

RESEARCH ASSOCIATE/POSTDOCTORAL FELLOW

Organic Photovoltaics Research
University of Arkansas at Little Rock

Position P98238

The University of Arkansas at Little Rock (UALR) invites applications for a grant-funded, full-time position available in its Nanotechnology Center, to start as soon as possible. The successful candidate will participate in grant-funded research on organic photovoltaic devices. The initial appointment is for a period of 12 months with the possibility of renewal for up to an additional 12 months.

Qualifications: Applicants must have an earned doctorate in materials science or a closely related field. Experience is required in organic photovoltaic device construction and testing, synthesis of polymeric materials, synthesis/processing of multifunctional nanomaterials, and the integration of nanocomposites/nanomaterials in functional PV devices. Applicants should have knowledge of various thin-film deposition techniques and be thoroughly familiar with the use of analytic characterization methods that include SEM, TEM, Raman, XRD, FTIR, Fluorescence, TGA/DSC, and others. The successful applicant must be able to perform research both independently and as part of a team. He/she should have a documented record of outstanding publications.

Interested candidates should send a letter of application, curriculum vitae, and names, addresses, and contact information of three references to Kristi Wright, Unit Coordinator, Graduate Institute of Technology, UALR, 2801 S. University Avenue, Little Rock, AR 72204. Electronic submissions are encouraged and should be sent to gitpositions@ual.edu, referencing PostDoc PV-P98238 in the subject line. Direct all technical inquiries to nantechologycenter@ualr.edu. Direct all other inquiries to 501-569-8210.

Review of applications will begin immediately and will continue until the position is filled.

The University of Arkansas at Little Rock is an equal opportunity, affirmative action employer and actively seeks the candidacy of women, minorities, and individuals with disabilities. Under Arkansas law, all applications are subject to disclosure. Persons hired must have proof of legal authority to work in the United States.

U·A·L·R

FACULTY POSITIONS
Department of Mechanical Engineering
Virginia Tech

Virginia Tech, Department of Mechanical Engineering, invites applications for two tenure-track faculty positions at the Assistant or Associate Professor rank in the area of Nuclear Materials. To apply, see <https://listings.jobs.vt.edu> and link to posting number 114389-00. Virginia Tech is an Equal Opportunity Affirmative Action Employer. The University has a strong commitment to the principle of diversity and, in that spirit, seeks a broad spectrum of candidates including women, minorities, and persons with disabilities. Individuals with disabilities desiring accommodations in the application process should notify Dr. Eugene Brown at 540-231-6917 or University TTY at 1-800-828-1120.

UNIVERSITY OF CALIFORNIA
UCRIVERSIDE

FACULTY POSITION Materials Science and Engineering

The Bourns College of Engineering at the University of California, Riverside invites applications for a **Material Science and Engineering** ladder rank faculty position beginning the 2011/2012 academic year in the area of materials energy. The successful candidate will be affiliated with the Materials Science and Engineering (MSE) program which integrates across all five departments in the college, and will join any of the departments in the College. Junior candidates must show outstanding research, teaching, and graduate student mentorship potential. Senior candidates may be considered with an exceptional research, teaching, and graduate student record. Specific areas of interest are provided at www.engr.ucr.edu/facultysearch/.

We anticipate that the successful applicant will complement the highly motivated and entrepreneurial spirit of the College faculty, contributing meaningfully to the success of future teaching, research, and service accomplishments. Incumbents are expected to initiate and sustain strong sponsored research and graduate training programs.

The Bourns College of Engineering is proud of its faculty's accomplishments and rapid growth. The College currently has 82 faculty members, 2000 undergraduates, more than 500 graduate students, and more than \$30 million in annual research expenditures. The College is home to four interdisciplinary and multidisciplinary research centers: The Center for Environmental Research and Technology (CE-CERT), the Center for Research in Intelligent Systems (CRIS), and the Center for Nanoscale Science and Engineering (CNSE), and the Center for UC Light.

