



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

TEM Lab/Group Leader | Postdoctoral Positions | Operator Positions

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

Frontier Institute of Science and Technology (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 ten research centers of excellence in physics, chemistry, bio-science/life science/basic medical science, and materials science, and adopting a new management system similar to that of most U.S. universities.

The multi-disciplinary Materials Research Center (MMRC) is the first research center of FIST. It focuses on interdisciplinary research with emphasis on smart materials such as piezoelectrics, shape memory materials, and magnetostrictive materials. Over the years, MMRC has gained a significant reputation for its high-quality research and people.

To strengthen the microscopic characterization of MMRC's diverse research, MMRC has purchased a JEOL 2100F high-resolution transmission electron microscope, together with a full set of periphery equipment. We have decided to establish a TEM laboratory/group and all the positions are open for application.

Positions Available (full-time):

1. One TEM lab/group leader (tenured or tenure-track depending on qualifications)
2. One or two postdoctoral positions
3. One TEM operator

Job Description:

- The lab/group leader will lead a research group and generate high-quality research using TEM.
- Collaborate with MMRC members and carry out TEM characterization experiments for the entire MMRC.
- TEM operator will be in charge of TEM operation, training of users, maintenance of the TEM, and its periphery equipment, and establish an efficient system to assist users to obtain high-quality results.

An eligible candidate for the **TEM lab/group leader position** should have a track record for excellence in research using TEM and the potential to lead the lab/group to success. Depending on the qualifications, the position may be tenured or tenure-track. Successful candidates will be provided with a competitive start-up package including an annual salary of 300k-500k RMB, and competitive start-up funds, together with many other benefits. Position offer and start-up package will vary with the candidate's qualifications. See our Chinese ad at <http://fist.xjtu.edu.cn/job/show.asp?id=11> for details.

An eligible candidate for the **postdoctoral position** should have at least two years of experience in TEM and have demonstrated a potential for excellence. An ideal candidate for the **TEM operator position** should have at least five years hands-on experience in TEM. We shall provide competitive salary and other benefits. See our Chinese ad at <http://fist.xjtu.edu.cn/job/show.asp?id=11> for details.

Interested individuals should provide a cover letter, CV, and a list of ten representative publications (not required for TEM operator position). The application materials should be sent to:

Dr. Xiangli Meng
Frontier Institute of Science and Technology (FIST)
Xi'an Jiaotong University
1 West Building, Yanxiang Road
Yanta District, Xi'an, Shaanxi Province, P.R. China, 710054
Tel/Fax: +86 29 8339-5131
Email: fist@mail.xjtu.edu.cn

XJTU is an AA / EOE employer.

ASSISTANT PROFESSOR OF PHYSICAL OR INORGANIC CHEMISTRY

Department of Chemistry
ARTS AND SCIENCE

The Department of Chemistry at New York University NYU, located in Greenwich Village in the heart of Manhattan, invites applications for a faculty appointment at the rank of assistant professor in physical or inorganic chemistry. The anticipated start date is September 1, 2014, pending budgetary and administrative approval. The Department of Chemistry at NYU is implementing a significant growth plan that has led to the recent creation of the Molecular Design Institute and the Biomedical Chemistry Institute, and the hire of five senior and five junior faculty members. Duties will include undergraduate and graduate teaching. Applicants should have an outstanding record of research and a commitment to teaching.

Applications must include a curriculum vitae, a list of publications, and statements of future research and teaching plans. These materials, as well as three reference letters, must be submitted to our web-based application system using the following link: <http://chemistry.fas.nyu.edu/object/chem.nyufacultypositions>. Application review will begin **October 15, 2013**. Any questions about this position can be directed to chemistry.search@nyu.edu.



NEW YORK UNIVERSITY

NYU is an Equal Opportunity/Affirmative Action Employer.

JAMES MADISON UNIVERSITY

Assistant/Associate Professor in Chemistry 3 Positions

The Department of Chemistry and Biochemistry at James Madison University invites applications for three tenure-track faculty positions at the Assistant or Associate Professor level beginning August 2014. Positions are Assistant/Associate Professor in Chemistry - Biochemistry/Biophysical Chemistry (0405460), Assistant/Associate Professor in Chemistry - Materials Chemistry (0405461) and Assistant/Associate Professor in Chemistry - Laser spectroscopy or Atmospheric Chemistry(0405462). Establishing an externally funded research program involving undergraduates is expected. Teaching responsibilities include introductory and upper division courses and laboratories. A Ph.D. is required and post-doctoral experience is highly recommended. The modern Chemistry/Physics building is equipped with approximately \$7.5 million in instrumentation including facilities for materials characterization, mass spectrometry, lasers and NMR (<http://www.jmu.edu/chemistry>). Review of applications will begin October 4, 2013. To apply go to JobLink.jmu.edu and reference posting numbers 0405460, 0405461 and 0405462. Salary for all positions shall be commensurate with experience.

