

## Positions Available

## FACULTY POSITION

Department of Materials Science and Engineering  
The Henry Samueli School of  
Engineering and Applied Science  
University of California, Los Angeles

The Department of Materials Science and Engineering at UCLA invites applications for a faculty position in which the emphasis will be on developing new materials for civil engineering applications and extending long term usages of current cementitious materials. This is a tenure-track ladder faculty position at the Assistant/Associate Professor level. Of particular interest are candidates who have demonstrated outstanding research on cementitious materials. The individual appointed to the position should have a record of journal publications in the field along with teaching and/or industrial experience. The candidate's appointment will be in the Department of Materials Science and Engineering, although a joint appointment in the Civil and Environmental Engineering Department will also be possible. In addition, the successful candidate will be considered for a term chair. All qualified applicants are encouraged to apply, including minorities and women.

Applicants should send their resume, list of publications, a research/teaching plan, and the names of three referees to:

Search Committee in Cementitious Materials  
Department of Materials Science and Engineering  
6531 Boelter Hall  
University of California, Los Angeles  
P.O. Box 951595  
Los Angeles, CA 90095-1595

The application deadline is **July 31, 2007**.

*The University of California, Los Angeles is an Equal Opportunity/  
Affirmative Action Employer.*



SCIENTIST POSITIONS  
IMDEA-Materials

IMDEA-Materials (Madrid Institute for Advanced Studies of Materials) is a non-profit, private research organization, recently promoted by the Regional Government of Madrid, to carry out research activities in Materials Science and Engineering in Madrid (Spain). The new research institute is part of IMDEA, a new institutional framework that combines both public and private support and harmonizes research with market demand, encouraging the private sector to participate in the design of science. IMDEA-materials is committed to excellence in research and to foster technology transfer to the industrial sector in a truly international environment.

IMDEA-materials is looking for scientists at the senior and junior level to develop its first research lines in close collaboration with universities, research centers, and companies in the region of Madrid. Positions are open in the following areas:

**Development of Novel Polymer-Clay Nanocomposites** involving sepiolite and other clay minerals to improve mechanical properties of synthetic and natural polymers. Bionanocomposites derived from diverse biopolymers and micro- or nano-particulated inorganic solids and provided of functional properties represent one of the topics of particular interest in this area.

**Multiscale Modelling of Structural Materials** to predict the macroscopic mechanical behavior of engineering materials and composites from the properties as spatial arrangement of the phases and interfaces using various simulations strategies to cover a wide range of length and time scales (atomistics, dislocation dynamics, computational micromechanics, homogenization, etc.).

**Computational Modelling of Engineering Alloys** to simulate the influence of composition and processing conditions on the microstructural development of engineering alloys for structural applications by means of advanced simulation strategies (phase-field models, Monte Carlo and phase-diagrams simulations, finite elements, etc.).

**Processing of Advanced Metallic Materials** to develop innovative strategies and to improve current methods to manufacture components of Ni-based superalloys and/or Mg alloys for aerospace and automotive applications.

**Physical Metallurgy of Engineering Alloys** to develop new metallic alloys (particularly Ni-based superalloys and Mg alloys) with improved manufacturability, mechanical properties and corrosion resistance for structural applications in aggressive environments.

Candidates should hold a doctoral degree in Materials Science (or related discipline) and demonstrate their ability to carry out independent research which combines high scientific output with technology transfer to industry. As a rule, ten years of research experience is required for senior scientists and five for junior scientists. Leadership to develop an independent group within the framework of research activities of the Institute and good communication skills are required. More information can be obtained from <http://www.imdea.org>.

Interested candidates should submit their Curriculum Vitae, a one-page statement of the research objectives as well as complete contact information for two references through the web page of the institute (<http://www.imdea.org/internationalcall>) or directly by e-mail to the Director of the Institute, Prof. Javier LLorca at [javier.llorca@imdea.org](mailto:javier.llorca@imdea.org).