Search committees will begin reviewing applications as early as **January 15, 2011**. To apply please register through the weblink at www.engr.ucr.edu/facultysearch/ and submit the requested PDF files. For inquiries and questions, contact us at facultysearch@engr.ucr.edu.

The University of California, Riverside is an Equal Opportunity/Affirmative Action Employer.

UCLA

RAYTHEON CHAIR IN MANUFACTURING ENGINEERING
Mechanical and Aerospace Engineering Department
Henry Samueli School of Engineering and Applied Science

The Henry Samueli School of Engineering and Applied Science (HSSEAS) in the University of California, Los Angeles invites applications for the endowed Raytheon Chair in Manufacturing Engineering (Tracking # 0205-1011-01). Candidates are sought who bring together basic research and manufacturing in the academic environment. Research areas of interest include but are not limited to micro- and/or nano-scale manufacturing; manufacturing of multifunctional materials; and multi-scale design and manufacturing of engineered materials or devices. The holder of this Chair will be expected to lead in the growth of the field by teaching, conducting research, and interacting with the large number of industrial firms located within the Los Angeles area.

The Chair's position will be in the Mechanical and Aerospace Engineering Department within HSSEAS at UCLA. The Department seeks a scholar with a proven record of professional and academic leadership, a distinguished national and international reputation in research, a strong track-record in obtaining extramural funding, and demonstrated excellence in graduate and undergraduate education. Candidates are required to have a PhD degree in mechanical engineering, aerospace engineering, or a closely related discipline, and qualifications for appointment as a tenured full professor.

For consideration, applicants should submit a curriculum vitae, a one page research statement, and names of three references to raytheon@seas.ucla.edu. The Department has a strong commitment to the achievement of excellence and diversity among its faculty and students. Women and minorities are encouraged to apply. Applications will be accepted until **February 28, 2011**.

UCLA is an Affirmative Action/Equal Opportunity Employer with a strong institutional commitment to the achievement of diversity among its faculty, staff, and students.



W MATERIALS SCIENCE & ENGINEERING

UNIVERSITY of WASHINGTON

» FACULTY POSITION

The Department of Materials Science & Engineering at the University of Washington, Seattle, seeks outstanding candidates for one full-time professorship. We expect to fill the position at the rank of associate or full professor with tenure and with the designation of Kyocera Professor (endowed position), to begin in the 2011 Autumn Quarter, but we will also accept applications at the level of assistant professor, tenure-track, from outstanding candidates.

» Kyocera Professor

The holder of this tenured professorship should be an eminent scholar and well-known leader in the field of materials science and engineering with expertise on broadly defined materials science and engineering. Areas of particular interest include, but are not limited to, molecularly engineered, and/or chemically or biologically processed nano- and micro-structured organic/hybrid materials for novel applications in structural, electronic, photonic, magnetic, biomedical, and/or energy-related fields.

The applicants should have an outstanding record of research and scholarship in their specialized fields, evidenced by publications, external funding supports, and leadership role in collaborative research projects across multiple disciplines in their current institutions. Preference will be given to candidates who have demonstrated ability

to leverage and bring the research activities in their current institutions to a high level of national and international excellence. Industrial experience will be considered as an asset. Successful candidates are expected to work with other faculty within the department to develop cutting-edge collaborative research projects, secure extramural funding, teach courses at both the undergraduate and graduate levels, and play active roles in the centers and institutes of the department and college interests, including the Institute of Molecular Engineering and Sciences, the "NSF-STC" on Materials and Devices for Information Technology, the "NSF-MRSEC" on Genetically Engineered Materials Science and Engineering, and the Institute of Advanced Materials and Technology. A doctoral degree in materials science and engineering or a closely related field is required. University of Washington faculty engage in teaching, research, and service.

» Information about the Department

The MSE department currently has 18 faculty, 100 undergraduates, 80 graduate students, and 25 postdoctoral researchers. The Department's research portfolio covers all classes of materials and state-of-the-art facilities are available in the Department and in interdisciplinary research centers on the campus. More information about the department is available at <http://depts.washington.edu/mse/>.

