

Job Title: Postdoctoral Research Associate - Polarized Neutron Scattering Study of Magnetic Materials

Requisition Id 8806

Overview:

Oak Ridge National Laboratory is the largest US Department of Energy science and energy laboratory, conducting basic and applied research to deliver transformative solutions to compelling problems in energy and security.

We are seeking a Postdoctoral Research Associate who will support the Neutron Optics and Polarization Group in the Neutron Technologies Division (NTD), Neutron Sciences Directorate (NScD) at Oak Ridge National Laboratory (ORNL). The postdoctoral research associate who will help develop next-generation spherical neutron polarimetry (SNP) at HFIR and SNS and use this new technique along with other neutron scattering methods to study complex magnetic materials. As a postdoc, you will have the opportunity to drive the project forward by identifying and pursuing promising research directions.

As part of our research team, you will work closely with neutron instrument scientists and the sample environment team both at HFIR and SNS to deliver the state-of-art SNP technique on multiple neutron instruments. Your research will involve performing elastic, inelastic and polarized neutron scattering measurements on single crystal samples using the world-leading instruments at HFIR and SNS.

Major Duties/Responsibilities:

- Develop and optimize spherical neutron polarimetry for HFIR and SNS instruments
- Perform neutron scattering studies of magnetic materials using the developed SNP technique and other related methods
- Develop software required for the operation of the devices and data analysis
- Collaborate with instrument scientists at HFIR and SNS as well as researchers from universities and other research institutions
- Publish results in scientific journals, conference proceedings and ORNL technical reports as appropriate
- Ensure compliance with environment, safety, health, and quality program requirements
- Maintain a commitment to the implementation of laboratory values and ethics

Basic Qualifications:

- A PhD in physics, chemistry, materials science, related field completed within the last 5 years
- Must complete all degree requirements before starting their appointment
- Candidates must be willing to work in a team environment on technically and scientifically challenging topics
- Good verbal and written communication skills

Preferred Qualifications:

- Experience in polarized neutron scattering
- Two years of experience of using neutron scattering methods such as diffraction, spectroscopy, small angle scattering and reflectometry
- A strong background in condensed matter physics
- Experience in the development of novel techniques as well as a demonstrated proficiency in computer programming and data acquisition
- Motivated self-starter with the ability to work independently and to participate creatively in collaborative teams across the laboratory
- Ability to function well in a fast-paced research environment, set priorities to accomplish multiple tasks within deadlines, and adapt to ever changing needs

Please submit three letters of reference when applying to this position. You can upload these directly to your application or have them sent to postdocrecruitment@ornl.gov with the position title and number referenced in the subject line.

Instructions to upload documents to your candidate profile:

- Login to your account via jobs.ornl.gov
- View Profile

- Under the My Documents section, select Add a Document

Applicants cannot have received their Ph.D. more than five years prior to the date of application and must complete all degree requirements before starting their appointment. The appointment length will be for up to 24 months with the potential for extension. Initial appointments and extensions are subject to performance and the availability of funding.

Moving can be overwhelming and expensive. UT-Battelle offers a generous relocation package to ease the transition process. Domestic and international relocation assistance is available for certain positions. If invited to interview, be sure to ask your Recruiter (Talent Acquisition Partner) for details.

For more information about our benefits, working here, and living here, visit the “About” tab at jobs.ornl.gov.

This position will remain open for a minimum of 5 days after which it will close when a qualified candidate is identified and/or hired.

We accept Word (.doc, .docx), Adobe (unsecured .pdf), Rich Text Format (.rtf), and HTML (.htm, .html) up to 5MB in size. Resumes from third party vendors will not be accepted; these resumes will be deleted and the candidates submitted will not be considered for employment.

If you have trouble applying for a position, please email ORNLRecruiting@ornl.gov.

ORNL is an equal opportunity employer. All qualified applicants, including individuals with disabilities and protected veterans, are encouraged to apply. UT-Battelle is an E-Verify employer.