RWTH AACHEN UNIVERSITY

Thinking the Future.

FULL PROFESSOR (W3)
in Materials Physics
FACULTY OF GEORESOURCES AND MATERIALS ENGINEERING

We are seeking qualified applicants for teaching and research in the area of Materials Physics with an outstanding record of scholarship in the area of "Materials Design by microstructure engineering". The starting date is Feb. 1st, 2013. Candidates are internationally renowned researchers with an excellent scientific track record in the field of microstructure engineering of materials. Potential research areas include: Metallic materials as well as composite materials. Candidates should be open to address materials related global challenges within larger cooperations across faculty borders, especially in the framework of the Jülich Aachen Research Alliance (JARA).

The successful candidate is expected to teach materials physics at the undergraduate and graduate level.

A Ph.D. degree is required; additionally, Habilitation (post-doctoral lecturing qualification), an exemplary record of research achievement as an assistant / an associate / a junior professor or university researcher and/or an outstanding career outside academia are highly desirable. Ability in and commitment to teaching are essential. German is not necessary to begin but will be expected as a teaching language within the first 5 years.

The application should include supporting documents regarding success in teaching.

Please send a cover letter stating research aims and a CV to: An den Dekan der Fakultät für Georessourcen und Materialtechnik der RWTH Aachen, Prof. Dr. Th. Pretz, 52056 Aachen, Germany. The deadline for applications is August 15th, 2012.

This position is also available as part-time employment per request.

RWTH Aachen University is certified as a family-friendly university and offers a dual career program for partner hiring. We particularly welcome and encourage applications from women, disabled people and ethnic minority groups, recognizing they are underrepresented across RWTH Aachen University. The principles of fair and open competition apply and appointments will be made on merit.

RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

SENIOR FACULTY POSITION Laboratory for Surface Modification

The Laboratory for Surface Modification (LSM) at Rutgers University, a world-class research center focused on interdisciplinary research in the basic science and technology of interfaces, nanostructures, and surfaces, seeks an experimental scientist with exceptional credentials for a tenured faculty appointment at the full professor level. The appointment may be in the Department of Physics, Chemistry, Materials Science, Electrical Engineering, BioMedical Engineering, or may be a joint appointment. The successful candidate will have an outstanding record of achievement in science and/or technology, and is expected to establish a world-class research program at Rutgers and interact with industry.

Submit applications electronically (preferred) to **lsm_search@physics.rutgers.edu,** or by mail to LSM Search Committee, Rutgers University, 136 Frelinghuysen Road, Piscataway, NJ 08854. Additional details may be found at www.lsm.rutgers.edu.

Rutgers, the State University of New Jersey, is an Equal Opportunity Employer which encourages applications from underrepresented groups.

NC STATE UNIVERSITY | 125 YEARS

Transmission Electron Microscopy Facility Manager

North Carolina State University (NCSU) invites applications for a Transmission Electron Microscopist to oversee its transmission electron microscopy (TEM) facilities within the NCSU Analytical Instrumentation Facility. The facility supports a wide variety of physical sciences research and education programs at NCSU and within the Triangle Region. The Facility Manager will have primary responsibility for management and operation of the probe-corrected and monochromated FEI Titan G2 60-300 kV STEM/TEM, the 200 kV JEOL 2010F S/TEM, the 200 kV JEOL 2000FX and all auxilliary equipment, including energy dispersive x-ray spectrometers, electron energy loss spectrometers, CCD cameras and an extensive sample preparation laboratory. The Facility Manager will oversee the training, maintainance/calibration, educational, outreach and user-base development activities of the TEM facility and will assist in performing advanced microscopy anlaysis, when needed.

A PhD degree in Materials, Physical Sciences, or Engineering is required. The prospective candidate must have a strong background in the theory and practice of TEM microcharacterizaton with a minimum of three years post-graduate experience. The candidate should also have experience with vacuum technology, electronics, and computers. Strong interpersonal, communication, and management skills are essential.