» How to Apply

Applicants should include the following documents and information with their letter of application: A detailed resume, a list of publications, clear and concise statements of teaching and research interests and objectives (3 page maximum), and the contact information of five referees. Evaluation of applicants will start during late 2010 and continue until the position is filled. **Application materials must be submitted online** via the College of Engineering's Faculty Search Tool at <http://www.engr.washington.edu/facsearch/?dept=Mse> (see **Position #AA2697**). Questions about the details of this search or position should be directed to the search committee by email to montague@u.washington.edu.

The University of Washington is an affirmative action, equal opportunity employer, is building a culturally diverse faculty and staff, and strongly encourages applications from women, minorities, individuals with disabilities, and covered veterans. UW is the recipient of a National Science Foundation ADVANCE Institutional Transformation Award to increase the participation of women in academic science and engineering careers. UW is the recipient of the 2006 Alfred P. Sloan award for Faculty Career Flexibility and is committed to supporting the work-life balance of its faculty.

Research Staff Member**Neutron and X-Ray Scattering**

The X-Ray and Neutron Scattering and Microscopy Group in the Materials Science and Technology Division at Oak Ridge National Laboratory (www.ornl.gov) is seeking a mid-career to senior level materials scientist with a specialty in the area of Neutron and/or X-Ray Scattering basic energy sciences research. Applications are invited from candidates with demonstrated track records for conceiving and developing innovative forefront materials research programs leading to advances in fundamental understanding of condensed matter science, materials physics, nanostructures, or other energy-related research areas. The successful candidate will benefit from interactions with the diverse experimental and theoretical materials research programs at ORNL and from the forefront ORNL research capabilities, including the Spallation Neutron Source, the High Flux Isotope Reactor, the National Center for Computational Science, the Center for Nanophase Materials Sciences, and state-of-the-art electron microscopy facilities.

The position requires a PhD degree in physics, materials science, applied physics, chemistry, or a closely related science and engineering discipline. A minimum of five years experience and a preexisting scientific reputation in the fields of neutron or X-ray diffraction is a requirement. Excellent written and oral presentation skills are essential. Experience in leading and developing technical programs will also be an important asset. For further consideration and to review full job description, please visit <http://jobs.ornl.gov/>; click view open positions, type **NC50245788** in the key word search field, click start.

Oak Ridge National Laboratory is an Equal Opportunity Employer.



FACULTY POSITION Theoretical Materials Science

The Department of Mechanical and Aerospace Engineering at the University at Buffalo, State University of New York (SUNY) seeks to enhance its core competence in materials science and engineering. It seeks an outstanding individual for a faculty position specializing in any aspect of materials analysis - especially the modeling, theory, and computation of magnetic, thermal, optical, or electronic transport properties at small scales. Preference will be given to candidates at the tenure track Assistant Professor level.

The successful candidate is expected to develop an independent, externally-funded, internationally-recognized research program, and excel in teaching and service. Applicants must have an earned doctorate in Materials Science, Mechanical/Aerospace Engineering, or any relevant physical science or engineering discipline, with a dissertation focused on materials research.

The School of Engineering and Applied Sciences at Buffalo is the largest and most comprehensive of the SUNY engineering schools. The Department of Mechanical and Aerospace Engineering has 29 full-time faculty. Interested candidates should review the Department website at <http://www.mae.buffalo.edu> for additional information.

Applicants must submit an online application through the University at Buffalo Human Resources webpage at <http://hr.buffalo.edu>; select "Find Jobs at UB", select "Search & Apply for Jobs". This position is **posting number 1000723**. Applicants must submit a Cover Letter, detailed Curriculum Vita, Contact Information for References, Research Statement, and Teaching Statement. Optional attachments are a maximum of three separate publications. For full consideration, please apply online before January 31, 2011.

Women and other underrepresented minorities are especially encouraged to apply. The University at Buffalo is an Equal Opportunity/Affirmative Action Employer/Recruiter.



