



Postdoctoral Research Associate Position
Electron Transport via Four-Probe Scanning Tunneling Microscopy
Center for Nanophase Materials Sciences, Oak Ridge National Laboratory

ORNL10-121-CNMS

The Center for Nanophase Materials Sciences (CNMS) at Oak Ridge National Laboratory (ORNL) is seeking to fill a postdoctoral position in the Imaging Functionality group.

Brief Description of Major Duties and Responsibilities

The applicant is expected to have experience in instrument or technique development and will conduct research involving the use of cryogenic **four-probe scanning tunneling microscopy** (STM) for the study of electron transport and the photovoltaic effect in nanostructures and heterojunctions. The CNMS (<http://cnms.ornl.gov/>) is a nanoscience user research facility supported 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, and functional nanomaterials; characterization with electron microscopes, scanning probes, and x-ray diffraction and scattering; and theory, modeling, and simulation.

Qualifications: This position requires a Ph.D. in condensed matter physics or a related field, with a background in instrument development, cryogenic STM and transport research in nanoscale and mesoscopic structures. Experience with low temperature-STM, molecular beam epitaxy, surface analytical techniques, and photovoltaic effect is desirable. The successful candidate should be motivated and have superior UHV laboratory skills. Presentations at national meetings 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. Excellent English oral and written communication skills must be demonstrated. Applicants cannot have received the most recent degree more than five years prior to the date of application appointment and must complete all degree requirements before starting their appointment.

Remarks: For more information about this position please contact Dr. An-Ping Li (apli@ornl.gov) and reference this position title and number in your correspondence. Applications will be accepted until July 9, 2010 or 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 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). 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.