Applications (cover letter, CV, and names of three people from whom letters of recommendation can be requested) should be submitted online at **https://jobs.ncsu.edu (Position No. 00101303).** Final deadline for application submission is **August 31, 2012.**

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

Faculty and Scientist Positions | Advanced Materials and Manufacturing

Central South University

VALID THROUGH SEPTEMBER 30, 2012

Central South University (CSU), Changsha, China, is a comprehensive and national key university under the direct administration of the Ministry of Education in China. CSU has been regarded as the cradle for educating talents and innovative research in the field of materials science and engineering, and is one of the prominent materials research institutions along with the strong growth in the School of Materials Science and Engineering and the Powder Metallurgy Research Institute. More information about the Central South University can be found at www.csu.edu.cn.

The newly formed High Temperature Materials Research Institute (HTMRI) of CSU aims to become a state-of-the-art innovative platform for education and research in high temperature materials. The HTMRI is mainly engaged in the high temperature materials research including advanced materials and processing, advanced manufacturing, characterization and testing, computer modeling, and simulation.

The HTMRI invites outstanding candidates to fill full-time faculty and research positions at all ranks in advanced materials, manufacturing, and related areas. Successful candidates will be provided with a competitive start-up package, salary, and benefits. Successful candidates will be eligible for national and regional honorary professorship and talent programs, including the Qianren Plan, Young Qianren Plan, Changjiang Scholar, Furong Scholar, Shenghua Scholar, Lieying Scholar, or others. Position level and support will be commensurate with the candidate's qualification. With the strong support of CSU and full access to its outstanding faculty/student pool, technical service facilities, and research platforms, the successful candidate will have great opportunity to grow, to lead, and to teach in a fast-growing and cutting-edge center of excellence in high temperature materials.

Interested individuals should send in a cover letter, CV, representative publication list, and references to:

Dr. Jiayong Si
High Temperature Materials Research Institute
Central South University
932 South Lushan Road, Yuelu District
Changsha, Hunan, 410083
China
Tel/Fax: +86-731-8887/7812
Email: **htmri@csu.edu.cn**

OAK RIDGE National Laboratory

Synthetic Polymer Chemist
Chemical Sciences Division

The Soft Materials Group in the Chemical Sciences Division, Oak Ridge National Laboratory (http://www.ornl.gov/), is searching for a research staff member to engage in polymer synthesis to support on-going fundamental research programs and to create new research programs utilizing soft matter for energy applications. This group has diverse research projects focused on the synthesis and characterization of polymer based materials, including complex block copolymers and novel polymer architectures via anionic polymerizations, and polymer nanocomposites.

Qualifications:
The successful candidate must have a PhD degree in synthetic polymer chemistry, organic chemistry, or a closely related field. Postdoctoral experience is highly desirable. Expertise and a proven track record in controlled polymer synthesis methods (i.e., living radical, anionic polymerization, etc.) is required, as is expertise in standard polymer characterization methods. Expertise in small molecule synthesis is highly desirable. The candidate should be self-motivated, have good interpersonal, communication, and presentational skills and demonstrated ability to work within a multi-disciplinary team. The candidate must also have experience writing successful research proposals. For more information, contact Dr. Jimmy Mays at maysjw@ornl.gov.

To apply, visit **jobs.ornl.gov** and reference **Job Number NB50307386.**

UT-Battelle is recognized by our employees and the community as an inclusive environment where diversity is valued and individuals and teams are inspired to contribute fully to the organization's success. ORNL is an Equal Opportunity Employer.

POLYTECHNIQUE MONTRÉAL

WORLD-CLASS ENGINEERING

Polytechnique Montréal, one of Canada's leading engineering schools and the largest in Québec in terms of its student population and the scope of its research activities, with more than 6,000 students and 1,000 employees, is seeking applicants for two tenure-track faculty positions in its **Department of Engineering Physics**.

FACULTY POSITION IN ENGINEERING PHYSICS: FUNCTIONAL COATING AND SURFACE ENGINEERING

The department seeks outstanding candidates in the general area of advanced materials, specifically the functional coatings and surface engineering. Candidates with experience in the development of processes for the deposition of thin films and the fabrication of structured surfaces for the control of their optical and tribomechanical properties are especially welcome. Candidates must hold a bachelor's degree and a doctorate (Ph. D.) in engineering physics, physics or a related field.

