

Postdoctoral Research Associate in Scanning Probe Microscopy for Functional Imaging

**Center for Nanophase Materials Sciences
Oak Ridge National Laboratory
Oak Ridge, Tennessee**

ORNL08-79-CNMS

Project Description:

The Center for Nanophase Materials Science (CNMS) at Oak Ridge National Laboratory (ORNL) is seeking a candidate to fill a postdoctoral position in the field of scanning probe microscopy. This program takes advantage of recently developed capabilities for Piezoresponse Force Microscopy (PFM) and a family of Band Excitation Scanning Probe Microscopies, including new spectroscopic modes for studies of polarization dynamics and energy transfer in a wide range of materials, including oxides and polymers. The CNMS (<http://cnms.ornl.gov/>) is a collaborative nanoscience user research facility established by the Office of Science, U.S. Department of Energy. The CNMS has a diverse spectrum of nanoscience research activities including emphasis on synthesis and characterization of complex oxides, polymers, catalysts, and nanostructures. The Scanning Probe group has six microscopes with capabilities developed at ORNL for imaging functional properties.

Qualifications:

This position requires a Ph.D. in the physical sciences, with an emphasis on atomic force microscopy. The successful applicant must demonstrate experience in the experimental application, development, and quantitative interpretation of modern scanning probe techniques. A working knowledge of MatLab is an advantage. This position provides an opportunity to join an experienced team to develop methods and applications in directions such as identification and control of static and dynamic ferroelectric phenomena at the nanometer scale, electromechanical probing on the single-molecule level, and energy or time-resolved measurements. Excellent oral and written communication skills in English are required. Presentations to an international scientific audience and publication of scientific results in peer-reviewed journals are required. The applicant must have the ability to work in a team and interact effectively with a broad range of colleagues. In addition, the candidate will be involved in the CNMS user program, with wide opportunities for scientific collaborations. All degree requirements must be completed before starting the appointment.

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.

Questions regarding the position can be directed to Dr. Sergei V. Kalinin, (sergei2@ornl.gov). Applications will be accepted until October 1, 2008 or until the position is filled.

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.