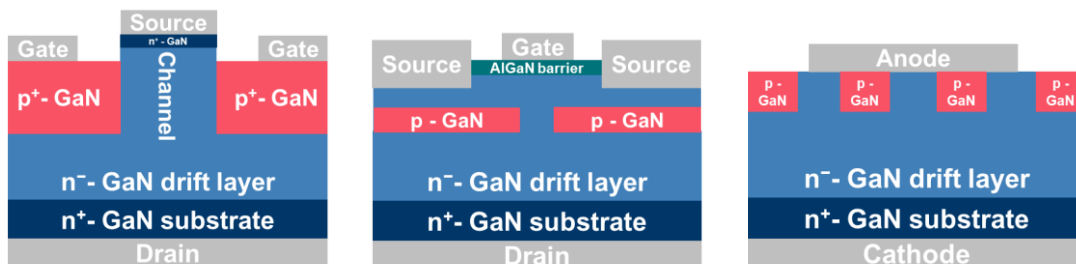


Master thesis

Fabrication and characterization of GaN-based vertical power electronic devices

Compound Semiconductor Technology (CST) works in the field of deposition and characterization of 3D and 2D compound semiconductors, hybrid organic-inorganic semiconductor materials as well as electronic and optoelectronic devices.

One current focus is GaN-based vertical electronic device, such as Current-Apertured Vertical Electron Transistors (CAVET), Junction-barrier Field Effect Transistors (JFET) and Junction Barrier Schottky Diodes (JBS). Different to the lateral High Electron Mobility Transistors (HEMTs) with polarization-induced 2DEG, vertical devices are produced based on lateral aligned pn junctions. In this work, you are investigating on one type of vertical devices through a wide range of micro- and nanofabricating technologies in ZMNT cleanroom.



Your tasks

- Manufacturing of microelectronic devices
- Electrical characterization of such devices
- Data analysis and results production

Your profile

- You are studying Electrical Engineering, Physics, Material Science or a similar subject
- You have the confidence and enjoy to operate complex laboratory equipment on your own responsibility after an instruction
- You ideally have experience of working in a cleanroom (not a prerequisite)
- Good language skills in German and/or English

What we offer

- Insight in state-of-the-art technology
- Practical experience in operating laboratory equipment in a cleanroom
- Participation in a highly motivated and friendly team

If you are interested, please send an informative application via e-mail.