TECHNISCHE
UNIVERSITÄT
DARMSTADT

The Department of Materials- and Geosciences at TU Darmstadt invites applications for a junior faculty position with tenure-track in the field of

Mechanics of Functional Materials (Code. Nr. 444)

Starting date: October. 1st, 2011

We are looking for an outstanding candidate with expertise in mechanics of functional materials, who will develop an internationally recognized research program and will complement the existing research activities of our department. A particular research focus should be on coupled field problems in functional materials (electrical-mechanical, electrochemical-mechanical, magnetic-thermal or optical-electrical) with complex microstructures. In close collaboration with experimental groups, the research should focus on materials related problems spanning multiple length scales, from microstructure to components, and link to existing activities in the area of atomistic materials modelling. The scientific work should contain a strong theoretical component, although additional experimental expertise based on constitutive properties of functional materials would be considered as strong positive.

Active involvement in collaborations with other faculties 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 engineering mechanics. A PhD in solid mechanics or related areas and a track record of independent research is a prerequisite for this position. The PhD and the period of employment as a research assistant should not have exceeded a total of 6 years.

The position is initially assigned for three years. Provides that the evaluation will be positive, the appointment is extendable for three more years. In case of a successful final evaluation after six years, there is a tenure option subject to the agreement of the university. Remuneration follows the German W-Besoldung at Level W-1.

The Technische Universität Darmstadt intends to increase the number of female faculty members and encourages female candidates to apply. In case of equal qualifications severely disabled applicants 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, Petersenstr. 23, 64287 Darmstadt, Germany. An electronic copy preferentially in PDF-format is also requested. Applications should be sent by Februar 15th, 2011. Questions concerning the position can be addressed to Prof. Dr. K. Albe, Tel.: ++49-6151-166374, E-Mail: albe@tu-darmstadt.de.

Application deadline: 15-Feb-2011



Open-Rank Faculty Position in Aerospace Mechanics/Materials Department of Aerospace Engineering

University of Illinois at Urbana-Champaign

The Department of Aerospace Engineering at the University of Illinois at Urbana-Champaign is seeking exceptional candidates for a full-time faculty position beginning as early as August 16, 2011. Applications from women and underrepresented minorities are especially welcome and are strongly encouraged.

The available position is tenure-track at the assistant professor level. Expertise in emerging areas of aerospace mechanics, structures, and materials including multi-functional materials, novel materials for energy applications, and bioinspired hierarchical materials will be viewed favorably. Although preference will be given to candidates having documented strong modeling skills, outstanding candidates with experimental expertise are welcome, and exceptional senior candidates will also be considered.

Please visit <http://jobs.illinois.edu> to view the complete job announcement and application instructions. Applications are due by January 7, 2011, to receive full consideration.

University of Illinois is an AA-EOE.



FACULTY POSITION

IN MATERIALS SCIENCE AND ENGINEERING, THE UNIVERSITY OF MICHIGAN

The Department of Materials Science and Engineering (MSE), College of Engineering, University of Michigan, invites outstanding applicants for a tenure-track faculty position in the area of computational materials science and engineering. Emphasis will be placed on applicants with a record of research accomplishment in the area of high-performance computing methodologies applied to materials research. The applicant must hold a Ph.D. degree in MSE or a related field, and should be qualified and willing to teach undergraduate and graduate courses within the field. We seek candidates who will provide inspiration and leadership in research, contribute to the academic mission of the institution, and participate in the new computational science and engineering initiatives at UM. We are especially interested in candidates who contribute, through their research, teaching, and service, to the diversity and excellence of the academic community. UM is responsive to needs of dual career families.

Candidates should submit a cover letter, resume, research and teaching plans, publication list, and the names of four references to our web site at: <http://www.mse.engin.umich.edu/facsearch/petascale>

The deadline for applications is February 28, 2011

Contact information: mse-petascale-faculty-search@umich.edu

Petascale Faculty Search Chair
Department of Materials Science and Engineering
The University of Michigan
2300 Hayward Street, Ann Arbor, MI 48109-2136



MichiganEngineering

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

SENIOR GROUP LEADER Physical Analytics



INM – Leibniz Institute for New Materials, situated in Saarbrücken (Germany), engages in fundamental and applied materials research—from molecules to pilot production. Our research fields are Chemical Nanotechnology, Interface Materials, and Materials in Biology. We develop nanostructured materials from a chemical, physical, and biological perspective, investigate and model their properties, and promote their potential applications in industrial collaborations.

