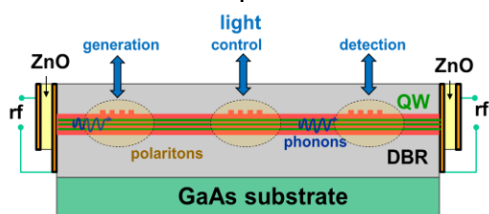


The Paul Drude Institute (PDI) performs basic research as a lively symbiosis of materials science and solid state physics. Our activities aim at inspiring and demonstrating new functionalities for future information technologies. As a member of the Leibniz-Gemeinschaft and Forschungsverbund Berlin e. V., we are an independent research institute with about 100 employees and collaborate with all three universities in Berlin. We are located in the very heart of the city near Gendarmenmarkt. You may find more details at www.pdi-berlin.de.

Postdoc Position (m/f/d) for GHz Polariton Optomechanics

We offer a postdoctoral researcher position in the framework of a joint research project with the Ioffe Institut, St. Petersburg, Russia, funded by the Deutsche Forschungsgemeinschaft (DFG). The project aims at optomechanics in the super-high frequency range (3–20 GHz) based on the coherent interaction between stimulated phonons and microcavity polariton condensates. The strong interaction between these particles, to be achieved by simultaneously confining the polariton condensates and the GHz acoustic phonons in a waveguide configuration, will enable the optical control of phonons as well as the acoustic modulation of polaritons. The work will include the design of microcavity polariton structures, the fabrication of piezoelectric transducers for phonon excitation and detection, as well as their experimental investigation by combining advanced semiconductor



optical and acoustic spectroscopy at cryogenic temperatures. The PDI has excellent expertise in molecular beam epitaxial growth of high-quality polariton microcavities, semiconductor processing, as well as in optical and phonon spectroscopy.

We invite applications from experimental physicists with a completed Ph. D. degree, a solid knowledge of semiconductor physics as well as proven expertise in advanced optical spectroscopy and/or optomechanics in nanostructures. We are looking for a team player with a high level of communication skills who fits into our team of highly motivated researchers and technical staff.

The position is available for at least 27 months. Payment is according to TVöD Bund (Treaty for German public service). The Paul Drude Institute aims at increasing the quota of female employees. The application of women is therefore encouraged. Among equally qualified applicants, preference will be given to disabled candidates.

Applications including a motivation letter and two references should be sent by **April 3rd, 2020**, to:

Mr. Andreas Hartung, Paul-Drude-Institut für Festkörperelektronik,
Leibniz-Institut im Forschungsverbund Berlin e. V.,
Hausvogteiplatz 5–7, 10117 Berlin, Email: jobs@pdi-berlin.de



For scientific or technical questions related to the project, please contact:
Dr. Paulo Santos, Email: santos@pdi-berlin.de