



PhD position: *Operando studies at solid-liquid interfaces using ambient-pressure photoelectron spectroscopy*

The near-ambient pressure photoemission consortium (*NAPP*) at Paul-Scherrer-Institute (PSI) is currently expanding its capabilities by adding a new endstation dedicated to study solid-liquid interfaces using ambient pressure X-ray photoelectron spectroscopy (XPS). To support this effort, we have an opening for a PhD position, funded by the Swiss National Science Foundation, that is associated with the Department of Physics at the University of Zürich and the Swiss Light Source at the Paul-Scherrer-Institute in Switzerland.

The PhD project will focus primarily on materials relevant for photocatalytic water splitting using molecular catalysts supported on oxide semiconductor surfaces, in close collaboration with the University Research Priority Program *LightChEC* ('*Light to Chemical Energy Conversion*'). It will include the use of a dedicated endstation for ambient pressure X-ray photoelectron spectroscopy during its commissioning period and continued operation. Solid-liquid interfaces will be prepared by dipping samples into the liquid and pulling them out slowly in front of the differentially pumped electron optics, thus forming a few nanometer thick liquid layer on top of the surface, thin enough for XPS analysis of the solid-liquid interface.

This position will be embedded in the Surface Physics Group of the Department of Physics (<http://www.physik.uzh.ch/groups/osterwalder/>) and requires a Master degree in physics or physical chemistry. Good experimental skills and proficiency in English language are essential. Preference will be given to candidates with experience in ultra-high vacuum (UHV) technology, surface science (in particular photoelectron spectroscopy) and/or electrochemistry. The candidate should feel comfortable in an interdisciplinary environment where surface physics and chemistry meet. The position can be filled immediately.

The application should include:

- CV
- A brief letter of motivation including two reference persons
- Copy of your Bachelor/Master thesis

Applications should be sent via e-mail to:
Dr. Zbynek Novotny (zbynek.novotny@psi.ch)