

## FACULTY POSITION IN ELECTRON MICROSCOPY

Department of Materials Science and Engineering



The Department of Materials Science and Engineering at The Ohio State University ([mse.osu.edu](http://mse.osu.edu)) invites applications for a tenure-track position in electron microscopy. This position is anticipated to be the first of several associated with the newly founded Center for Electron Microscopy and Analysis (CEMAS [cemas.osu.edu](http://cemas.osu.edu)). CEMAS is a multi-million dollar investment in advanced characterization equipment and infrastructure bringing together multidisciplinary expertise to drive synergy and amplify our characterization capabilities in engineering, medicine, and the physical and biological sciences.

We welcome applicants with expertise in: (a) electron microscopy of biomaterials and biopolymers, including cryogenic-TEM, electron tomography for 3-D imaging and reconstruction, imaging and analysis of cellular structures, *in-situ* methods for investigation of live cells, and analytical microscopy; and/or (b) 3-D imaging of structural and functional materials with emphasis on *in-situ* characterization.

The faculty appointed through this hire are expected to complement existing expertise in CEMAS and the wider OSU materials community to dramatically enhance and sustain federal funding and industrial partnerships for materials characterization. In view of our aspirations and the nature of this opportunity, we seek candidates who are ardent discoverers, passionate teachers and mentors, committed stewards to our discipline, and proven collaborators. For the successful candidate, we offer a vibrant research environment at one of the largest, best

equipped, and most-highly connected electron microscopy facilities in the world.

The Strategic Plan for the College of Engineering at Ohio State outlines ambitious teaching and learning objectives to enhance overall research and discovery goals and align with major national initiatives such as the Materials Genome Initiative (<http://engineering.osu.edu/strategic-plan>). The ideal candidate will possess the ability to work with internal and external groups to develop significant new activities.

We seek a person with a demonstrated track record of leadership and collaboration in an academic and/or R&D environment with an appointment anticipated at the Assistant or Associate Professor level. Candidates must have established a record of accomplishment in electron microscopy research and earned a 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. The anticipated start will be in the first half of 2014. 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 email address: [cemas@osu.edu](mailto:cemas@osu.edu).

The Ohio State University is an affirmative action/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.



Sandia National Laboratories

### Post Doc Appointee Nanowires, Nanostructures

Sandia National Laboratories is currently seeking a **Post Doc Appointee** for the Advanced Materials Sciences Department, located in our **Albuquerque, NM** facility. The candidate selected will work in the area of III-nitride semiconductor materials, characterization, and devices, with a focus on nanowires and other nanostructures. The individual will work with a strong and growing multidisciplinary team to fabricate and study the properties and applications of novel III-nitride nanostructures and nanostructure devices. The postdoc will have access to state-of-the-art facilities at Sandia and the Center for Integrated Nanotechnologies, a DOE user facility.

#### Required

This position requires a highly motivated individual with a Ph.D. in Physics, Electrical Engineering, Materials Science, or a related discipline; Experience in one or more of the following areas: III-nitride or III-V semiconductors, optoelectronics, LEDs, lasers, metal organic chemical vapor deposition, nanomaterials, device physics, device modeling, semiconductor device design, processing, and testing, optical spectroscopies, transmission electron microscopy, e-beam lithography, ultra-high vacuum systems, nanostructure fabrication, and nanophotonics; and evidence of high academic achievement and publication records.

To learn more about this position and to apply online, please visit our Careers page at <http://www.sandia.gov/careers/search-openings.html> and reference Job Opening ID Number: **643996**.

U.S. Citizenship Normally Required.  
Equal Opportunity Employer. M/F/D/V.



### Associate Research Scientist Kuwait Institute for Scientific Research

Kuwait Institute for Scientific Research (KISR) invites applications for an Associate Research Scientist.

#### Major Duties:

- Leading and participating in research activities on the preparation and characterization of metallic matrix nanocomposites and consequence consolidations as protective layer coating materials.
- Leading and participating in research activities on sol-gel, powder thermal spray coating, CVD, and PVD for preparations of different types of nanomaterials.

#### Qualifications:

Applicants should have a PhD degree in Materials Science/ Materials Engineering/Mechanical Engineering/Chemistry or Nanotechnology with a minimum of five years of R&D experience. Applicants should also have a strong list of publications, outstanding leadership qualities, demonstrated skills in proposal writing, and the ability to attract research funding.

