GRADUATE RESEARCH FELLOWSHIPS
UNDERGRADUATE RESEARCH FELLOWSHIPS
Materials Science and Engineering
The University of Tennessee, Knoxville

A number of (1) Ph.D. graduate research fellowships and (2) undergraduate research fellowships are available immediately in the area of neutron-diffraction materials research. Candidates with strong backgrounds in computer science and engineering or a related field are encouraged to apply. The research activities will focus on the development of a virtual institute for the international neutron network using computer-based Internet resources.

Innovative, computer-based technologies will be developed to complement and support the international neutron activities. These resources are: (1) novel tele-research and communication, and (2) web-based experiment simulation, instructional materials, and a searchable database. An important tool for the international collaborative neutron work, internship programs, workshops, and outreach programs is the tele-research and communication capability. This innovative technology, client-sever instrument control, remotely controllable video monitoring, electronic notebooks, and peer-to-peer video conferencing will provide a uniquely rounded research, education, and communication environment, which will greatly leverage the international activities of the present program.

Furthermore, the students will develop an informative website, which will include a comprehensive archive of lecture materials (notes, simulations, example problems, etc.) for the neutron courses; a searchable database for relevant publication archives; materials properties relevant to neutron-scattering experiments; information on neutron facilities, instruments, and experts. The students will have opportunities to travel and perform cutting-edge neutron-scattering materials research using facilities throughout the world with a team of materials scientists, and interact with top scientists in the global neutron-scattering community through international exchange programs and workshops. Moreover, they will have the research opportunities to interact with colleagues at the Oak Ridge National Laboratory in light of the new second-generation neutron residual stress facility at the High Flux Isotope Reactor; the extensive x-ray facilities for the stress, structure, and phase analyses in the Metals and Ceramics Division; and the $1.4 billion construction of the Spallation Neutron Source along with the VULCAN Engineering Diffractometer.

The positions available are supported by the National Science Foundation (NSF) International Materials Institutes (IMI) Program, which started in early 2003. U.S. citizens or permanent residents are strongly encouraged to apply. The review process for the candidates will start immediately and remain open until the positions are filled. Interested persons should send a resume, a letter outlining relevant research and/or academic experiences, graduate and/or undergraduate transcripts, and contact information (including e-mail addresses) of three potential references to Prof. Peter Liaw; tel: (865) 974-6356, fax: (865) 974-4115, or e-mail: pliaw@utk.edu; Prof. Hahn Choo, e-mail :hchoo@utk.edu; and/or Prof. Raymond Buchanan, e-mail: rab1@utk.edu; Dept. of Materials Science & Engineering, The University of Tennessee, Knoxville, TN 37996-2200, U.S.A.

McMaster University
ENGINEERING

Faculty Position in Materials Science and Engineering

The Department of Materials Science and Engineering at McMaster University is seeking qualified applicants for a tenure-track faculty position at the assistant or associate professor level, depending on the experience of the candidate. The successful applicant will be an outstanding emerging researcher with demonstrated expertise in any one or more of the following areas:

- Biomaterials.
- Nano and/or molecular fabrication techniques.
- Molecular or nanomaterials theory, with interests in such areas as atomic level simulation.

McMaster University has a network of research Institutes that provide stimulating interdisciplinary research opportunities, including the Brockhouse Institute for Materials Research, the School of Bioengineering, the Centre for Electro-Optic Devices and the McMaster Micro- and Nano-Systems Institute.

The successful candidate will be expected to develop a strong research activity that will attract external research funding, supervise graduate students and teach both undergraduate and graduate courses. Applicants must have a Ph.D. in Materials Engineering or a closely related discipline. Registration, or eligibility for registration, by the Professional Engineers of Ontario will be considered an asset.

McMaster is strongly committed to employment equity within its community, and to recruiting a diverse faculty and staff. The University encourages applications from all qualified candidates, including women, members of visible minorities, Aboriginal persons, members of sexual minorities, and persons with disabilities. All other qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority. Salary is commensurate with qualifications and experience.

