



Postdoctoral Research Associate Position
Scanning Probe Microscopy for Energy Storage Materials
Center for Nanophase Materials Sciences, Oak Ridge National Laboratory

ORNL11-99-CNMS

Project Description

The Center for Nanophase Materials Sciences (CNMS) at Oak Ridge National Laboratory (ORNL) is seeking to fill a postdoctoral position in the field of scanning probe and electron microscopy of energy storage and conversion systems. The applicant will conduct research on the nanoscale functionality of energy materials, including Li-ion batteries and fuel cells. The primary experimental technique is electrochemical strain microscopy under environmental control. Research will be directed toward the correlation of macroscopic and nanoscopic parameters and their role in electrochemical functionality in current and advanced battery materials. The program will have a strong component of innovative technique development, namely the development of an in-situ electrochemical cell to be used with the scanning probe microscope. The [CNMS](#) is a collaborative nanoscience user research facility established by the Office of Science, U.S. Department of Energy.

Qualifications

This position requires a Ph.D. in condensed matter physics, materials science, electrochemistry or a related field. The successful applicant should have a strong background in scanning probe microscopy in ambient and liquid environment or in-situ electrochemical experiments using scanning and transmission electron microscopy, synchrotron methods, or scanning probe microscopy. Familiarity with numerical data analysis and customization of control software is a plus (Labview, Matlab). Prior research work needs to be supported by a strong record of publications in peer-reviewed journals, preferably as a senior author, and presentations at scientific conferences. The applicant should be motivated, safety conscious and possess excellent oral and written communication skills. The applicant must have the ability to work in a team, interact effectively with colleagues and external collaborators. Demonstrated ability to communicate in English to an international scientific audience is essential. Applicants must have received their highest degree not more than five years prior to the date of application, and must complete all degree requirements before starting the appointment.

Technical Questions

For more information about this position, please contact Dr. Nina Balke (n2b@ornl.gov) and reference the ad number listed above in the subject line. Applications will be accepted until the position is filled.

How to Apply

Qualified applicants may apply online at https://www2.ornl.gov/ORNL_POST/. All applicants will need to register before beginning the online application. For complete information on how to apply please see the instructions at <http://www.ornl.gov/orise/edu/ornl/ornl-pdpm/application.htm>.

This appointment is offered through the ORNL Postgraduate Research Participation Program and is administered by the Oak Ridge Institute for Science and Education (ORISE). This appointment is open to all qualified U.S. and non-U.S. citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.