FACULTY POSITION IN NUCLEAR ENGINEERING: NUCLEAR REACTOR HEAT TRANSFER

The department seeks outstanding candidates in the general area of nuclear and power engineering, specifically nuclear reactor heat transfer. Candidates should have a solid background in nuclear reactor thermalhydraulics with expertise in one or several of the following topics: the study of heat transfer in nuclear power reactors, including forced convection boiling phenomena, critical heat flux and supercritical fluids; the design and analysis of experiments as well as the development of physical and numerical thermalhydraulics models for nuclear reactors; the conception and use of thermalhydraulics software for the numerical simulation of heat transfer in nuclear reactors; and the coupling between heat transfer and neutronics software in nuclear engineering. Candidates must hold a Ph. D. degree in nuclear engineering, engineering physics, or a related field.

For both positions, the successful candidates must be members of the Ordre des ingénieurs du Québec (OIQ), or take the necessary measures to become member during their first contract. They will be expected to teach, in French, both undergraduate and graduate courses, and to supervise graduate students. They must have the ability to establish a strong research program. They will become part of a team of professors who have recognized expertise in condensed matter physics, photonics and nuclear engineering. Members of the department are also involved in several well-established research networks.

To apply

Candidates should submit an application package that consists of a curriculum vitae, a statement of teaching goals and research priorities, records of teaching effectiveness, official records of their diplomas, the names of three references, examples of work relevant to the position and reprints of recent publications. Applications should be sent as soon as possible to: **Patrick Desjardins, Professor and Head, Department of Engineering Physics, Polytechnique Montréal, P.O. Box 6079, Station Centre-Ville, Montréal (Québec) H3C 3A7, CANADA**.

For additional information and to indicate your intention to apply, please contact: **postes@phys.polymtl.ca**.

Examination of applications will begin on September 1st, 2012, and will continue until the positions are filled. All qualified persons are encouraged to apply. However, Canadians and permanent residents will be given priority.

TENURE-TRACK POSITION
Department of Chemistry

The Department of Chemistry at Drexel University is soliciting applications for a tenure-track position at the assistant professor level in any area of computational/theoretical chemistry. Candidates must hold a PhD degree in chemistry or closely related field. The successful candidate will be expected to establish and lead a vigorous, externally funded, research program, while contemporaneously fulfilling teaching responsibilities. The application package should show evidence of potential to meet this expectation. Postdoctoral experience is preferred.

Applications must be submitted online at **www.drexeljobs.com** and should include C.V., publication list, statement of present and future research interests (3-5 pages), statement of teaching strengths (1-2 pages), and contact information for at least three persons from whom letters of recommendation may be obtained. The complete application package should also be emailed as a single PDF file to Dr. Karl Sohlberg at **chemsearch2012@drexel.edu.** Questions may also be sent to this address as well. The review process will start immediately and continue until the position is filled. The anticipated start date is January 2, 2013. The successful candidate must be legally qualified to work in the United States.

Drexel University is an affirmative action/equal opportunity employer and encourages applications from qualified women, members of minority groups, disabled individuals, and veterans.

Drexel UNIVERSITY

Leibniz-Institut für Neue Materialien

INM

Nanoscale characterization of materials is indispensable for future developments in nanotechnology, energy sciences, and biology.

INM – Leibniz Institute for New Materials, situated in Saarbrücken, Germany, is an internationally leading centre for materials research. Our areas of research are Chemical Nanotechnology, Interface Materials, and Materials in Biology. We develop nanostructured materials and study their properties, inspired by combining chemical, physical and biological viewpoints. INM is a scientific partner to national and international institutes and a provider of research and development for companies throughout the world.

