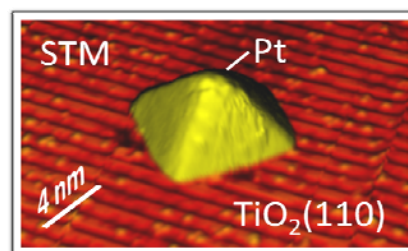


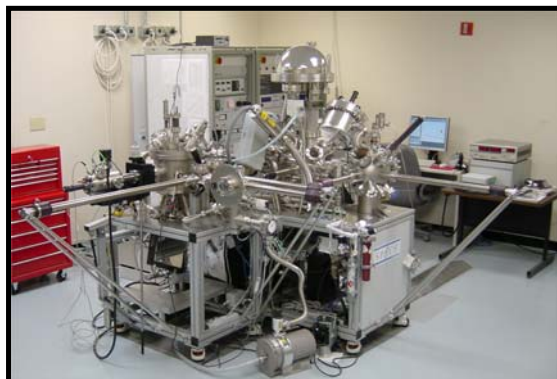
**Postdoctoral Position: Solid State / Surface
Physics: Structural, Electronic, Magnetic and
Vibrational Properties of Nanostructures**

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There is an open postdoctoral position in the research fields of solid state and surface physics in the Institute of Experimental Physics IV at the Ruhr Universität Bochum. The successful applicant will investigate the novel size- and shape-dependent physical properties of metal nanostructures. Emphasis will be given to: (i) studying the magnetic properties of nearly 1D and 0D systems, (ii) monitoring size-dependent changes in the electronic properties of nanoscale systems, and (iii) getting insight into the vibrational dynamics of low dimensional systems.



State-of-the-art experimental techniques are available in Dr. Roldán's laboratory for these projects: Atomic and Magnetic Force Microscopy (AFM, MFM), Scanning Tunneling Microscopy (STM), Scanning Electron Microscopy (SEM), X-ray Photoelectron Spectroscopy (XPS), Auger Electron Spectroscopy (AES), Ultraviolet Photoelectron Spectroscopy (UPS), Low Energy Electron Diffraction (LEED), X-ray Diffractometry (XRD), *in-situ* and *ex situ* Magneto-Optic Kerr Effect (MOKE), Vibrating Sample Magnetometer (VSM), Superconducting Quantum Interference Device (SQUID), and Molecular Beam Epitaxy (MBE). Furthermore, the selected candidate will also have access to synchrotron based measurement techniques at European and international facilities, including nuclear resonant inelastic X-ray scattering (NRIXS), X-ray absorption fine structure spectroscopy (XAFS), grazing incidence small angle X-ray scattering (GISAXS), as well as ambient pressure XPS.



Required qualifications include a PhD in Physics, Physical Chemistry, or Materials Science. Previous experience using any of the UHV surface analysis and magnetic characterization equipment mentioned above would be of benefit.

Interested applicants should send their curriculum vitae and the names and contact information for three references by email as PDFs to: **beatriz.roldan@rub.de**.