New Thinking. New Materials.

OPEN PHD STUDENT POSITION: *IN SITU* ELECTRON MICROSCOPY OF NANOMATERIALS IN LIQUID

We are looking for a PhD candidate (m/f/d) in physics for the project "Probing nanoscale interactions at the solid-liquid interface via liquid- phase electron microscopy" funded by the Deutsche Forschungsgemeinschaft.

The Innovative Electron Microscopy group at INM is world-leading in liquid-phase scanning transmission electron microscopy (STEM). Recent advances in *in situ* liquid phase electron microscopy made it possible to directly image nanoparticle movement at the nanoscale. Using this new “viewing window”, unexpected phenomena have been discovered involving the possible existence of a long-range ordered liquid layer. We are looking for a PhD student who will study fundamental aspects of the dynamic nanoparticle behavior at the solid-liquid interface using STEM. The interactions between nanometer-sized objects in liquid environments are key to the functioning of a variety of applications based on colloidal systems, self-assembly processes, diffusive motion at interfaces, for example, in energy-storage materials, and are also of key relevance for understanding processes in biology involved in the molecular machinery of life.

The project includes basic research on nanoparticle interactions in a liquid layer, analyzing data, writing scientific publications, contributing to the development of high-speed liquid-phase STEM including advanced image acquisition and data analysis. You will actively participate in the research activities of the group in close collaboration with other team members. In addition, you will contribute to the supervision of our electron microscopy facility including an aberration corrected TEM/STEM (ARM200, JEOL).

The successful candidate has a Master’s degree in experimental physics. In-depth knowledge of and practical experience with transmission electron microscopy is preferred but excellence in another field of experimental physics is also accepted. 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.

Contact

Please send your motivation letter via email to the attention of Prof. Niels de Jonge including a detailed CV and a reference letter not later than March 27, 2020. The attachment should be a single pdf-file <5 MB:
E-mail: **diana.loeb@leibniz-inm.de**
Reference: “PhD position: in situ electron microscopy of nanomaterials in liquid”

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

INM

Leibniz Gemeinschaft

Zertifikat seit 2012 audit berufundfamilie

CONTACT

INM – Leibniz-Institut fuer Neue Materialien gGmbH
Campus D2 2
66123 Saarbruecken Germany
www.leibniz-inm.de

Prof. Dr. Niels de Jonge
Head of Innovative Electron Microscopy

Email: diana.loeb@leibniz-inm.de