

The Chemnitz University of Technology is an established innovative scientific and educational institution, which takes on the challenges connected with the competition between the universities. The Chemnitz University of Technology offers attractive employment for personalities with proven scientific excellence who want to contribute to the further innovative development.

As of 1.4.2025, subject to budget availability, the Faculty of Natural Sciences, Institute of Physics, is seeking to fill a full-time research position at the chair of Experimental Sensor Science:

Research Associate / Postdoc (m/f/x)

(100 %, salary group E 13 TV-L)

The fixed-term employment for 36 months is extendable, and follows the Act of Temporary Employment in Higher Education (WissZeitVG) and the Saxon Law on Universities (SächsHSG) in the respective current version.

Selection will occur according to suitability, qualification and professional performance. Chemnitz University of Technology aims to particularly support women and therefore explicitly asks for applications from qualified female candidates. Severely disabled persons or those with an equivalent status will be considered preferentially in accordance with SGB IX.

Research field is optoelectronics, in particular physics of semiconductor lasers and laser diodes, and photonic integrated circuits based on the AlGaInN material system. The position will join the group of Prof. Ulrich T. Schwarz, and will be focused on high-resolution (spectral, temporal, spatial) characterization of laser diodes and LEDs. Within national and international cooperative projects, we develop physical models of these optoelectronic devices and support their optimization as well as realization of novel concepts of semiconductor lasers, laser diodes and photonic integrated circuits in the green, blue to far-UV spectral region.

As postdoc you may – within the scientific horizon of the group – define the topic of your research. This is a position for your scientific qualification and for you to gain reputation in the international community. We expect that you will develop your own ideas, work independently on projects, and may co-supervise PhD and master theses candidates, who are contributing to your research. As essential part of forming your scientific reputation, you are expected and supported to publish your scientific results and present at international conferences. The position comes with a teaching load as tutor of four hours per week.

If you want to join our interdisciplinary and highly motivated team in academically exploring a topic of high practical relevance, you should bring along the following **qualifications and traits**:

- Applicants must hold a PhD or equivalent in Physics or a related field, and should have experience with experimental research.
- We expect experience in at least two of the following four topics: nonlinear optics, optics, optoelectronics, and laser diodes.
- We expect a publication list and conference record appropriate for a PhD.
- Applicants must have a very good knowledge (written & spoken) of the English language.
- Knowledge of German language is not mandatory, but we expect that you are willing to learn German. Courses are offered by TU Chemnitz.
- Strong motivation and ability to collaborate in an interdisciplinary and international team.
- Structured and goal-oriented way of working.

Applicants have to fulfil the precondition of employment according to §73 SächsHSG.



TECHNISCHE UNIVERSITÄT
IN DER KULTURHAUPTSTADT EUROPAS
CHEMNITZ

Please send your application using the reference »**AlGaiN**« and including the usual documents (motivation letter, CV, certificates etc.) electronically as a single PDF file (preferred) or by post, before **10.3.2025** to the address below. For security reasons we cannot consider electronic applications or drafts of applications which are provided for download via links to third parties.

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For additional information about the group and postdoc position, please contact the scientist-in-charge/supervisor Prof. Dr. Ulrich T. Schwarz.

For additional information about administrative aspects, please contact christiane.dienel@physik.tu-chemnitz.de.

Background material (host institution and research group):

- <https://www.tu-chemnitz.de/physik/EXSE/>

The relevant information on the collection and processing of personal data can be found at https://www.tu-chemnitz.de/verwaltung/personal/public/Datenschutz/dse_dp.html.