



## A? Aalto University

**Aalto University** is a new multidisciplinary science and art community in the fields of technology and science, business and economics, art and design. The University's cornerstones are its strengths in education and research.

**Aalto University School of Chemical Technology, Department of Materials Science and Engineering, invites applications for:**

### Tenure Track Position in Materials Science and Engineering

We search excellency in materials science and engineering covering materials in different chemical environments under mechanical loading and/or radiation. Applicants with excellent record in any other related areas of materials science and engineering can be considered.

The candidates must have a Ph.D. or equivalent degree in related field. Candidates should also demonstrate distinction in published research, evidence of consistent extramural funding, strong international experience and commit to teaching.

The closing date for applications is June 1st, 2012. The position will be based in Espoo, Finland. To see the complete position description, please go to [aalto.fi/en/openpositions](http://aalto.fi/en/openpositions).

[aalto.fi](http://aalto.fi)



TECHNISCHE  
UNIVERSITÄT  
DARMSTADT

### The Department of Materials- and Geosciences at TU Darmstadt invites applications for a faculty position in the field of

## Physical Metallurgy

(Code. No. 142)

Starting date: October. 1st, 2012

We are looking for an outstanding candidate with expertise in physical metallurgy of structural materials, who will develop an internationally recognized research program and will complement the existing research activities of our department. Areas of interest include advanced metals, materials processing, materials performance, nanostructured metals, materials for energy systems and substitutional materials. Active involvement in collaborations with other faculties, in particular with the department of mechanical engineering, is expected. Successful candidates will dedicate themselves to excellence and innovation in both undergraduate and graduate education in materials science. Contributions in teaching are envisaged in the area of materials engineering and mechanical properties. A working knowledge of the German language is desirable but not a prerequisite, since most courses are given in English.

The position is tenured with a remuneration package commensurate with experience and qualifications, following the German "W-Besoldung". The regulations for employment are specified under §§ 61 and 62 HHG (Hessisches Hochschulgesetz).

The Technische Universität Darmstadt intends to increase the number of female faculty members and encourages female candidates to apply. In case of equal qualifications applicants with a degree of disability of at least 50 or equal will be given preference.

Applications including a curriculum vitae, list of publications, research and teaching statements should be addressed to: Dekan des Fachbereichs Material- und Geowissenschaften, TU Darmstadt, Petersenstr. 23, 64287 Darmstadt, Germany. An electronic copy, preferentially in pdf format, is also requested. Applications should be sent by June 1st, 2012. Questions concerning the position can be addressed to Prof. Dr. K. Albe, Tel.: +49-6151-166374, e-mail: [albe@mm.tu-darmstadt.de](mailto:albe@mm.tu-darmstadt.de).

**Application deadline: 01-Jun-2012**

### DEAN OF THE COLLEGE OF ENGINEERING

The University of Wisconsin-Madison invites applications and nominations for the position of dean of its College of Engineering. Interdisciplinarity is a strength of the UW-Madison campus, and the college has extensive research and teaching collaborations with other outstanding schools and colleges. The college offers degree programs through nine academic departments: biomedical engineering, chemical and biological engineering, civil and environmental engineering, electrical and computer engineering, engineering physics, engineering professional development, industrial and systems engineering, materials science and engineering, and mechanical engineering; five interdisciplinary degree programs: environmental chemistry and technology, geological engineering, manufacturing systems engineering, materials science, and limnology and marine science; plus certificate programs, professional master's degrees, and thriving continuing education and lifelong learning programs.

The college enrolls approximately 1500 graduate and 3800 undergraduate students, and has a total annual budget of \$160 million with over \$100 million in annual extramural research support, and ~200 faculty, 1100 research and support staff, 1500 graduate assistants, and 500 undergraduate employees. Please see the following web site for a full description of the vacancy, qualifications, and application/nomination information: <http://www.secfac.wisc.edu/searches/engrdean/2012/vacancyannouncement.htm>.

