

Postdoctoral Research Associate in Nanotransport via Scanning Tunneling Microscopy

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

ORNL08-78-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 **nanotransport**. The applicant will be expected to conduct research involving the use of a cryogenic four-probe **scanning tunneling microscope** (STM) for the study of temperature dependent electron transport in reduced dimensionality of surface-supported nanostructures. These nanostructures will be epitaxially grown, self-assembled in-situ, or prepared ex situ. 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. received not more than five years prior to the date of application in condensed matter physics or a related field, with a background in cryogenic STM and transport research in nanoscale and mesoscopic structures. Experience with LT-STM, MBE, surface analytical techniques, and PPMS is desirable. Of particular importance is experience involving instrument and/or technique development. The successful candidate should be motivated, safety conscious and have superior UHV laboratory skills. 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. An-Ping Li (apli@ornl.gov). Applications will be accepted until July 31, 2008 or until the position is filled.

This appointment is offered through the ORNL Postdoctoral Research Associates Program and is administered by Oak Ridge Associated Universities (ORAU). 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.