

Ph.D. Positions in Functional Material Spectroscopy at the University of Heidelberg

Applications are invited for PhD Positions (3x) at the Chair for Physical Chemistry at Heidelberg University, starting from April 2022. These 3.5-year research projects will focus on fundamental concepts and optical spectroscopy of energy/excitation dynamics in cutting-edge semiconductors and nanostructures (e.g. hybrid perovskites, organic semiconductors, battery materials, etc.).

As a PhD student in the group you will have the chance to gain experience in ultrafast high-resolution spectroscopy techniques for advanced material characterization, as well as sustainable material fabrication. Examples of potential topics are charging dynamics of battery materials, coherences in spatial excitation transport, and optical control of magnetism.

The Deschler group has been making key contributions to the understanding of energy materials, formerly located at the University of Cambridge (until 2019) and the Technical University of Munich (until 2022). Our research was prestigiously supported by an ERC Starting Grant and the Emmy-Noether Program of the DFG .

Our research focuses on the question how structure and composition of materials control the properties and dynamics of electronic states on ultrafast timescales, and how this paves the way for novel material function. For gaining fundamental insights into the underlying physico-chemical mechanisms, we use and develop time-resolved spectroscopic techniques from the X-ray to the THz regime. For more info please check our Website/Twitter.

Candidates should hold a M.Sc. in physical chemistry, physics, material sciences or related disciplines. For our vibrant and interdisciplinary team, we are looking for creative, enthusiastic students with solid scientific track record and strong experimental background. Experience in energy materials, semiconductors or optical spectroscopy will be an advantage. We support equal opportunity and candidates from currently under-represented groups are strongly encouraged to apply.

The positions are available immediately and ideally filled by 1st of October 2022.

Interested? For your application, please send a curriculum vitae, M.Sc. transcript and a short statement explaining your motivation for pursuing a Ph.D. to felix.deschler@tum.de.