Postdoctoral Position for Development and Application of Quick-Scanning X-ray Absorption Spectroscopy Methods in Catalysis at SSRL

The Stanford Synchrotron Radiation Lightsource (SSRL), a Directorate of SLAC National Accelerator Laboratory, and a national user facility, seeks a Postdoctoral Scholar with research interest and experience in synchrotron X-ray characterization of materials, with an emphasis on catalysts. SSRL is in process of upgrading a wiggler beamline to allow quick X-ray absorption spectroscopy (QXAS) to become a routine operational mode. This will allow kinetic processes in catalysis so be studied.

This postdoctoral position will involve developing and applying time-resolved in-situ/in-operando X-ray absorption spectroscopy to the study of a catalytic process of mutual interest. The focus of the project will be in developing the methodology to probe spectro-kinetics of catalytic processes and include advanced methods in data processing, data analysis and data modeling. The candidate will join a group at SSRL, under the guidance of Simon R. Bare, whose mission is to develop a world-class synchrotron catalyst characterization facility via the Consortium for Operando and Advanced Catalyst Characterization via Electronic Spectroscopy and Structure (Co-ACCESS, https://sites.slac.stanford.edu/co-access/).

In addition to developing Q-XAS methods, the candidate will be expected to collaborate with user groups, aiding in beamline setup and data collection, and assist with and teach data analysis to user groups, e.g., graduate students. The candidate will work closely with visiting scientists, postdoctoral fellows, and students from leading research groups, on all aspects of the synchrotron-mediated research; provide guidance to, and foster the development of, graduate and undergraduate students; publish experimental results in scientific journals and present results at scientific meetings; and maintain a safe working environment in the laboratory.

Qualifications:
- Ph.D. in physics, chemistry, chemical engineering, materials sciences, or related fields.
- Experience with all aspects of synchrotron X-ray absorption spectroscopy is a must, including demonstrated ability in data analysis and modeling of XAFS data using Athena/Artemis.
- Strong programming skills and knowledge of instrument control preferred.
- Willingness to learn and bridge knowledge/experience gaps.
- Ability to work independently and in a team environment.
- Strong organizational skills a must.

Please send a letter with CV and list of publications, and names of two references, to the address below:

Simon R Bare, email: simon.bare@slac.stanford.edu