Technische Universität Berlin

Technische Universität Berlin offers an open position:

Research Assistant - 0.75 working time - salary grade E13 TV-L Berliner Hochschulen

under the reserve that funds are granted

Faculty II - Institute of Solid State Physics / AG Reitzenstein
Reference number: II-5/25 (starting at 01/05/25 / limited until 30/04/2028 / closing date for applications 07/02/25)

Working field:

Research work in the DFG project ‘Ultrafast and non-Hermitian dynamics in spin-controlled anisotropic quantum dot micropillar lasers’ (SpinPillar). The aim of this project is to develop a novel class of ultrafast lasers by combining quantum dot microlasers with spin lasers in close cooperation with the partner group at the Ruhr University Bochum. The aim is to enable modulation speeds of up to 250 GHz and to investigate non-hermitic photonic properties. The project tasks at TU Berlin include the design, manufacture and detailed optical investigations of the quantum dot microlasers, using state-of-the-art nanostructuring technologies and spectroscopic methods.

Requirements:

- Successfully completed scientific university studies (diploma, master's degree or equivalent) in physics or related subjects with in-depth knowledge and experience in the fabrication and optical and quantum optical investigation of nanophotonic devices based on quantum dots and microresonators, preferably in the field of III/V semiconductor heterostructures and self-organised quantum dots
- Good knowledge of German and/or English required; willingness to acquire the respective missing language skills

Desirable:

- Knowledge and experience in the epitaxial growth of III/V semiconductor heterostructures
- Knowledge and experience in the nanofabrication of semiconductor devices in a clean room environment
- Knowledge and experience in the spectroscopic study of microlasers
- Strong interest in innovative approaches and research questions in the field of semiconductor spectroscopy and nanotechnology with a focus on low-dimensional semiconductor structures
- Communication and teamwork skills
- Experience in interdisciplinary collaboration in research projects

Please send your application **with the reference number** and the usual documents (single pdf-file, max. 5 MB) **by email to Prof. Dr. Reitzenstein (reitzenstein.office@physik.tu-berlin.de).**

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guarantee for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/ or quick access 214041.

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

Technische Universität Berlin - Die Präsidentin - Fakultät II, Institut für Festkörperphysik, Prof. Dr. Reitzenstein, Sekr. EW 5-3, Hardenbergstr. 36, 10623 Berlin

The vacancy is also available on the internet at
https://www.personalabteilung.tu-berlin.de/menue/jobs/

Zertifikat seit 2008
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