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, it is a globally oriented, regionally anchored top university, focusing on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. The Cluster of Excellence "Responsible Electronics in the Climate Change Era (REC²)" addresses the key challenge posed by the ubiquitous use of electronics, which leads to an enormous resource and energy consumption and the generation of electronic waste. REC² establishes the scientific foundation for the electronics of the future, including new material platforms, component concepts, and integrated systems that enable the realization of responsible electronics in an ecologically, economically, and socially sustainable manner.

In a range of research and academic programs, REC² unites the natural and engineering sciences with the humanities, social sciences, and medicine. This wide range of disciplines is a special feature not only of the Cluster, but also of TUD, facilitating interdisciplinarity and transfer of science to society. As a modern employer, TUD 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. For TUD, diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who are committed to contributing their achievements and productivity to the success of the entire institution.

The **Cluster of Excellence REC²** offers (subject to the availability of resources), at the **Faculty of Electrical and Computer Engineering, Institute of Solid State Electronics, Chair of Coating Technologies in Electronics**, a position as

Research Associate (m/f/x)

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

starting **as soon as possible**. The position comprises 75% of the full-time weekly hours. The position is limited to 2 years, with a possible extension. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position offers the chance to obtain further academic qualification.

Tasks:

- development of magnetron sputter epitaxy (MSE) process of group III-nitride semiconductors for power electronics and other applications, i.e. AlN, GaN, and AlGaN growth for various heterostructures with a special focus on finding pathways to make the process a more sustainable core technology for production of power electronics
- part of the interdisciplinary project team focused on sustainability assessment platform for magnetron sputter epitaxy in the power electronics supply chain
- exchange and collaboration with a diverse team of scientists from the REC² Cluster, in particular with those from the fields of sustainability and social sciences

Requirements:

- a university degree (master or comparable) in Physics, Material science, or related field
- an independent, target- and solution-driven work attitude
- interest in basic and application-related research
- previous experience with magnetron sputtering, growth of thin films, epitaxy, III-nitride based semiconductor materials and/or devices, material characterization, or sustainable process engineering would be beneficial
- basic knowledge of plasma physics, thin film technology, and semiconductor physics would be an advantage

We offer: You will join a team of enthusiastic scientists who pursue creatively their individual research agenda inspired by the cluster's innovative approach and support. Your research will be fostered by the REC² philosophy to promote young researchers, which includes:

- access to state-of-the-art research of leading academic institutes
- possibility to apply for GreenRiskFunds to pursue your own high-risk/high-gain research ideas
- possibility of exchange with partner institutions in the Global South
- promotion of gender equality and a family-friendly work environment
- mentorship via the REC² mentoring board

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(in English only) with a motivation letter, CV, copy of degree certificate, transcript of grades (i.e. the official list of coursework including your grades) by **May 19, 2026** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf file to **coatingtech.ife@tu-dresden.de** or to:

TU Dresden, Chair of Coating Technologies in Electronics, Prof. Elizabeth von Hauff, Helmholtzstr. 10, 01069 Dresden, Germany.

Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

REC² RESPONSIBLE ELECTRONICS

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.