

At the TU Bergakademie Freiberg, Faculty of Mechanical, Process and Energy Engineering, Institute of Energy Process Engineering and Chemical Engineering, Professorship of Reaction Engineering invites applications for the position of

Research Associate (m/f/d) – reference number 141-E/2024

to start as early as possible. The research is part of a publicly funded project to produce sustainable kerosene (SAF, Sustainable Aviation Fuel) using Fischer-Tropsch synthesis.

Pay grade: according to German pay grade E13 TV-L
Hours: 1,0 FTE (40 hours/week; part-time may be possible)
Contract type: 36 months

Main tasks:

The research project deals with iron catalysts for the production of sustainable aviation fuel using Fischer-Tropsch synthesis. The aim is to investigate catalyst compositions and process conditions, which lead to a high yield of kerosene components. Furthermore, the products are post-processed to meet kerosene specifications and to increase the kerosene yield. Additionally, a detailed material and heat balance is carried out to establish a process model. The project is part of a joint project with a Fraunhofer Institute.

The work includes:

- Production, shaping and physico-chemical characterisation of the catalysts
- Investigation of the activity and selectivity of the catalysts in the Fischer-Tropsch synthesis (kinetic studies)
- Elucidation of optimal catalyst properties for the synthesis of kerosene-related components (structure-activity-selectivity correlations)
- Post-processing of Fischer-Tropsch products (e.g. hydrotreating)
- Construction of a process model for the production of SAF based on the material and heat balances

What you can expect from us:

- Working at a family-friendly university with flexible working hours
- Remuneration according to the provisions of the collective agreement for the public service of the German federal states in accordance with the personal requirements
- A wide range of networking, mentoring and development opportunities
- Attractive fringe benefits, e.g., asset-based benefits (VL), company pension schemes (VBL), health management; Job Ticket for public transportation

What we expect from you:

- University diploma or master degree or doctorate in the fields of natural sciences and engineering
- Good written and spoken German and English skills
- Independent scientific work as well as scientific curiosity and the ability to work in a team

**For further information please contact Prof. Dr. Sven Kureti, phone: +49 3731 39 4482,
e-mail: kureti@iec.tu-freiberg.de**

The applicant (m/f/d) must meet the hiring requirements for a fixed-term contract according to the WissZeitVG. Applicants with disabilities will receive preferential consideration, providing they possess equal qualification. For consideration, we ask you to submit proof of your disabled status together with your application documents. TU Bergakademie Freiberg is committed to increase the number of women in teaching and research positions, hence qualified female candidates are especially encouraged to apply.

Written applications including CV, list of publications, motivation letter and copies of all relevant qualification documents (certificates, diplomas) should be submitted by **August 9th, 2024** stating the **reference number (141-E/2024)** to the following address:

**TU Bergakademie Freiberg, Dezernat für Personalangelegenheiten, 09596 Freiberg
or by e-mail to: bewerbungen@tu-freiberg.de**

Travel and other costs for interviews will not be reimbursed. TU Bergakademie Freiberg is always looking for scientific personnel from various disciplines. Further information can be found at: <https://tu-freiberg.de/stellenangebote>

