



The Paul Scherrer Institut 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.

In the Laboratory for Micro- and Nanotechnology (LMN), Molecular Nanoscience Group (<http://www.psi.ch/lmn>), we investigate the mechanisms of magnetic coupling at the interfaces between metallic substrates and organic molecular layers [1]. New aspects of this coupling as well as interesting electronic and chemical interactions upon adsorption have recently been studied by our group [2,3]. To further explore the interface magnetism and to continue the work on assembled molecular monolayers we look for a:

PhD Candidate in Surface Science

Your tasks

Your work will be mainly performed at the Nanjunction Laboratory at LMN in Paul Scherrer Institut (PSI). You will prepare and analyze the samples in ultra high vacuum conditions using photoelectron spectroscopy (XPS and UPS), low-energy electron diffraction (LEED) and scanning tunneling microscopy (STM). Additionally, you will perform magnetic measurements (x-ray magnetic circular dichroism, XMCD) at the Swiss Light Source – the synchrotron facility of PSI.

Your profile

We seek for a highly motivated student who enjoys working in a small team of scientists with different backgrounds. A diploma or master's degree in physics, material's science, chemistry or related field is expected. Experience in one of the above mentioned methods is highly desirable but could be compensated by an extra effort and a high level of motivation of the candidate.

You will be registered as a PhD student at the University of Basel and the workplace will be the Paul Scherrer Institute in Villigen with some specific experiments to be performed in Basel. The scientific advisor will be Prof. Thomas Jung.

Contact

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Please submit your application to:

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References

- [1] A. Scheybal et. al. *Chem. Phys. Lett.* **411**, 214-220 (2005).
- [2] D. Chylarecka et. al. *J. Phys. Chem. Lett.* **1**, 1408-1413 (2010).
- [3] C. Wäckerlin et. al. *Nat. Commun.* 1:61, doi: 10.1038/ncomms1057 (2010).