## Nanofabrication Scientist

The Molecular Foundry at Lawrence Berkeley National Laboratory (LBNL) is a user facility charged with providing support to research in Nanoscience underway in academic, government, and industrial laboratories around the world. Its focus is the multidisciplinary development and understanding of both "soft" (biological and polymeric) and "hard" (inorganic and micro-fabricated) nanostructured building blocks and the integration of those building blocks into complex functional assemblies. <http://foundry.lbl.gov>

The Foundry's Nanofabrication Facility provides instruments and techniques dedicated to state-of-the-art lithographic and thin-film processing. The Facility has opportunities at the term\* (#20401) and career (#20403) level for a Scientist to perform original research on micro and nanofabrication of integrated nanostructured systems involving both top-down and bottom-up nanofabrication technologies with emphasis on nanoimprinting lithography.

**Key Contributions:**  
The candidate will carry out original research to fully exploit the capabilities of the Step and Flash nanoimprint lithography tool, assisted by the use of the 100kV Nanowriter electron-beam lithography tool, cross-beam (SEM-FIB) tool, and other capabilities of the Facility as they become available. He/she will participate with other scientists and engineers in developing methodology and instrumentation, particularly in the field of nanoimprinting, microcontact printing, supra molecular nanostamping, and directed self assembly.

\*The term appointment has a maximum of five years, subject to continued funding and continued positive performance after annual review.

Please apply online at <http://jobs.lbl.gov>. Select Search and enter the corresponding job # in the search field. In addition, please send the following application materials to the corresponding email, [Nanofab20401@erom2.lbl.gov](mailto:Nanofab20401@erom2.lbl.gov) or [Nanofab20403@erom2.lbl.gov](mailto:Nanofab20403@erom2.lbl.gov) (Resume or CV, summary of research interests, and a list of at least five references--a minimum of three from colleagues in the field, not supervisors). Reference "WWW" and "Materials Research Society" as your source. AA/EOE

**Positions Available**



**CINT CO-DIRECTOR/SENIOR MANAGER  
Physical and Chemical Sciences Department  
Sandia National Laboratories**

Sandia National Laboratories is the nation's premier science and engineering lab for national security and technology innovation, employing 8,700 people at major facilities in Albuquerque, New Mexico and Livermore, California. We apply our world class scientific and engineering creativity and expertise to comprehensive, timely, and cost effective solutions to our nation's greatest challenges. Please visit our website at [www.sandia.gov](http://www.sandia.gov). We have an opening for a CINT Co-Director/Senior Manager for the Physical and Chemical Sciences Department at the Albuquerque facility. The salary is commensurate. A benefit and relocation package is available. Must be able to obtain and maintain a DOE Security Clearance.

Serve as the Co-Director for the Center for Integrated Nanotechnologies (CINT) (<http://CINT.sandia.gov>). CINT is a Department of Energy/Office of Basic Energy Sciences (BES) Nanoscale Science Research Center operating as a national user facility devoted to establishing the scientific principles that govern the design, performance, and integration of nanoscale materials, managed through a partnership between Sandia and Los Alamos National Laboratories (LANL) via a cross-laboratories leadership team. The performance of both Co-Directors will be evaluated by the joint laboratory CINT Executive Management Team.

The Co-Directors are jointly responsible for: The scientific vision and overall success of CINT transcending the boundaries of Sandia and LANL; Cultivating a strong relationship with BES; Fostering a strategic partnership between laboratories. Duties include: Spending significant time on-site at each Laboratory; Actively leading proposals to external funding agencies; Attracting and retaining the best nanoscience talent; Fostering the performance and publication of scientific research on nanoscience integration; Developing a vibrant scientific user community; and Building international visibility through outreach to universities, industry, and other national laboratories. With the rest of the CINT leadership team, developing and executing a scientific strategy. Provide oversight for scientific thrusts, across both laboratories. Oversee operational issues within Sandia.

This position requires a PhD degree in a relevant field of science or engineering or equivalent combination of education and experience. Must be able to demonstrate: A history of technical leadership, program development and management, and strategic planning; Record of effective communication, teamwork, superb interpersonal skills, and consensus building; Ability to work effectively with personnel in BES; Proven technical excellence in a scientific field and broad knowledge of condensed matter and materials research. Experience working with the Department of Energy, Office of Science; experience with national user facilities; involvement and leadership in the international scientific community including professional organizations and workshops/meetings are desirable.

