Postdoctoral Position at SSRL for Li-ion Battery Imaging

The Stanford Synchrotron Radiation Lightsource (SSRL), a Directorate of the SLAC National Accelerator Laboratory, Stanford University, and a national research facility, seeks a Ph.D. Postdoctoral Scholar in Chemical or Materials Sciences. This 2-3 year postdoctoral position will involve the use of operando X-ray absorption spectroscopy and X-ray diffraction to obtain fundamental insight into critical processes pertinent to non lithium-ion battery systems. One relates to understanding the formation of polysulfide species in the electrolyte of Li-S batteries by using sulfur K edge X-ray absorption spectroscopy to study the formation of these polysulfide species in the electrolyte during charge/discharge cycling. The other is to follow the evolution of structural, chemical, and morphological changes occurring at an electrode during charge/discharge cycling of epitaxial, thin film metal oxide cathodes for Mg-ion batteries. This will provide insight into how the intercalated and de-intercalated phases form and propagate through cathode thin films for multivalent Mg-ion batteries. This postdoc will be part of the Energy Storage Hub – Joint Center for Energy Storage (JCESR) - [http://www.jcesr.org/](http://www.jcesr.org/).

See also [http://www-ssrl.slac.stanford.edu/toneygroup/content/toney-research-group](http://www-ssrl.slac.stanford.edu/toneygroup/content/toney-research-group)

Qualifications:

- Ph.D. in physics, chemistry, materials sciences or related fields.
- experience with either synchrotron X-ray scattering techniques or with electrochemical energy storage. The ideal candidate will have experience with both.
- strong analytical and computation skills.
- effective written and verbal communication skills.
- ability to work and communicate effectively with a diverse population; good interpersonal skills are essential.
- ability to work independently and in a team environment.