KISR offers attractive tax free salaries commensurate with qualifications and experience that include: gratuity, free furnished accommodations, school tuition fees for children, six weeks annual paid vacation, air tickets, and life insurance.

Interested applicants are requested to send their curriculum vitae with supporting information not later than one month from the date of this publication, to:

Personnel Manager  
Kuwait Institute for Scientific Research  
P.O. Box 24885, 13109 Safat, Kuwait  
E-mail: [employment@kisir.edu.kw](mailto:employment@kisir.edu.kw)  
Fax: (00965) 24989389

For further information, please visit our web site at [www.kisir.edu.kw](http://www.kisir.edu.kw).



## Exciting developments in Materials Chemistry: are you ready to take the lead?

The Department of Chemical Engineering & Chemistry at Eindhoven University of Technology (TU/e) invites applications and nominations for

# Three Professor Positions in Materials Chemistry



To further develop our research in the field of Materials Chemistry, we are looking for three inspiring leaders in this scientific domain. Will your research proposals lead to new breakthroughs and insights in Materials Chemistry? Are you attracted by the idea of a high tech working environment with close links to industry? And are you an inspiring role model for our researchers and students? If so, we would very much like to meet you.

Applicants from all areas in the field of Materials Chemistry will be considered, but those having expertise in polymer chemistry, physical chemistry or inorganic chemistry that interfaces with or complements existing research activities in the department will receive special consideration.

### Polymer chemistry

The department has a strong tradition in supramolecular and polymer chemistry. Its well-known chain-of-knowledge approach has proved to be a key success factor in bringing fundamental insights in macromolecular synthesis and polymerization mechanisms to innovative polymer materials applications in areas as functional polymer systems, biorelated polymer systems, performance coatings and plastics. Excellent candidates are invited to present new, challenging and innovative proposals to further add to this chain-of-knowledge approach, leading to basic understanding of novel polymerization mechanisms, advanced molecular applications and innovative polymer material systems with superb properties and performance characteristics.

### Physical chemistry

The department plans to install a new Chair position to focus on the physical chemistry of nano- and mesoscopic structures of soft condensed matter. Proposals from excellent candidates wanting to take the lead in this important field are welcomed. New developments and material applications are expected to follow from a basic understanding of the underlying physical chemistry of dynamical phenomena that take place at the dimensions and length scales where macromolecules, supramolecular structures and bulk (polymer) materials meet. State-of-the-art characterisation of mesoscopic structures using scattering techniques, combined with fundamental understanding of the underlying kinetics and thermodynamics of the interactions at the relevant molecular and material dimensions, are key factors in any research program in this field.

### Inorganic chemistry

The department invites applications of excellent candidates for the newly created Chair position focusing on the chemistry, synthesis and development of functional inorganic materials. Fundamental knowledge of the crystal structure, anisotropy, defects and stoichiometry of inorganic materials is key to the understanding and development of their advanced electric, optical, magnetic or other functional properties. Exciting developments are expected, for example in the synthesis of functional inorganic coatings for applications in electronic devices, as well as the synthesis and use of quantum structures with special optical, electric, catalytic or sensoric properties.

### Requirements

Successful applicants will have an outstanding, internationally recognized record of research in their specific fields, together with a strong commitment to teaching, a proven record in research funding acquisition, active collaboration with academic research groups and industry, excellent communication skills and proven leadership qualities to manage a scientific group.

### Information

Enquiries about these positions may be made to the Dean of the Department, Prof.dr.ir. J.C. Schouten, j.c.schouten@tue.nl. For information concerning conditions of employment, please contact Ms. Arianne Boekema, HR advisor, a.d.boekema@tue.nl, tel. +31 40 2474960.

### How to apply

For a detailed job description and to apply please visit our website: [www.tue.nl/jobs](http://www.tue.nl/jobs). Application review will begin on 1 November 2013.

[www.tue.nl/jobs](http://www.tue.nl/jobs)

**TU/e** Technische Universiteit  
Eindhoven  
University of Technology

Where innovation starts



FRONTIER INSTITUTE  
OF SCIENCE AND TECHNOLOGY  
前沿科学技术研究院  
**FIST**

## Center Directorships | Tenure-Track Faculty Positions | Postdoctoral Research Fellows

Frontier Institute of Science and Technology (FIST)  
Xi'an Jiaotong University (XJTU)

FIST is a large selective investment by XJTU in an effort to establish a world-class, multi-disciplinary research institute. To achieve this goal, FIST is setting up a number of research centers of excellence in Mathematics, Physics, Chemistry, Bio-Science/Life-Science/Basic-medical-Science, and Materials Science, and adopts a new management system similar to that of most U.S. universities. Ten planned centers have been established recently, and FIST is now recruiting the remaining Center Directors. In addition, FIST invites applications to fill its multiple, full-time tenure-track faculty positions at all levels (from lab director to group leader), as well as post-doctoral positions. See our Chinese ad at <http://fist.xjtu.edu.cn/job/show.asp?id=11> for details.