INM seeks to appoint a **Senior Group Leader, Physical Analytics** (TEM, STEM, SEM, ESEM, AFM, XRD, XRF).

The new group leader will direct research with the primary focus on the application of electron microscopy and X-ray diffraction methods for the characterization of nanostructured materials. This comprises both a competitive, innovative research program and service to research groups at INM. In 2011, our facilities will be upgraded with a new state-of-the-art STEM with C-FEG, Cs-corrector, and high-speed GIF Quantum. This instrument will provide access to a large range of new techniques (atomic resolution STEM, EELS, ESI, EFTEM, tomography, etc.). The position will play a key role at INM in providing and developing quantitative and *in-situ* methodologies for the characterization of a large range of nanomaterials.

The successful candidate will have several years' experience in advanced TEM and/or diffraction techniques and, ideally, will have led a competitive

research group elsewhere. He/she should be interested in combining independent research with service to other groups. Experience in a analytical TEM/STEM is essential; experience in SEM and XRD are highly desirable. The environment at INM encourages collaborations with internal and external investigators in a broad range of disciplines. For further information please contact Prof. Eduard Arzt at eduard.arzt@inm-gmbh.de.

INM offers a creative working environment and the inspiring atmosphere of a highly interdisciplinary, internationally visible institution. Financial compensation will be competitive and depends on previous research experience. INM promotes career opportunities for female scientists, who are encouraged to apply. Links with the adjacent Saarland University, including teaching possibilities, are strongly encouraged. Numerous connections with industrial partners will also provide additional career opportunities. Saarbrücken is a lively city on the German-French border with fast connections into both countries.

Applications including a CV, a publication list, and a research plan should be addressed to:
Professor Eduard Arzt, Scientific Director and Chairman
INM – Leibniz Institute for New Materials
Campus D2 2, 66123 Saarbrücken, Germany
eduard.arzt@inm-gmbh.de



Denton, TX

NANOFABRICATION/CLEAN-ROOM FACILITIES MANAGER

The University of North Texas, seeks a manager for its new nanofabrication/cleanroom facility currently under construction. This position will oversee development of the facility and be responsible for the management of day-to-day operations. This position will recommend new tools and oversee their installation, qualify equipment and processes, develop and enforce operational protocols, train and interface with users, and perform various technical tasks.

MINIMUM QUALIFICATIONS:

- Bachelor's degree in engineering or the physical sciences
- Five (5) years experience in micro and/or nano device fabrication; or equivalent experience, education and training

SUBMIT ONLINE APPLICATIONS TO:
<http://apptrkr.com/168929>

UNT is an AA/EOE/ADA

U·A·L·R

Research Associate/Postdoctoral Fellow
 Nanomedicine Research
 University of Arkansas at Little Rock

Position P98236 and Position P98237

The University of Arkansas at Little Rock (UALR) invites applications for a grant-funded, full-time position available in its Nanotechnology Center, to start as soon as possible. The successful candidate will participate in grant-funded research in the application of nanomaterials to cellular biology and tissue engineering. The initial appointment is for a period of 12 months with the possibility of renewal for up to an additional 12 months.

Qualifications: Applicants must have an earned doctorate in biology or a closely related field. Experience is required in molecular and genetic biology, nanotechnology with applications in nanomedicine, tissue engineering, and nano-toxicology. Applicants should have a thorough understanding of cell culture and flow cytometry, the ability to study and evaluate the functionalization of nanomaterials with various biological molecules, and considerable experience in the use of analytic characterization methods that include SEM, TEM, Raman, FTIR, Fluorescence, and others. The successful applicant must be able to perform research both independently and as part of a team. He/she should have a documented record of outstanding publications.

