PhD position: "Scanning Tunneling Microscopy of reducible metal-oxide surfaces"

Qualified physics or nanotechnology students with an interest in atomic-scale characterization of surfaces and a recent MSc degree are invited to send their application for an open PhD position in surface physics and nanotechnology at the Interdisciplinary Nanoscience Center (iNANO), Aarhus University, Denmark. The successful candidate will be based at the Scanning Probe Microscopy (SPM) group at Aarhus University where you will work with surface science characterization of VO_x/TiO_2 model catalysts for NO_x abatement using Scanning Probe Microscopy (STM, noncontact-AFM), and Temperature-Programmed Desorption (TPD) studies and other surface science equipment. Additionally, photoemission studies at synchrotrons will be conducted.

Some recent publications from the group on oxide model catalysts:

U. Martinez, et al., Phys. Rev. Lett. 109 (2012).
L. R. Merte, et al., Science 336, 889 (2012).
E. Lira, et al., J. Am. Chem. Soc. 133, 6529 (2011).
M. K. Rasmussen, et al., Phys. Rev. Lett. 107, 036102 (2011).
J. V. Lauritsen, et al., ACS Nano 5, 5987 (2011).

More about the project here: More information on the project here: http://inano.au.dk/cat-c

Applicants should have a recent masters degree (3-year PhD programme) or 4-years of studies (4-year PhD programme) in physics or nanotechnology with an excellent and documented exam record. Candidates with strong knowledge in solid state/condensed matter physics, UHV-based scanning probe microscopy, surface science or equivalent will be favored. The candidate should be available to start from **August 2014 or soon after**.

Contact Associate Prof. Jeppe Vang Lauritsen (jvang@inano.au.dk) or Senior Researcher Stefan Wendt (swendt@inano.au.dk) for further information.

iNANO, Interdisciplinary Nanoscience Center (www.inano.au.dk), was established in 2002 and at present is a major research and education center based at the University of Aarhus hosting 60 senior scientists, ~100 postdocs and ~120 Ph.D students. The center combines expertise and faculty from physics, chemistry, molecular biology and medicine to carry out world class interdisciplinary research in nanoscience and nanotechnology. The center gives access to a broad range of infrastructure, tools and expertise including clean-room facilities. With a 5 year undergraduate nanotechnology program and nanoscience graduate school (www.inanoschool.dk) the center provides a full educational environment. In addition to the large base of basic research, the center has a large number of ongoing industrial projects and partnerships.