Submit electronic applications/nominations to [Engr-Dean-Search@secfac.wisc.edu](mailto:Engr-Dean-Search@secfac.wisc.edu) by **May 23, 2012** to ensure consideration.

The University of Wisconsin-Madison is an Equal Opportunity, Affirmative Action Employer.





## FULL PROFESSOR • Materials Physics

The Montanuniversität Leoben, Austria, has an immediate opening for the position as a Full Professor of Materials Physics. The position is expected to be in personal union with the position as the Director of the Erich Schmid Institute of Materials Science of the Austrian Academy of Sciences.

The successful candidate must be an internationally renowned personality with a strong record in a seminal field of materials physics. Such fields include, but are not restricted to, interdisciplinary concepts in materials for energy or materials for medicine, fabrication of nanostructures and their chemical and structural characterization, or interfaces in structural- and functional materials. The successful candidate should be open for collaboration with the existing Chairs related to materials science at the Montanuniversität. The Chair of materials physics is strongly involved in the undergraduate and graduate teaching programs in materials science at the Montanuniversität Leoben.

The full text for invitation to tender can be downloaded in German language from [www.unileoben.ac.at/professur/materialphysik](http://www.unileoben.ac.at/professur/materialphysik).

Applications are to be sent by **June 15, 2012** to the Rector of the Montanuniversität Leoben, Franz-Josef-Straße 18, A-8700 Leoben, Austria.

*The Montanuniversitaet Leoben is an equal opportunity employer and women are particularly encouraged to apply for this position.*



## SUPERINTENDENT Materials Science and Technology Division Naval Research Laboratory

### Senior Executive Service Career Opportunity

**ES-806, 1301, or 1310: \$119,554 to \$179,700 per annum\***

*\*Actual salary may vary depending on the scope and complexity of the position and the qualifications and current compensation of the selectee.*

Become a member of an elite research and development community involved in basic and applied scientific research and advanced technological development for tomorrow's Navy and for the Nation.

- Manages, directs, and administers a recognized scientific work force conducting a broad spectrum program of highly sophisticated basic and applied research, and exploratory and advanced development of new or improved materials to be used in Naval weapon platforms and systems.
- Final technical authority for broad and demanding scientific programs of national importance, including the intrinsic behavior of metals, alloys, ceramics, glasses, and composites and their performance and reliability in Naval structures and devices.
- Principal consultant to the Navy, other agencies, and nations on the science and developing applications for the research programs under his/her cognizance.
- Applicants should be recognized as national/international authorities and should have planned and executed difficult programs of national significance that show outstanding attainment in their field of research.

For information regarding this vacancy and specific instructions on how to apply, go to [www.usajobs.gov](http://www.usajobs.gov), log in, and enter **Announcement Number NW2XXXX-00-630932K9290719-S**. Please carefully read the announcement and follow instructions when applying. The announcement closes **31 May 2012**. Please contact Ginger Kisamore at [ginger.kisamore@nrl.navy.mil](mailto:ginger.kisamore@nrl.navy.mil) for more information. E-mailed resumes cannot be accepted.

NRL • 4555 Overlook Avenue SW, Washington, DC 20375 • [www.nrl.navy.mil](http://www.nrl.navy.mil)

*The Naval Research Laboratory is an Equal Opportunity Employer.*



## Faculty Position Computational Materials Science and Mechanics

The Department of Materials Science and Engineering (<http://mse.osu.edu/>) and the Department of Mechanical and Aerospace Engineering (<http://mae.osu.edu/>) at The Ohio State University invite applications for a tenure-track position in computational materials science and mechanics. This joint position is structured with a majority appointment in MSE (80%) and minority appointment in MAE (20%). A key aim of this appointment is to enhance our research expertise in computational modeling of the mechanical behavior of materials at microstructural length scales. Applicants are expected to complement existing modeling and characterization strengths in the OSU materials community, as well as enhance and sustain federal funding and industrial partnerships for advanced structural materials in automotive, aerospace, manufacturing, or other applications.

