

Saarland University is a campus university with an international reputation for research excellence, particularly in computer science and in the life sciences and nanosciences. The university is also distinguished by its close ties to France and its strong European focus. Around 17,000 students, studying over one hundred different academic disciplines, are currently enrolled at Saarland University. Saarland University is officially recognized as one of Germany's family-friendly higher-education institutions and with a combined workforce of more than 4000 it is one of the largest employers in the region.

The Chair of Energy Materials is inviting applications for the following position commencing at the earliest opportunity.

Doctoral Research Position (m/f/x)

Reference number W2659, salary in accordance with the German TV-L salary scale¹, pay grade: E13 TV- L, duration of employment: 3 years, volume of employment: 60 % of standard working time.

Workplace/Department:

Chair of Energy Materials

The synthesis and characterization of next-generation battery materials lie at the heart of the booming energy storage industry, driving innovations for a sustainable future. As the global energy transition accelerates, the demand for advanced alternatives to conventional lithium-ion batteries has never been greater. This interdisciplinary PhD project offers a unique opportunity to pioneer novel energy storage solutions—from sodium-ion and magnesium-based systems to solid-state batteries—and/or develop next-generation recycling methods to enable a truly circular battery economy

Job requirements and responsibilities:

- Designing and characterizing novel electrode materials or electrolytes for post-Li technologies
- Advancing circular battery concepts (e.g., direct recycling, recovery of critical raw materials)
- Fabrication of battery electrodes (water-based binder systems, dry electrodes)
- Structural and electrochemical characterization using state-of-the-art instrumentation, including X-ray diffraction Raman spectroscopy, and scanning electron microscopy
- Active participation in the research activities of the group and collaboration with external partners
- Publish scientific papers and present results at international conferences

The pay grade assigned to an employee depends on their professional qualifications and the number of years of service. Each pay grade is further subdivided into levels. Entry-level employees with no previous experience will initially be assigned a level 1 rating. After one year at level 1 of the E10 pay grade, an employee will move up to level 2. After a further two years, the employee will move to level 3, etc.

TV-L = collective agreement on remuneration of public sector employees in the German *Länder*



Your academic qualifications:

- Completed scientific university studies in Chemistry, Materials Science, Physics, Chemical Engineering, or related fields
- Language skills (according to GER): English (C1)

The successful candidate will also be expected to:

- Hands-on experience in electrochemistry, material characterization (e.g., XRD, SEM, BET), or process engineering is advantageous.
- Strong motivation for sustainable technologies and interdisciplinary collaboration.
- Independent, analytical mindset and proficiency in English

What we can offer you:

- A flexible work schedule allowing you to balance work and family, among other things the possibility of teleworking
- Secure and future-oriented employment with attractive conditions
- A broad range of further education and professional development programmes (for example language courses)
- An occupational health management model with numerous attractive options, such as our university sports programme
- Supplementary pension scheme (RZVK)
- Discounted tickets on local public transport services ('Job-Ticket' of the saarVV)

We look forward to receiving your **meaningful online application** (in a PDF file) by **30.06.2025** to **stefanie.arnold@uni-saarland.de** (please enter your mail address here). Please include the reference number W2659 in the subject line of the e-mail.

If you have any **questions**, please contact us for assistance. Your contact: Universität des Saarlandes

Herrn Prof. Dr. Volker Presser

Energy materials

Email: vopr001@uni-saarland.de

Pay grade classification is based on the particular details of the position held and the extent to which the applicant meets the requirements of the pay grade within the TV-L salary scale. Part-time employment is generally possible.

If you have obtained a foreign university degree, a proof of the equivalence of this degree with a German degree by the Zentralstelle für ausländisches Bildungswesen (ZAB) is needed before hiring. If necessary, please apply for this in time. You can find more information at https://www.kmk.org/zeugnisbewertung.

Unfortunately, neither costs for attending an interview at Saarland University nor costs for any certificate evaluation by the ZAB can be reimbursed in principle.

We welcome applications regardless of gender, nationality, ethnic and social origin, religion/belief, disability, age, and sexual orientation and identity. In accordance with its policy of increasing the proportion of women, the University actively encourages applications from women. Applications from severely disabled persons will be given preferential consideration in the event of equal suitability.

When you submit a job application to Saarland University you will be transmitting personal data. <u>Please refer to our privacy notice</u> for information on how we collect and process personal data in accordance with Art. 13 of the Datenschutz-Grundverordnung. By submitting your application you confirm that you have taken note of the information in the Saarland University privacy notice.