

Positions Available

# Neutron Science Powder Diffraction Group Leader

Neutron Sciences Directorate at Oak Ridge National Laboratory invites applications for a Powder Diffraction Group Leader. ORNL is becoming the world's foremost center for neutron science. Research at ORNL encompasses the physical, chemical, materials, biological, and medical sciences and will provide opportunities for up to 2000 researchers each year from industry, research facilities, and universities all over the world.

The Powder Diffraction Group Leader will be responsible for ensuring efficient operation and availability of the neutron scattering instruments within the group and developing the instruments to meet the changing scientific needs of the neutron scattering community. The Group Leader encourages the development of the scientific programs of scientists in the group, seeking opportunities for establishing collaborations within and outside the group and participation in ORNL and external funding initiatives.

The successful candidate will have an international reputation and excellent track record, with at least ten years of specialized experience in the use and development of diffraction techniques for materials science research.

For more information about the position or to apply visit: [http://jobs.ornl.gov/neutron\\_science.shtml](http://jobs.ornl.gov/neutron_science.shtml)

**neutrons.ornl.gov**



**Real Science. Real Life.**

## STAFF RESEARCH SCIENTIST Stanford University

The Stanford Nanocharacterization Laboratory and Center for Nanoscale Science invite applications for a research staff position to operate, train users for, and optimize utilization of an aberration-corrected Titan transmission electron microscope with environmental capabilities (ETEM), and to engage in related research activities. The microscope is being installed in June 2010 and is part of a user facility. Applicants should hold a PhD degree in Materials Science, or related discipline. The successful candidate will have at least two to five years experience with transmission electron microscopes, with specific experience in advanced capabilities such as aberration corrected imaging, EELS/GIF, and/or environmental studies. The ability to interact with and train graduate students in the use of sophisticated instrumentation, along with overall good communication and teamwork skills, is essential. Experience with other characterization instrumentation and techniques are recommended.

More detailed information and job application information is available at <http://jobs.stanford.edu>, Posting #37302. Please apply directly to this site by uploading your application to Posting #37302.

*Stanford University is committed to equal opportunity through affirmative action in employment and we are especially eager to identify minority persons and women with appropriate qualifications.*

## FACULTY POSITION Department of Mechanical Engineering and Materials Science



University of Pittsburgh

We invite applications for a tenure-track faculty position in the area of Computational Materials Science. Successful applicants are expected to build an externally funded research program that contributes to our existing strengths while enhancing strategic areas targeted for growth, such as materials for sustainability, energy, nanotechnology, and real-time, embedded sensing and characterization. Applicants should hold a PhD degree in Materials Science or a related field and can demonstrate commitment to excellence in teaching and research. The new faculty will benefit from the University of Pittsburgh's Center for Simulation and Modeling ([www.sam.pitt.edu](http://www.sam.pitt.edu)), the Pittsburgh Supercomputing Center ([www.psc.edu](http://www.psc.edu)), and the Mascaro Center for Sustainable Innovation ([www.mascarocenter.pitt.edu](http://www.mascarocenter.pitt.edu)). Although preference will be given to the area of Computational Materials, exceptional candidates in other areas are encouraged to apply.

Applications, including curriculum vitae, statement of research interests and teaching philosophy, and names and addresses of at least three references, should be send to: Chair, Faculty Search Committee, Department of Mechanical Engineering and Materials Science, 648 Benedum Hall, Swanson School of Engineering, University of Pittsburgh, Pittsburgh, PA 15261. Electronic submission at [pitt-mems-search@engr.pitt.edu](mailto:pitt-mems-search@engr.pitt.edu) is preferred. Application review starts on April 1, 2010, and continues until the position is filled.

*The University of Pittsburgh is an equal opportunity/affirmative action employer. Women and minorities are strongly encouraged to apply.*

## POSTDOCTORAL RESEARCHER Center for Nanoscale Science & Engineering

# NDSU

The Center for Nanoscale Science & Engineering ([www.ndsu.edu/cnse](http://www.ndsu.edu/cnse)) at NDSU is seeking a PhD Polymer Chemist with experience in step-growth, condensation polymerization. Candidates with experience in the synthesis and characterization of poly-amides are of particular interest. Experience with the following characterization techniques is required: NMR, IR, GPC, DSC, and dilute solution viscosity.

For complete job description, qualifications, and to apply, see [www.ndsu.edu/jobs](http://www.ndsu.edu/jobs). Salary commensurate with experience plus comprehensive fringe benefit package including retirement plan and full coverage for family health insurance. Screening date **April 30, 2010**.

North Dakota State University  
Center for Nanoscale Science & Engineering  
1805 NDSU Research Park Drive; Fargo, ND 58102  
701-231-5824

*NDSU is an EOI. Women and traditionally underrepresented groups are encouraged to apply.*

**ACNS 2010**  
[www.mrs.org/acns2010](http://www.mrs.org/acns2010)



**American Conference on Neutron Scattering**  
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Register by June 9, 2010  
for discounted rates!



Positions Available

R·I·T

**INTELLIGENCE COMMUNITY (IC)  
POSTDOCTORAL FELLOWSHIP  
NanoPower Research Laboratories  
Rochester Institute of Technology**

The NanoPower Research Laboratories at Rochester Institute of Technology will award an IC Postdoctoral Fellowship to advance scientific research in the area of multi-junction photovoltaics incorporating quantum dots. Awards are made for two years with competitive stipends and a yearly travel allowance. Applicants must be U.S. Citizens. Please contact Prof. Seth Hubbard at [smhsp@rit.edu](mailto:smhsp@rit.edu) or 585-475-4214.

