

**Positions Available**



**STERNBERG PROFESSORSHIP IN NANOTECHNOLOGY**  
**College of Engineering**  
**Northeastern University**

The College of Engineering invites applications and nominations for the position of Sternberg Professor of Nanotechnology; an endowed chair within the College of Engineering. We seek renowned scholars who have achieved national and international distinction in fundamental and applied research in nanotechnology. The abilities to interact with industrial partners and to provide leadership to interdisciplinary research teams are essential. The successful candidate will be expected to establish a leading high-level research program, to teach at the graduate and undergraduate levels, and to interact and synergize with research groups at Northeastern. The college is interested in, but not limited to, the following topics: Nanomanufacturing, directed assembly, nanoscale devices, micro and nano robotics, single molecule and nanoscale devices, non-volatile switches, synthesis and functionalization of nanobuilding blocks, and bio and chemical sensors.

Northeastern University is home to the NSF Nanoscale Science and Engineering Center for High-rate Nanomanufacturing (CHN; [www.nano.neu.edu](http://www.nano.neu.edu)), one of four such centers nationwide. The CHN includes more than 160 students, postdocs, and professors. The CHN enjoys successful partnerships and collaborations with industry through its 36 member companies yielding a multi-million dollar annual research. The College of Engineering houses the George J. Kostas Nanoscale Technology and Manufacturing Research Center, a 10,000 ft<sup>2</sup> facility, including a 7,000 ft<sup>2</sup> Class 10/100 cleanroom, with a complete wafer nanofabrication facility. The College of Engineering has, in addition to the CHN, four other competitively-funded major centers on sub-surface sensing and imaging, detection of explosives, advanced sensors for infrastructure, and healthcare systems engineering.

Appointment will be at the tenured full and associate professor level and is expected to be made by Fall 2010. Nominations and applications, including a letter of interest, resume, and references, should be sent to:

Professor Ahmed Busnaina, Chair; William Lincoln Smith Professor and Director  
 The NSF Nanoscale Science and Engineering Center for High-rate Nanomanufacturing  
 Northeastern University, 360 Huntington Avenue, Boston, MA 02115  
 Tel 617-373-2992; Fax: 617-373-2921; Email: [busnaina@neu.edu](mailto:busnaina@neu.edu)

*Northeastern is an equal opportunity/affirmative action, Title IX university.*

**FACULTY SEARCH**  
**Materials Science and Engineering**  
**Virginia Polytechnic Institute and**  
**State University**

The Department of Materials Science and Engineering at Virginia Tech seeks applications for a tenure-track faculty position in metal casting and solidification. Exceptional candidates at senior ranks may be considered for an endowed professorship if they can contribute to initiatives in advanced materials and high-performance coatings. The department has 18 faculty, eight of which are jointly appointed with other departments, approximately 75 undergraduate students, and 50 graduate students. It has a broad curriculum covering all areas of materials and is the only department in Virginia offering a baccalaureate degree in MSE. Additional details are available at [www2.mse.vt.edu](http://www2.mse.vt.edu).

Applicants should apply at [www.jobs.vt.edu](http://www.jobs.vt.edu) to **Posting Number 090694** and include a resume, a statement describing research and teaching interests, and the names of three references. Initial review of applications will begin on 1 February 2010, and will continue until the position is filled.

*Virginia Tech is an Equal Opportunity/  
 Affirmative Action Institution.*



**DEPARTMENT HEAD**  
**AND PROFESSOR**  
**Colorado School of Mines**

Colorado School of Mines invites applications and nominations for the position of Department Head of Metallurgical and Materials Engineering. The Department Head is a tenured full professor, is the department's chief academic and administrative officer, reports to the Provost, and has the responsibility for all aspects of the department's academic leadership, management, planning, and operations.

Mines seeks a distinguished scholar and academic leader with an international reputation and outstanding record of research, scholarship, teaching, and professional service in one or more of the Department's focus areas. For the complete job announcement and instructions on how to apply, please visit [http://www.mines.edu/Academic\\_Faculty](http://www.mines.edu/Academic_Faculty).

Review of applications will begin by **April 5, 2010**.

