Department for Chemical and Biological Engineering (CBI)

Junior Group Distributed Energy Process Engineering Prof. Dr. Katharina Herkendell

Job offer

In the heart of Nuremberg "Auf AEG", the Chair of Energy Process Engineering works on new technologies and concepts for a low-CO₂ energy supply. The focus of our work in teaching and research is the efficient use of renewable energies, the synthesis of second generation fuels and their use in fuel cells, energy management system considerations, and biocatalytic energy systems. The associated Junior Group of Prof. Herkendell works on enzymatic and microbial electricity-enhanced conversion systems, specifically in the field of electromethanogenesis.

For the Junior Group, we are looking for someone to strengthen our team from 01.10.2022 as

PhD Student/Research Assistant

(TVL E-13, 70-100% depending on qualification level, full-time)

for the field of electro-microbiology with a focus on experimental development, analysis and simulation with strong emphasis on microbial methanation and bioelectrochemistry.

The area of responsibility includes, among other things:

- Coordination and work on research projects in the field of electromethanogenesis
- Conception, construction and operation of electrochemical test facilities
- Numerical simulation in the context of electromethanogenesis
- Handling and analysis of microbial cultures
- Interaction with project partners, including travels within the EU
- Participation in teaching and supervision of student work and project administration

Qualification:

- Completed university degree (Master, Diploma) with above-average academic success in the fields of bioengineering and biology, or in chemical/ energy/ process engineering or chemistry with in-depth experience in applied microbiology or bioelectrochemistry
- Advanced **English** skills are mandatory (C1 level and higher); German skills or the willingness to learn German are advantageous. Work permit for the EU is necessary.
- Prior biological and electrochemical knowledge and safe handling of microorganisms are mandatory.
- Prior knowledge of **simulation** programs (e.g. FLUENT, ASPEN, FactSage, IPSEpro) and manual skills for handling test systems are desirable.
- Prior experience in administratively managing large international research grants is advantageous.

For information and a description of the planned projects, please contact:

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Applications can be submitted in German or English. Please send your application (including application letter, CV, references, publication list, relevant certificates, overview of research activities and relevant experience) as **one combined PDF** document by email to **evt-sekretariat@fau.de** by **31.07.2022**.