

MATERIALS SCIENCE & ENGINEERING

UNIVERSITY of WASHINGTON



FACULTY POSITIONS Department of Materials Science & Engineering

The Department of Materials Science & Engineering at the University of Washington, Seattle, seeks outstanding candidates for two professorships. Each position will be at the rank of full professor with tenure and brings the strong possibility of simultaneous appointment as either the **Kyocera Chair** (endowed position) or the **Campbell Professor** (endowed position) to begin in the 2010 Autumn Quarter.

KYOCERA CHAIR PROFESSOR AND CAMPBELL ENDOWED PROFESSOR

The holders of these tenured professorships should be eminent scholars and well-known leaders in the field of materials science and engineering with expertise on broadly defined ceramics and/or ceramic-based materials and systems. Areas of particular interest include, but are not limited to, molecularly engineered, and/or chemically or biologically processed nano- and micro-structured ceramics or ceramic-based hybrids/composites for novel applications in structural, electronic, photonic, magnetic, biomedical, and/or energy-related fields.

The applicants should have an outstanding record of research and scholarship in their specialized fields, evidenced by publications, external funding supports, and leadership role in collaborative research projects across multiple disciplines in their current institutions. Preference will be given to candidates who have demonstrated ability to leverage and bring the research activities in their current institutions to a high level of national and international excellence. Industrial experience will be considered as an asset. Successful candidates are expected to work with other faculty within the department to develop cutting-edge collaborative research projects, secure extramural funding, teach courses at both the undergraduate and graduate levels, and play active roles in the centers and institutes of the department and college interests, including the Institute of Molecular Engineering and Sciences, the "NSF-STC" on Materials and Devices for Information Technology, the "NSF-MRSEC" on Genetically Engineered Materials Science and Engineering, and the Institute of Advanced Materials and Technology. The Campbell Professor will also play an active role in establishing and strengthening ties between UW and industries/national laboratories through his/her own research activities. A doctoral degree in materials science and engineering or a closely related field is required.

INFORMATION ABOUT THE DEPARTMENT

The MSE department currently has 15 faculty, 100 undergraduates, 80 graduate students, and 25 postdoctoral researchers. The Department's research portfolio covers all classes of materials and state-of-the-art facilities are available in the Department and in interdisciplinary research centers on the campus. More information about the department is available at http://depts.washington.edu/mse/.

HOW TO APPLY

Applicants should include the following documents and information with their letter of application: A detailed resume, a list of publications, clear and concise statements of teaching and research interests and objectives (3 page maximum), and the contact information of five referees. Evaluation of applicants will start during late 2009 and continue until the positions are filled. Application materials must be submitted online via the College of Engineering's Faculty Search Tool at http://www.engr.washington.edu/facsearch/?dept=Mse. (See Position #AA2373.) Questions about the details of this search or position should be directed to the search committee by email at montague@u.washington.edu.

The University of Washington is an affirmative action, equal opportunity employer, is building a culturally diverse faculty and staff, and strongly encourages applications from women, minorities, individuals with disabilities and covered veterans. UW is the recipient of a National Science Foundation ADVANCE Institutional Transformation Award to increase the participation of women in academic science and engineering careers. UW is the recipient of the 2006 Alfred P. Sloan award for Faculty Career Flexibility and is committed to supporting the work-life balance of its faculty.



INAMORI PROFESSORSHIPS

Kazuo Inamori School of Engineering New York State College of Ceramics at Alfred University

Interested persons should send a complete resume, including the names of at

least three references, to:

Dr. Doreen Edwards, Dean Kazuo Inamori School of Engineering NYS College of Ceramics Alfred University 2 Pine Street Alfred, NY 14802, USA Phone: 607-871-2422 Fax: 607-871-2354 dedwards@alfred.edu

AA/EOE

A generous gift from the Kyocera Corporation has enabled the Inamori School of Engineering to appoint a number of distinguished scientists or engineers to Inamori Professorships.

Holders of the Inamori Professorships shall be senior members of the faculty with established international reputations in their field. They shall be expected to develop externally funded, self-sustaining research groups and to forge links with local, state, and other companies, as appropriate, and contribute to the School's instructional requirements by teaching courses in (a) their fields of specialty, and (b) appropriate core subjects, at both the graduate and undergraduate level.

It is expected that there will also be opportunities for collaboration with Kyocera Corporation scientists and engineers, as well as with other members of the School's faculty.