*Mines is an EEO/AA employer.*



**FACULTY POSITION (Rank Open)**  
**Department of Materials Science and Engineering**  
**University of Illinois at Urbana-Champaign**

The Department of Materials Science and Engineering at the University of Illinois at Urbana-Champaign is seeking exceptional candidates for tenure-track or tenured faculty positions with expertise in fundamental science or engineering of biomaterials or related biological topics. Faculty members in the Department are expected to teach undergraduate and graduate courses, and initiate and sustain a vigorous graduate research program. Applicants must provide a curriculum vita that includes their teaching experience and interests, a list of publications, and a synopsis of a proposed program of research. Candidates for tenure-track positions must have three (3) letters of reference sent directly to the department. Candidates for tenured positions must have achieved national and international recognition for their scholarship; they must include the names and contact information of at least three (3) references.

The Department has 24 faculty and more than 300 undergraduate and 155 graduate students, with highly ranked graduate and undergraduate programs. The Department offers a rich research environment that spans experimental, computational, and theoretical studies in biomaterials, ceramics, complex fluids, metals, polymers, and electronic and photonic materials. Extensive state-of-the-art experimental and computational facilities are housed on campus in the Frederick Seitz Materials Research Laboratory, the Beckman Institute, and NCSA.

Applicants must hold an earned doctorate in an appropriate field. Salary and rank will be commensurate with qualifications. The proposed starting date for these positions is as soon as possible after the closing date. To ensure full consideration, applications must be received prior to **March 31, 2010**. Interviews may take place during the application period, but a decision will not be made until after the closing date.

To apply for this position, please create a candidate profile at <http://jobs.illinois.edu> and upload your letter of application and resume by March 31, 2010.

If you do not have online access, please contact the department office for further options:  
 Department of Materials Science and Engineering; 1304 W. Green Street, Urbana, IL 61801  
 Telephone: 217-333-1440; Fax: 217-333-2736; Email: [mse@illinois.edu](mailto:mse@illinois.edu)

*The University of Illinois is an Affirmative Action, Equal Opportunity Employer.*

## Positions Available

**Senior Glass Chemist**

Carlstadt, NJ, USA

Sun Chemical, a key subsidiary of the multinational DIC Group with over 200 companies in more than 60 countries, is the world's largest producer of printing inks and pigments and a leading provider of materials to packaging, publication, coatings, plastics, cosmetics, and other industrial markets.

We are excited to be investing in growth technologies which include the evolving printed electronics market and to be creating outstanding opportunities for talented and experienced professionals in our Global EM Technology group. These motivated, self-starters will have the potential to work on products for printed electronics and photovoltaic (PV) cells, as well as on future generation technologies, such as thin film and OPV, from concept to R&D and through commercialization. Qualifications for this position include:

- Ph.D. in Inorganic, Ceramic Materials or related Chemistry field preferred. Candidates with an MS degree, extensive experience (10+ years), and a proven track record may be considered.
- 5+ yrs of industrial R&D experience in glass/ceramic material development for Electronic Materials needed. Specific experience in glass frit development for photovoltaics is preferred.

We offer competitive salaries and benefits.

For prompt consideration, please fax your confidential resume and cover letter indicating your salary history to 201-935-7305, Attn: EM or email:

david.benson@sunchemical.com. EOE m/f/d/v

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Max-Planck-Institut für  
Eisenforschung GmbH



The **Max-Planck-Institut für Eisenforschung GmbH** is dedicated to basic research on structural metallic alloys with a focus on steels. The institute is equally financed by the Max-Planck Society and the Steel Institute VDEh. We aim at an improved understanding of the complex physical processes, chemical reactions, and properties of structural metallic materials using advanced characterization, theory, and processing methods. To strengthen our profile in the field of designing novel high-performance alloys we invite applications for a new

**Max Planck Research Group "Metallurgical Design and Synthesis of Advanced Materials" (W2, equiv. to Associate Professor Level)**

The successful candidate should have strong publication records in the fields of alloy design, metallurgical synthesis, and associated thermo mechanical processes. Areas of particular interest include knowledge-based alloy design, metallurgy, synthesis, and processing of advanced steels, joining, and bulk iron-based glasses.

