



# Center for Nanophase Materials Sciences

*A Highly Collaborative and Multidisciplinary*

*U.S. DOE Nanoscale Science Research Center*

## Postdoctoral Fellowship - Scanning Probe Microscopy Oak Ridge National Laboratory

Dear colleagues

I am looking for one [potentially two] postdoctoral fellows interested in advanced applications of Piezoresponse Force Microscopy to nanoelectromechanics of nanoscale ferroelectrics and multiferroics, macromolecular systems, and biological systems. Please see the announcement at: <http://www.ornl.gov/ORISE/edu/ornl/postneeds.htm> [position ORNL07-70-CNMS].

Sergei Kalinin

### 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) in liquid and ultra-high vacuum environments, and new spectroscopic modes for studies of polarization dynamics and correlated phenomena in a wide range of materials, including oxides, polymers, and biological systems. 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 a nanofabrication facility; laboratory-based research on macromolecular materials, catalysts, functional nanomaterials, and magnetism and transport; characterization with electron microscopes, scanning probes, and x-ray diffraction and scattering; and theory, modeling, and simulation.

The successful applicant must demonstrate experience in the experimental application, development, and quantitative interpretation of modern scanning probe techniques. 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 time-resolved measurements. In addition, the candidate will be involved in the CNMS user program, with wide opportunities for scientific collaborations.

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CURRENT ORNL OPENINGS FOR POSTDOCS AND OTHER POSTGRADUATES