



Technische Universität Berlin



Technische Universität Berlin offers an open position:

Research Assistant - salary grade E 13 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 / Process Dynamics and Operations Group

Reference number: III-6/25 (starting at the earliest possible / limited until 31/01/2028 / closing date for applications 07/02/25)

Working field:

The Process Dynamics and Operations Group is looking for a new employee for an exciting research project the separation of CO₂ from biogas in a Rotating Packed Bed (RPB) together with the Technical University in Lodz, Poland and the Technical University of Brno, Czech Republic. The aim is to answer questions such as how the absorption process can be intensified through the use of an RPB and how this process can be described using an equation-based model.

The following specific tasks are to be addressed:

- Model development with mass transfer according to Maxwell-Stefan
- Sensitivity studies regarding influencing factors of the model
- Model validation based on experimental data from the project partners for CO₂/N₂
- Revamp of existing plant for absorption of CO₂ from biogas
- Carrying out tests in our own existing test facility
- Model validation based on our own experimental data for CO₂/CH₄

For more information on the job or for general information about the chair please contact sekr@dbta.tu-berlin.de. Further information on the department you can find at tu.berlin/dbta.

Requirements:

The department is based in chemical engineering, but candidates from other engineering disciplines or backgrounds are always welcome. Regarding the described position, we are interested in colleagues with the following qualifications and interests:

- Successfully completed scientific university degree (Master, Diploma or equivalent) in a suitable field (process engineering, chemical engineering, computational engineering science, or similar) is required
- Our team is very international, good knowledge of German and/or English is required; willingness to acquire the respective missing language skills
- Basic knowledge in modeling and optimization of process engineering systems is required
- Basic knowledge in the planning and execution of practical experiments is also required

Desirable:

- Experience with rotating devices such as RPB or RZB
- Practical experience in the operation of process plants is recommended
- Independent, well-organized working style

Please send your application **with the reference number** and the usual documents (CV, records/grades, application letter, all combined in a single pdf file, max. 5 MB) by email to **Prof. Dr.-Ing. habil. Jens-Uwe Repke** (sekr@dbta.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 guaranty 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/.

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 Prozess- und Verfahrenstechnik, FG Dynamik und Betrieb technischer Anlagen, Prof. Dr.-Ing. habil. Jens-Uwe Repke, Sekr. KWT 9, Straße des 17. Juni 135, 10623 Berlin

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