Interested candidates should send a letter of application, curriculum vitae, and names, addresses and contact information of three professional references to Kristi Wright, Unit Coordinator, Graduate Institute of Technology, UALR, 2801 S. University Avenue, Little Rock, AR 72204. Electronic submissions are encouraged and should be sent to gitpositions@ualr.edu, referencing PostDoc Nanomedicine—P98236 and/or Position P98237 in the subject line. Direct all technical inquiries to nanotechnologycenter@ualr.edu. Direct all other inquiries to 501-569-8210.

Review of applications will begin immediately and will continue until the position is filled.

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POSTDOCTORAL POSITION Computational Materials Science

The Department of Materials Science and Engineering at the University of Florida (<http://www.mse.ufl.edu>) has an open postdoctoral position available in the groups of Profs. Susan Sinnott and Simon Phillpot. The area of investigation is the classical simulation of heterogeneous material interfacial structures and the development of empirical, many-body potentials for use in molecular dynamics simulations of the oxidation of nitride materials. The position is available February 7, 2011.

A background in computational materials science, physics, chemistry, or other related theoretical discipline is required, and preference will be given to candidates who have prior related experience in potential fitting. Interested candidates should send a curriculum vitae and the names of three references to Dr. Susan Sinnott (ssinn@mse.ufl.edu; <http://sinnott.mse.ufl.edu>) by **January 24, 2011**. Consideration of applications will continue until the position is filled.

The University of Florida is an Affirmative Action/Equal Opportunity Employer and women and minorities are encouraged to apply.



Senior Member of Technical Staff

YTC America Inc., a wholly owned research and technology development center of Yazaki Corporation, has an immediate opening for a Senior Member of Technical Staff within its R/D group. The person will initially work with the company's carbon nanotube (CNT) research team in developing electrochemical double layer capacitors (EDLC) during initial stages. Subsequently the company plans to diversify into battery and fuel cell related research and product development activities.

Job Responsibilities

- Responsible for developing prototype EDLC cells, or novel electrochemical energy storage or delivery devices, based on YTCA's proprietary CNT electrodes
- Responsible for setting up a full electrochemical characterization laboratory with relevant equipment and test stands
- Work internally with the R/D team members to optimize the electrode design and electrochemical cell engineering
- Work with domestic and international collaboration partners in developing commercially viable products
- Generate strong IP position independently or with internal co-developers

Requirements

- MS or PhD degree in Materials Science, Chemical Engineering, or related discipline with 5-10 years of experience in the field of electrochemical devices such as EDLC capacitors, batteries, or fuel cells. Specialization in the field of electrochemistry or electrochemical engineering is a must.
- Thorough knowledge and expertise in prototype electrochemical device assembly
- Thorough knowledge in electrochemical characterization of devices
- Knowledge of engineering aspects of electrochemical device fabrication for commercialization purposes

The successful candidate is expected to have a strong desire to contribute to technology development and validation through hands-on work, be self-motivated, have the ability to effectively interact with supporting R/D groups, have a can-do attitude, strong written and oral communication skills and must have employment authorization to work in the U.S.

The company offers competitive compensation, excellent benefits, and a state-of-the-art research facility. Candidates are requested to send resume and a full list of publications to lcohen@ytca.com or mail to Ms. Linda Cohen, 3401 Calle Tecate, Camarillo, California 93012. Reply to code CNT-1.



SCIENTISTS/SENIOR RESEARCH ENGINEERS/RESEARCH ENGINEERS



As a proud member of the Agency for Science, Technology and Research (A*STAR), the Institute of High Performance Computing (IHPC) was established in April 1998 to provide leadership in high performance computing as a strategic resource for scientific inquiry and industry development. Our mission is to advance science and technology, and develop leading edge applications through high performance computing and computational science.

We are looking for highly motivated individuals who are able to work independently and yet be good team players; possess excellent analytical, technical, and problem solving skills; and possess good technical writing and presentation skills. If you share our interests in solving challenging scientific problems using computational science and engineering techniques, we welcome you to apply for any one of the following positions.

