

## Positions Available

### **FACULTY POSITION** **Department of Materials Science and Engineering** **The University of Erlangen-Nuremberg, Germany**

As part of a major new interdisciplinary initiative in advanced materials research, the Department of Materials Science and Engineering at the University of Erlangen-Nuremberg, Germany, invites applications for a full professor position

#### **Materials Science (Electronic and Energy Materials)**

beginning on or after October 1, 2008. Candidates shall represent the field of semiconductor materials for electronics and advanced materials for regenerative energy conversion and energy storage systems. The chair will participate in educational tasks within the Engineering Faculty, particularly in the Bachelor and Master programmes in Materials Science and in undergraduate and graduate programmes in Electronics and Mechatronics. The candidate should be committed to interdisciplinary research together with the Faculty of Natural Sciences and external research institutes.

On the frame of the cooperation between the University of Erlangen-Nuremberg and the Bavarian Centre for Applied Energy Research (ZAE Bavaria) the successful applicant will be appointed as director of the ZAE-Department in Erlangen. The ZAE Bavaria, with departments located in Garching (Munich), Wuerzburg and Erlangen, is focused on applied research on the topic of future regenerative energy supply, with a strong emphasis on advanced materials in Erlangen.

Applicants must have a demonstrated research record or potential. The applicant may also have gained experience outside the university area. Candidates should not be older than 52 years at the time of appointment. The University of Erlangen-Nuremberg specifically encourages female candidates to apply with a view towards increasing the proportion of female professors. Seriously handicapped applicants will be favoured when aptitude is equal.

Send complete resume (curriculum vitae, list of publications, references, certificates and documents) to: Dean of the Engineering Faculty, University of Erlangen-Nuremberg, Erwin-Rommel-Str. 60, D-91058 Erlangen, Germany.

In order to receive full consideration, applications and all supporting materials must be received by **May 31, 2007**.

**Friedrich-Alexander-University**  
**Erlangen-Nuremberg**



[www.uni-erlangen.de](http://www.uni-erlangen.de)



### **Research Assistant/Associate**

The Materials Research Institute at The Pennsylvania State University invites applications for a Research Assistant/Associate to assist in operating the Materials Characterization Laboratory. The position will entail management of the facility's dual-platform FIB/SEM. In this capacity, the successful candidate will oversee day-to-day FIB operation among the internal user base, as well as coordinate project requests from external industry partners. In addition, the position will entail assisting with management of three TEMs presently housed at the facility. Applicants should have a PhD or MS in a relevant field. Experience with focused-ion-beam instrumentation is essential. Some TEM experience is also desirable. **THIS IS A FIXED-TERM APPOINTMENT FUNDED FOR ONE YEAR FROM DATE OF HIRE WITH EXCELLENT POSSIBILITY OF RE-FUNDING.** Review of applications will begin on June 1, 2007 and continue until position is filled. To apply, send your information to Elaine Sanders, Materials Characterization Laboratory, Job #24799, Administrative Office, The Pennsylvania State University, 207 Materials Research Lab Building, University Park, PA 16802 or email to [mcl@psu.edu](mailto:mcl@psu.edu) with the subject "Job Vacancy #24799."

Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

**PENN STATE Making Life Better**

### **FACULTY POSITION** **Toyota Technological Institute**

Toyota Technological Institute has an opening for a tenure-tracked faculty position in the Division of Future Industry-oriented Basic Science and Materials at Graduate School.

**Position:** Tenure-tracked Associate Professor

**Research Field:** Spin dependent phenomena such as spin-transport behavior, exchange coupling phenomenon, and magnetic recording of multi-layers and nano-particles.

**Qualifications:** The successful candidate will have demonstrated potential to develop strong programs of information storage materials research such as magnetic recording and related spin-dependent phenomena. It is also necessary to teach advanced and basic courses of solid state physics in both the graduate and undergraduate programs.

**Starting Date:** At the earliest convenience

**Documents:** 1) Curriculum vitae; 2) a list of publications; 3) copies of five selected papers; 4) brief description of research activities and future plan for research and education (3 pages); and 5) names of two references with Tel/Fax and E-mail address.

**Deadline:** August 17, 2007

**Inquiry:** Professor Shuji Tanaka; Tel: +81-52-809-1775; E-mail: [tanaka\\_mag@toyota-ti.ac.jp](mailto:tanaka_mag@toyota-ti.ac.jp). The above should be sent to Mr. Hirotsugu Kurata, Administration Division, Toyota Technological Institute, 2-12-1, Hisakata, Tempaku-ku, Nagoya, 468-8511 Japan. (Please be advised to write "Application for Information Storage Materials Laboratory" in red on envelope.)