We are aiming to recruit a scientist with a Ph.D in Physics, Physical Chemistry or Materials Sciences for our research group Innovative Electron Microscopy (IEM) for the subject of

In-situ Electron Microscopy

The IEM group conducts interdisciplinary research at the interface of bio-nanotechnology, materials science, cell biology, physics of the electron microscopy (EM), and image processing. The group uses aberration-corrected scanning transmission electron microscopy (JEOL ARM200F) and several other instruments such as TEM (Philips CM200), ESEM (FEI Quanta 400), SEM (JEOL 7500F), and FIB (FEI Versa 3D). Our research focuses on the study of biological systems and functional materials in liquid, and also involves three-dimensional (3D) atom-by-atom structural analysis, and atomic-scale chemical analysis of materials. Various collaborations exist within INM, with universities, and with industry.

Your area of responsibility includes the study of physical properties of nanomaterials at the atomic level, and in particular research in the field of in-situ electron microscopy of materials in liquid. You should study fundamental properties of solid-liquid interfaces and apply this knowledge to energy research, for example, in the area of batteries. You will set up independent research projects in close collaboration with the various research departments and research groups of the INM. We are searching for a person with the skills to grow an independent research program at international top level as reflected in publications in internationally renowned scientific journals.

If you are an extraordinary productive and creative scientist with experience in transmission electron microscopy in the field of nanotechnology, an exciting area of research is awaiting you. Excellent knowledge of the English language and basic knowledge of the German language are essential. Remuneration is based on the TV-L (the salary scheme for state employees). We promote the professional opportunities of women and ask especially for their applications.

Please submit your complete application by email to:

sylvia.graaf@inm-gmbh.de

or via postal mail to:

Prof. Dr. Niels de Jonge
INM – Leibniz-Institut für Neue Materialien gGmbH
Campus D2 2
D-66123 Saarbrücken

Please find further information on our homepage: www.inm-gmbh.de.

Further information about the Leibniz Association can be found on **www.leibniz-gemeinschaft.de**

Leibniz Leibniz-Gemeinschaft

UNIVERSITY OF PITTSBURGH
CENTER FOR ENERGY

R.K. Mellon Endowed Faculty Positions in Energy

As part of the University of Pittsburgh's strategic expansion of its Center for Energy (*www.energy.pitt.edu*), the Swanson School of Engineering invites exceptional applicants for endowed faculty positions at all ranks in the following key research areas:

- **Energy delivery and reliability,** with an emphasis on electric power transmission and distribution systems, advanced power electronics technologies (FACTS and DC systems), power system modeling and analysis, power system operation and control, and renewable energy integration.
- **Materials for energy-related applications,** with an emphasis on experimental and/or computational efforts on structural and functional materials used in harsh service environments, and therefore including corrosion engineering, catalysts, energy storage, thermo-electrics and sensors.

These key areas also complement our existing and emerging research and education activities in *carbon management and utilization*, *unconventional gas resources*, and *direct energy conversion and recovery*.

Established as part of a recent $22 million gift from the Richard King Mellon Foundation, a total of four endowed faculty positions are available: two Professor-level appointments as *R.K. Mellon Chairs in Energy* and two Assistant/Associate Professor appointments as *R.K. Mellon Faculty Fellows in Energy*.

The successful candidates will greatly benefit from the resources fostered by the University of Pittsburgh's extensive facilities, research partnerships, and close proximity to numerous energy-related companies and research laboratories. For instance, the Department of Energy's National Energy Technology Laboratory (NETL) recently formed a Regional University Alliance (RUA) for energy technology innovation that is in partnership with the University of Pittsburgh and four other nationally recognized universities.

Interested candidates or candidate teams should apply with a **single pdf file** of the following: a cover letter; a full curriculum vita; statements describing teaching and research interests and plans; copies of three representative publications; and the names and contact information for at least three references. Questions and nominations should be addressed to **Prof. Brian Gleeson, Director of the Center for Energy at cfenergy@pitt.edu**.

For the R.K. Mellon Chair in Energy position, please apply at: RKMChairSearch@engr.pitt.edu

For the R.K. Mellon Faculty Fellow in Energy positions, please apply at: RKMFellowSearch@engr.pitt.edu

Screening begins immediately and will continue until the search is closed. The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer.

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