

The Paul Drude Institute for Solid State Electronics (PDI) in Berlin, Germany, is a scientifically independent research institute with about 100 employees from more than 15 nations, performing basic and applied research at the interface of materials science, condensed matter physics, and device engineering. PDI is an international leader in the growth of novel optoelectronic materials by molecular beam epitaxy and their characterization, conducting research on fundamental physical aspects and applications of functional hetero- and nanostructures, superlattices, and artificial materials by design. Emphasis is placed on exploring their electronic and optical functionalities and exploiting these properties for quantum technology applications. The PDI is a member of the [Leibniz Association](#) and part of the [Forschungsverbund Berlin e. V.](#) We invite applications for a

PostDoc position (f/m/d) – Time-resolved Cathodoluminescence Spectroscopy

The PDI has recently secured funding to establish an application laboratory for time-resolved cathodoluminescence spectroscopy, which combines high spatial, spectral, and temporal resolution to investigate the dynamics of charge carriers in semiconductors. This unique experimental facility will further complement the capabilities of our already strong semiconductor spectroscopy department. The goal is not only to enhance our ability to characterize the epitaxial structures grown at PDI, including semiconductor nanostructures and potential quantum emitters, but also to expand our regional and transregional network through collaborations with other research institutes and companies. The range of materials will include, but not be limited to, ultra-wide bandgap semiconductors such as AlN, hBN, Ga₂O₃ and their related alloys, which hold great promise for applications in power electronics as well as for emitters and detectors in the deep ultraviolet (UV) spectral range. You will have the opportunity to identify and develop your own research topic as well as contribute to the projects of internal and external partners. Your research will benefit from our wide range of experimental facilities and the diverse expertise of our collaborating scientists.

We welcome applications from researchers with a Ph.D. in experimental solid state physics, or a related field. Experience with materials characterization, in particular electron microscopy and (cathodo)luminescence spectroscopy of semiconductors, is desirable. We are looking for a motivated team player with a high level of communication skills to work in an interdisciplinary team of scientists, engineers, and students.

The position is available immediately for a period of 2 years with an optional extension. Salary and benefits will be in accordance with the Treaty for German public service (TVöD Bund, E13). PDI takes an active role in building a talented, inclusive, and culturally competent workforce. We aim to increase the number of female scientists and staff at the institute, and applications from women are particularly encouraged. Among equally qualified applicants, preference will be given to candidates with disabilities. As an 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.

Please submit your application as a PDF via email to jobs@pdi-berlin.de with "TRCL" in the subject line by **April 17, 2023**, including a dedicated cover letter, curriculum vitae, publication list, letter(s) of recommendation, degree(s), and transcript(s). For questions about the project, contact Dr. Jonas Lähnemann (he/him/his) laehnemann@pdi-berlin.de and regarding diversity, equity and inclusion contact Katrin Morgenroth (equal opportunity officer, she/her/hers) gleichstellung@pdi-berlin.de