The School, which is a component of the New York State College of Ceramics at Alfred University, offers BS and MS programs in Biomedical Materials Engineering Science, Ceramic Engineering, Electrical Engineering, Glass Engineering Science, Materials Science & Engineering, and Mechanical Engineering, as well as PhD programs in Ceramics, Glass Science, and Materials Science & Engineering.

$\underset{U\quad N\quad I\quad V}{\text{JOHNS}} \underset{E\quad R\quad S\quad I\quad T\quad Y}{\text{HOPKINS}}$

POSTDOCTORAL POSITION

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 phase transformations and/or 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.

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

Materials Science & Engineering



FACULTY POSITIONS

The Department of Materials Science and Engineering at the University of Pennsylvania (http://www.seas. upenn.edu/mse/) invites applications for a tenure track faculty position. Applications will be considered from outstanding candidates in any emerging area of Materials Science and Engineering. Successful candidates will be committed to excellence in undergraduate and graduate teaching, in particular curriculum development related to nanomaterials and emerging energy technologies. They will also conduct leading edge research programs benefiting from Penn's strong interdisciplinary tradition and multi-school research institutes, including the Nanotechnology Institute and the Institute of Medicine and Engineering, and two NSF-funded centers, a Materials Research Science and Engineering Center and a Nanoscale Science and Engineering Center.

Applications (CV, statement of research and teaching interests, and names of three references) should be submitted online at

http://www.seas.upenn.edu/mse/jobs Applications submitted by mail will not be accepted.

Applications will be evaluated on a rolling basis. Final deadline for submission: November 1, 2009

The University of Pennsylvania is an Affirmative Action/ Equal Opportunity Employer



UNIVERSITY OF NORTH TEXAS Discover the power of ideas.

— Denton, TX —

NANOFABRICATION/CLEAN ROOM FACILITIES MANAGER

The University of North Texas, seeks a manager for its new nanofabrication/clean room facility currently under construction. This position will oversee development of the facility and be responsible for the management of day-to-day operations. This position will recommend new tools and oversee their installation, qualify equipment and processes, develop and enforce operational protocols, train and interface with users, and perform various technical tasks.

MINIMUM QUALIFICATIONS:

- Bachelor's degree in engineering or the physical sciences
- Ten (10) years experience in micro and/or nano device fabrication; or equivalent experience, education and training

SUBMIT ONLINE APPLICATIONS TO: http://apptrkr.com/124174

UNT is an AA/E0E/ADA



Sandia National Laboratories

A Department of Energy National Laboratory

HARRY S. TRUMAN RESEARCH FELLOWSHIP

National Security Science and Engineering Sandia National Laboratories

Sandia National Laboratories is one of the country's largest research facilities employing 8,500 people at major facilities in Albuquerque, New Mexico and Livermore, California. Please visit our website at www.sandia.gov.

We are searching for outstanding PhD candidates to apply for the Harry S. Truman Research Fellowship in National Security Science and Engineering. This initial one-year appointment may be extended, at management's discretion, for two additional one-year appointments. The salary is \$106,600 per year. This position requires a United States Department of Energy Security Clearance, which requires United States Citizenship.

The Truman Fellowship provides the opportunity for recipients to pursue independent research of their choosing that supports Sandia's national security mission. Candidates are expected to have solved a major scientific or engineering problem in their thesis work or will have provided a new approach or insight to a major problem, as evidenced by a recognized impact in their field.

Candidates must have a PhD degree within the past three years or will complete all PhD requirements by commencement of appointment, with a broad-based background and extensive knowledge of research in one or more of the following areas: advanced computing, information systems, and mathematics; bioscience and technology; combustion, chemical, and earth sciences; engineering sciences; geosciences; intelligent systems and robotics; materials science and technology; microelectronics and microsystems; nano sciences and technology; pulsed power and directed energy; and remote sensing and satellite systems. Candidates must be seeking their first national laboratory appointment (pre postdoc internships excluded), have excellent academic (minimum 3.5 undergraduate and 3.7 graduate GPA preferred) and research qualifications, good communication skills, and enjoy working in a team-oriented, dynamic environment.

For complete instructions, please visit http://www.sandia.gov/employment/special-prog/truman. Please submit the complete package to: Roberta Rivera, Sandia National Laboratories, P.O. Box 5800, MS 1497, Albuquerque, New Mexico 87185-1497, or email ririver@sandia.gov, or fax 505-845-9802. Please reference Job Requisition Number 62705. All materials must be received by December 5, 2009. U.S. Citizenship required.