Applications, including a CV, a statement detailing research and teaching interests and the names of three referees should be sent to:

Faculty Selection Committee
Department of Materials Science & Engineering
McMaster University, JHE 357
1280 Main Street West
Hamilton, ON L8S 4L7
E-mail: jane@mcmaster.ca

DIVISION OF MATERIALS RESEARCH
National Science Foundation,
Arlington, VA

NSF's Division of Materials Research (DMR) is seeking a qualified candidate for the position of Program Director for the Metals Program.

Appointment to this position may be on a one or two-year Visiting Scientist appointment or a Federal Temporary appointment, with a salary range of $88,369 to $137,713. Alternatively, this position may be filled under the terms of the Intergovernmental Personnel Act. Applicants must have a Ph.D. or equivalent experience in metallurgy, materials science and engineering or a closely related field, plus six or more years of successful research, research administration, and/or managerial experience beyond the Ph.D.

The appointee is expected to work with the materials community to broaden the diversity of participants in NSF programs, and to integrate research and education in the materials field.

Announcement E20050070-Rotators, with position requirements and application procedures, is located on the NSF Home Page at www.nsf.gov/about/career_opps/. Applicants may also obtain the announcement by contacting Maria Sutton at (703) 292-4364. (Hearing impaired individuals may call TDD 703-292-8044.)

NSF is an Equal Opportunity Employer

Materials and Public Policy
Faculty Opening
Carnegie Mellon University

Details at: http://www.epp.cmu.edu. Resume, references and research interests to Granger Morgan, EPP, Carnegie Mellon, Pittsburgh, PA 15213.

MATERIALS RESOURCE CENTER: *Positions Available*

BIO-NANO FACULTY POSITION
University of Florida
Department of Materials Science and Engineering

The Department of Materials Science and Engineering of the University of Florida, Gainesville, invites applications for tenure-track positions at the rank of Assistant, Associate, or Professor with a focus on bio-nano materials, their synthesis, characterization, use in devices, or other related areas. Applicants with expertise and a strong record of research in nano-materials, including biomaterials, tissue engineering, nano-therapeutics, and nano-devices, are strongly encouraged to apply for the more senior level rank. Applicants should have a proven track record of leadership and adaptability. Exceptional candidates in other areas of materials research will also be considered. A doctoral degree in materials science and engineering or a related field is required.

Our nationally ranked "top ten" department is proud of our faculty's accomplishments in teaching, research and service. We anticipate that the successful applicant will continue the tradition of both developing and teaching courses at the undergraduate and graduate level. Our faculty research activities are essential to the success of our program, and as such, new members are expected to initiate and sustain strong, sponsored research and graduate training programs. The successful candidate will also be given the opportunity to participate in our newly created Nanoscience Institute for Medical and Engineering Technologies (NIMET) as well as the Nanoscale Research Facilities (NRF) Center, which is conveniently located on our University of Florida campus.

UF offers unique research capabilities in that it is only one of three universities nationwide where all bio-nano disciplines, engineering, sciences, and medicine, are located in close proximity on one campus. The UF MSE Department has consistently ranked among the top ten in the nation for both graduate and undergraduate programs. It is also among the largest MSE departments in the nation with 28 faculty, nearly 250 graduate students, over 150 undergraduates and over $18 million in annual research expenditures. The department provides an integrated Materials Science and Engineering education, as well as interdisciplinary and multidisciplinary research programs devoted to biomaterials, ceramics, composites, electronic and optical materials, metals and polymers.

The Department also houses the Major Analytical Instrumentation Center (MAIC), the UF-DOE High Temperature Electrochemistry Center (HiTEC), and the Computational Materials Science Focus Group. The MAIC houses many state-of-the-art characterization instruments including JEOL 2010F with Z-contrast, EELS, and EDS capabilities. In addition, our faculty actively participate in the NIMET/NRF, the National High Magnetic Field Laboratory (NHMFL), the Particle Engineering Research Center (PERC), Evelyn L. and William F. McKnight Brain Institute, and the Biomedical Engineering Department.