..... **IHPC Values: Impact • Honesty • Performance • Co-operation**

ENGINEERING MECHANICS/SYSTEMS

Computational Solid Mechanics (Ref: IHPC/271110/08)

Focus will be on developing computational tools to study mechanics of solids and structural dynamics. You will also be involved with the research on Fluid Structure Interaction and its applications in aerospace, bio-mechanics, and marine-time.

Requirements:

- PhD degree in Mechanical Engineering or equivalent
- Strong background in computational structural dynamics
- Good knowledge of numerical methods, particularly finite element method, and algorithms
- Proficient in at least one of the programming languages: C, C++, Fortran

Fracture and Fatigue Modelling (Ref: IHPC/271110/09)

Focus will be on studying and simulating failure behavior in engineering materials. Your main role is to develop and customize computational tools for fatigue life prediction based on fracture mechanics approach.

Requirements:

- PhD degree in Mechanical/Maritime Engineering or equivalent
- Strong background in computational structural dynamics, fracture mechanics, and fatigue
- Good knowledge of numerical methods, particularly finite element method, and algorithms
- Proficient in at least one of the programming languages: C, C++, Fortran

Nano Systems (Ref: IHPC/271110/10)

Focus will be on modelling and simulations of mechanical properties of crystalline materials. Your main role is to develop a multiscale continuum and atomistic approach to study microstructure evolution and plasticity.

Requirements:

- PhD degree in Mechanical/Materials Engineering or equivalent
- Strong background in computational materials science or materials physics
- Good knowledge of numerical methods, particularly atomistic simulation and dislocation dynamics, and algorithms
- Proficient in at least one of the programming languages: C, C++, Fortran

SOFT MATTER

Polymer-Thin Film Mechanics (Ref: IHPC/271110/11)

Focus will be on modelling and simulating the mechanical properties of surfaces, membranes, and films of polymeric materials. You will also be involved with the research work on developing flexible devices, coating materials, and polymer composites.

Requirements:

- PhD degree in Mechanical/Chemical/Materials Engineering or equivalent
- Strong background in polymer physics and mechanics of polymeric materials
- Good knowledge of numerical methods, particularly finite element method, atomistic method, and algorithms
- Proficient in at least one of the programming languages: C, C++, Fortran

Kinetic Modelling of Soft Materials (Ref: IHPC/271110/12)

Focus will be on kinetic modeling of soft materials, such as hydrogels and tissues with emphasis on the coupling of deformation, stress, diffusion, and chemical reaction. You will also be involved with the research work on plant growth and morphological evolution, drug delivery, and hydrogel-based devices.

Requirements:

- PhD degree in Mechanical/Chemical/Materials Engineering or equivalent
- Strong background in physics of soft matter, and mechanics of biological materials
- Good knowledge of numerical methods, particularly finite element method, atomistic method, and algorithms
- Proficient in at least one of the programming languages: C, C++, Fortran

If these challenges excite you, please complete the online application form on our website, quoting job reference number and submit it together with two reference letters to:

Human Resource Manager
 Institute of High Performance Computing
 1 Fusionopolis Way, #16-16 Connexis North Tower, Singapore 138632
Email: recruitment@ihpc.a-star.edu.sg
<http://www.ihpc.a-star.edu.sg>

We regret that only shortlisted candidates will be notified.

Principal Research Scientist

Frederick Seitz Materials Research Laboratory

The Frederick Seitz Materials Research Laboratory (MRL) at the University of Illinois at Urbana-Champaign is seeking a Principal Research Scientist to serve as director of the MRL Central Facilities. The facilities consist of the Center for Microanalysis of Materials, the Laser and Spectroscopy Facility, and the Micro/Nanofabrication Facility. The MRL Central Facilities contain more than 40 major research instruments, which are maintained by 17 dedicated staff scientists and engineers. The facilities have an annual operating budget of \$2 M, occupy nearly 50,000 sq. ft. of laboratory space, and are well recognized as one of the premier mid-sized user facilities in the nation. Nearly 1000 researchers from across our campus as well as other academic institutions, industry, and national laboratories use these facilities each year, logging more than 100,000 user hours. Additional information about the MRL Central Facilities can be found at <http://mrl.illinois.edu/facilities.html>.