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



HEAD

Department of Mechanical Engineering Colorado State University

Applications and nominations are sought for the position of the Head of the Department of Mechanical Engineering at Colorado State University. We seek candidates with leadership skills who are dedicated to the advancement of the research, education, and outreach missions of the department. The applicant must have an earned doctorate degree in mechanical engineering or a closely related field, a record of excellence in research and teaching appropriate to appointment at the level of tenured full professor, and must possess outstanding communication, leadership, and interpersonal skills.

Visit http://www.engr.colostate.edu/me/ to view a full position description and obtain more information about the department. To make a nomination, contact the search chair at mehead@engr.colostate.edu or 970-491-3366. Submit all application materials via the web at http://www.engr.colostate.edu/mehead/. Applications will be accepted until the position is filled, but to be guaranteed full consideration by the search committee, applications must be received by November 6, 2009. Nominations should be received by October 9, 2009.

 ${\it CSU runs background checks on final candidates and is an EO/AA employer.}$

Materials Sciences Division

Deputy Director



The Materials Sciences Division at Lawrence Berkeley National Laboratory (Berkeley Lab) is accepting applications for a Division Deputy Director. This critical position is largely responsible for the strategic leadership of a division dedicated to designing, synthesizing, and characterizing new materials, and discovering and understanding new phenomena. This research will advance our understanding of nature, provide the basis for technology development, and help the U.S. industry continue its leadership in high technology.

The Deputy has the challenge and opportunity to develop objectives and programs in concert with Berkeley Lab's mission. This high-impact role also directs the research, technical, business, and administrative activities for various programmatic areas of division operations, and may be hired at the staff scientist or senior scientist level.

Oualifications include:

- International reputation for leadership in related research, and significant experience with major scientific programs/projects
- Outstanding record of scientific contributions and substantial demonstrated experience in the formulation and direction of scientific programs

Please see the full job details and apply at **jobs.lbl.gov**. Search for **job** # 23314.

Berkeley Lab is an Affirmative Action/ Equal Employment Opportunity employer committed to the development of a safe and diverse workforce. www.lbl.gov

CLIFFORD G. SHULL Fellowship Program

OAK RIDGE NATIONAL LABORATORY

MANAGED BY UT-BATTELLE FOR THE DEPARTMENT OF ENERGY

The Neutron Scattering Science Division at Oak Ridge National Laboratory (ORNL) invites applications to the Clifford G. Shull Fellowship. Corecipient of the 1994 Nobel Prize in physics, Shull began his work in 1946 at what is now ORNL. He has been called the "Father of Neutron Scattering," and this fellowship has been established in recognition of his pioneering work in this field.

The goal of this fellowship is to attract new scientific talent to ORNL for the development of its neutron science program. We are looking for candidates with exceptional ability who are capable of developing innovative research programs and who show the promise of outstanding leadership.

Qualifications:

- · Ph.D. minimum
- · No more than three years past completion of Ph.D.
- · Not currently occupying an ORNL postdoctoral position

For more information and to apply online: http://neutrons.ornl.gov/shullfellowship

ORNL is an equal opportunity employer and is committed to workforce diversity; women and minorities are strongly encouraged to apply. Applicants need not be U.S. citizens





ASSISTANT PROFESSOR



Northeastern University

Chemical Engineering Department

The Department of Chemical Engineering at Northeastern University invites applications for a tenure-track faculty appointment at the Assistant Professor level with specialization in advanced materials. Preference will be given to candidates with research interests in materials for energy, biomaterials, and smart materials. Higher-level appointments will be considered for candidates with an appropriate level of past experience. Applicants should demonstrate evidence of ability to establish and pursue a program of high quality research and possess a strong commitment to graduate and undergraduate teaching. Salary and rank are commensurate with experience.

Northeastern is an urban university located in the heart of Boston in close proximity to world-renowned research hospitals, academic research institutions, and historical arts and music landmarks of the city. Please email one combined document in pdf format that consists of a letter of application, statement of teaching and research interests, and a current résumé including the names of three references to the email address, fachire@neu.edu. Documents may be also be sent by regular mail to:

Faculty Search Committee Department of Chemical Engineering 342 Snell Engineering Center, Northeastern University 360 Huntington Avenue, Boston, MA 02115

> Northeastern University is an Equal Opportunity/ Affirmative Action Educational Institutional Employer.