An eligible candidate for the Center Director position should be an internationally renowned scientist and established leader in his/her field, with the ability and will to build his/her center into an internationally recognized center of excellence. Successful candidates will be provided with a sizable start-up package to establish a research center, together with a highly competitive salary. See our Chinese ad at <http://fist.xjtu.edu.cn/job/show.asp?id=11> for details.

In addition to the Center Director positions, FIST also invites applications in the above-mentioned areas to fill its tenure-track faculty positions at all levels, from lab director to group leader. Applications for postdoctoral positions are also welcome. An eligible faculty candidate should have

a track-record for excellence in research and the potential to lead a lab or a group to success. Successful candidates will be provided with a competitive start-up package including salary, lab space, and start-up fund, together with other benefits. Position level and start-up package will vary with the candidate's qualification. See our Chinese ad at <http://fist.xjtu.edu.cn/job/show.asp?id=11> for details.

Interested individuals should set up their free ResearcherID webpage on <http://www.researcherid.com/>. Please send your ResearcherID citation information along with a cover letter, CV, and a list of ten representative publications to:

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P.R. China, 710054  
Tel/Fax: +86 29 83395131  
Email: [fist@mail.xjtu.edu.cn](mailto:fist@mail.xjtu.edu.cn)

XJTU is an AA / EOE employer.

## Assistant Professor

Department of Chemical and Materials Engineering

The Department of Chemical and Materials Engineering at the University of Kentucky invites applications for a tenure-track faculty position in materials engineering at the Assistant Professor level with an anticipated start date of Fall 2014. Applicants should hold the PhD degree in Materials Science and Engineering or a closely related field with a strong record of research accomplishments and the capability to develop an active and nationally recognized research program. The successful candidate must demonstrate a strong commitment to undergraduate and graduate education and be qualified to teach courses in materials engineering.

Applications in all research areas will receive consideration with preference given to those areas that complement existing department strengths including advanced materials synthesis and nanomaterials, biomaterials, computational materials science, energy-related materials, membranes, micro- and nanomechanics, and materials characterization.

Review of applications will begin immediately and will continue until the position is filled. Candidates should apply for the position at <http://www.uky.edu/HR/UKjobs> (posting SM546988); the deadline for acceptance of applications is **November 15, 2013**. Submit PDF files consisting of a letter of interest, complete curriculum vitae, statement of research goals, statement of teaching philosophy and experience, and the names and contact information for at least three references.

For more information, contact Prof. Douglass Kalika at [douglass.kalika@uky.edu](mailto:douglass.kalika@uky.edu). Information on the Department can be found at <http://www.engr.uky.edu/cme>

*The University of Kentucky is an Equal Opportunity University. We encourage applications from all interested and qualified individuals.*



## POSTDOCTORAL SCHOLAR

Joint Project on Nanowire-based Photovoltaics

Qatar University | University of Washington | Texas A&M University-Kingsville

Applications are invited for a postdoctoral scholar position for a joint project with Qatar University, University of Washington, and Texas A&M University-Kingsville on nanowire-based photovoltaics. The postdoctoral scholar will be placed at Qatar University, and will work on developing theoretical and computational quantum mechanical based models of optical absorption, and charge carrier generation and transport. The ideal candidate will also have strong programming skills in UNIX/LINUX environment, including simulator development in C/C++/FORTRAN/MATLAB, and at least a working knowledge of DFT and MD simulations.

The position is for three years, renewed yearly, and offers an attractive salary and benefits package. Interested candidates are requested to email their CV, contact information for at least three references, and 1-2 journal/conference proceedings as representative samples of their work, all as a single pdf attachment to Dr. Mahmoud Khader at [mmkhader@qu.edu.qa](mailto:mmkhader@qu.edu.qa). Review of applications will begin immediately. The successful applicant will be expected to join the position within three weeks of selection.