James Madison University is committed to a diverse and inclusive community and to maintaining a work and educational environment that is free of all forms of discrimination. This institution does not tolerate discrimination or harassment on the basis of age, color, disability, genetic information, national origin, parental status, political affiliation, race, religion, sex, sexual orientation or veteran status. Anyone having questions concerning discrimination should contact the Office for Equal Opportunity: (540) 568-6991.



Harry S. Truman Fellowship in National Security Science and Engineering



Sandia
National
Laboratories

Sandia National Laboratories is one of the country's largest research facilities employing nearly 8,500 people at major facilities in Albuquerque, New Mexico and Livermore, California. Please visit our website at www.sandia.gov.

We are searching for outstanding Ph.D. candidates for the **President Harry S. Truman Fellowship in National Security Science and Engineering**. Candidates are expected to have solved a major scientific or engineering problem in their thesis work, or will have provided a new approach or insight to a major problem, as evidenced by a recognized impact in their field.

Sandia's research focus areas are: bioscience, computing and information science, engineering science, materials science, nanodevices and microsystems, radiation effects science, high energy density physics, and geoscience.

Candidates must have received a Ph.D. within the past 3 years, or will complete all Ph.D. requirements by commencement of appointment. Candidates must be seeking their first national laboratory appointment (pre postdoc internships excluded), have excellent academic (minimum 3.5 undergraduate and 3.7 graduate GPA preferred) and research qualifications, good communication skills, and enjoy working in a team-oriented, dynamic environment.

This initial one-year appointment may be extended, at management's discretion, for two additional one-year appointments. The salary is \$111,200 per year plus benefits and additional funding for the chosen research proposal. This position requires the ability to obtain and maintain a United States Department of Energy Security Clearance.

For complete application instructions, please visit: http://www.sandia.gov/careers/students_postdocs/fellowships/truman_fellowship.html

Please submit the complete package to: Yolanda Moreno, Sandia National Laboratories, P.O. Box 5800, MS0359, Albuquerque, New Mexico 87185-0359, or email: ymoreno@sandia.gov. Please reference: Job ID: 643454. **All materials and online application must be received by November 1, 2013.**

Operated by

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

LOCKHEED MARTIN



IOWA STATE UNIVERSITY

Assistant, Associate or Full Professor

Department of Materials Science & Engineering

The Department of Materials Science & Engineering (www.mse.iastate.edu) invites applications for a tenured or tenure-track faculty position at the Assistant, Associate, or Full Professor level in the area of Polymers and/or Polymer-Matrix Composites. Exceptional senior candidates in the specified areas may be considered for endowed research chair/professorship positions.

The successful candidate will teach undergraduate and graduate courses, develop a vibrant and impactful research program, and engage in professional and institutional service and leadership. The candidate will also have opportunities to engage in significant interdisciplinary collaborations on and beyond the Iowa State campus.

Candidates must have a PhD or equivalent degree in materials science and engineering or a related field, with significant research in the technical area described above. In addition to the qualifications above, candidates for the ranks of Associate or Full Professor will have demonstrated research accomplishments and the potential for continuing excellence in both research and teaching commensurate with the level of rank granted.

All applications must be submitted electronically for **vacancy #130766** through the www.iastatejobs.com website by **October 31, 2013**.

Iowa State University is an Equal Opportunity/Affirmative Action Employer with externally funded programs to broaden the participation of women and underrepresented minorities and enhance the success of all faculty in STEM fields.

POSTDOCTORAL RESEARCH ASSOCIATE

School of Mechanical and Materials Engineering

Washington State University invites applications for a Postdoctoral Research Associate in the School of Mechanical and Materials Engineering. The position will support research on thermal, mechanical, and electrical interactions in materials for (a) microelectronics and (b) electrically-activated manufacturing. Several projects under government and industry sponsorship are available. In addition to conducting his/her own research, the candidate will be expected to provide guidance to graduate students.

The ideal candidate will possess a PhD degree in Materials Science or a related field, with sound knowledge of diffusional processes (e.g., electromigration), mechanical behavior, and electron microscopy. Hands-on experience with design and construction of research apparatus and instrumentation is critical.

Interested candidates should e-mail a resume and the names of three references immediately to:

Professor I. Dutta
E-mail : iduntta@wsu.edu
<http://www.mme.wsu.edu/people/faculty/faculty.html?dutta>

The position is available in immediately. Initial appointment is for one year, and will be renewable contingent on satisfactory performance and availability of funding.

Washington State University is an Equal Opportunity Employer

WASHINGTON STATE
UNIVERSITY

World Class. Face to Face.



