PAUL SCHERRER INSTITUT

The Paul Scherrer Institute (PSI, www.psi.ch) is a centre for multi-disciplinary research and one of the world's leading user laboratories. With its 1300 employees it belongs as an autonomous institution to the Swiss ETH domain and concentrates its activities on solid-state research and material sciences, elementary particle and astrophysics, energy and environmental research as well as on biology and medicine.

At the Department for Synchrotron Radiation and Nanotechnology, we investigate the unique magnetic and electronic properties of surface-supported supramolecular arrays.For a new project on the self-assembly and magnetic order in such 2D metal-organic layers we are looking for a

PhD candidate in Surface / Interface Science

Your tasks

You willstudy the structural and magnetic properties of supramolecular assemblies containing different metal-porphyrins and metal-phthalocyanines in the surface science laboratory at PSI (https://www.psi.ch/lmn/surface-science-lab) and at the X-treme beamline of the Swiss Light Source (https://www.psi.ch/sls/xtreme/xtreme). Your main tasks are the following:

- Sample preparation and analysis in ultra-high vacuum (UHV) using scanning tunneling microscopy (STM), low energy electron diffraction (LEED) and x-ray and ultraviolet photoelectron spectroscopies.

- Planning, carrying out and participating in X-ray experiments to study the magnetic properties of samples

- Collaborate on an international level with theoreticians and synthetic chemists

You will be registered as a PhD student at the University of Basel where you shall also teach. The workplace will be the Paul Scherrer Institute in Villigen.

Your profile

You are highly motivatedand enjoy working in a small, interdisciplinary team. You hold a master's degree in nanoscience, materials science, physics, physical chemistry or a related field. An interdisciplinary background is of advantage. Ideally you already have experience with surface science techniques and/or X-ray spectroscopies. English communication skills are mandatory.

Further Information / Contact

http://www.physik.unibas.ch/dept/pages/en/personnel/jung.htm
SNI PhD Program http://phd.nanoscience.ch

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