We are seeking a dynamic individual to serve as the MRL Central Facilities Director. This person will be responsible for managing the facilities, facility budgets, and associated staff members, collaborating with faculty research groups, and assisting in the coordination of new funding opportunities, programmatic reviews, and outreach activities. The Principal Research Scientist will work with the MRL's leadership team, Facilities Committee, and other advisory groups to establish and implement a strategic plan for the MRL Central Facilities that ensures their continued excellence.

Candidates must have a Ph.D. in Materials Science, Condensed Matter Physics, Chemical Sciences or a related field. They should also have a demonstrated track record in research group and/or facility management within academia or at a national laboratory. Successful candidates must possess a broad knowledge of materials characterization and microfabrication, excellent communication skills, and the ability to effectively interact with faculty, students, and staff from a broad range of disciplines.

The appointment is for a twelve-month, full-time academic professional with salary commensurate with qualifications and experience. In order to ensure full consideration, applications must be received by February 28, 2011. Applicants may be interviewed before the closing date; however, no hiring decision will be made until after that date. Applicants should submit a cover letter, brief statement of their philosophy on the operation of an academic user facility, CV, and contact information for five references as a single PDF file via <https://jobs.illinois.edu/>.

For more information about application procedures, please contact Susan Logan, sklogan@illinois.edu. For information about the position please contact Search Chair Prof. Lance Cooper at slcooper@illinois.edu. General information about the laboratory is provided at <http://mrl.illinois.edu/>.



ILLINOIS

Illinois is an Affirmative Action/Equal Opportunity Employer and welcomes individuals with diverse backgrounds, experiences, and ideas who embrace and value diversity and inclusivity.

Faculty Position

DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING

The Department of Materials Science and Engineering at Johns Hopkins University invites applications for a junior-level, tenure-track faculty position. Major areas of interest include biomaterials, nanostructured material-cell interactions, computational materials science, materials for energy, and transmission electron microscopy. The position may be associated with research centers including the Institute for NanoBioTechnology (inbt.jhu.edu), the Institute for Computational Medicine (www.icm.jhu.edu), and others. Preference will be given to applicants at the assistant professor level, but consideration will also be given to exceptionally qualified candidates at higher ranks.

The successful candidate will be expected to establish an independent, internationally recognized research program and to contribute fully to the undergraduate and graduate educational missions of the department. Applicants should have a PhD degree or equivalent in materials science and engineering or a related field; postdoctoral experience is desirable. Candidates must have demonstrated ability to undertake independent, interdisciplinary, and collaborative research. Additional information about the department may be found at www.jhu.edu/~matsci.

All applications should be submitted electronically as a single PDF document to materials@jhu.edu. Applications should include a cover letter describing the principal expertise and accomplishments of the applicant, a complete resumé, statements of research and teaching interest, and the names and contact information for at least three references. For full consideration, applications should be received by **February 1, 2011**. The Department is committed to building a diverse educational environment; women and underrepresented minorities are strongly encouraged to apply.



The Johns Hopkins University is an EEQ/AA Employer.

SCIENTIST

EaglePicher™
Technologies, LLC
An GMG Company

EaglePicher Technologies, a leading producer of batteries, is seeking a scientist to be an integral part of our battery testing and characterization team, providing operational expertise including assembly of batteries, electrochemical test protocol implementation, abuse testing, test results documentation, and post-mortem analysis. Work includes battery degradation and failure mode analysis to optimize battery life and reliability.

Candidates will have degrees in Chemistry, Materials Science, or Chemical Engineering. Minimum experience is five years, less with graduate level degree. Experience with Maccor, Arbin, or Bitrode battery testing systems is a plus. Position is open only for US Citizens or Permanent Residents. View full description and apply for job title Battery Chemist @ <https://www4.recruitingcenter.net/Clients/eaglepicher2/PublicJobs>.