

The **Brandenburg University of Technology Cottbus-Senftenberg (BTU)** is a young, up-and-coming university and the only technical university in the state of Brandenburg. With more than 1,500 employees, the BTU is one of the largest employers in Lusatia and makes a significant contribution to shaping structural change with its combination of basic and application-oriented research.

We would like to strengthen our team at the **Department of Particle Technology at BTU Cottbus-Senftenberg** and are therefore looking to recruit an

Academic Staff (m/f/d)
Full-time, E13 TV-L, limited for 36 months

Reference number: 24/22

The main areas of research are aerosol technology and gas purification. We are particularly interested in the charging and separation of aerosols by means of corona discharge in the electrostatic precipitator. We are developing electric separators with particularly high energy efficiency and are opening up new areas of application, such as gas purification at extremely high temperatures of up to 800 °C or the purification and recirculation of protective gases. An interesting mechanism that has hardly been investigated so far is the charging of aerosols by free electrons. This effect is technically extremely advantageous and occurs particularly at temperatures above 300 °C or in oxygen-poor protective gases. This so-called "electronic charging of aerosols" is now topic of a basic research project funded by the DFG. Within the framework of this interesting and challenging project, you will of course also have the opportunity to write your dissertation.

These are your tasks:

- Scientific work within the framework of the research focus of the department,
- in particular, collaboration in the preparation and implementation of the externally funded project "Fundamentals of Electronic Particle Charging in Corona Discharges"
- tutoring of bachelor's and master's theses related to the project,
- Lecturing and publication activities on the respective research topic, preparation of contributions for reports and presentations
- as well as other research-related administrative tasks within the framework of the research project.

What you bring with you:

- A completed scientific university degree (accredited Master's degree/university diploma/equivalent) in a field relevant to the job (physics/electrical engineering/chemical engineering or comparable).
- Experience in Matlab/Simulink and good programming skills, good manual and experimental skills.
- You are driven by curiosity, able to work independently with a communicative attitude towards the team.
- English language proficiency, both written and spoken, and at least some initial knowledge of German.

For further information, please contact Prof. Dr.-Ing. Ulrich Riebel at Tel: 0355-69 1122, E-Mail: riebel@b-tu.de.

Become part of the BTU family. We look forward to getting to know you.

The BTU Cottbus-Senftenberg is committed to equal opportunities and diversity and strives for a balanced gender ratio in all employee groups.

Persons with a severe disability and those with equal rights are given priority in the case of equal suitability.

Application photos are not required.

Please note the more detailed information on the selection procedure on the BTU Cottbus-Senftenberg website.

Please send your application documents in PDF format (with a maximum of 5 MB), **stating the reference number**, exclusively by e-mail to the the **Chair of Particle Technology, Brandenburg University of Technology Cottbus-Senftenberg**, e-mail: riebel@b-tu.de by **29.03.2022**.



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