

Postdoctoral Research Associate for Developing the Spin-Echo Grazing Incidence Scattering (SERGIS)

**Neutron Sciences Directorate
Neutron Facility Development Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee**

ORNL09-92-NFDD

Project Description:

Works closely with scientists in the Neutron Scattering Sciences Division at ORNL and with faculty at Indiana University in Bloomington on developing Spin Echo Resolved Grazing Incidence Scattering (SERGIS), a novel spin-encoding neutron scattering technique for studying the lateral structure of thin films and membranes. The candidate will carry out research to study the structure and interactions in soft matter systems using the state-of-the-art neutron scattering instruments available at the Spallation Neutron Source, the High Flux Isotope Reactor and other neutron scattering user facilities.

Major Duties/Responsibilities:

- Conduct neutron scattering experiment in soft-condensed systems, such as templated block copolymers, colloidal suspensions, and membranes.
- Develop the theoretical data analysis protocols for the interpretation of the results of SERGIS measurements.

Qualifications:

ORNL is seeking a post-doctoral researcher with broad expertise and interests in the area of soft-condensed matter. Candidates with a recent Ph.D. in Physics, Materials Sciences, Chemical Engineering, or related fields will be considered. Candidates with knowledge and experience in neutron scattering are encouraged to apply. Experience on SANS/SAXS or neutron/x-ray reflectometry is a plus. Strong written and oral communication skills and the desire to work in a team environment are required. Applicants cannot have received the most recent degree more than five years prior to the date of application and must complete all degree requirements before starting their appointment.

Technical Questions:

For more information about this position please contact: Dr. Lee Robertson at robertsonjl@ornl.gov, Dr. Wei-Ren Chen at chenw@ornl.gov or Prof. Roger Pynn at rpynn@indiana.edu. Please reference the position title and number when corresponding about this position.

How to Apply:

Qualified applicants must apply online at https://www2.ornl.gov/ORNL_POST/. All applicants will need to register before they can begin the online application. For complete instructions, on how to apply, please see the instructions at

<http://www.ornl.gov/orise/edu/ornl/ornl-pdpm/application.htm>. When applying for this position, please reference the position title and number.

The postdoctoral position will be offered through the Oak Ridge Institute for Science and Education (ORISE) Oak Ridge National Laboratory Postgraduate Research Associates program <http://www.ornl.gov/orise/edu/ornl/ornl-pd/ornlpdoc.htm>. These positions is open to all qualified candidates without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.