



PhD position

In the field of low-dimensional spintronic materials

We are a highly multidisciplinary team of materials scientists, physicists and chemists, and offer a challenging position in a materials research institution in the Zurich area with outstanding infrastructure and broad interdisciplinary surroundings. We are looking for highly motivated candidates with a strong experimental background in Solid State Physics, Surface Science or Physical Chemistry to take up a challenging PhD position. In this PhD project, the **on-surface synthesis of molecular spin chains and lattices** based on 1D and 2D covalently linked organic and metal-organic ribbons and networks under ultrahigh vacuum (UHV) conditions will be explored, using surface scientific characterization tools such as **scanning tunneling microscopy/spectroscopy** (STM/STS), **non-contact atomic force microscopy** (nc-AFM) and angle-resolved photoelectron spectroscopy (ARPES).

The successful candidate will be integrated in the PhD Program of the University of Bern and the European Marie Skłodowska-Curie Innovative Training Network "ULTIMATE" ("Bottom-up generation of atomically precise synthetic 2D materials for high performance in energy and electronic applications - A multi-site innovative training action"; <http://ultimate-itn.eu/>).

Candidates can be of any nationality, but they must not have resided or carried out their main activity (work, studies, etc.) in Switzerland for more than 12 months in the 3 years immediately before the recruitment date. They must also be in the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree.

Required qualifications include a Master's Degree in Physics or Physical Chemistry. A solid background in Surface Science and previous experience using STM or other UHV surface analysis equipment would be significant benefits. Very good communication skills in English are required, German language skills are beneficial. The position is available upon agreement with a planned duration of 3 years.

Further information can be obtained from our website (www.empa.ch/web/s205) or by contacting Prof. Roman Fasel (roman.fasel@empa.ch).

Please submit your application online:
<https://apply.refline.ch/673276/1183/pub/1/index.html>