

Positions Available

NC STATE UNIVERSITY

**DEPARTMENT OF
MATERIALS SCIENCE
AND ENGINEERING**

Faculty Positions

The Department of Materials Science and Engineering (MSE) at North Carolina State University seeks outstanding applications and nominations for new faculty at the ranks of Assistant Professor, Associate Professor and Professor.

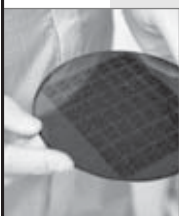
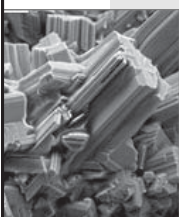
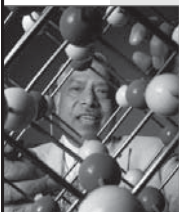
The Department is currently composed of twenty-two tenure/tenure-track faculty, six of which have been hired in the last five years. The Department has traditional strengths in electronic materials, and structural materials, with emerging expertise in biological materials, computational materials, magnetic materials, and nanotechnology. The Department is now embarking on an initiative to grow the faculty by five FTE within the next five years. Faculty with expertise in the following areas are of particular interest:

- High-resolution transmission electron microscopy of advanced materials, nanostructures, and interfaces, with particular attention to atomic resolution Z-contrast techniques.
- Synthesis, growth, and processing of materials for electronic or optoelectronic applications exploring novel physical phenomena and new functionality for future high-performance devices benefiting our defense and security and/or energy generation and consumption.
- Conducting polymers, including expertise in synthesis and characterization of conducting polymers and evaluation of their potential for incorporation into working devices.
- Smart biomaterials, including interdisciplinary research interests related to the design of smart biomimetic materials for drug delivery, sensors, tissue engineering and nanomaterials applications. This position has the possibility of being joint with the Department of Biomedical Engineering.
- Structural metals or ceramics for high-temperature applications. Structural materials for advanced energy systems is a primary focus, including intermetallics, composites or novel nanostructured materials. Cross-disciplinary energy-related research activities engaging faculty in other engineering departments will be encouraged.

The new faculty will be national and international leaders in their respective fields, or on a clear trajectory to be so, and will work effectively in an interdisciplinary team with common intellectual goals. Senior candidates must have international standing, an exceptional record of publishing and external funding and a demonstrated record of scientific leadership. Junior candidates must demonstrate promise towards similar achievements. All candidates must possess a PhD in MSE or a related discipline at the time of appointment and the ability to teach at the undergraduate and graduate levels in MSE. Candidates with exceptional communication skills and the ability and commitment to work in synergistic, interdisciplinary research programs are preferred.

Nominations should include the name, address, telephone, and email contacts for the nominee along with a brief letter addressing the nominee's qualifications. Applicants should submit a cover letter, research plan, teaching plan, complete curriculum vitae, and the names and contact information of at least three references. Applications will be reviewed as they are received. The positions will remain open until suitable candidates are identified. All nominations and applications should be submitted electronically via jobs.ncsu.edu, position number 4741. Specific information about the positions can be obtained via e-mail to Justin_Schwartz@ncsu.edu.

North Carolina State University is an equal opportunity and affirmative action employer. In addition, NC State University welcomes all persons without regard to sexual orientation. Individuals with disabilities desiring accommodations in the application process should contact the Department of Materials Science and Engineering at 919-515-0493.



**FACULTY POSITIONS
College of Engineering**

**UF UNIVERSITY of
FLORIDA**

The University of Florida, College of Engineering has openings for faculty working on multidisciplinary problems in Energy.

As part of a broad effort to hire 20 new tenure-track or tenured faculty across all ranks within the College, we seek candidates with expertise in Electrochemical Energy Storage. Preference will be given to candidates who can leverage a wide variety of research activities in the field of energy in the College of Engineering and other Colleges at the University of Florida. These activities range from solar energy, solid state lighting, energy aware computing, energy systems control and optimization, fuel cells and batteries, nuclear power, and bio-fuels (www.energy.ufl.edu).

The College has over 270 Faculty, in excess of 2,600 Graduate Students and more than 5,000 Undergraduates. It is one of the most comprehensive Engineering Colleges in the country and ranked 15th among public Colleges of Engineering in the *US News and World Report*. In addition, Gainesville is a vibrant community and has been rated as one of the best places to live in America.

Requirements:

A doctoral degree in chemical engineering, materials science, or a related discipline is required. The College of Engineering has eleven Departments, and we will work with you to identify the best home Department for your background and interests.

Application Process:

For more information and a link to apply please visit <http://www.eng.ufl.edu>, and click on "Strategic Plans Apply Now." The positions are opened until filled. The review of applications will begin on May 1, 2010.