MAX PLANCK INSTITUTE FOR THE SCIENCE OF LIGHT



www.mpl.mpg.de

Head of Glass Facility (E13-E15 level)

The Max Planck Institute for the Science of Light is seeking an outstanding PhD-level candidate to take a leadership role in the setting up and running of a glass facility, which will form an important part of the scientific infrastructure of the Institute. The position will involve managing a team of technicians, as well as interacting closely with scientists in the Institute's research Divisions. Expertise in glass synthesis and melting, tube drawing, extrusion and fibre drawing is desirable, as well as a keen interest in technology and research (a major theme in the Institute is the applications of microstructured or photonic crystal fibres). The facility will also provide precision cutting, drilling and polishing services for both glasses and crystals.

In addition to providing support for the research of the Institute as a whole, the successful applicant will be encouraged to develop his/her independent research projects.

The closing date is **October 2**, **2009**, although applications received after this date may also be considered.

Informal enquiries may be directed to:

Professor Philip Russell

Max Planck Institute for the Science of Light

Günther-Scharowsky-Str.1 /Bau 24, D-91058 Erlangen

Tel 49-9131-6877-301 • Fax 49-9131-6877-309 • bettina.schwender@mpl.mpg.de



PROGRAM DIRECTOR Division of Materials Research National Science Foundation

The National Science Foundation's Division of Materials Research (DMR) is seeking qualified candidates for Program Director position in the Materials Research Science and Engineering Centers (MRSEC) Program, Arlington, VA.

Within the Division (DMR), the MRSEC program supports materials research of scope and complexity that would not be feasible under traditional funding of individual research projects. The MRSECs constitute a spectrum of coordinated centers of differing scientific breadth and administrative complexity that may address any area (or several areas) of materials research. Further information about the program can be found at http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5295&org=DMR&from=home and at the MRSEC website http://www.mrsec.org/.

Applicants must possess a PhD degree or equivalent experience in materials science and engineering, condensed matter and materials physics, solid state and materials chemistry, biomaterials, 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 be familiar with a broad spectrum of the materials research community and have a demonstrated interest in interdisciplinary materials research. The appointees are 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. Applicants with accomplishments in the integration of research and education and with multidisciplinary experience and interests are desired.

The position will be filled on a one or two year Visiting Scientist appointment (VSEE), under the terms of the Intergovernmental Personnel Act (IPA), or Federal Temporary appointment, with a salary range of \$102,721 to \$160,078. Applicants should refer to vacancy number **E20090088-Rotator** and should follow the application instructions located on the NSF Home page at **www.nsf.gov/about/career_opps/**. Applications must be received by **September 30, 2009**.

NSF is an Equal Opportunity Employer.



POSTDOCTORAL RESEARCH FELLOWSHIP Materials Science and Engineering Department Idaho National Laboratory

The Materials Science and Engineering Department at the Idaho National Laboratory (INL) seeks to fill a postdoctoral research fellowship in the area of phonon mediated thermal transport measurements. This position requires a strong background in time resolved laser metrology and a firm understanding of solid state physics. The fellowship will be funded through the Center for Materials Science of Nuclear Fuel, a Basic Energy Science Energy Frontier Research Center (BES-EFRC) located at INL. The central focus of this Center involves understanding thermal transport in extreme radiation environments. The Center brings together an internationally recognized multi-institutional team of experimentalists and computational materials theorists. Collaboration between the computational and experimental elements of this center will be strongly encouraged through participation in a summer school to develop a common intellectual basis for the postdoctoral fellows, graduate students, and principle investigators. Much of the initial work will focus on pristine, nonradioactive surrogate materials. As the project progresses, emphasis will transition to the development of in situ measurement capability in extreme radiation environments.

Idaho National Laboratory has been designated as the lead Department of Energy laboratory for all aspects of nuclear fuel research and development in the United States. INL has the most comprehensive single-location nuclear fuel research capabilities in the US and, in particular, the most complete and advanced complement of post irradiation examination capability for studying the effects of intense neutron and gamma radiation on reactor materials and fuels. The research conducted under the BES-EFRC strongly supports INL's nuclear energy mission. A PhD degree in science/engineering and laser Operator experience is required.

Idaho National Laboratory is located in southeastern Idaho on the Snake River Plain. The region is a paradise for nature lovers and outdoors enthusiasts with Yellowstone National Park to the north, the Teton mountain range to the east, and Sun Valley ski resort to the west. Please send curriculum vitae, summary of research plans, and list of three or more references to: Vanessa Van Dyk, PO Box 1625, MS 3790, Idaho Falls, ID 83415-3790 or e-mail to Vanessa.VanDyk@inl.gov.