### **ASSOCIATE SCIENTIST** **Ames Laboratory** **Iowa State University**

The Materials and Engineering Physics research program of the Ames Laboratory is seeking an Associate Scientist to perform original experimental and computational research primarily with liquid, amorphous, and nanocrystalline systems. Position requires a PhD degree in Materials Science or related physical science plus two years experience. Experience must include research in synthesis, characterization, and modeling of amorphous and liquid metal structures, performing high-energy X-ray experiments, and analyzing complex data. Applications must be submitted on-line at [www.iastatejobs.com](http://www.iastatejobs.com), Vacancy #070266.

*An EEO/AA employer.*

**Positions Available**

**ASSOCIATE PROFESSOR  
Montana Tech**

Montana Tech of the University of Montana is seeking a doctorate in metallurgical engineering, materials engineering, or related discipline to teach in an accredited four-year program. Must have a PE (Professional Engineering) license prior to be eligible for tenure. Must have a background in two of the following three material areas: ceramics, polymers, and composites. Working knowledge in SEM/EDX as well as nano-, bio-, and electronic materials is preferred. Additional experience with physical/welding metallurgy and mechanical behavior will be a plus.

Duties include teaching physical metallurgy and materials engineering courses at undergraduate and graduate levels. Supervision of Masters thesis work is expected. Successful candidate is also expected to establish a research program. Excellent written and oral communication skills in English are required. Review of applications will commence **June 1, 2007** and will be accepted until the position is filled. Appointment is expected on August 15, 2007 and will be a nine-month tenure-track contract at the rank of Assistant Professor. For more information, visit [www.mtech.edu/employment](http://www.mtech.edu/employment).

Submit a cover letter addressing qualifications, resume, authorization for background check (obtained at above web address), and contact information for three professional references to Montana Tech Personnel Office, 1300 West Park Street, Butte, MT 59701.

*Montana Tech is AA/EEO employer.*

**MICROFABRICATION CLEANROOM MANAGER  
Northwestern University**

Northwestern University invites applicants for a Microfabrication Cleanroom Manager position on the Evanston campus. The University and the McCormick School of Engineering have made a commitment to establish a state-of-the-art microfabrication cleanroom facility in order to meet future research needs in the areas of micro and nanofabrication, MEMS, and microelectronics. The facility is currently in the planning stages and is expected to be completed within 18 months. The microfabrication cleanroom manager will work closely with administration and faculty members to facilitate laboratory design, space renovation, facility planning, equipment purchase, and installation. A successful candidate is expected to have the following qualifications:

- Five years of work experience in a microfabrication facility working in a facility management capacity.
- Master's degree in engineering or physical sciences.

All resumes for this position must be received through the electronic recruiting system. For consideration, use the link below. To apply for this position in eRecruit, enter the Job Opening ID number (11390) or the position title in the appropriate search field. Once you apply, you will receive an email confirming submission of your resume.

<http://www.northwestern.edu/hr/careers>

*Northwestern University is an Equal Opportunity, Affirmative Action Employer.  
Members of historically underrepresented groups are strongly encouraged to apply.*



**RESEARCH SCIENTIST  
Physics of Thermoelectric Materials  
Sandia National Laboratories**

The Materials Physics Department at Sandia National Laboratories in Livermore, CA, seeks a staff scientist to provide expertise and leadership in developing and conducting an experimental research program in the area of the fundamental physics of thermoelectric materials. The program will complement existing fundamental research programs in the materials physics of interfaces and surfaces, with opportunities to expand into applications of thermoelectric materials for energy harvesting or storage.

**REQUIRED:** PhD degree in physics, chemistry, materials science, or a closely related discipline, with at least two years of subsequent research experience. Strong experimental background in performing measurements of fundamental carrier properties related to electronic and thermal support; broad knowledge of the scientific and technological issues that control thermoelectric materials' performance; demonstrated ability to work in a highly collaborative environment and to integrate experimental work with theory and modeling; and a commitment to fundamental research as demonstrated by a distinguished record of publication

**DESIRED:** Thorough understanding of the physics underpinning electronic and thermal transport in bulk and nano-structured semiconductors, with specific experience in thermoelectric materials; and a documented track record of program development.

**BENEFITS:** Medical, dental, vision, 401K w/company match, pension plan, three weeks vacation, flexible work schedules w/alternate Fridays off, fitness facilities.

See full job description and apply ONLINE at [www.sandia.gov/employment/career-opp](http://www.sandia.gov/employment/career-opp), Job #56444. Be sure to include your current resume, a list of publications, a minimum of three references, and a brief description of your research interests. U.S. citizenship is required to obtain Department of Energy security clearance.

