# POSTDOC POSITION: THREE-DIMENSIONAL SCANNING TRANSMISSION ELECTRON MICROSCOPY

We are looking for a scientist with a PhD in physics for a project on three-dimensional aberration-corrected scanning transmission electron microscopy funded by the Deutsche Forschungsgemeinschaft (DFG).

The INM – Leibniz Institute for New Materials in Saarbrücken, Germany, is an internationally leading center for materials research. We focus on surface and interface phenomena and their exploitation in the development of innovative materials and structures. INM is a scientific partner to national and international research institutions and a provider of research and development for companies throughout the world. INM has about 250 employees and is an institute of the Leibniz Association.

The Program Division Innovative Electron Microscopy at INM conducts interdisciplinary research at the interface of physics of electron microscopy, biophysics, materials science, cell biology, and image processing. We are exploring new routes for three-dimensional (3D) data acquisition using intelligent image acquisition and reconstruction strategies for scanning transmission electron microscopy (STEM). Our concept promises several key advantages compared to conventional 3D electron microscopy techniques for imaging samples from both materials science and biology. The work includes in-depth training on aberration corrected 3D STEM (ARM200, JEOL), conducting extensive series of experiments testing various imaging parameters and samples in order to analyze the parameter space of TFS-STEM, and exploring its possible application areas. The project is conducted together with the group of Dr. Tim Dahmen at the German Center for Artificial Intelligence (DFKI, Saarbrücken). Important is to publish papers in top-tier journals.

The successful candidate has a PhD degree in physics. The demonstrated ability to write high-quality scientific papers as first author is a must. A specific requirement for this position is in-depth knowledge of and practical experience with transmission electron microscopy. Hands-on experience with 3D electron microscopy, and aberration corrected STEM are a plus. The candidate is a team player with an open mind for unconventional ideas. The ideal candidate shows a strong motivation for science and excellent writing and oral communication skills in English, and proficient communication skills in German.

INM is an equal-opportunity employer with a certified family-friendly policy. We promote the professional opportunities of women and strongly encourage them to apply. Full time jobs can be generally divided.

Please send your application via email to the attention of Prof. Niels de Jonge including a detailed CV and at least two references along with a motivation letter no later than Sept. 28, 2018. The attachment should be a single pdf-file <5 MB:
Reference: “Postdoc position: 3D STEM”

E-mail: Diana.Loeb@leibniz-inm.de

Group website: http://www.leibniz-inm.de/en/research/innovative-electron-microscopy/