The search committee will begin reviewing applications on July 1, 2005, and will continue to consider applications until the position is filled. To apply, please reference position number 00008056 and send a curriculum vitae, statement of research and teaching interests, and contact information for three references to:

Dr. Wolfgang Sigmund
Chair of the Search Committee
Bio-Nano Search
Department of Materials Science and Engineering
Post Office Box 116400
University of Florida
Gainesville, Florida 32611-6400

In addition, PDF or Word files of the application package should also be e-mailed to Matthew Walters mwalt@mse.ufl.edu, keyword bio-nano. For additional information about the Department and University, please visit our Web site at http://www.mse.ufl.edu.

The University of Florida is an Affirmative Action, Equal Opportunity Employer and encourages applications from women and minority group members. According to Florida law, applications and meeting regarding applications are open to the public on request.

MATERIALS RESOURCE CENTER: *Positions Available*

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GRADUATE RESEARCH FELLOWSHIPS
POSTDOCTORAL RESEARCH FELLOWSHIPS
UNDERGRADUATE RESEARCH FELLOWSHIPS
Materials Science and Engineering
The University of Tennessee, Knoxville

A number of (1) Ph.D. graduate research fellowships, (2) postdoctoral fellowships, and (3) undergraduate research fellowships are available immediately in the area of neutron-diffraction materials research. Candidates with strong backgrounds in materials science, metallurgy (including processing, and mechanical/physical behavior), computational materials science, mechanical/civil engineering, physics, computer science and engineering, or a related field are encouraged to apply. The research activities will focus on the subjects of (1) in-situ neutron-diffraction characterization of mechanical behavior (plasticity, twinning, fatigue, and creep deformation) of advanced materials (nanocomposites, nanostructured materials, ultra-fine-grained materials, intermetallics, composites, and bulk metallic glasses); (2) real-time neutron-diffraction characterization of internal stresses in engineering materials (composites and welds); (3) in-situ neutron-diffraction characterization of microstructures of new materials (bulk metallic glasses and carbon nanotubes); (4) theoretical modeling on solid mechanics, elastic-plastic models, fracture mechanics, and/or finite-element methods; (5) theoretical modeling that complements neutron-diffraction experiments; (6) development of a virtual institute for the international neutron network using computer-based Internet resources; and (7) design and development of advanced mechanical-testing facilities at the Spallation Neutron Source, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

The students and postdocs will have opportunities to travel and perform cutting-edge neutron-scattering materials research using facilities throughout the world and interact with top scientists in the global neutron-scattering community through international exchange programs and workshops. Moreover, they will have the research opportunities to interact with colleagues at the Oak Ridge National Laboratory in light of the new second-generation neutron residual stress facility at the High Flux Isotope Reactor; the extensive x-ray facilities for the stress, structure, and phase analyses in the Metals and Ceramics Division; and the $1.4 billion construction of the Spallation Neutron Source along with the VULCAN Engineering Diffractometer.

The positions available are supported by the National Science Foundation (NSF) International Materials Institutes (IMI) Program, which started in early 2003, and NSF Major Research Instrumentation (MRI) Program, which started September 1, 2004. U.S. citizens or permanent residents are strongly encouraged to apply. The review process for the candidates will start immediately and remain open until the positions are filled. Interested persons should send a resume, a letter outlining relevant research and/or academic experiences, graduate and/or undergraduate transcripts, and contact information (including e-mail addresses) of three potential references to Prof. Peter Liaw; tel: (865) 974-6356, fax: (865) 974-4115, or e-mail pliaw@utk.edu; Prof. Hahn Choo, e-mail :hchoo@utk.edu; and/or Prof. Raymond Buchanan, e-mail: rab1@utk.edu; Dept. of Materials Science & Engineering, The University of Tennessee, Knoxville, TN 37996-2200, U.S.A.

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E-mail mikeh@meta-findny.com;
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