

Positions Available



**SPACE SYSTEMS AND
N/MEMS FACULTY POSITIONS
Mechanical and Aerospace Engineering
College of Engineering and Mineral Resources
West Virginia University**

The Department of Mechanical and Aerospace Engineering at West Virginia University anticipates filling two tenure-track faculty positions at the Assistant Professor level. Position #109 requires expertise in Nano/Micro Mechanical Systems (N/MEMS) and/or Mechatronics with emphasis on bioengineering, energy applications, or nano-science. Position #209 requires expertise in Space Systems with emphasis on system integration, multi-disciplinary design, system of systems, system architecture, vehicle systems, energy systems, or systems engineering. A PhD degree in a closely related engineering discipline and strong oral and written communication skills are required.

Successful applicants are expected to teach undergraduate and graduate courses in the Department and to develop externally funded research within a highly interdisciplinary program. Numerous opportunities exist for collaboration with industry, local National Laboratories (NETL, NIOSH), WVU Energy and Environment Initiative, WVNano Initiative, etc.

WVU is a comprehensive land-grant institution with enrollment over 28,000; a Carnegie High Research University at the center of a developing high-technology corridor, providing challenges and opportunities for candidates. The Department has 28 tenure-track faculty offering BS, MS, and PhD degrees in both Mechanical and Aerospace Engineering to about 450 undergraduate, 80 MS, and 80 PhD students. MS and PhD degree programs in Materials Science and Engineering are being developed as part of the EMSE program. Additional information may be found on the department website at www.mae.cemr.wvu.edu or by contacting the Dr. Ever Barbero, Chair, 304-293-3111, ext. 2337, Morgantown, WV 26506-6106.

Review of applications will begin **August 16, 2009** and will continue until the positions are filled. Women and minorities are strongly encouraged to apply. Electronic applications are required (send to mae-emse@mail.wvu.edu) including a letter describing qualifications and position number, curriculum vitae, research plan, teaching plan, and contact information for three references.

West Virginia University is an Equal Opportunity/Affirmative Action Employer



**3M HARRY HELTZER MULTIDISCIPLINARY
CHAIR IN SCIENCE AND TECHNOLOGY
Institute of Technology
University of Minnesota**

The Graduate School and the Institute of Technology at the University of Minnesota-Twin Cities, Minneapolis, MN, USA, invites applications and nominations for the position of 3M Harry Heltzer Multidisciplinary Chair in Science and Technology. This is a tenured and endowed position at the rank of associate or full professor (dependent upon qualifications and experience) in the area of physical and biological structures characterization using microscopy and imaging. Candidates must have outstanding academic and research records, with several years of successful research and teaching experience. A PhD degree and dedication to teaching, graduate student advising, and regular and sustained interaction with industry are required.

Candidates are sought whose research agenda will contribute to building cross-disciplinary and cross-college collaboration in one or more areas of strategic importance university-wide, including within the Institute of Technology and with other units at the University of Minnesota. This endowed chair is intended to foster industry-university research interaction and collaboration while advancing scientific and technological expertise in new frontiers of knowledge relevant to the Institute of Technology and 3M. Candidates with a background in any relevant areas of science or engineering are encouraged to apply. Department affiliation will depend on the candidate's area of expertise, with the possibility of a joint appointment with one or more units in the Institute of Technology or elsewhere in the University.

Applications should be submitted online at <https://employment.umn.edu>, under **Req. # 154636**, and include a cover letter, curriculum vitae (including list of publications), research description/plan, statement of teaching interest, and contact information for three references. Review of applications will begin immediately and continue until the position is filled. For further information, contact Douglas Ernie at ernie@umn.edu.

The University of Minnesota is an equal opportunity educator and employer.



**NANOFABRICATION
FACILITY DIRECTOR
Department of Physics
Binghamton University**

The Department of Physics at Binghamton University invites applications for a Nanofabrication Facility Director. Duties include administering the daily operations of a newly constructed \$2M clean room, including the maintaining and qualifying process tools; establishing and overseeing facility policies; instructing all users in clean room practices; and teaching Nanofabrication Practices and Techniques courses.

The successful candidate will have at least ten years experience in industrial or university clean rooms (five years experience with PhD); be highly proficient with multiple techniques of lithography, reactive ion etching, physical vapor deposition, chemical vapor deposition, and wet processing of materials; and have significant experience in maintaining cleanroom process tools.

Essential skills include proficiency with Microsoft Office; excellent computer skills; and the ability to interact with a diverse group of people. Excellent communication, organization, analytical and follow up skills; attention to detail; and a positive attitude are also essential.

The selection process will begin **June 1, 2009** and continue until the position is filled. Application materials should be forwarded to Binghamton University, Department of Physics, PO Box 6000, Binghamton, NY 13902-6000 or via e-mail to rcorneli@binghamton.edu.

