Fraunhofer-Institut für Photonische Mikrosysteme IPMS

The Fraunhofer-Gesellschaft (www.fraunhofer.com) currently operates 76 institutes and research institutions throughout Germany and is the world’s leading applied research organization. Around 30,000 employees work with an annual research budget of 2.9 billion euros.

Working student in the field of Advanced Surface Characterization (ASC)

City: Dresden; Starting Date: At the earliest possible; Remuneration: Remuneration according to the general works agreement for employing assistant staff.; Reference number: 47284

Working field
At Fraunhofer-Institute for Photonic Microsystems IPMS, we work at the highest international level on nanoelectronic, mechanical and optical components and their integration into tiny, "intelligent" devices and systems.
As the Advanced Surface Characterization (ASC) research group at IPMS CNT, we focus on the analytical characterization of semiconductor thin films part of 300 mm silicon wafer/device technologies. With our state-of-the-art X-ray Photoelectron Spectroscopy (XPS) PHI Quantes instrument, we can further support the semiconductor materials’ development.

From 01.11.2022, we are looking for a working student with the possibility to write the master or diploma thesis with us.

**What you will do:**
- Development of a set-up for in-situ biasing XPS method for the surface and bulk characterization of device stacks under applied potential
- Analysis using in-situ temperature based XPS
- Working with thin films in the range of 10 - 100 nm thick and multilayer layer stacks for use in devices
- Cooperation with material and device development groups

Requirements
- Currently: final phase of a scientific (chemistry, materials/physical chemistry, physics) or an engineering degree.
- Expertise in the field of XPS, X-ray topics, and high vacuum systems and ideally knowledge in CASAXPS and MultiPak analysis softwares
- Ability to handle and evaluate data in Excel or Origin and interest in the analysis of semiconductor materials and systems
- Motivated personality, reliable & structured working style and teamspirit
- Good verbal and written communication skills in English, good German language skills
What We Offer
We offer you an exciting task and valuable insights into the methods and procedures of a modern high-tech research institute. You can expect a motivated and dynamic team in a very well equipped research and development environment. In addition, we offer you connecting points in the context of your studies or your career entry, for example a topic for your thesis or the start of your career at Fraunhofer IPMS. We support you in this process!

We value and promote the diversity of our employees' skills and therefore welcome all applications - regardless of age, gender, nationality, ethnic and social origin, religion, ideology, disability, sexual orientation and identity. Severely disabled persons are given preference in the event of equal suitability.

The monthly working time is 30 hours. The position is initially for 6 months. A long-term collaboration is possible. Remuneration according to the general works agreement for employing assistant staff.

With its focus on developing key technologies that are vital for the future and enabling the commercial utilization of this work by business and industry, Fraunhofer plays a central role in the innovation process. As a pioneer and catalyst for groundbreaking developments and scientific excellence, Fraunhofer helps shape society now and in the future.

**Have we aroused your interest? Then apply online now with your meaningful application documents. We look forward to getting to know you!**

Application

47284
Mrs. Dr. Jennifer Emara

More information at https://stellenticket.de/146695/DDC/
Offer visible until 31/08/22