

The [Paul Drude Institute for Solid State Electronics \(PDI\)](#) in Berlin, Germany, is a scientifically independent research institute with about 100 employees from over 15 nations, carrying out basic and applied research at the nexus of materials science, condensed matter physics, and device engineering. The PDI is a member of the [Leibniz Association](#) and part of the [Forschungsverbund Berlin e. V.](#) We invite applicants (f/m/d) for the position as

Postdoctoral researcher: Micro-integrated terahertz quantum-cascade lasers for high-resolution spectroscopy.

The PDI has a long-standing expertise in the design, growth, fabrication, and investigation of [terahertz quantum-cascade lasers \(THz QCLs\)](#) for high-resolution spectroscopy. Within the framework of the priority program [INtegrated TERAhertz sySTems Enabling Novel Functionality \(INTEREST\)](#) funded by the German Research Foundation, micro-integrated THz QCLs will be developed in cooperation with the [Institute of Optical Sensor Systems, German Aerospace Center](#), and the [Ferdinand Braun Institute](#), both in Berlin.

In close collaboration with the scientific and technical staff, the successful candidate will design QCL structures as well as resonator structures, work on the understanding of the physical processes in the active medium, and experimentally investigate the laser parameters. The applicant should have a Ph. D. degree in experimental physics and a background in semiconductor physics. Expertise in at least one of the following scientific fields is required: quantum transport in nanostructures, semiconductor technology, or THz spectroscopy. Good communication skills and the spirit to work in an interdisciplinary team are important.

PDI takes an active role in building a talented, inclusive, and culturally competent workforce. We understand that our shared future is guided by basic principles of fairness and mutual respect. We aim to increase the number of female scientists at the institute, applications from women are particularly welcome. Among equally qualified applicants, preference will be given to candidates with disabilities. Salary and benefits are according to the Treaty for German public service (TVöD Bund). As equal-opportunity and family-friendly employer, we offer highly flexible employment conditions, such as flexible working hours, parental leave, home office, and strive to create a family- and life-conscious working environment.



The position is available as of now and limited to three years. Please submit the application as PDF via e-mail to recruiting@pdi-berlin.de by **April 15, 2023** with reference to project "Micro-QCL" in the subject line, including a dedicated cover letter, curriculum vitae, publication list, list of up to three references, certificates of degree(s), and transcript(s).

Please send all inquiries related to the scientific project at PDI to Dr. Lutz Schrottke (he/him/his), lutz@pdi-berlin.de, and any other questions to the equal-opportunity officer Katrin Morgenroth (she/her/hers), gleichstellung@pdi-berlin.de.