Binghamton University is an affirmative action/equal opportunity employer. Members of minority groups and women are especially encouraged to apply.

Place Your Ad Today!

**Contact Mary E. Kaufold
at 724-779-8312
or kaufold@mrs.org**

Positions Available



Materials Science and Engineering

The University of Texas at Dallas

DISTINGUISHED CHAIRS NANOELECTRONICS



The Department of Materials Science and Engineering in the Erik Jonsson School of Engineering and Computer Science at the University of Texas at Dallas seeks outstanding applicants for Distinguished Chairs in Nanoelectronics (PCT090420) in the area of nanoelectronics and materials for electronic applications.

The successful applicants will have an outstanding recognized record of research in nanoelectronics and have the qualities necessary for academic leadership. These appointments offer scope for the appointees' individual and collaborative research talents and provide leadership in developing sponsored research programs in nanoelectronics. In addition, the successful applicants will be expected to teach undergraduate and graduate classes, and be involved in service to the university and profession. Applicants for this tenured position at the full Professor rank should have a PhD degree in materials science, electrical engineering, or related discipline. Joint appointments among relevant departments are envisioned.

The University is located in one of the most attractive suburbs of the Dallas metropolitan area. There are hundreds of high-tech companies within a few miles of the campus, including Texas Instruments, Nortel Networks, Alcatel-Lucent, Ericsson, Hewlett-Packard, Lockheed-

Martin, Raytheon, Samsung, Nokia, Fujitsu, MCI, EDS, Perot Systems, and Zyvex. Opportunities for joint university-industry research projects are excellent.

The Erik Jonsson School is experiencing very rapid growth as a part of a \$300 million program resulting in expanding programs, recruitment of outstanding faculty and PhD students, increased research funding, and establishing new programs. This endowed chair position is enabled in part by the new \$40M Texas Nanotechnology Research Superiority Initiative by the State of Texas.

Review of applicants will begin immediately and will continue until the positions are filled. The starting date is negotiable. Faculty positions are security sensitive and a background check will be performed for selected applicants. Indication of gender and ethnicity is requested as a part of the application for affirmative action statistical purposes only.

Curriculum vitae, a letter of interest and descriptions of educational background and teaching experience, and at least five letters of recommendation should be submitted via the online application system at <http://provost.utdallas.edu/facultyjobs/pct090420>.

The University of Texas at Dallas is an Affirmative Action/Equal Opportunity Employer.



PROGRAM DIRECTOR POSITION
Division of Materials Research - National Science Foundation

The National Science Foundation is seeking qualified candidates for the Office of Special Programs, Program Director position within the Division of Materials Research (DMR), Directorate for Mathematical and Physical Sciences (MPS), Arlington, VA.

The Office of Special Programs (OSP) coordinates and supports cross-cutting activities in the Division of Materials Research (DMR), including international cooperation, education, and broadening participation activities in materials research. Those activities include the International Materials Institutes (IMI), the Materials World Network (MWN), and Research Experiences for Undergraduates (REU) Sites. OSP also coordinates the participation of DMR in the NSF-wide competition of Integrative Graduate Education and Research Traineeships (IGERT).

OSP oversees the Division's IMI program, and ensures effective cooperation with international partner agencies in proposal review and evaluation of proposals considered under the MWN program. OSP oversees the annual competition for REU Sites for the Division, including support for Research Experience for Teachers (RET). OSP coordinates the participation of DMR in the NSF-wide competition of Integrative Graduate Education and Research Traineeships (IGERT). It is planned that in the near future OSP will oversee the Partnership for Research and Education in Materials (PREM) program, which couples institutions serving underrepresented groups with DMR-supported centers and facilities. OSP also coordinates a range of DMR education and human resource development activities, including review of and action on unsolicited proposals in support of those activities. OSP designs and implements the review, funding, and post-award management of such proposals, as well as contributes to the evaluation of the activity and its intellectual integration with other programs supported by the Division.

Applicants must have a PhD degree or equivalent experience in materials science and engineering, materials or condensed matter physics, materials or solid-state chemistry, bio-related materials, or a closely related field of science or engineering. In addition, six or more years of successful research, research administration, and/or managerial experience pertinent to the program are required. Applicants must have experience integrating research and education in the materials field. Prior experience/involvement in broadening participation of underrepresented groups in research/education would be desirable.

This position will be filled on a one or two year Visiting Scientist Appointment, Federal Temporary Appointment or an Intergovernmental Personnel Act (IPA) assignment. For more information about these programs, please link to http://www.nsf.gov/about/career_opps/.

To apply for a Visiting Scientist, IPA, or Federal Temporary appointment see **Announcement E20090066-Rotator**. The position requirements and application procedures are located on the NSF Home Page at www.nsf.gov/about/career_opps/. Individuals interested in the position may contact Dr. Zayka H. Kafafi, Division Director, Division of Materials Research, at 703-292-8810 for further information. Hearing-impaired individuals should call TDD at 703-292-8044. Applications must be received by **July 3, 2009**.

