Karlsruher Institut für Technologie

Laboratorium für Applikationen der Synchrotronstrahlung (LAS), und

Institut für Photonenforschung und Synchrotronstrahlung (IPS)
Leiter: Prof. Dr. Tilo Baumbach
Prof. Dr. Clemens Heske

Master thesis

Growth and characterization of Fe_3O_4 nanoparticles on Si surface

The group NANODYNAMICS at the Institute for Photon Science and Synchrotron Radiation (IPS), KIT offers excellent mentoring and insight into the fascinating field of surface science and nanotechnology.

This master thesis deals with the development of a novel method for preparation of Fe_3O_4 monodispersed nanoparticles with controlled sizes and shapes. The samples will be prepared at the ultrahigh vacuum (UHV) growth chamber of the UHV-Analysis lab at the synchrotron radiation facility ANKA (Angströmquelle Karlsruhe) of the Karlsruhe Institute of Technology.

The aim is to establish a new method for achieving isolated Fe_3O_4 nanoparticles with precisely controlled shapes and sizes.

Institute / Department:
Laboratory for Applications of Synchrotron Radiation (LAS) and Institute for Photon Science and Synchrotron Radiation (IPS) of the Karlsruhe Institute of Technology

Beginning: as soon as possible.

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