*EO/AAE*

**POSTDOCTORAL POSITIONS  
Materials Science  
Universidad de Chile**

The Center for Advanced Interdisciplinary Research in Materials (CIMAT) in Santiago, Chile, is seeking applicants to fill a number of Postdoctoral positions. The Center's mission is to perform scientific research and graduate student training with a strong commitment to excellence and interdisciplinarity. Applicants with a background in materials, as well as physics, chemistry, biology, and various fields of engineering are welcome.

To learn more about CIMAT, please visit the web address <http://www.cimat.cl> or contact Mrs. Carolina Rojas ([crojas@ciamat.cl](mailto:crojas@ciamat.cl)); tel: 56-2-9784855; fax: 56-2-6993982).

Prospective applicants are encouraged to discuss their plans with one of CIMAT's senior investigators. Applications including curriculum vitae, research plans, copies of up to three most relevant publications, and names and addresses of three references should be sent to:

Postdoctoral Positions, c/o Mrs. Carolina Rojas  
CIMAT, Av. Blanco Encalada 2008, piso zócalo, Santiago, Chile  
E-mail: [crojas@ciamat.cl](mailto:crojas@ciamat.cl)

Applications are considered on a rolling basis, and may be submitted at any time.

**PLACE YOUR AD TODAY!**

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

# your job at **TU**Delft



CHALLENGE THE FUTURE

**Delft University of Technology** is a multifaceted institution offering education and carrying out research within the technical sciences at an internationally recognised level. Education, research and designs are strongly oriented towards social applicability. TU Delft develops technologies for future generations, focusing on sustainability, safety and economic vitality. At TU Delft you will work in an environment where technical sciences and society converge. TU Delft comprises 8 faculties, the Assistant Staff Office, unique laboratories, research institutes and schools.

The **faculty of Applied Sciences** is a large, research-oriented faculty providing excellent, challenging education and conducting pioneering, cutting-edge fundamental research of great societal relevance in the natural sciences. We provide a worldclass training ground for future leaders in scientific professional practice and research. With more than 60 different nationalities studying and working together, our environment is enriched and culturally diverse.

The **Chemical Engineering Department** aims to bridge the gap between curiosity-driven nanoscience research and utilisation-driven nanotechnology. Materials of interest include (photo-)catalytic membranes for conversion and separation processes, opto-electronic materials for solar cells and light-emitting diodes, new materials for Li-ion batteries and hydrogen storage, and self-healing nanocomposites. The Chemical Engineering Department is looking for

## Three Post-docs for Nanochemical engineering of functionalised quantum dots, Nanowires, and Nanoporous materials

(38 hours per week) the maximum gross salary is € 3,597.-

### **Project 1. Synthesis of inorganic semiconductor quantum dots and nanowires**

The successful candidate's research will focus on the design and synthesis of quantum dots and nanowires. Well-chosen combinations of materials will be used to create new functionality. Fundamental studies of the optical and electronic properties of these nanosystems call for a very narrow size distribution and a high conformity and integrity of the capping layer.

### **Project 2. Synthesis of metal organic frameworks with novel functionalities**

The appointee's research will focus on the design and synthesis of metal organic frameworks (MOFs). Creating new functionality in nanoporous materials by careful engineering of self-assembly processes is the key objective of this project.

### **Project 3. Designs and construction of micro-reactors for large scale synthesis of quantum dots and nanowires**

This Post-doc's research will focus on the design and construction of micro-reactors to open new routes for large-scale production of well-defined core-shell quantum dots and nanowires.

The department seeks teamplayers with excellent communication skills and an entrepreneurial drive who share its ambitions in nanochemical engineering, who will help in the continuous development and improvement of the scientific infrastructure of the department, and who will stimulate collaboration between the participating research groups. Chemists with experience in the synthesis of semiconductor quantum dots and nanowires are invited to respond for project 1. Organic chemists with experience in synthesis of metal-organic-frameworks are welcome to respond for project 2. And finally; chemical engineers with experience in micro-reactor design and construction may respond for the third project.

### **Interested?**

For more information about the job and the procedure you can visit our website [www.vacaTUresinDelft.nl/phd](http://www.vacaTUresinDelft.nl/phd)



Delft University of Technology

**Positions Available**

Max-Planck-Institut für Eisenforschung GmbH



The Max-Planck-Institut für Eisenforschung is looking for a new

**Head of the Adhesion Group**

within the Department of Interface Chemistry and Surface Engineering headed by Prof. Stratmann.