NSF is an Equal Opportunity Employer.

Positions Available

**POSTDOCTORAL FELLOW
TEM Analysis of Nanocomposites
and/or of Welded Structures
Chemical and Materials Engineering
University of Alberta**

A postdoctoral fellow position is available beginning in May 2009 at the University of Alberta, Edmonton, Alberta, Canada, in the area of transmission electron microscopy (TEM) analysis of phase transformations and defects in metallic nanocomposites. The PDF will work on projects involving the development of hydrogen storage, battery, and/or fuel cell nanomaterials, with an emphasis on using TEM to explain the fundamental microstructure-properties relations. Alternatively the PDF may become involved in the solid-state welding program, ongoing with several partners. The campus microscopy facilities include three state-of-the-art transmission electron microscopes, a new sample prep laboratory, and image/diffraction simulation. There is also access to a variety of SEMs, UHV surface analysis, and XRD systems. Additional laboratory facilities include volumetric and gravimetric sorption systems, high-pressure DSC, combinatorial thin films deposition, inert atmosphere powder processing, electrochemistry wet lab, and catalyst testing.

A successful candidate must have demonstrated expertise in applied TEM analysis, as evidenced by a record of high-impact peer-reviewed publications. The hired individual will be expected to take on a scientific leadership role within the laboratory, helping to develop funding proposals and new research directions. This position also involves opportunities for collaborative work with several institutions both in Canada and the U.S.

Please send a CV and the contact information for references to:

Dr. David Mitlin
Department of Chemical and
Materials Engineering
7th Floor, 9107 116 Street
University of Alberta
Edmonton, Alberta, T6G 2V4
E-mail: TEMpdoc@ualberta.ca

All qualified candidates are encouraged to apply. We thank all applicants for their time and effort but only those selected for an interview will be contacted. Applicants may be considered for future vacancies. The University of Alberta hires on the basis of merit. We are committed to the principle of equity in employment. We welcome diversity and encourage applications from all qualified women and men, including persons with disabilities, members of visible minorities, and Aboriginal persons.

Max-Planck-Institut für
Eisenforschung GmbH
in Düsseldorf (Germany)



A major focus of the research at the **Max-Planck-Institut für Eisenforschung GmbH** is the investigation of steels and related metallic alloys. Central issues are the development of novel materials with unique properties, the improvement of deformation behaviors and the controlling/prevention of degradation mechanisms. The department of **Computational materials design** of Prof. Jörg Neugebauer uses state-of-the-art ab initio based techniques to tackle these challenges. Most of the approaches used have a multiscale / multiphysics character, of which two prominent examples are:

- The multiscale atomistic simulation of failure mechanisms in modern structural materials. In particular, the influence of impurities on the interaction and mobility of extended defects by combining DFT and semi-empirical atomistic potentials.
- The prediction of materials properties of magnetic shape memory alloys as a function of composition and temperature. In particular, the derivation of phase diagrams by combining DFT with concepts of thermodynamics.

There are several PhD and PostDoc positions available in this field of research.

Outstanding candidates with a strong background in solid state physics, materials science or chemistry are encouraged to apply for these positions. The knowledge of electronic structure methods, continuum mechanics and/or computational tools including quantum chemistry will be considered an advantage.

The Max Planck Society is an equal opportunities employer. Women are strongly encouraged to apply and will be given preference over male applicants with a compatible scientific profile. Interested candidates should send their CV, recent publications and contact details for two references preferably by email to:

**Dr. Johann von Pezold (pezold@mpie.de)
and/or Dr. Tilmann Hickel (hickel@mpie.de)
Max-Planck-Institut für Eisenforschung GmbH
Max-Planck-Straße 1 • 40237 Düsseldorf • Germany
<http://cm.mpie.de> • Fax: +49 211 6792 465**



AMES LABORATORY
United States Department of Energy

POSTDOCTORAL RESEARCH ASSOCIATES Ames Laboratory

The Ames Laboratory, a Department of Energy research laboratory affiliated with Iowa State University, is accepting applications for current and future Postdoctoral Research Associate positions in the areas of physics, chemistry, materials science, and computational science. All positions require completion of all requirements for the PhD prior to appointment. Positions are normally for one year with the option of renewal based on satisfactory performance and availability of funds.

Please submit the following items: 1) statement of research interests and date of availability; 2) current vita with publications; and 3) contact information (name and e-mail address) of three references. Please submit all items by e-mail to postdocs@ameslab.gov. Salary is commensurate with area of expertise and experience. Applications will remain active for one year from date of receipt.

The Ames Laboratory/Iowa State University is an EEO/AA employer.