Please submit resume online at <http://www.sandia.gov>, under Employment/Career Opportunities/Sandia internet Careers site, then reference Job Requisition Number: 57950. U.S. Citizenship Normally Required.

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



**HEAD**

**Department of Materials Science and Engineering  
National University of Singapore**

Applications are invited for the position of Head, Department of Materials Science and Engineering (MSE), National University of Singapore. The Department of Materials Science and Engineering was established in the Faculty of Engineering in April 2005. It was originally the Department of Materials Science in the Faculty of Science since its formation in 1996. The Department's mission is to provide high-quality "Science-driven, Application-oriented" education and research programs in advanced materials for discovery and implementation of new technologies.

The Department's current student population, since its establishment in the Faculty of Engineering, comprises about 77 undergraduates, 40 course-work based M.Sc. students, 8 research-based M.Eng. students, and 18 Ph.D. students. Its 12 regular faculty members are actively engaged in research and education activities that are focused on three strategic areas of advanced functional materials: infocomm technology, biotechnology, and sustainable energy.

The MSE Department is one of eight departments/divisions within the Faculty of Engineering. The Faculty, which is the largest in the university, has established programs in the major areas of engineering. NUS was ranked among top ten in the world for Technology by *The Times of London Higher Education Supplement* in 2004 to 2006. The National University of Singapore provides a thriving academic environment with a progressive global orientation that makes it an attractive community to work and live in.

The Head will be responsible for providing the visionary leadership to enable the Department to excel in its mission, to strengthen support among its alumni and stakeholders in industry, and to establish strategic alliances with select international partners and professional institutions. Further details on the Department are available at the website <http://www.mse.nus.edu.sg>.

Candidates should have distinguished academic accomplishments, visionary leadership, administrative abilities, a firm understanding of the academic and professional developments of the MSE discipline on a global scale, and proven track record of leadership and achievement in education and research. They should have outstanding academic credentials in one of the Department's thrust areas with relevant MSE knowledge. The curriculum vitae (including research, teaching, and administrative experience), publication list, supporting statements, and names and addresses of at least three references should be sent to:

Heidrick & Struggles  
7 Temasek Boulevard  
#20-01 Suntec Tower One  
Singapore 038987  
Fax: +65 6338 1260  
Email: [MSE@heidrick.com](mailto:MSE@heidrick.com)

**Closing Date: 15 July 2007**

Visit our website at [http://www.nus.edu.sg/ohr/jobs/faculty/terms\\_service\\_acad.htm](http://www.nus.edu.sg/ohr/jobs/faculty/terms_service_acad.htm) for links to information on the University and the terms of service. For more information on Singapore, see 'Contact Singapore' at <http://www.contactsingapore.org.sg/whySingapore.shtml>.



**Positions Available**

**DEPARTMENT CHAIR  
Biomedical Materials Science  
University of Mississippi School of Dentistry**

The Department of Biomedical Materials Science in the School of Dentistry at the University of Mississippi Medical Center is seeking a new chair. Candidates must hold a PhD degree or equivalent in bio-engineering, biomaterials, polymer science, materials science, ceramics engineering, metallurgy, or a related field with emphasis in biomaterials, and demonstrate strong organizational and leadership skills.

The successful candidate will be expected to interact effectively in the multidisciplinary environment of the Medical Center. Candidates must demonstrate a substantial and continuing record of extramurally funded research and publications in their area of research. With the development of our newly instituted graduate program, the ability to mentor graduate students, a strong commitment to education, and the ability to teach courses at all academic levels is imperative.

Leadership in the continued development of innovative educational and research programs is paramount. Applicants must be US Citizens or have a visa allowing permanent employment in the US. Salary will be commensurate with academic level and experience.