The group has an excellent reputation in particular in the area of adhesion science of thin films on metallic and inorganic substrates using in-situ optical spectroscopy and electrochemical techniques.

The group collaborates strongly with surface science, electrochemistry and theory groups of the department and uses laboratories with most modern analytical equipment.

We are looking for an experienced researcher to build up a group which keeps the focus on in-situ optical spectroscopy but develops also new experimental set-ups based on near field optical microscopy and spectroscopy or non-linear optical techniques. Complementary studies of molecular interfacial forces would be a second important field of research. Experience in thin organic films and / or colloid chemistry would be highly appreciated.

Depending on the qualification of the applicant the position may be either a Junior Professor position (W2) or a Group Leader position with a contract according to the German TVÖD. For further information please contact Prof. Stratmann (Tel. +49 211 6792 316, stratmann@mpie.de).

The Max Planck Society is an equal opportunities employer. Women are encouraged to apply. Please send your applications to:

**Max-Planck-Institut für Eisenforschung GmbH  
Prof. Dr. Martin Stratmann  
Max-Planck-Str. 1 • 40237 Düsseldorf**

*Further information about the institute can be found on the website: <http://www.mpie.de>*



**POSITIONS AVAILABLE  
Nanocomp Technologies, Inc.**

Nanocomp Technologies is seeking qualified applicants to fill the following positions:

**Senior Scientist: Carbon Nanotube Synthesis**

This position requires a PhD degree in Materials Science or a related field dealing with the CVD synthesis of very long carbon nanotubes and measurements of their properties. This is a full time senior position involving single wall carbon nanotube fabric used for a wide variety of applications. Several years experience desirable with a record of publications and or patents. Current US citizenship is required.

**Senior Scientist: Composites**

This senior position requires a PhD degree in Materials Science or a related field. This full time position involves surface modification of single wall carbon nanotubes and related materials, and the synthesis of composites using carbon nanotube fabric. The applicant should be experienced with surface chemistry, with carbon chemistry, and appropriate characterization techniques such as Raman spectroscopy, TEM, TGA, SEM, high angle x-ray diffraction, and tensile testing of composite materials. Several years experience desirable with a record of publications and or patents. Current US citizenship is required.

**Engineer Grade I or II: Mechanical Engineer**

Nanocomp is seeking a BS level mechanical engineer for design and fabrication in support of both textile production and a variety of applications. The applicant should be experienced with Solid Works or the like and have at least five years experience. A college degree is required. Current US citizenship is required.

Nanocomp Technologies, Inc. is an equal opportunity employer, salaries are competitive and we will pay relocation costs for appropriate candidates and offer a full benefit package. Please see [www.nanocomptech.com](http://www.nanocomptech.com) for more information about the company.

Interested applicants please send your resume and the names of three references to: Janyes Lemons, [jlemons@nanocomptech.com](mailto:jlemons@nanocomptech.com).



**Tenure Track Senior Level Professor Opening in  
Advanced Materials for Energy**

The Department of Materials Science and Engineering and the Materials Research Institute at Penn State are seeking to hire an outstanding senior level professor specializing in the science of advanced materials for energy applications. The Department of Materials Science and Engineering, which has 30 full-time faculty members, approximately 200 graduate and 150 undergraduate students, is consistently ranked in the top 10 nationwide. We seek a candidate active in materials research related to energy applications such as energy storage (batteries, hydrogen), photovoltaics, fuel cells, thermoelectric materials, and who has expertise in materials science including, but not limited to, solid-state ionics, defect chemistry, surface science, electrochemistry, and magnetism. The successful candidate will be expected to be a leader in energy-related materials with extramurally funded research programs. Teaching duties are expected to include undergraduate/graduate classes in the above areas. With an emphasis on building diversity in our workforce, we particularly encourage female and minority applicants. Please apply by June 30, 2007, with a resume, names of three references, and a summary of research and teaching interests to Prof. Zi-Kui Liu, c/o Ms. Katina Bartley, Administrative Assistant, Dept. of Materials Science and Engineering, The Pennsylvania State University 121 Steidle Building, University Park, PA 16802. E-mail submissions can be sent to [katina@matse.psu.edu](mailto:katina@matse.psu.edu).

Penn State is committed to affirmative action, equal opportunity and diversity of its workforce.