Experience in interdisciplinary research, project management, and fundraising as well as high creativity are desirable.

The position is available for five years and will be supported by appropriate intramural funds and personnel. Consideration of candidates starts immediately and continues until the position is filled. For outstanding candidates a tenure track procedure is conceivable.

We are an equal opportunity employer. We offer an international research environment with excellent equipment and motivation for ambitious researchers. We invite candidates to send their CV plus 3 papers, an outline of their intended research and group concept, and contact information regarding academic references as pdf via email to

Professor Dierk Raabe

Max-Planck-Institut für Eisenforschung GmbH

Max-Planck-Straße 1 • 40237 Düsseldorf • Germany

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**MICROFLUIDICS  
LABORATORY DIRECTOR**  
Princeton University

Princeton University seeks a Director to manage, operate, and maintain the Microfluidic (MF) Laboratory for the Physical Sciences-Oncology Center. The MF Laboratory Director will be responsible for design and construction of microfluidic platforms, including constructing imaging techniques (microscopes and cameras), fluidics, software, and web interfaces. The Director will be required to translate the needs of biologists to design devices and experimental protocols and will collaborate with Princeton's Micro/nanofabrication Laboratory. The Director will also be required to collaborate with biologists to perform microfluidic experiments. The Director will train new users, develop user documentation, and will contribute to summer workshops and symposia on microfluidics and applications. This is a five-year term position.

Qualifications include a PhD degree or relevant industrial experience in Biophysics, Engineering, Biology, or related field. A minimum of 3-years experience in microfluidics or related fields is required. Experience in microfabrication or cell cultures is preferred. Applicants should apply online at <https://jobs.princeton.edu> referencing **job requisition number 1000024**. For information about applying to Princeton and how to self identify please link to [http://www.princeton.edu/dof/about\\_us/dof\\_job\\_openings/](http://www.princeton.edu/dof/about_us/dof_job_openings/).

*Princeton is an equal opportunity employer and complies with applicable EEO and affirmative action regulations.*

**RESEARCH ASSOCIATE**  
Nanoscience



University of Pittsburgh

The Petersen Institute of NanoScience and Engineering (PINSE: [www.nano.pitt.edu](http://www.nano.pitt.edu)) at the University of Pittsburgh has an immediate opening for a full-time research associate (RA). The RA will be responsible for supporting the research activities relating to the nanoscale fabrication instrumentation (electron beam lithography, focused ion beam etching, dip-pen, and nanoimprint) within the Nanoscale Fabrication and Characterization Facility (NFCF). The RA will be required to maintain and operate the equipment for current and future research efforts and also to assist and train students, post-docs, and other scientists on the equipment. The ability to contribute to the related activities of NFCF in nanofabrication, process integration, and characterization is also desirable.

The successful candidate must have a PhD degree in electrical engineering, physics, materials science, chemistry, or related field; extensive knowledge and experience in materials/device processing, fabrication, and instrumentation in cleanroom environment; and a strong aptitude for collaborative research in an academic environment. Excellent interpersonal communication and writing skills also are important. Please send a cover letter and a CV with contact information for three references by **March 30, 2010** to:

Theresa Costanzo  
348 Benedum; University of Pittsburgh; Pittsburgh, PA 15261  
[costanzo@engr.pitt.edu](mailto:costanzo@engr.pitt.edu)

*The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer and strongly encourages applications from women and minorities.*

Positions Available

POSTDOCTORAL RESEARCH POSITIONS  
Center for Ceramic Research



The Center for Ceramic Research, Rutgers University, invites qualified applications for three Postdoctoral Research Positions in the area of processing and characterization of advanced ceramics. Candidates must have already completed a PhD degree in Ceramics, Materials Science, Chemical Engineering, Geology, or other related field.

**Program 1:** The goal of the first program is to examine the synthesis of both boron carbide and silicon carbide powders. The candidate should be well versed in carbide powder synthesis and characterization. Candidates need a thorough understanding of powder and bulk ceramic characterization techniques including Raman and FTIR spectroscopy, particle size, and surface area techniques as well as knowledge and experience with both SEM and TEM.

