Technische Universität Dresden

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

At the **Faculty of Chemistry and Food Chemistry,** the **Chair of Inorganic Chemistry I** offers, subject to the availability of resources, a position as

## Research Associate (m/f/x)

(subject to personal qualification, employees are remunerated according to salary group E 13 TV-L)

starting **November 1, 2026**. The position is limited for three years with 75% of the full-time weekly hours. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position aims at obtaining further academic qualification (usually PhD).

### Tasks:

- synthesis and structural and physicochemical characterization of materials for solid-state lithium–sulfur batteries, especially hybrid/polymeric electrolyte separator development, cathode development, and cathode/polymer interface adaptation for an increase in energy density, cycle stability, and rate capability of lithium–sulfur batteries
- application and/or interpretation of modern analytical methods, e.g. scanning electron microscopy, X-ray powder diffraction, Raman spectroscopy, thermogravimetric analysis, and physisorption measurements
- electrochemical characterization of the samples via cyclic voltammetry, galvanostatic measurements, and especially electrochemical impedance spectroscopy at battery component interfaces
- collaboration and exchange with project partners: Close collaboration with partner groups within the joint project, participation in project meetings, exchange visits, and integration into the networks of all contributing institutions
- documentation and presentation of results: Writing of scientific publications, presentations at national and international conferences, project-based support for students

### Requirements:

- very good university degree (M.Sc. or equivalent) in chemistry or materials science; specialization in inorganic/materials/physical chemistry, ideally with experience in solid-state and/or lithium–sulfur batteries
- practical experience in the synthesis and characterization of battery materials and/or components, and in the use of analytical methods (X-ray diffraction, scanning electron microscopy, impedance, galvanostatic (dis)charging, cyclic voltammetry)
- excellent results in individual performance criteria (e.g., manuscript/publication resulting from Master's and PhD thesis, awards) and timely completion of higher education
- strong motivation to independently conduct research and to work in interdisciplinary collaborations
- strong interest in interdisciplinary research on battery cells and battery component development
- excellent written and verbal communication skills in English; at least a passive understanding of German

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The university is a family-friendly university. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

**Application:** Please submit your detailed application with the usual documents quoting the **reference number w26-188** by **August 20, 2026** (stamped arrival date of the time stamp on the email server of TUD applies) exclusively by email, preferably via the TUD SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf file to **sekretariat-ac1@mailbox.tu-dresden.de.** Expenses incurred in attending interviews cannot be reimbursed.

TUD is a founding partner in the DRESDEN-concept alliance.

DRESDEN concept

**Reference to data protection:** Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: https://tu-dresden.de/karriere/datenschutzhinweis.