pleasure in systematic investigation and creative development of novel catalytic systems
- Ability to critically question and evaluate one's own results, structured and independent work, as well as pleasure in familiarising oneself with new topics
- High team spirit
- Very good written and spoken English, good knowledge of German is desirable

### Application:

For further information, please contact Prof. Tanja Franken directly and send your application documents (meaningful cover letter, tabular curriculum vitae, certificates) exclusively by e-mail in a summarised PDF file to [tanja.franken@fau.de](mailto:tanja.franken@fau.de) (Tel. 09131/85-27424).

More information about the group: <https://www.crt.tf.fau.eu/kesv/>

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The Friedrich-Alexander-University promotes professional equality for women. In order to promote a family-friendly workplace design, the advertised position is part-time eligible. Women are therefore expressly motivated to apply for the position.

Severely disabled persons within the meaning of the Severely Disabled Persons Act (Schwerbehindertengesetz) will be given preferential consideration if the advertised position is suitable for severely disabled persons and if they have the same professional qualifications and personal aptitude. Details can be found in the respective advertisement under "Remarks".

If the applicant so wishes, the Equal Opportunities Officer can be called in for the interview without any disadvantages for the applicant.

The Friedrich-Alexander University Erlangen-Nuremberg (FAU) is one of the largest and most research-oriented universities in Germany with around 40,000 students and 4,000 employees in the scientific sector. The Chair of Chemical Reaction Engineering develops novel catalyst and process systems for carrying out technically relevant, chemical reactions in a highly selective manner and components for novel materials. The assistant professorship for catalytic and electrocatalytic systems and processes develops novel systems for the sustainable design of industrially valuable processes. The focus here is on the greatest possible increase in efficiency in harmony with economic and ecological attractiveness through improvements at the material and process level.