



Technische Universität Berlin offers an open position:

## Research Associate (PostDoc) - salary grade E13 TV-L Berliner Hochschulen

part-time employment may be possible; under the reserve that funds are granted

**Faculty III - Institute of Chemical and Process Engineering / Energy Process Engineering and Conversion Technologies for Renewable Energies**

**Reference number:** III-674/24 (starting at the earliest possible / limited until 30/09/2026 / closing date for applications 03/01/25)

### Working field:

We are looking for support in the EVUR department in the working group "Reactive Multiphase Flows - Experiment and Simulation" to participate in the BMBF-funded "HydroCycling" project. The aim of this project is to establish a process for the chemical recycling of plastic waste through hydrogenation.

The candidate, together with a team, will be responsible for developing a numerical model to predict the behavior of products and reactants in a suitable reactor for the hydrogenation of pure polymers and mixed plastic waste as a means of chemical recycling. Simulations at different reactor conditions are carried out. He/She will also be responsible for the design, construction and operation of a cold model of the reactor to verify the results of the simulations.

### Requirements:

- Successfully completed university studies (diploma, master, or equivalent) and doctorate in the field of chemical engineering, process engineering, or related disciplines
- Good knowledge of German and/or English required; willingness to acquire the respective missing language skills
- Very good knowledge of CFD software (OpenFOAM, ANSYS Fluent, or similar)
- Good programming skills (C++)
- Deep understanding of fluid dynamics, numerical modeling methods, and reaction engineering

### Desirable:

- Experience with CAD software (AutoCAD, Fusion 360, or similar)
- Knowledge of building and operating cold models for studying reactors
- Experience with fluidized bed reactors
- Understanding of polymers

Please send your application with the **reference number** and the usual documents (cover letter, CV, certificates - **only complete application documents will be considered** - in one pdf document, max. 5 MB) **by email to Prof. Dr. Frank Behrendt (frank.behrendt@tu-berlin.de)**.

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guarantee for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: [https://www.abt2-t.tu-berlin.de/menue/themen\\_a\\_z/datenschutzerklaerung/](https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/).

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

Technische Universität Berlin - Die Präsidentin - Fakultät III, Institut für Energietechnik, FG Energieverfahrenstechnik und Umwandlungstechniken regenerativer Energien, Prof. Dr. Frank Behrendt, Sekr. GG 1, Seestr. 13, 13353 E

The vacancy is also available on the internet at <https://www.personalabteilung.tu-berlin.de/menue/jobs/>