The University of Florida is an equal employment opportunity employer. Women and minorities are encouraged to apply. The "government in the sunshine" laws of Florida require that all documents relating to the search process, including letters of application/nomination and reference, be available for public inspection. If an accommodation due to a disability is needed to apply for this position, please call 352-392-2HRS or the Florida Relay System at 800-955-8771 (TDD).

Positions Available



University of
Massachusetts
Amherst

FACILITY DIRECTOR
W.M. Keck Electron Microscopy Center

The University of Massachusetts, Amherst invites applications for a state-supported position as a Facility director, at the rank of lecturer, to manage the W.M. Keck Electron Microscopy Center located in the Conte Center for Polymer Research. The facility director will operate a university facility which serves users in soft materials, life sciences, geology, chemistry, physics, and engineering. The director will manage a suite of instruments for transmission and scanning electron microscopy, including a newly acquired FEI Magellan field-emission scanning electron microscope, with low voltage, STEM, and analytical capability (EBS and EDS). Duties include assisting faculty, students, and research staff in instrumentation usage, user training, facility management, technician supervision, and classroom instruction/workshops.

The director will be research active (independently and/or collaboratively) and involved in proposal development. Experience with sample preparation and electron microscopy aspects of soft (biological and/or polymer) materials is a plus, and interpersonal skills are needed to interact with the broad user base. Significant experience using SEM and TEM for research is required.

A PhD degree in an appropriate materials discipline (Materials Science, Chemical Engineering, Polymer Science) is required. Interested individuals should send a letter of interest, a CV, and the contact information of three references to Dr. Samuel P. Gido, Search Committee Chair and Associate Professor, Polymer Science and Engineering Department, University of Massachusetts, Amherst, MA, 01003. The position is expected to be filled by June 2010. **Review of applicants began on April 16, 2010**, and will continue until the position is filled. Continuation of position beyond six years is contingent upon funding. Salary is commensurate with skills and experience.

The University of Massachusetts is an Equal Opportunity Affirmative Action Employer, women and members of minority groups are encouraged to apply.



Group Leader – Electronic & Magnetic Materials & Devices
Argonne National Laboratory
Center for Nanoscale Materials

The Center for Nanoscale Materials (CNM) at Argonne National Laboratory has an immediate opening for a Group Leader for the Electronic & Magnetic Materials & Devices (EMMD) Group.

The Center for Nanoscale Materials (www.nano.anl.gov) is part of DOE's Nanoscale Science Research Center program. The CNM serves as a user-based center, providing tools and infrastructure for nanoscience and nanotechnology research. The CNM's mission includes supporting basic research and the development of advanced instrumentation that will help generate new scientific insights and create new materials with novel properties.

Using the principles of nanoscience and nanotechnology, the Group Leader provides creative scientific leadership and management for one or more research area(s) within the Center for Nanoscale Materials. Develops, leads and conducts R&D programs which achieve world-wide recognition for their scientific impact. Conducts basic research in nanoscience, including, but not limited to, studies of electronic and magnetic material properties by scanning tunneling microscopy, scanning tunneling spectroscopy, atomic manipulation, atomic force microscopy and atomic force spectroscopy. Further development of novel scanning probe methods.

The successful candidate should have a Ph.D. (min. 10+ years experience), or Master's Degree (12+ years experience) in a field of relevance to nanoscience and nanotechnology, comprehensive management and leadership skills and the ability to effectively lead collaborative efforts of a group of highly skilled researchers.

Interested candidates should send a detailed CV, along with a list of publications, and the names and addresses of three references through the Argonne web site at <http://www.anl.gov/jobs> under job openings, for requisition number 315966 CNM. Argonne is a U.S. Department of Energy laboratory managed by UChicago Argonne, LLC.

Argonne is an equal opportunity employer, and we value diversity in our workforce.



Staff Scientist
National Center for Electron Microscopy

The National Center for Electron Microscopy (NCEM) at Lawrence Berkeley National Laboratory seeks an outstanding staff scientist to play a key role in NCEM's scientific infrastructure. The successful candidate will dedicate equal effort to supporting facility users and to leading an innovative research program on techniques and applications of advanced electron microscopy.

The position will provide high-level electron microscopy expertise to support scientific utilization and further development of NCEM's unique array of world-class instruments. Building on the TEAM microscope, research is focused on advancing the field of electron microscopy to address significant scientific problems relevant to the Laboratory's mission of energy research.

The NCEM at Berkeley Lab is one of the world's foremost user facilities for electron beam microcharacterization, providing state-of-the-art electron microscopes and expertise in high resolution imaging and analysis. <http://ncem.lbl.gov/>

Berkeley Lab is a U.S. Department of Energy national laboratory that conducts multidisciplinary research. Eleven Nobel laureates are associated with Berkeley Lab, which is managed by the University of California. AA/EEO <http://www.lbl.gov/>



Please view the full job posting and requested application materials, and apply at jobs.lbl.gov. Search for # 24220.

