

For laboratory work at the interface of physics, chemistry and climate research we are looking for

2 PhD students to study photochemical processes in aqueous aerosol particles.

Your tasks

Aging of aqueous organic aerosol particles plays a substantial role in health and climate impacts of aerosol particles. You will investigate the feedbacks between photochemical aging and microphysical aerosol properties in a collaborative project between PSI and ETH Zürich, in which electrodynamic balance (EDB), Scanning Transmission X-ray Microspectroscopy (STXM) and classical flow tube techniques will be employed. In total two PhD students will be engaged in these activities. The specific aim is to assess the interplay between photosensitized oxidation processes and the diffusivity of reactants in aqueous organic solutions in the transition from liquid to highly viscous solid. The focus of the activities at PSI will be the chemical experiments in flow tubes and with STXM, while at ETH the focus will be on the thermodynamic and optical properties as well as assessing the diffusivity. As PhD candidates you will be enrolled at ETH Zürich.

Your profile

You should have a Master or equivalent in experimental physics or physical chemistry. You should be motivated to work in an interdisciplinary team. Ideally, you have been in contact with aerosol science, atmospheric chemistry or aqueous phase chemistry.

We offer

Our institutions are based on an interdisciplinary, innovative and dynamic collaboration. You will profit from a systematic training on the job, in addition to personal development possibilities and our pronounced vocational training culture. If you wish to optimally combine work and family life or other personal interests, we are able to support you with our modern employment conditions and the on-site infrastructure.

For further information please contact either Prof. Markus Ammann at PSI, phone +41 56 310 4049, www.psi.ch/lch/surface-chemistry, or markus.ammann@psi.ch, or Dr. Ulrich Krieger at ETH, phone +41 44 633 40 07, www.iac.ethz.ch/people/ulkriege, ulrich.krieger@env.ethz.ch.

For the position at PSI (index no. 2411-01), please submit your application online at <https://apply.refline.ch/673278/1157/index.html?lang=en>. For the position at ETH, please send the application by email to Dr. U. Krieger, ulrich.krieger@env.ethz.ch. Please including addresses of referees in your application.