MSE and MAE have ambitious teaching and learning objectives that enhance the overall research and discovery goals in the College of Engineering and align with major national initiatives such as the Advanced Manufacturing Program and the Materials Genome Initiative. In Fall 2012, MSE will launch a new semester-based undergraduate curriculum with a dedicated track and new courses in computational methods in MSE. This complements an existing graduate program with required core coursework on computational approaches and three regularly offered elective courses in this area.

In view of our aspirations, we seek candidates who are ardent discoverers, passionate teachers and mentors, and committed stewards to our discipline. For the best candidate, we offer a vibrant research environment at one of the largest, best equipped, and best connected academic research platforms in North America.

This position is open to candidates at all ranks. Candidates must have an earned doctoral degree in materials science and engineering or in a closely related field. The successful candidate will be expected to develop and sustain active sponsored research programs, teach core undergraduate and/or graduate courses, and develop new graduate courses related to their research expertise. Screening of applicants will begin immediately and will continue until the position is filled. Interested candidates should submit a complete curriculum vitae, separate 2-3 page statements of research and teaching goals, and the names, addresses, and e-mail addresses of four references electronically to the following e-mail address: [FAC\\_SEARCH@matsceng.ohio-state.edu](mailto:FAC_SEARCH@matsceng.ohio-state.edu).

*The Ohio State University is an affirmative/equal opportunity employer. Women, minorities, and people with disabilities are encouraged to apply and build a diverse workplace. Columbus is a thriving metropolitan community, and the University is responsive to the needs of dual career couples.*



**SUPERINTENDENT**  
Electronics Science and Technology Division  
Naval Research Laboratory

**Senior Executive Service Career Opportunity**  
ES-855, 1301, or 1310: \$119,554 to \$179,700 per annum\*

*\*Actual salary may vary depending on the scope and complexity of the position and the qualifications and current compensation of the selectee.*

Become a member of an elite research and development community involved in basic and applied scientific research and advanced technological development for tomorrow's Navy and for the Nation.

- Manages, directs, and administers a recognized scientific work force conducting a broad spectrum program of highly sophisticated experimental and theoretical research involving electron device technology.
- Final technical authority for broad and demanding scientific programs of national importance, including developing high performance microwave millimeter wave tubes; developing microwave integrated circuits and passive devices; investigating new semiconductors and insulator materials; the electron physics of interfaces and layered films; the reliability physics of electron devices; and the radiation hardening and vulnerability assessment of electron device, components and assemblies.
- Principal consultant to the Navy, other agencies, and nations on the science and developing applications for the research programs under his/her cognizance.
- Applicants should be recognized as national/international authorities and should have planned and executed difficult programs of national significance that show outstanding attainment in their field of research.

For information regarding this vacancy and specific instructions on how to apply, go to [www.usajobs.gov](http://www.usajobs.gov), log in, and enter Announcement Number **NW2XXXX-00-630938K9290738-S**. Please carefully read the announcement and follow instructions when applying. The announcement closes on **31 May 2012**. Please contact Ginger Kisamore at [ginger.kisamore@nrl.navy.mil](mailto:ginger.kisamore@nrl.navy.mil) for more information. E-mailed resumes cannot be accepted.

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*The Naval Research Laboratory is an Equal Opportunity Employer.*

**POSTDOCTORAL FELLOW**  
SPM/Nanomechanics, Advanced Sensing & Analytics

ExxonMobil Research and Engineering Company has an immediate opening for a Postdoctoral Fellow at its Corporate Strategic Research Laboratory, located in Annandale, NJ, 50 miles from New York City in scenic western New Jersey.

Candidates are sought to fill a research position in the area of nano-mechanical characterization with scanning probe microscopy (SPM) based methods. The candidate will conduct research with state-of-the-art SPM instrumentation (including nanoindentation) to develop novel methods in quantitative and semi-quantitative characterization of elastic and viscoelastic materials. The position is primarily experimental-based but will also include simulations of tip-sample interactions and incorporate use of contact mechanics modeling to improve data interpretation.

