

Postdoctoral Research Associate in Local Bias-Induced Transitions and Electrochemical Processes in Energy Storage Materials

**Materials Science and Technology Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee**

ORNL10-48-MSTD

Project Description:

The Materials Science and Technology Division at Oak Ridge National Laboratory (ORNL) is seeking a candidate to fill a postdoctoral position in the field of scanning probe microscopy (SPM) and combined SPM - high-resolution scanning transmission electron microscopy (STEM) of oxide energy storage and generation materials. The position is available starting February 1, 2010 and renewable up to the total of 3 years. This program takes advantage of ORNL's suite of advanced electron microscopes, including 5 aberration-corrected instruments, and SPM capabilities including energy dissipation imaging and Li-ion microscopy developed at the Center for Nanophase Materials Sciences.

The successful applicant must demonstrate knowledge of general aspects of solid-state electrochemistry and physics and chemistry of perovskites. The applicants with background in STEM-EELS and working knowledge of SPM methods, or in-depth background in SPM of ferroelectric and energy storage materials are welcome to apply. This position provides an opportunity to join an experienced team working in a highly collaborative environment on the projects ranging from heterogeneous catalysis to oxide materials to semiconductors. Interactions with theoretical researchers are anticipated on a daily basis.

Qualifications:

This position requires a Ph.D. in materials science, physics, or related field, with an emphasis on solid-state electrochemistry, SPM, or STEM/EELS. Knowledge of MatLab is a plus. Excellent oral and written communication skills are required, and presentations and publication of scientific results in peer-reviewed journals are expected. The applicant must have the ability to work in a team and interact effectively with a broad range of colleagues. 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.

Applications will be accepted until the position is filled.

Technical Questions:

Questions regarding the position can be directed to Drs. Albina Y. Borisevich, albinab@ornl.gov, Stephen J. Pennycook, pennycooks@ornl.gov, and Sergei V. Kalinin, sergei2@ornl.gov. Please include the requisition number and title when corresponding.

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>.

This appointment is offered through the ORNL Postgraduate Research Participation Program and is administered by the Oak Ridge Institute for Science and Education (ORISE). The program 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.