

## Postdoctoral Scholar Position in Small-Angle and Wide-Angle X-ray Scattering of Polymer and Inorganic Membranes

The Stanford Synchrotron Radiation Lightsource (SSRL), a Directorate of the SLAC National Accelerator Laboratory, is inviting applications for a postdoctoral scholar to advance the **characterization of polymeric and inorganic membrane materials using cutting-edge synchrotron techniques.**

### ABOUT THE POSITION

Membrane materials are critical to advances in water treatment, chemical separations, and energy applications. This position offers an exciting opportunity to drive transformative research in membrane characterization using primarily small-angle and wide-angle x-ray scattering (SAXS/WAXS) at a world class synchrotron facility, but possibly also applying other synchrotron and complementary techniques.

As part of a collaborative research team, you will characterize materials relevant to the water sector with a primary focus on membranes. Your work will involve **applying synchrotron techniques, especially SAXS and WAXS to understand membrane structure and function, designing ex situ and in situ experimental setups, and developing robust data analysis pipelines** to extract meaningful insights from complex scattering data.

### WHAT WE'RE LOOKING FOR

We seek candidates with deep experience in SAXS/WAXS who are passionate about applying their expertise to real-world challenges in polymer science and water materials. The ideal candidate will bring both technical excellence and a collaborative spirit to our multidisciplinary team.

### Minimum Qualifications

- Ph.D. in chemical and materials science and engineering, physics, chemistry, polymer chemistry, or related fields
- Demonstrated experience with synchrotron small-angle and wide-angle x-ray scattering experience (SAXS/WAXS), including data analysis, modeling, and interpretation
- Research background in polymers and/or membranes
- Willingness to learn and to bridge knowledge/experience gaps as the project evolves
- Effective written and verbal communication skills
- Strong organizational skills
- Demonstrated ability to collaborate effectively with diverse teams
- Capacity to work both independently and collaboratively

### Preferred Additional Qualifications

- Experience developing data analysis pipelines, particularly for x-ray scattering experiments
- Proficiency with Python or similar programming languages
- Strong foundation in soft matter and polymer physics, including molecular structure and dynamics, thermodynamics and phase behavior, mechanical properties, rheology, and polymer solution behavior
- Experience designing *in situ* setups using CAD software
- Wet lab skills

### Position Details

- Duration: 12-month appointment with possibility for extension based on project needs and funding
- Start Date: **ASAP or July/August 2026**
- Location: SLAC National Accelerator Laboratory, Menlo Park, CA

### Application Requirements

Please submit these to **Sarah Hesse, PhD**: [shesse@slac.stanford.edu](mailto:shesse@slac.stanford.edu)

- **Cover letter** describing your research interests and relevant experience
- **Curriculum vitae** with publication list
- Names and contact information for **three references**

Applicants must provide evidence of either a recently completed PhD degree or confirmation of completion of the PhD degree requirements prior to starting the position.

**Note:** 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.

**SLAC competencies:**

- Effective Decisions: Uses job knowledge and solid judgment to make quality decisions in a timely manner.
- Self-Development: Pursues a variety of venues and opportunities to continue learning and developing.
- Dependability: Can be counted on to deliver results with a sense of personal responsibility for expected outcomes.
- Initiative: Pursues work and interactions proactively with optimism, positive energy, and motivation to move things forward.
- Adaptability: Flexes as needed when change occurs, maintains an open outlook while adjusting and accommodating changes.
- Communication: Ensures effective information flow to various audiences and creates and delivers clear, appropriate written, spoken, presented messages.
- Relationships: Builds relationships to foster trust, collaboration, and a positive climate to achieve common goals.

**Physical requirements and Working conditions:**

- Consistent with its obligations under the law, the University will provide reasonable accommodation to any employee with a disability who requires accommodation to perform the essential functions of their job.
- Given the nature of this position, SLAC will require onsite work.

**Work standards:**

- Interpersonal Skills: Demonstrates the ability to work well with Stanford/SLAC colleagues and clients and with external organizations.
- Promote Culture of Safety: Demonstrates commitment to personal responsibility and value for environment, safety and security; communicates related concerns; uses and promotes safe behaviors based on training and lessons learned. Meets the applicable roles and responsibilities as described in the ESH Manual, Chapter 1—General Policy and Responsibilities: <http://www-group.slac.stanford.edu/esh/eshmanual/pdfs/ESHch01.pdf>
- Subject to and expected to comply with all applicable University policies and procedures, including but not limited to the personnel policies and other policies found in the University's Administrative Guide, <http://adminguide.stanford.edu>