A PhD degree in materials science/applied physics/physical chemistry/materials or mechanical engineering and a demonstrated ability to perform independent research is required. A strong background in scanning probe microscopy with a proven track record in research is essential. Experience in advanced scanning probe methods and theory including multifrequency, dynamic methods, nanoindentation, advanced image analysis, nano-thermal analysis methods, tip-sample interaction simulations, and continuum contact mechanics is strongly desired. Excellent collaboration and communication skills are required.

ExxonMobil offers a competitive compensation and benefits package and a broad range of opportunities. Please submit your application letter and resume to our website at [www.exxonmobil.com/ex](http://www.exxonmobil.com/ex) and apply for the Post doc Position—SPM/Nanomechanics, Advanced Sensing & Analytics position.

*ExxonMobil is an Equal Opportunity Employer*



**Faculty Position**  
Materials Science and Engineering

A tenure-track faculty position is available beginning Fall Semester 2012 in Materials Science and Engineering (MSE) at the University of Utah. The position is open to candidates in all ranks—Assistant Professor, Associate Professor, or Full Professor—depending upon qualifications. Prospective candidates should have strong records of publication in the field of materials research. Preference will be given to candidates with demonstrated expertise in computational materials science and engineering with emphasis on advanced soft materials for renewable energy applications. Applicants must have an earned doctorate in Materials Science and Engineering or a closely related field. Faculty responsibilities include developing and maintaining an internationally recognized research program, effective classroom teaching at the undergraduate and graduate levels, and professional service.

Applicants should apply online at <http://utah.peopleadmin.com/postings/14349>. Resumes with names and contact information for at least three references, a statement of research, and a teaching statement should be included with the on-line application along with other requested information outlined on the online job announcement. Evaluations of applications will begin **June 1, 2012** and continue until the position is filled.

The University of Utah values candidates who have experience working in settings with students from diverse backgrounds, and possess demonstrated commitment to improving access to higher education for historically underrepresented students.

*The University of Utah is an Equal Opportunity/Affirmative Action employer and educator. Minorities, women, and persons with disabilities are strongly encouraged to apply. Veteran's preference. Reasonable accommodations provided. For additional information, access [www.regulations.utah.edu/humanresources/5-106.html](http://www.regulations.utah.edu/humanresources/5-106.html).*

UNIVERSITY of  
**HOUSTON**  
CULLEN COLLEGE of ENGINEERING

### FACULTY POSITION Department of Mechanical Engineering

The Department of Mechanical Engineering at the University of Houston (UH), Cullen College of Engineering, seeks a highly motivated and creative person for a faculty position to build a world-class research program on photovoltaics. The University of Houston has recently received funding from the state of Texas' Emerging Technology Fund (ETF) to establish research superiority especially in the field of energy applications. The University of Houston has made a significant investment to establish a 13,000 sq. ft. state-of-the-art Energy Devices Fabrication Laboratory at the UH Energy Research Park. The laboratory will house clean process areas to house thin film deposition equipment including roll-to-roll and wafer-based metal organic chemical vapor deposition (MOCVD), device fabrication and metrology areas as well as a toxic gas room to safely handle several types of exotic gases to process several advanced materials. A key research focus at the Energy Devices Fabrication Laboratory will be on high efficiency photovoltaics.

The appropriate candidate would have strong experience in innovative research on high-efficiency inorganic photovoltaics. Experimental research expertise in materials processing, device design, fabrication, testing, and characterization is required. The ideal candidate would also have a superior track record in modeling to guide experimental research. Experience in establishing research facilities is highly desired. Successful candidates must have a strong, demonstrated scholarship as well as a commitment to teaching.

