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