Technische Universität Braunschweig

Institut für Halbleitertechnik

Zertifikat seit 2007 audit familiengerechte hochschule

With around 17,000 students and 3,800 employees, the **Technische Universität Braunschweig** is one of Germany´s leading institutes of technology. It stands for strategic and performance-oriented thinking and acting, relevant research, committed teaching, and the successful transfer of knowledge and technologies to the economy and society. We consistently advocate for family friendliness and equal opportunities.

Our research focuses are mobility, engineering for health, metrology, and city of the future. Strong engineering and natural sciences are our core disciplines. These are closely interconnected with economics, social and educational sciences and humanities.

Our campus is located in the midst of one of the most research-intensive regions in Europe. We work successfully together with over 20 research institutions in our neighborhood as we do with our international partner universities.

Starting from the earliest possible date the Institute of Semiconductor Technology is looking for a

# Research Associate in the field of „Processing of Nitride-based devices for Neuromorphic Computing“

**(TV-L E13, 75%)**

The position is to be filled on a fixed-term basis for an initial period of 3 years. The successful applicant will be given the opportunity to pursue a doctorate.

As a PhD student in the group of Andreas Waag, you will be developing the processing of optical components for applications like e.g. Neuromorphic Computing. Your work will be mainly experimental, and you will be trained in various processing methods using state-of-the-art equipment in our clean rooms as well as characterization of devices in our Research Center Laboratory for Emerging Nanometrology (LENA). Your research will be supported by the excellent infrastructure of the Institute of Semiconductor Technology, of the excellence cluster QuantumFrontiers and the Quantum Valley Lower Saxony (QVLS) consortium.

## Make a Difference:

- You will conduct research in the field of processing optical components such as µLEDs based on GaN for various applications in the field of neuromorphic computing.
- You will design process plans, investigate the compatibility of different technologies (e.g. lithography, RIE-ICP, PECVD, etc.) and operate the manufacturing equipment.
- You will characterize and evaluate the results by means of different characterization techniques (e.g. SEM, AFM, wafer prober).
- You will actively participate in several collaborative projects with external partners and you will be integrated in a large team of Nitride researchers in the group of Prof. Andreas Waag.
- You will publish in recognized journals and participate in national and international conferences.
- You will be involved in teaching (preparation and implementation of courses as well as supervision of students' work).

## Your Qualifications:

- A master degree (or similar) in electrical engineering, physics, nanotechnology or similar.
- Experience in Nitride technology, semiconductor processing in clean room environment or characterizations are a plus.
- Very high proficiency in English, fluency in the German language is preferable.
- You are flexible, can perform under pressure and work well in a team.
- You are aiming for a doctorate.

## Our Benefits:

- Pay in accordance with the collective agreement TV-L, pay grade E13 with 75%, depending on the assignment of tasks and fulfilment of personal requirements.
- A special payment at the end of the year as well as a supplementary benefit in the form of a company pension, comparable to a company pension in the private sector.
- Interesting and diverse tasks in a pleasant working atmosphere with a friendly and motivated team.
- A workplace that is basically suitable for part-time work, although the position is to be filled full-time, as well as flexible working and part-time options and a family-friendly university culture, awarded the "Family-friendly university" audit since 2007.
- A wide range of continuing education and company health care programmes as well as a vibrant campus life in an international atmosphere.

## What's more to know:

We welcome applicants of all nationalities. At the same time, we encourage people with severe disabilities to apply. Applications from severely disabled persons will be given preference if they are equally qualified. Please attach a form of evidence of your handicap to your application. We are also working on the fulfilment of the Central Equality Plan based on the Lower Saxony Equal Rights Act (*Niedersächsisches Gleichberechtigungsgesetz*—NGG) and strive to reduce under-representation in all areas and positions as defined by the NGG. Therefore, applications from women are particularly welcome in this case.

The personal data will be stored for the purpose of processing the application. By submitting your application, you agree that your data may be stored and processed electronically for application purposes in compliance with the provisions of data protection law. Further information on data protection can be found in our data protection regulations at https://www.tu-braunschweig.de/datenschutzerklaerung-bewerbungen. Application costs cannot be reimbursed.

## Questions and Answers:

For more information, please call Dr. Rany Miranti-Augustin on +49 (0) 531 391-3785.

## Closing date: April 30, 2024

Are you interested? Please send your application preferably via email to **Rany.miranti-augustin@tu-braunschweig.de**

or via mail to

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