POSTDOCTORAL POSITION
Department of Materials Science
and Engineering

JOHNS HOPKINS
UNIVERSITY

There is an opening for a postdoctoral scholar in the Department of Materials Science and Engineering at Johns Hopkins University for microsecond time-resolved *in situ* x-ray scattering studies of phase transformations in metallic multilayers. Candidates for this position must have an earned doctorate in materials science or a related field, with expertise in **synchrotron-based x-ray scattering techniques** strongly preferred.

To apply, please send a single PDF (including a detailed resume, list of relevant publications, and the names and contact information for at least two references) via email to Prof. Todd Hufnagel at hufnagel@jhu.edu.

Johns Hopkins University is an EEO/AA employer. Women and minorities are especially encouraged to apply.

Positions Available

ExxonMobil

Taking on the world's toughest energy challenges.™

MEMBER OF TECHNICAL STAFF—OPTICAL SPECTROSCOPIST

ExxonMobil Research and Engineering Company has an immediate opening for an Optical Spectroscopist at its Corporate Strategic Research Laboratory, located in Annandale, New Jersey.

This position is to develop sensors based on optical physics that would be used to optimize the real-time operation of processes in the oil and gas business. These sensing and spectroscopic systems will be used for the exploration and production of oil and gas; process/reliability improvements in the refining of crude oil into products and the manufacturing of chemicals. Possible sensor applications include optical fibers for monitoring refinery processes and equipment; spectroscopic methods of analyzing refinery processes and on-line product quality; and other approaches. The researcher will identify new sensor concepts, develop concepts in the laboratory and collaborate with ExxonMobil affiliates to test the sensors in the field. The position will also require conducting fundamental research to advance potential future sensor approaches. The researcher will work on an interdisciplinary team, both within Corporate Strategic Research and across ExxonMobil, including chemists, physicists, chemical/mechanical/electrical engineers, metallurgists and material scientists. The researcher may also work with vendors for the development of prototype sensors.

Candidates should have the following qualifications:

- A Ph.D. in Physics, Physical Chemistry, Chemical Engineering or a similar field with an emphasis on optical physics or spectroscopy and a strong familiarity with optical fiber technologies.
- Familiarity with general organic and inorganic chemistry.
- Interest in conducting fundamental research, as well as identifying and pursuing practical applications.
- Ability to work with people from a wide variety of technical disciplines.
- Demonstrated individual contribution to research in a results-oriented team environment.
- A strong track record of external publications and presentations and a desire to publish and participate in external technical meetings, as well as a desire to patent new sensor concepts.
- Strong communication, organizational and interpersonal skills.

Special consideration will be given to candidates who also possess the following attributes:

- Post graduate experience in academia, national labs or industry.
- Knowledge of emerging photonic technologies including nano-structured materials and micro-electromechanical systems (MEMS).
- Familiarity with signal processing and analysis of optical sensor and spectral data.

ExxonMobil's Corporate Research Laboratory is a facility of over 200 scientists and engineers involved in fundamental and process-oriented research in diverse scientific disciplines related to ExxonMobil's Upstream, Downstream, Chemicals, and Corporate sectors. The Laboratory features excellent support and analytical facilities, an international staff and is strongly integrated with the external scientific community. Its location in pastoral western New Jersey provides excellent public schools and convenient access to New York City and Philadelphia. ExxonMobil offers an excellent working environment and a competitive compensation and benefits package. Please submit your resume with cover letter to our website at www.exxonmobil.com/ex and apply to Optical Spectroscopist.

EXXONMOBIL IS AN EQUAL OPPORTUNITY EMPLOYER

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

neutrons.ornl.gov

10-G000294/jgm



Real Science. Real Life.

**CALIFORNIA INSTITUTE OF TECHNOLOGY****ADMINISTRATIVE DIRECTOR FOR THE RESNICK INSTITUTE****Position Summary:**

The Resnick Institute is seeking an Administrative Director. This full-time position demands a candidate who will use her/his experience in scientific research and research administration to organize scientific programs, including calls for proposals, proposal reviews, and selection processes for scientific projects and fellowships. The position also encompasses oversight of the physical facilities and laboratory facilities of the Resnick Institute, including facilities development and operation. The Resnick Institute Director, Administrative Director, Communications Director, and senior development officer form the management team for the Resnick Institute.

Basic Qualifications:

Bachelor's degree in a science or engineering field or equivalent, with 5 or more years experience in a scientific research, technology development, and administrative setting with scientific and technical programs.

To be considered for this position please visit our web site and apply on line at the following link:

<http://apptkr.com/144671>

Caltech is an Affirmative Action/Equal Opportunity Employer. Women, Minorities, Veterans and Disabled Persons are encouraged to apply.