



Braunschweig University of Technology, together with its partners Leibniz Universität Hannover and Physikalisch-Technische Bundesanstalt is establishing a Cluster of Excellence “QuantumFrontiers”, funded by the Excellence Initiative Germany over the next 7 years. QuantumFrontiers will enable research on light and matter at the quantum frontiers, from foundations to applications in metrology. We are presently looking for talents worldwide, who would like to join. Here, we refer to the following position in QuantumFrontiers:

PhD Student
Gallium Nitride epitaxy and processing / (TV-L E13, 75%)

The position will be assigned to the Institute of Semiconductor Technology (Prof. Dr. Andreas Waag), being part of the Laboratory for Emerging Nanometrology (LENA) and the Epitaxy Competence Center (ec²) at Braunschweig. **Closing date for applications: 25.01.2019** (or until the position is filled).

Job descriptions: (1) Fabrication of nitride thin film structures by MOVPE; (2) Optical and electrical characterisation; (3) Developing concepts for the design of optoelectronic devices; (4) Actively pushing collaborations with groups in QuantumFrontiers; (5) Participation in the development and writing of collaborative research proposals. A final job description depends on the qualification of the candidate.

Job qualifications: The main criterion is excellence, dedication, good communication and a fast learning curve. In addition, one or more of the following fields of experience would be advantageous: (1) High academic records, in particular excellent Bachelor and Master degrees as well as works in the field of semiconductor physics, micro/nanosystems, electrical engineering, electronics, semiconductor engineering, or related fields; (2) In-depth knowledge of semiconductor physics and specifically AlInGaN; (3) experience in laser physics, material processing with lasers, or fabrication and characterization of semiconductor devices; (4) Very high proficiency in English and German as well as excellent scientific writing skills for collaborative research proposals and journal publications; (5) International exposure; (6) Highly open minded, living up to the requirements of a research environment with high diversity; (7) Committed, self-motivated, self-driven, and proactive team player with good communication and interpersonal skills. Candidates from neighbored research areas are also welcome.

Our offers: An excellent cutting edge research environment, aiming at enabling excellent scientific as well as industrial careers. QuantumFrontiers will offer an intense program for career development. Remuneration will be in line with the current German collective pay agreement TV-L E13, 75% (PhD student), depending on qualification. The employment will initially be limited to three years with possible extension. TU Braunschweig is an equal opportunity employer committed to excellence through diversity. We explicitly encourage women to apply (reduction to 50% position possible) and preference will be given to disabled applicants with equivalent qualifications. Disabled persons are required to include a copy of proof concerning their degree of disability. QuantumFrontiers offers a strong double carrier program for partners looking for positions in the Braunschweig area.

How to apply and contact: Applications are accepted only if sent via e-mail only to the specified email address below. Please send a complete written application (in English) as a **single PDF file** consisting of a cover letter (statement of purpose), full CV, academic certificates and transcripts (bachelor and master), and other supporting certificates stating the keyword: **QF-Epi-1** on the e-mail title to:

Prof. Dr. Andreas Waag / Silke Feldhusen (E-mail: lena@tu-braunschweig.de)