

Research Associate (m/f/d)

reference: 155-E/2025

Institute of Energy Process
Engineering and Chemical Engineering, Chair of Reaction Engineering

Hours: 1,0 FTE (40 hours/week, part-time may be possible) Pay-grade: E13 TV-L
Contract type: 30 months Start: at the earliest possible time

The Technische Universität Bergakademie Freiberg creates solutions in research and teaching for the global challenges of the 21st century—the sustainable, safe, economical, and environmentally friendly extraction, provision, and use of resources. Innovative strength, scientific expertise, sustainability, and internationality are core elements of our resource university.

Main tasks:

The research project focuses on the development and fundamental investigation of novel three way catalysts for the removal of HC, CO, and NO_x from the exhaust gas of stoichiometric methanol engines. In the future, methanol will be produced from sustainable feedstocks, meaning that methanol engines can be considered as a CO₂-neutral fuel. The project is part of a consortium of various industrial partners and another academic partner and is funded by the German Federal Ministry for Economic Affairs and Energy.

The work includes:

- Preparation and physico-chemical characterization of three way catalysts
- Study of activity and selectivity of the prepared catalysts
- Deducing structure-activity-selectivity relations
- Mechanistic investigations by in-situ spectroscopy
- Targeted catalyst development based on the fundamental findings and upscaling of catalysts
- Investigation of the long-term activity of catalysts

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
- Support for further academic qualification

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

Your application

Please send your application with the usual documents, quoting the reference number (155-E/2025)

by November 28, 2025, preferably

by email to:

bewerbungen@tu-freiberg.de

or by post:

TU Bergakademie Freiberg
Dezernat Personalangelegenheiten
09596 Freiberg



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For further information, please

contact Prof. Dr. Sven Kureti

(phone: 03731 / 394482,

E-Mail:

sven.kureti@iec.tu-freiberg.de)

available.

Applicants (m/f/d) must meet the employment requirements for fixed-term employment contracts in accordance with the WissZeitVG (German Academic Fixed-Term Contract Act). Severely disabled persons or persons of equal status (m/f/d) will be given preferential consideration if they have the same qualifications, performance, and abilities. Please include proof of this. The TU Bergakademie Freiberg specifically promotes the proportion of women and expressly invites qualified women to apply.