**Program 2:** The goal of the second program is to model the structure and properties of both boron carbide and silicon carbide. Candidates must have experience modeling electronic structure in materials, including single point energy calculations, geometry optimizations, and frequency calculations. It is highly beneficial if the candidate has demonstrated linking modeling to characterization, including Raman spectroscopy, x-ray diffraction, and high-resolution electron microscopy. Candidates for **Positions 1 and 2** should contact Prof. Richard Haber at rhaber1@rci.rutgers.edu or 732-445-4931.

**Program 3:** The goal of the third program is to utilize spinodal decomposition to create nanostructured SiC-AlN and investigate the relationship between microstructure and "plasticity" of the composite system. Demonstrated expertise in the following areas is required: TEM, PEELS, FESEM, and structure simulation, powder processing, sintering, as well as microstructure-property relationships. Candidates for **Position 3** should contact Prof. Stephen Danforth at danforth@rci.rutgers.edu or 732-445-2211.

The positions are contract funded with an approximate starting date of March 1, 2010. US citizenship or green card is required. Interested candidates should send their resumes (including date of availability, three references, proof of citizenship or green card, and a copy of three relevant publications).

*Rutgers University is an Equal Opportunity/Affirmative Action employer.*

POSTDOCTORAL FELLOW  
Departments of Chemistry and Physics  
Bryn Mawr College

The Bryn Mawr College Departments of Chemistry and Physics seek a Bucher-Jackson Postdoctoral Fellow in the area of nano-materials for a one-year term, renewable for a second year, beginning July 1, 2010. This is a combined teaching and research fellowship. Please visit <http://www.brynmawr.edu/provost/working/chemistrypost-doc.html> for application information.

*Bryn Mawr College is an Equal Opportunity Employer.*



Los Alamos National Laboratory - a premier national security research institution delivering innovative science and engineering solutions for the nation's most crucial and complex problems - has the following opening available:

POSTDOCTORAL POSITION IN MATERIALS SCIENCE

This is an exciting opportunity to be part of a team making experimental measurements on a variety of non-metallic materials using both traditional mechanical testing and innovative testing methods, with the goal of improving state-of-the-art computer models. This groundbreaking work is part of a stable and consistently funded joint project between the Department of Energy and Department of Defense.

Minimum requirements include a Ph.D. in a related discipline completed within the past 5 years (or anticipated completion). Candidates must also have experience with some or all of the following: Performance of medium or high strain-rate testing of materials; fracture mechanics of non-metals; experimental design of novel mechanical testing methods of materials as a function of strain-rate, temperature or geometry. Current U.S. citizenship (or ability to obtain) is highly desirable; pre-employment drug test is required, as well as response to the LANL Applicant Disclosure Form for all current/former Government Officials.

For specific questions about this position, call (505) 667-4436 or (505) 664-0090. Please submit your letter of interest and resume to [jobs@lanl.gov](mailto:jobs@lanl.gov), specifying Job # 218869, or submit your application online at [www.lanl.gov/jobs](http://www.lanl.gov/jobs)



[www.lanl.gov/jobs](http://www.lanl.gov/jobs)

CHAIR  
Department of Mechanical Engineering



The Cullen College of Engineering of the University of Houston invites nominations and applications for the position of Chair, Department of Mechanical Engineering (ME). The successful candidate should have an established national and international reputation in research, and a distinguished record of academic and professional leadership. The ME department has programs leading to bachelors, masters, and doctoral degrees. The department has several highly respected research programs, and is building on these strengths through faculty searches. Detailed information, with links to university programs, can be found at <http://www.egr.uh.edu/me/>.

The position is available beginning Fall 2010, with competitive salary and benefits. The Search Committee will accept and review applications until the position is filled. Send nominations or applications, including a letter outlining experience and qualifications, a current CV, and the names of at least four references to: ME Chair Search Committee, Cullen College of Engineering, E421 Engineering Building 2, University of Houston, Houston, TX 77204-4007, or e-mail Mrs. Kitty Karson at [kkarson@uh.edu](mailto:kkarson@uh.edu).

*The University of Houston is an Equal Opportunity/Affirmative Action employer. Minorities, women, veterans, and persons with disabilities are encouraged to apply.*