



UNIVERSITÄT LEIPZIG

Reference number 254/2019

POSTDOC (M/F/D)

Fixed-term contract until 30 June 2022

Full-time (40 hours/week)

Planned remuneration: salary group (*Entgeltgruppe*) E13 TV-L

The **Structure and Properties of Complex Materials Unit at the Felix Bloch Institute for Solid State Physics of the Faculty of Physics and Earth Sciences** seeks to fill the above position at the earliest possible opportunity.

Headed by Professor Claudia Schnohr, the Unit investigates the correlation between the structure and properties of complex semiconductors. To that end, the Unit applies advanced characterisation techniques, in particular synchrotron-based methods such as X-ray absorption spectroscopy (XAS). In a BMBF-funded project, a new experimental setup for the detection of X-ray-induced optical luminescence (XEOL) is to be implemented at the storage ring PETRA III in collaboration with the University of Luxembourg and the Deutsches Elektronen-Synchrotron (DESY) in Hamburg. Structural and electronic defects in high-efficiency thin-film solar cells will then be investigated and identified using this new setup. The place of work will initially be DESY in Hamburg and later on either DESY in Hamburg or Leipzig University.

Activities

- Installation of a XEOL setup at the XAS Beamline P65 of PETRA III (DESY) and participation in its integration into the existing IT infrastructure; demonstration of the operational readiness and the capabilities of the new setup
- Investigation of deep defects in Cu(In,Ga)Se₂ and Cu(In,Ga)S₂ thin-film solar cells using XEOL and XAS; presentation and publication of results
- Project administration (preparation of progress reports and the final report, etc.)

Requirements

- PhD in physics (or equivalent) with excellent grades
- Experience with optical spectroscopy (in particular photoluminescence spectroscopy) and/or synchrotron-based analytical techniques (in particular X-ray absorption spectroscopy)
- Detailed knowledge of solid state physics and semiconductor physics
- Knowledge in the fields of measuring technology and electronics as well as vacuum technology, refrigeration technology and high voltage technology desirable
- Programming experience, in particular with Python and C/C++, desirable
- Highly motivated, independent and responsible as well as communicative and team-minded in an international scientific working environment
- Excellent English (written and spoken)

Please send your **application**, with the usual documents and quoting reference number 254/2019, to

dekan@physik.uni-leipzig.de

or

Leipzig University
Faculty of Physics and Earth Sciences
Dean Professor Jürgen Haase
Linnéstraße 5
04103 Leipzig
Germany

by no later than 7 November 2019.

Please note that applying by email is not entirely secure and may pose a privacy risk. The sender assumes full responsibility.

Severely disabled persons are encouraged to apply and will be given preference in the case of equal suitability.

Privacy information

The personal data contained within your application documents or obtained during the interview will be processed exclusively for the purposes of the selection process for the position advertised. The legal basis for such data processing is Section 11(1) of the Saxon Data Protection Implementation Act (Sächs DSDG) in conjunction with the EU General Data Protection Regulation (GDPR). The controller for the application process within the meaning of the GDPR is the addressee of the application, as specified in the respective advertisement. When processing your application, your personal data will be passed on within Leipzig University to

- *members of the selection committee*
- *the human resources management teams*
- *the Commissioner for Equal Opportunities*
- *the Disability Officers and*
- *if necessary, the Staff Council*

as part of their organisational or statutory responsibilities.

Your personal data will be erased no later than six months after completion of the selection process. In accordance with the GDPR, subject to the relevant statutory requirements you have the following rights vis-à-vis the addressee of the application with regard to your personal data: right of access (Art. 15 GDPR); right to rectification of inaccurate personal data (Art. 16 GDPR); right to erasure (Art. 17 GDPR); right to restriction of processing (Art. 18 GDPR); and right to object to processing (Art. 21 GDPR). If you have any questions, please contact the Data Protection Officer at Leipzig University (office: Augustusplatz 10, 04109 Leipzig). You also have the right to lodge a complaint with the Saxon Commissioner for Data Protection.