Faculty of Physics

At the **Institute of Applied Physics**, the **Chair of Emerging Electronic Technologies** (Prof. Dr. Yana Vaynzof) is offering a position as

**Research Associate**

(Subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

The position will start on **August 1, 2020** and is limited for three years. It entails 50% of the fulltime weekly hours for the first year and 62.5% for the second and the third year. The period of employment is governed by Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG).

The research activities of the Chair of Emerging Electronic Technologies are focused on the development, analysis and optimisation of novel solar cell technologies. Recent developments in the field of perovskite solar cells have led to their power conversion efficiencies surpassing 25%. We focus on investigating the physical processes governing the performance of perovskite materials, including interfacial processes, role of defects and microstructure. We also investigate the degradation mechanisms of perovskite materials and devices and develop mitigation strategies for enhancing the device stability. Research work on perovskite materials and devices at TU Dresden takes place in the Dresden Integrated Center for Applied Physics and Photonic Materials (DC-IAPP), which is one of the world's leading research institutions in the field of optoelectronic devices based on emerging semiconductors.

**Tasks:** Research on perovskite photovoltaic devices, including their processing and fabrication, advanced spectroscopic and microscopic characterisation, optimisation and analysis. The work will focus specifically on identifying the role of defects in multi-cation perovskite solar cells and will include collaboration with national and international research partners within the framework of the special priority program on perovskite materials (SPP 2196).

**Requirements:** university degree (master or comparable) in physics; interest in basic and application-related research; high self-motivation; experimental skills; excellent command of English language; excellent computer skills; ready-to-use and up-to-date knowledge of organic electronics. For more information please visit the web page of the institute [https://tu-dresden.de/mn/physik/iap](https://tu-dresden.de/mn/physik/iap) or contact Prof. Yana Vaynzof (e-mail: yana.vaynzof@tu-dresden.de). Applications from women are particularly welcome. The same applies to people with disabilities. Please send your complete application documents (cover letter, curriculum vitae, copies of relevant certifications, list of publications, reference list, etc.) by **15.05.2020** (stamped arrival date of the university central mail service applies) to **TU Dresden, Fakultät Physik, Institut für Angewandte Physik, Professur für Neuartige Elektronik-Technologien, Frau Prof. Yana Vaynzof, Helmholtzstr. 10, 01069 Dresden**. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

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**Reference to data protection:** Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: [https://tu-dresden.de/karriere/datenschutzhinweis](https://tu-dresden.de/karriere/datenschutzhinweis)