

## Master thesis

### Topic: Nanowire Transistor Fabrication and Characterization

The master thesis is about the fabrication and/or electrical characterisation of simple nanowire transistor structures with a hafnium-oxide-based gate material. Tasks include:

- Support nanowire transistor fabrication using typical cleanroom and/or lithography tools
- Electrical characterization of transistor structures
- Data preparation, analysis, evaluation and presentation of the results in group meetings

#### Your qualification:

- Interest in device physics and fabrication methods
- Good technical comprehension, professional English communication and writing skills
- Strong perseverance in experimental work, confidence in dealing with chemicals
- Ability to work in an international team environment; willingness to travel

#### The following Skills are a plus:

- Experience with clean room processes
- German or French communication skills

#### We offer:

- Individual supervision
- Contribution to cutting-edge nano-electronic research within an interdisciplinary team
- Access to various high-end fabrication and characterization tools
- Knowledge transfer from experts in the field
- The opportunity to continue the project in an PhD program at NaMLab and the University of Bordeaux (France)

#### Timeline:

- Starting date: as soon as possible

#### Responsible Professor:

- Prof. Dr.-Ing. Thomas Mikolajick

**About us:** 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. Based on its key expertise in dielectric materials for semiconductor devices NaMLab focuses on the integration and application of materials applied to reconfigurable and energy efficiency devices. NaMLab's approach of placing the device rather than the material system itself into the center of its research activities differentiates it from other world class material research activities in the Dresden area.

#### For further information please contact:

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