

Scientist position for GaN Materials Development for High Frequency Microelectronic Devices

NaMLab gGmbH is a research organization and associated institute of the Technical University Dresden. NaMLab provides industry oriented and basic research in material science for electronic devices. As part of a BMBF-funded project on RF devices for 6G applications, NaMLab is looking for a scientist in the field of GaN-based materials development for high-frequency microelectronic devices. The scientist will be responsible for conducting fundamental research on GaN/AlGaN growth by molecular beam epitaxy (MBE) with focus on material characterization for high mobility transistors. A major goal of the conducted research will be the investigation of the impact of the quality of the GaN-based materials stack. The position is limited in time based on the § 2 WissZeitVG and financed by project funding. The results of the scientific work can be used to obtain a PhD in Electrical Engineering at the TU Dresden.

Responsibilities:

- Participating in growth of GaN-based heterostructures by MBE,
- Structural characterization of GaN-based heterostructures by x-ray diffraction, AFM and electron microscopy,
- Processing and electrical characterization of GaN-based lateral and vertical test devices in a cleanroom environment,
- Electrical characterization of GaN-based 2-dimensional electron gases by various measurement approaches.

Your profile:

- Outstanding M.Sc. / M.Eng. in electrical engineering, physics, materials science or similar,
- Experiences in processing of samples in a cleanroom environment,
- Experiences in optical and structural characterization,
- Experiences in electrical characterization,
- Good technical comprehension, professional English communication and writing skills,
- Ability to work in a team environment.

The following skills are a plus:

- Knowledge of microelectronics design, concepts and operation

Period:

- Begin of employment: asap
- Duration: 24 month

We offer:

The salary will be based on German research organization standards.

For further information please contact:

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