Postdoctoral Scholar Position at SSRL
for Developing Multi-Modal X-ray Capabilities for Understanding Membrane Materials

The Stanford Synchrotron Radiation Lightsource (SSRL), a Directorate of the SLAC National Accelerator Laboratory, is inviting applications for a postdoctoral scholar with research interest and experience in developing and using x-ray techniques for studying membrane materials. Membrane materials play an increasingly important role in separations, chemical manufacturing, medicine, and energy applications. There is a need for transformative research that will allow for better characterization of membrane materials.

As part of this project, the postdoctoral scholar will work in a team to help develop an advanced multimodal characterization platform to understand structure-function relationships of membrane materials. This will involve design of in situ setups, aiding in developing x-ray characterization tools (imaging/scatttering) for understanding membranes, and developing an analysis pipeline for interpreting data.

Minimum Qualifications:

- Ph.D. in chemical engineering, materials science and engineering, physics, chemistry, or related fields.
- Python or similar expertise.
- Willingness to learn and to bridge knowledge/experience gaps necessary for the project.
- Effective written and verbal communication skills.
- Strong organizational skills.
- Ability to collaborate with a diverse population. Good interpersonal skills are essential.
- Ability to work both independently and in a team environment.

Desired Qualifications:

- Experience developing data analysis pipelines (ideally for x-ray experiments).
- Experience with x-ray scattering and/or experiments including data analysis, modeling, and interpretation of results.
- Understanding of principles of soft matter and polymer physics, including molecular structure and dynamics, thermodynamics and phase behavior, mechanical properties, rheology and flow dynamics, and polymer solutions and interactions.

Preferred Additional Qualifications:

- Experience with designing and developing in situ setups using CAD software.
- Basic wet lab skills.

You do not need to meet all the desired and preferred qualifications to be considered. SLAC is committed to fostering a work environment that promotes inclusion, diversity, equity, and accountability. We encourage all qualified applicants to apply.

This is a 2-year appointment with a start date of September/October 2024 (flexible).

Please send a cover letter, a letter with CV, a list of publications, and the contact info for three references to Sarah Hesse @ shesse@slac.stanford.edu