**PENN STATE Making Life Better**

**[www.mrs.org](http://www.mrs.org)**

**Positions Available**



**TENURE-TRACK FACULTY POSITION  
IN ELECTRONIC MATERIALS**  
Department of Materials Science and Engineering and  
Department of Electrical and Computer Engineering  
The Ohio State University

The Department of Materials Science and Engineering (MSE) at the Ohio State University, in conjunction with the Department of Electrical and Computer Engineering (ECE), invites applications from outstanding candidates for a tenure-track faculty position at the Assistant Professor level. Exceptional candidates may be considered for a higher-level appointment. This position is part of a strategic, interdisciplinary thrust of multiple hires that is designed to blend with existing excellence in the area of electronic materials. The successful candidate will be expected to develop a vigorous, externally funded research program and show leadership and excellence in academic and scholarly activities in the areas of characterization, synthesis, and processing of electronic and functional materials, while taking advantage of the remarkable materials characterization and nanofabrication capabilities at OSU. The candidate will also be expected to demonstrate a commitment to excellent teaching at the undergraduate and graduate levels. The qualifications for this position include a doctorate in Materials Science and Engineering (MSE) or a related field, and a demonstrated record of professional scholarship.

The evaluation of applications will begin immediately, and it will continue until the position is filled. A complete curriculum vitae, research and teaching statements, and list of at least three references can be sent by email to [msesearch@matsceng.ohio-state.edu](mailto:msesearch@matsceng.ohio-state.edu), or by mail to:

Prof. Michael J. Mills, Chair, Electronic Materials Faculty Search Committee  
Taine G. McDougal, Professor of Engineering  
Department of Materials Science and Engineering  
The Ohio State University, 2041 N. College Road, Columbus, OH 43210, USA

*To build a diverse workforce, Ohio State encourages applications from individuals with disabilities, minorities, veterans, and women. EEO/AA employer.*

**FACULTY POSITION**  
**Advanced Materials Research Institute**  
**University of New Orleans**

The Advanced Materials Research Institute (AMRI) at the University of New Orleans anticipates an opening for a tenure-track Assistant Professor in Materials Science to teach and conduct research in materials science. AMRI seeks qualified applicants with research specialization that includes expertise in one or more of the following areas: nanomaterials for Biological applications, Energy Conversion and Storage, or Nanoscale Mechanical Devices. Collaboration with faculty in other departments of the University and with scientists in industrial research laboratories is encouraged. UNO is a member of the Louisiana Optical Network Initiative (LONI). LONI consists of an advanced optical network connecting a Grid of supercomputers with nearly 90 TFLOPS of processing power. The successful candidate will have access to LONI.

Salary range and appointment level are commensurate with experience and educational background. Initial review of applications will begin on **May 1, 2007**, and all applications will receive full consideration as received until the position is filled. The successful candidate should be capable of assuming a leadership role in the development of an independent research program and will submit proposals for external funding to industrial and government agencies. Candidates must possess a PhD degree and are expected to have postdoctoral experience and an established record of excellence in their area of specialization.

Applicants should submit a resume and a one-page description of their research interests. To apply for the position, please send a resume and a statement of your research interests to: Search Committee, Advanced Materials Research Institute, University of New Orleans, New Orleans, LA 70148, e-mail: [amrresearch@uno.edu](mailto:amrresearch@uno.edu).

*UNO-AMRI is an Affirmative Action/Equal Opportunity Employer.*



**Sandia National Laboratories**

**RESEARCH SCIENTIST**  
**Interfacial Science of Materials**  
**Sandia National Laboratories**

The Materials Physics Department at Sandia National Laboratories in Livermore, CA, seeks a staff scientist to conduct experimental research in the broad area of internal interfaces in materials. The scientist will develop a world-class research program that will complement our existing materials programs in interfacial science, surface physics, and nano-scale transport. The program will be centered around the relationship between the physical/electronic structure of internal interfaces and a material's ultimate response (i.e., mechanical strength, thermal stability, and electrical/thermal transport). We seek a scientist with the skills and technical background necessary to take full advantage of the nano-scale and atomic-resolution analysis available through atom probe tomography and transmission electron microscopy. Research areas of interest include, but are not limited to: interface dynamics; microstructural evolution and phase transformations; structure and properties of nanostructures; new techniques for interface analysis; and bridging the gap between interface characterization and predicting performance.

Qualified candidates will possess a PhD degree in materials science, physics, chemistry, or a closely related discipline. Other requirements include a sustained record of research accomplishments in a postdoctoral or more advanced position, published evidence of scientific leadership and stature, and the ability to work in teams and establish strong collaborations, particularly with theorists in our department.

See full job description and apply ONLINE at [www.sandia.gov/employment/career-opp](http://www.sandia.gov/employment/career-opp), Job #57127. Be sure to include your current resume, a list of publications, a minimum of three references, and a brief description of your research interests. U.S. citizenship is required to obtain Department of Energy security clearance.

*EO/AAE.*