Positions Available

Max-Planck-Institut für
Eisenforschung GmbH
in Düsseldorf (Germany)



The **Department Computational Materials Design** at the **Max-Planck-Institut für Eisenforschung (MPIE)** has established a strong expertise in atomistic/ab initio calculations of high-tech structural materials. To further strengthen the interdisciplinary and multiscale character the department is looking for a

Group Leader (Computational Materials Science)

to build up a new research activity in Large Scale/Mesoscale simulations. Outstanding candidates having a strong expertise and proven track record in one or more of the following fields - statistical simulation techniques, continuum approaches, solidification and/or precipitation dynamics, large scale atomistic studies, etc. - and with a strong interest in interdisciplinary research are encouraged to apply. The CM department headed by Prof. Jörg Neugebauer provides a dynamic and enthusiastic team of young scientists together with state-of-the-art simulation techniques and excellent computational facilities.

The candidate must have a doctoral degree in physics, chemistry, or a related field. Depending on the previous experience of the candidate the position can be upgraded to a W2 status. The Max Planck Society is an equal opportunities employer. Women are strongly encouraged to apply and will be given preference over male applicants with a comparable scientific profile.

Interested candidates should send their applications including a brief (~one page) outline of planned research to:

Prof. Dr. Jörg Neugebauer (neugebauer@mpie.de)
Max-Planck-Institut für Eisenforschung GmbH
Max-Planck-Straße 1 • 40237 Düsseldorf • Germany
http://cm.mpie.de • Fax: +49 211 6792 465

BINGHAMTON
UNIVERSITY
STATE UNIVERSITY OF NEW YORK

POSTDOCTORAL TEACHING FELLOW
Department of Physics
Binghamton University

The Physics Department of Binghamton University seeks outstanding applicants for a one-year/renewable for up to three years Postdoctoral Teaching Fellowship in Physics beginning August 2009. The position is structured to require half-time teaching (two courses per year) and half-time research. Teaching opportunities include both our introductory and advanced courses in Physics. A PhD degree in Physics is required. The position carries a salary of \$45,000 per year in addition to benefits and includes \$10,000 for research expenses.

Binghamton University emphasizes high quality research and a commitment to excellence in graduate and undergraduate education. The university has made substantial investments to its research infrastructure, including funding of the Innovative Technologies Complex with over \$20M in state-of-the-art analytical equipment and the Center for Advanced Microelectronics Manufacturing with greater than \$30M in roll-to-roll processing equipment. Both of these facilities complement a \$2M nanofabrication facility being constructed in the Department of Physics.

Applicants should submit a full vita, statement of research, statement of teaching philosophy, and list of three references to:

Eric J. Cotts, Chair, Physics Department
Binghamton University, PO Box 6000
Binghamton, NY 13902

(Electronic submission of material in the form of one pdf file should be sent to: **Physics@binghamton.edu**). The selection process will begin **June 1, 2009** and continue until the position is filled.

*Binghamton University is an affirmative action/equal opportunity employer.
Members of minority groups and women are especially encouraged to apply.*



**DIRECTOR, OFFICE OF
RESEARCH GRANTS**
**American Chemical
Society**

The American Chemical Society (ACS) is seeking a prominent chemist as Director for the Office of Research Grants. The Office oversees one of the Society's most important programs, the Petroleum Research Fund, as well as the prestigious Herman Frasch Foundation Grants in agricultural chemistry, Teva USA Scholars Grants in medicinal chemistry, and the Irving S. Sigal Postdoctoral Fellowship. The Office is responsible for administering between \$15 million and \$25 million of chemistry research grants and fellowships each year. The incumbent will have a distinguished research record and an expansive and visionary understanding of the chemical sciences and engineering.

This position reports directly to the Executive Director & CEO of ACS and will be responsible for the development of strategic planning for and leadership of the Research Grants Office. The incumbent will interact with ACS governance committees responsible for the oversight of the ACS PRF grant programs (Board Committee on Grants and Awards) and the Petroleum Research Fund corpus (Committee on Pensions and Investments); serve as staff liaison and secretary to the PRF Advisory Board; manage annual budgets; and direct and supervise a staff of fifteen including four PhD scientists.

Qualifications: The successful candidate will have a PhD degree in chemistry, chemical engineering, geochemistry, or related science; 16+ years of related experience, including academic teaching and research experience; knowledge of a broad area of science; leadership status within the scientific community; strong interpersonal skills; and significant experience in the management of scientific/engineering proposals and grants. Salary is commensurate with experience. Please submit your résumé by **July 30, 2009**, either by email: employment@acs.org; Fax: 202-872-4077; or mail address: 1155 16th Street, NW Washington, DC 20036, Attn: Human Resources/RDP.

*ACS is a drug-free, smoke-free,
equal opportunity employer.*