This position requires a PhD degree in engineering or related discipline. Interested persons should submit a curriculum vita detailing academic and professional experiences, publications, research support, research and teaching summaries, and research and teaching goals/vision to Prof. Venkat Selvamannickam, Dept. of Mechanical Engineering, University of Houston, Houston, Texas, 77204-4006. The target start date is Fall 2012.

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

 UNIVERSITY OF MICHIGAN

### Postdoctoral Research Fellow

Optoelectronic Components  
and Materials Group

The Optoelectronic Components and Materials Group, [www.umich.edu/~ocm](http://www.umich.edu/~ocm), at the University of Michigan is seeking a **Postdoctoral Research Fellow** with expertise in organic thin films for use in electroluminescence, solar cells, thin film transistors, and other photonic devices. Qualifications should include hands-on, in-depth experience with the design, vacuum deposition, device fabrication, analysis, and characterization of active optical components such as OLEDs, solar cells, detectors, etc. Successful candidates should be able to work on independent research projects, as well as lead larger teams of graduate students. Maintaining large laboratory facilities and infrastructure is an important part of the job.

**Requirements:** Prospective candidates should have a PhD degree in electrical engineering, materials science, physics, or associated field. Salary level commensurate with experience.

**To Apply:** Please email your resume and cover letter to Prof. Stephen Forrest in care of [emruff@umich.edu](mailto:emruff@umich.edu). Review of applications will be accepted until the position is filled.

*The University of Michigan is an equal opportunity/affirmative action employer.*

## POSTDOCTORAL FELLOWS SUPERCAPACITORS, BATTERIES, PEM FUEL CELLS

Three postdoctoral fellow positions are available beginning in June 2012 at the University of Alberta, Edmonton, Alberta, Canada, in the areas of supercapacitors, batteries and PEM fuel cells.

### POSITIONS 1 AND 2

Two Postdoctoral Fellow positions are available on June 1, 2012 (or later) in the area of materials for electrochemical energy storage. The focus will be on nanostructured supercapacitors and batteries (LIB and Li-air). Both chemists and material scientists are encouraged to apply. This work is part of a Canada-wide energy storage program and involves multiple government laboratory partners. Hence good collaboration skills and communication are essential. Prior publications in high impact factor journals will be taken as an indicator of future success. The hired individual will ultimately take on a scientific leadership role within the group, helping to develop new research directions and supervising graduate students.

### POSITION 3

Also, a Postdoctoral Fellow position is available on June 1, 2012 (or later) in the area of synthesis and testing of nanomaterials for oxygen reduction reactions. This basic scientific research will involve microstructure-properties relations in thin films and/or nanocomposite powders. This work is part of the National Fuel Cell Program and involves multiple institutional and industrial partners. Hence good collaboration skills and communication are essential. An ideal candidate should have demonstrated expertise in both synthesis and electrochemistry. However strength in chemical synthesis may trump a direct lack of electrochemistry skills. The hired individual will ultimately take on a scientific leadership role within the group, helping to develop new research directions and supervising graduate students.

Our facilities include a new state-of-the-art chemical synthesis and characterization laboratory, a suite of electrocatalysis testing equipment, potentiostats (120+ channels), volumetric and gravimetric gas sorption systems, combinatorial reactive gas sputtering, UHV evaporation, ALD, inert atmosphere powder processing, and battery assembly. There is also institutional access to several advanced TEMs and sample prep, XPS, TOF-SIMS, and XRD.

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

Dr. David Mitlin  
Department of Chemical and Materials Engineering  
9107 116 Street, 7th Floor  
University of Alberta  
Edmonton, Alberta T6G 2V4  
Email: [david.mitlin3@gmail.com](mailto:david.mitlin3@gmail.com)

(Dr. Mitlin is also affiliated with the National Institute for Nanotechnology (NINT) NRC located in Edmonton, AB. Visit [www.ualberta.ca/CMENG/Mitlin-Group/](http://www.ualberta.ca/CMENG/Mitlin-Group/) for more information.)

*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.*