Candidates should send a letter of application including statement of research interests, outline of direction of future research, curriculum vitae, copies of two publications, and the names and addresses/e-mail/phone numbers of three references to:

Buford O. Gilbert Jr., DMD  
Senior Associate Dean, School of Dentistry  
The University of Mississippi Medical Center  
2500 North State Street  
Jackson, MS 39216  
E-mail: BGilbert@sod.umsmed.edu

*The University of Mississippi Medical Center is an  
Equal Opportunity Employer, M/F/D/V.*



**FACULTY POSITION  
Department of Materials  
Science and Engineering  
Korea University**

The Department of Materials Science and Engineering at Korea University invites applications for faculty positions in the areas of Bio-materials and devices, and Semiconducting materials and processing. The rank of the position is open, and both beginning and highly qualified researchers are encouraged to apply. The candidate must demonstrate a strong commitment to education and carry out an active research program. Successful applicants are expected to start in September 2007.

A complete application packet including detailed resume, publication list, references, and research plan, should be sent to: Faculty Search Committee (bk21mse@korea.ac.kr), Department of Materials Science and Engineering, Korea University. Review of applications will begin **June 1, 2007** and continue until the positions are filled. Please refer to the website of KU (<http://www.korea.ac.kr>) for further details.

**NATIONAL RESEARCH COUNCIL  
OF THE NATIONAL ACADEMIES**

**POSTDOCTORAL RESEARCH AWARDS  
National Research Council**

The National Research Council (NRC) is seeking applicants for Postdoctoral Research Awards in the area of surface analytical chemistry and characterization tenable at the Air Force Research Laboratory (AFRL), Materials and Manufacturing Directorate at Wright Patterson AFB, Ohio.

Proposals need to be directed toward surface chemistry research of tribological contacts and/or nanoparticle surface characterization to derive information about metal and non-metal surfaces with nanocomposite, nanostructured, and nanoparticle assemblies, and particle interfaces with multi-component and multi-valent organic media. Projects with a deep insight into chemistry and materials fundamentals with an extensive use of surface analytical techniques are especially welcomed.

Due to current AFRL regulations, only US citizens and green card holders are eligible for these awards.

Please contact Dr. Voevodin at [andrey.voevodin@wpafb.af.mil](mailto:andrey.voevodin@wpafb.af.mil) for contact surface project directions and Dr. Mirau at [peter.mirau@wpafb.af.mil](mailto:peter.mirau@wpafb.af.mil) for nanoparticle surface project directions. Applications must be submitted online directly to the NRC. Annual deadlines are February 1, May 1, August 1, and November 1. Instructions on how to apply are on the NRC Web site at: [www.national-academies.org/rap](http://www.national-academies.org/rap). Questions should be directed to the NRC at 202-334-2760 (tel) or [rap@nas.edu](mailto:rap@nas.edu).

Qualified applicants will be reviewed without regard to race, religion, color, age, sex, or national origin.

**THE NATIONAL ACADEMIES  
Advisers to the Nation on Science, Engineering, and Medicine**

**Post-Doctoral Fellowship in  
X-ray Scattering**

ExxonMobil Research and Engineering Company has an immediate opening for a Post-Doctoral Fellowship in its Corporate Strategic Research Laboratory located in Annandale, New Jersey.

The individual will be responsible for conducting and supporting applied and basic research employing X-ray scattering techniques. The position will primarily focus on collaborating with ExxonMobil scientists working in catalysis, materials and polymer sciences to develop structure/property relationships based upon X-ray scattering techniques. The research will be performed on EMRE's X-ray beamline facilities located at the National Synchrotron Light Source, Brookhaven National Laboratory and the Advanced Photon Source, Argonne National Laboratory.

Candidates should have most, if not all, of the following qualifications:

- Ph.D. in physics, chemistry, materials science, or appropriate discipline
- Expertise in small and wide angle X-ray scattering
- Experience with powder X-ray diffraction and crystallography
- Proficiency in anomalous X-ray scattering
- Command of synchrotron radiation X-ray beamline instrumentation
- Strong communication and interpersonal skills
- Aptitude for working in team environments
- Proficiency with computer hardware and software

ExxonMobil offers an excellent working environment and a competitive compensation and benefits package. Please submit your cover letter and resume to our website [www.exxonmobil.com/apply](http://www.exxonmobil.com/apply). Reference PDPAS-4280BR in both letter and resume.

**ExxonMobil is an Equal Opportunity Employer**

**PLACE YOUR AD TODAY!**

Contact Mary E. Kaufold at  
724-779-8312, or [kaufold@mrs.org](mailto:kaufold@mrs.org)