**Neutron Science  
Senior Scientist**

Neutron Sciences Directorate at Oak Ridge National Laboratory invites applications for Senior Scientists in the areas of Energy Materials, Environmental Geosciences, Nano-Structured Materials, and Biological Systems.

We seek candidates who are internationally recognized authorities in neutron scattering sciences with a distinguished record of research and a demonstrated ability to conceive, lead, and conduct advanced research and development. Although outstanding candidates from all relevant disciplines are invited to apply, areas specifically targeted for development are energy materials (including photovoltaics, catalysis, and solid-state materials), environmental geosciences (including carbon sequestration and chemistry in extreme environments), nanostructured materials (including soft matter, polymers, and self-assembly), and biological systems (bio-energy, bio-membranes and structural biology). Candidates are expected to build programs and partnerships that will deliver outstanding science in these areas and drive the development of innovative scientific methods, tools, and technologies for neutron research.

For more information about the position or to apply visit:  
[http://jobs.ornl.gov/neutron\\_science.shtml](http://jobs.ornl.gov/neutron_science.shtml)

**neutrons.ornl.gov**



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**Sandia National Laboratories**

A Department of Energy National Laboratory

**COMPUTATIONAL MATERIALS SCIENCE**

Sandia National Laboratories is one of the country's largest research and engineering laboratories, employing 8,100 people at major facilities in Albuquerque, New Mexico and Livermore, California. We make enduring contributions to secure our society against high consequence terrorist threats and national incidents through effective use of science, technology, and systems solutions. Please visit our website at [www.sandia.gov](http://www.sandia.gov). We are searching for professionals in the area of Computational Materials Science for the Computational Materials Science and Engineering Department at the Albuquerque facility. The salary is commensurate. A benefit and relocation package is available. Must be able to obtain and maintain a DOE Security Clearance.

Responsibilities will depend on the match between the candidate's skills and project requirements. Current projects include radiation damage in metallic and semiconductor alloys; development of interatomic potentials for alloy systems; structure and properties of internal interfaces; microstructural development in nanocrystalline materials; reactive wetting and spreading; and grain evolution in anisotropic and strained systems. These projects utilize simulation techniques at the atomic scale, such as molecular dynamics, and at the mesoscale, such as Monte Carlo Potts models.

A PhD degree in materials science, physics, or related field with a solid background in general materials science and materials modeling is required. A strong background in computational methods and computer programming is required. Excellent written and oral communication skills are essential.

Please apply online at <http://www.sandia.gov/careers/search-openings.html>, click Search for Openings, and reference **Job Requisition Number 64783**. U.S. Citizenship normally required.

*Equal Opportunity Employer. M/F/D/V.*



**TRI Princeton**  
RESEARCH EDUCATION SERVICE

**LEAD SCIENTISTS AND TEAM LEADERS  
Materials Research**

TRI/Princeton, an independent research institute, seeks experienced leaders in materials science, surface science, biophysics, or chemical engineering whose research has application in home and personal care, advanced composites, medical devices, and/or components for energy devices, such as batteries. The positions require establishing funded research programs through external collaborations based on the incumbents' professional network.

The Institute's primary applications involve fibrous and/or porous **polymeric materials**, including human hair and synthetic polymers. Research involving films, composites, skin, membranes, filters, and

separators is also underway, especially studying the interactions of such systems with fluids.

The successful candidate will have a PhD degree in an appropriate discipline and 10+ years industrial R&D experience. TRI/Princeton provides an opportunity for entrepreneurial development in an atmosphere of intellectual curiosity, a visionary and evolving approach to both science and collaboration, and a keen eye on the reduction to practice.

Submit resume and cover letter to [materials2010@triprinceton.org](mailto:materials2010@triprinceton.org). For more information, visit [www.triprinceton.org](http://www.triprinceton.org).

Positions Available

# Nanofabrication Facility Manager

The University of Houston (UH) is currently seeking a **Nanofabrication Facility Manager** to serve as the project coordinator for the support and development of the University of Houston Nanofabrication Cleanroom Facility.

This manager will provide supervision supporting technical personnel including technicians, lab assistants and work-study students; leadership in the ongoing development and improvements of the cleanroom nanofabrication facility; technical and administrative services to the user community of the nanofabrication facility; and ensure compliance with federal, state, and local agencies' regulations and guidelines.

Specific to the Class 100 cleanroom nanofabrication facility, this manager is responsible for the proper operation and maintenance of an extensive suite of micro- and nanofabrication equipment for device processing, including a reactive ion etching system, sputter deposition, e-beam lithography, optical aligners, focused ion-beam, wet-processing benches, characterization and quality control instrumentation (ellipsometer, profilometer, SEM, scanning probe microscopy), etc. Furthermore, the responsibilities include installation of existing and new equipment; support of the infrastructural systems; development of equipment operation protocols and user training; enforcement of proper equipment utilization and safety protocols; development of process recipes database; and oversight of user training.

**Qualifications:** *Requires a Master's degree in a relevant engineering or science discipline; Ph.D. preferred. Must possess a minimum of seven (7) years of directly job-related experience, including experience with integrated circuit processing equipment. Prior industrial experience in a cleanroom environment is highly desirable.*

Salary is competitive and commensurate with experience and qualifications.

**Applications are accepted only through the University of Houston website.**

To apply, please visit

**<http://jobs.uh.edu>**

and complete an application for job posting #064999.



This is a security-sensitive position. The University of Houston is an Equal Opportunity/Affirmative Action employer. Minorities, women, veterans, persons with disabilities are encouraged to apply.

# Handbook of Modern Ion Beam Materials Analysis

Second Edition

**EDITORS**  
Yongqiang Wang  
and Michael Nastasi

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