



Postdoc in Materials Synthesis and Design

Zhou Lab at Georgetown University

Our research group is at the forefront of materials innovation, driven by the vision to achieve rational design in solid-state materials by mastering the art and science of their synthesis. We believe the ability to create materials with precisely tailored functions on demand is critical for advancing next-generation technologies. We are seeking a highly motivated and creative Postdoctoral Fellow to join our team.

The Challenge and Opportunity

Rational synthesis of new solid-state materials remains a significant bottleneck in the materials discovery pipeline. While computational tools can predict a vast array of potentially useful materials, experimentally realizing them is often a complex problem. Our group aims to bridge this gap by developing fundamental concepts and innovative techniques to guide the creation of novel materials.

This project focuses on integrating cutting-edge advanced *in situ* characterization techniques (synchrotron X-ray spectroscopy, Raman, and PDF) and machine learning to understand how solids form in molten fluxes.

Qualifications

- A Ph.D. in Materials Science, Chemistry, Physics, Chemical Engineering, or a closely related field.
- Demonstrated expertise in experimental solid-state synthesis techniques.
- Expertise in advanced characterization techniques, particularly PDF and X-ray spectroscopy, is highly desirable.
- Excellent communication, interpersonal, and scientific writing skills.

What We Offer

- A dynamic, collaborative, and intellectually stimulating research environment.
- Opportunities for professional growth, mentorship, and career development.
- Competitive salary (\$61-63K) and benefits package.

To Apply

Interested candidates are invited to submit the following documents:

- A detailed Curriculum Vitae (CV), including a list of publications.
- A Cover Letter outlining your research experience, interests, and career goals.
- A brief Research Statement (1-2 pages) summarizing your past research achievements and future research interests relevant to this position.
- Contact information for 2-3 professional references.

Please E-mail your application package to Dr. Xiuquan Zhou: xiuquan.zhou@georgetown.edu

*Applications will be reviewed on a rolling basis until the position is filled.
Georgetown University is an equal opportunity employer.*