Opportunity Title: SRNL Postdoctoral Research Associate Position - Microstructure Modeling of Actinide Materials
Opportunity Reference Code: SRNL-16-02-ESD

Organization Savannah River National Laboratory (SRNL)

Reference Code SRNL-16-02-ESD

How to Apply **How to apply**

- Submit application and supporting documents by clicking on Apply Now button.
- *For more information, contact:* SRNLPostdocProgram@orau.org

Description The Separation and Actinide Science Group at Savannah River National Laboratory (SRNL) is seeking a postdoctoral researcher associate to conduct computational research into fundamental understanding of nucleation and crystal growth of actinide materials. Atomistic, meso- and macro-scale modeling methods have been developed during the past few decades to study microstructure and property evolution in crystallization dynamics. The challenge lies in successfully developing models that enable prediction of the three-dimensional microstructure evolution at all time and length scales. The candidate will work in close collaboration with SRNL/University/DOE collaborators and use atomistic modeling (DFT and MD) coupled with other modeling techniques to investigate the nucleation and crystal growth of actinide materials. This research will lead to a simulation system that will integrate multiple models at various time and length scales to provide a description of the crystallization dynamics for various actinide materials.

For more information about this position please contact Dr. Lindsay Roy (lindsay.roy@srnl.doe.gov) and reference this position title and number in your correspondence. Applications will be accepted until the position is filled. Appointments are made through the Oak Ridge Institute for Science and Education (ORISE).

Qualifications The position requires a recent Ph.D. degree in chemistry, chemical physics, chemical engineering, or materials science.

Successful candidate must have substantial experience with atomistic simulations and programming languages such as Python, Matlab, C, C++, or Fortran. Preferred candidates have experience using molecular simulations to study properties of lanthanide or actinide compounds/clusters/solids. Strong communication skills including a proven publication track record and demonstrable ability to communicate effectively with experimentalists are also required. Applicants must have completed their highest degree no more than five years prior to the date of application. This position is a temporary, full-time assignment for 12 months with potential for renewal.

This position is open to U.S. citizens only and will require the ability to obtain and maintain a U.S. Department of Energy security clearance.

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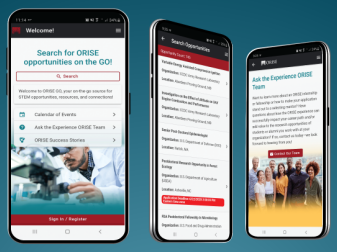

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The SRNL Postgraduate Research Associates Program is administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education (ORISE).

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Computer, Information, and Data Sciences** (3 👁)
  - **Engineering** (2 👁)
  - **Physics** (3 👁)

Affirmation I certify that I have completed coursework towards a degree in science, technology, engineering, mathematics, or a related field.

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