

The School of Electrical, Information and Media Engineering,  
Chair of Electronic Devices,

invites applications for

a position as

**Research Assistant (Doctoral Student)**

This position is to be filled for the period 01.06.2022 to 31.05.2025.

The position is to be filled with 100% of the tariff working hours (Part-time is possible, please state when applying whether you would also be interested in a part-time job).

Salary: E 13 TV-L

Professional and personal requirements:

- Completed university studies (Master's degree or comparable) in electrical engineering, physics, physical chemistry, materials science or similar
- Sound knowledge in the field of semiconductor electronics and semiconductor technology
- Ideally experience in thin-film technology (i. e. sputtering, Atomic Layer Deposition) and photolithography
- Experience with laboratory work, especially electrical measurement techniques
- Very good knowledge of the English language, both written and spoken
- Knowledge of LabVIEW

Tasks and requirements:

The advertised doctoral thesis with the goal of obtaining a Ph.D. deals with the fabrication, characterization, and optimization of metal oxide thin-film transistors (TFTs) as readout electronics for THz detectors. This includes:

- Fabrication and characterization of fast and low noise metal oxide TFTs
- Optimization of the active channel, the dielectric and the contact materials of the TFTs
- Design, realization and characterizing of low noise amplifier circuits
- Integration of circuits with Graphen MIS diodes to detect THz radiation (from individual pixels to arrays)

The Ph.D. thesis is part of the DFG-funded project "Integrated Terahertz Systems Enabling Novel Functionality (INTEREST)", which is carried out together with the research groups of Prof. Ullrich Pfeiffer and Prof. Daniel Neumaier at the University of Wuppertal. The goal of the project is the realization of a THz camera.

This is a qualification position in the sense of the Science Time Contract Act (Wissenschaftszeitvertragsgesetz [WissZeitVG]), which serves to support a doctoral program. The position is limited for the duration of the doctoral process, but initially up to a period of 3 years. An extension for the completion of the doctorate is possible within the time limits of the WissZeitVG.

**Reference code: 22072**

Applications including all relevant credentials (motivation letter, CV, proof of successful graduation, job references) should be addressed to Prof. Dr. Thomas Riedl and solely submitted via the online portal of the University of Wuppertal: <https://stellenausschreibungen.uni-wuppertal.de>. Kindly note, that incomplete applications will not be considered.

The University of Wuppertal is an equal opportunity employer. Applications from persons of any gender are highly welcome. In accordance with the Gender Equality Act of North Rhine-Westphalia women will be given preferential consideration unless there are compelling reasons in favour of an applicant who is not female. The same applies to applications from disabled persons, who will be given preference in the case of equal suitability.

**Application deadline: 2022-04-04**