Equal Opportunity Employer



2009 MRS Fall Meeting Career Center

Meet Your Next Employer ...

Show off your talents to the world's most prestigious universities, laboratories and high-tech firms. FREE of charge to all MRS Members, the Career Center provides targeted employment opportunities to candidates seeking positions in the scientific community.

- · Review open positions tailored to the materials research industry
- Interview with prospective employers
- · Visit on-site recruitment booths and network with technical staff

Location & Hours

Hynes Convention Center • Exhibit Hall (Level 2)

On-site Registration Hours

Monday, November 30......1:00 pm – 4:00 pm

Career Center Hours

 Tuesday, December 1
 11:00 am - 5:30 pm

 Wednesday, December 2
 11:00 am - 5:30 pm

 Thursday, December 3
 10:00 am - 1:30 pm

For additional information, visit www.mrs.org/f09_cc

Member Alert!

Do the research to advance your career... visit the MRS Career Center today!



DIRECTOR Center for Nanophase Materials Sciences (CNMS)

The Oak Ridge National Laboratory (ORNL), a premier science and energy laboratory, is seeking an outstanding research leader for the position of **Director, Center for Nanophase Materials Sciences (CNMS)**. The CNMS, one of five Department of Energy national nanoscience user facilities, is dedicated to the design, synthesis, characterization, and theory/modeling/simulation of nanoscale materials. The CNMS occupies a new, dedicated building with over 30 laboratories and a 10,000 sq. ft. nanofabrication clean room facility. Therefore, you will be provided with the ideal environment to create rich opportunities for collaborative research in a national laboratory environment.

MAJOR RESPONSIBILITIES:

- Defining and leading an innovative research program
- · Attracting and retaining outstanding research staff
- Managing a \$20M annual operating budget and additional capital equipment budget

QUALIFICATIONS:

- PhD degree in physical sciences, engineering, or related field
- Greater than 10 years of professional research experience beyond the doctorate
- Greater than 8 years experience leading multi-disciplinary research groups

For a more detailed job description, and to apply, please visit our company website at http://jobs.ornl.gov/ or www.ornl.gov.

Equal opportunity employer.

www.ornl.gov



CHIEF RESEARCH OFFICER

The Ames Laboratory is a government owned, contractor operated U.S. Department of Energy national laboratory, operated by and situated on the campus of lowa State University. With expanding opportunities based upon its traditional strengths in materials design, analysis and processing, the Ames Laboratory is conducting a nationwide search for a Chief Research Officer to lead its science programs.

The Search Committee invites letters of nomination to be submitted to humanresources@ameslab.gov. A complete description and application instructions may be viewed at www.iastatejobs.com, Vacancy #090489. Confidential review of materials will begin immediately and continue until the appointment is made. It is preferred that all nominations and applications be submitted prior to November 15, 2009.

Iowa State University does not discriminate on the basis of race, color, age, religion, national origin, sexual orientation, gender identity, sex, marital status, disability, or status as a U.S. veteran.



BIOMATERIALS PROGRAM DIRECTOR Division of Materials Research National Science Foundation

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

The Biomaterials (BMAT) Program is a program supporting research on biologically related materials and phenomena, including biological pathways to new materials. The materials and systems of interest include biomolecules, biomolecular assemblies (systems of strongly interacting biomolecules), and biomimetic, bioinspired, or biocompatible materials. The methods of materials research may be applied to biological systems to discover or understand phenomena and to create or optimize materials. Consistent with DMR's mission, materials-focused proposals are in the general areas of biological condensed matter physics and chemistry, and biologically related materials science.

Applicants must have a PhD degree or equivalent experience in the chemical or material or physical sciences, or a closely related field, plus six or more years of successful research, research administration, and/or managerial experience pertinent to the position. Additional expertise in interdisciplinary research areas at the interface between the biological or life, and the material or physical sciences will be attractive.

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 **E20090099-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 **September 30, 2009**.

NSF is an Equal Opportunity Employer

Advertisers in This Issue

	Page No.
GE Global Research	631
High Resolution Electron Microscopy/ASU Winter	School 693
High Voltage Engineering	Inside Front Cover
Janis Research Company	631
JEOL	Outside Back Cover
MMR Technologies, Inc.	693
National Electrostatics Corporation	681

For free information about the products and services offered in this issue, check http://www.mrs.org/bulletin_ads.