Research Openings on Solid Oxide Fuel Cells at KAUST

Thuwal, Saudi Arabia

Competitive Tax-free Salary

King Abdullah University of Science and Technology (KAUST) is a major new graduate university focused on becoming a leader in science and technology research and graduate education. Located near Jeddah, Saudi Arabia, the university's coastline campus on the Red Sea features high-quality residences, extensive recreational facilities and beach, a multicultural environment, and a high quality of life for employees and their families.

The Materials for Energy Conversion and Storage Laboratory is a newly established research facility scientifically supervised and managed by Prof. Enrico Traversa at King Abdullah University of Science and Technology (KAUST) in Saudi Arabia. The Laboratory aims to cover Fuel Cells, Electrolysis, and Batteries related cutting edge research topics. We are seeking excellent candidates at the Post-Doctoral and Research Scientist level in areas related to materials synthesis and characterization for Solid Oxide Fuel Cells. In particular, one Research Scientist position will be open for working on miniaturized SOFCs fabricated with pulsed laser deposition (PLD).

The successful candidates are expected to:

1. have hands-on experience on one or more of the following: synthesis and fundamental characterization of functional oxide materials; thin film deposition using PLD; micro-fuel cells fabrication and characterization; SOFC and SOEC device making and high temperature electrochemical characterization (electrolyte, electrodes, and interconnecting materials); solid-state batteries; flow batteries.
2. be self-driven, creative and independent researcher, and be capable of writing and communicating in English in scientific papers and proposals.

A Ph.D. in Materials Science and Engineering, solid-state chemistry, electrochemistry, chemical engineering, fuel cell technology, or related areas in science and engineering is required. For Research Scientist positions, a significant research experience of more than 3 years after PhD completion is required. Good skills in oral and written English language are a must. A cover letter with a brief research plan statement, curriculum vitae including list of publications, and names and contacts of at least three references must be submitted in a single pdf or Word file to sofc@kaust.edu.sa. In the subject line write Post-Doc or Research Scientist, depending on the position you are interested into. Review of applications will begin immediately and will continue until positions are filled.

Applicants should be aware that no rejection messages will be sent, but only shortlisted candidates will be notified.

www.kaust.edu.sa

Our Next Breakthrough IS YOU. Lawrence Postdoctoral Fellowship

The Lawrence Livermore National Laboratory (LLNL) has openings available under its Lawrence Fellowship Program. This is a highly desirable postdoctoral position that provides freedom to conduct independent, cutting-edge research, directed by the candidate, in an area of the candidate's choice. The duration of the Fellowship is up to three years. Typically two to four openings are available each year. Fellowships are awarded only to candidates with exceptional talent, credentials and a track record of research accomplishments.

Successful candidates will propose and subsequently conduct original research in one or more aspects of science relevant to the mission and goals of LLNL. Possible scientific areas include: Physics, Applied Mathematics, Computer Science, Chemistry, Material Science, Engineering, Environmental Science, Atmospheric Science, Geology, Energy, Lasers and Biology. Lawrence Fellows may participate in experimental or theoretical work at LLNL and will have access to LLNL's extensive computing facilities and specialized laboratory facilities. A senior scientist will be matched to the Fellow to serve as a collaborator and mentor. The candidates will receive full management and administrative support. The salary is \$8,500/mo.

Please refer to the following web page <http://aptrkr.com/377800> and refer to job #11675 for eligibility requirements and instructions on how to apply. When applying and prompted, please mention where you saw this ad. The deadline for applications is November 1, 2013. LLNL is operated by the Lawrence Livermore National Security, LLC for the U.S. Department of Energy, National Nuclear Security Administration. We are an equal opportunity employer with a commitment to workforce diversity.



<http://fellowship.llnl.gov>



Sandia National Laboratories

Post Doc Research Associate: Experimentalist Surface Electron Microscopy

The Nanoscale Sciences Department at Sandia National Laboratories has an immediate need for a **Postdoctoral Research Associate** in experimental surface science and materials physics. The main activity will make use of low energy electron microscopy (LEEM) and photoemission electron microscopy (PEEM) to investigate advanced electronic materials or two-dimensional crystals. The associate will have an experimental background for conducting research relevant for the development and advancement of LEEM and PEEM techniques required for the work. He or she will work closely with Sandia's LEEM-PEEM research team, and will be given opportunities to interact with experimental/theoretical research staff in the fields of surface science/physics and two-dimensional crystals. The research associate is expected to take on a leadership role in conducting experimental research that will generate high impact archival journal publications and present their work at scientific/engineering meetings.

This position requires a Ph.D. (awarded within the past 5 years) in Physics, Chemistry, Materials Science/Engineering, or a related discipline; a record of strong academic performance, with a preferred undergraduate GPA of at least 3.2/4.0 and a preferred graduate school GPA of at least 3.5/4.0; Demonstrated record of original work, as evidenced by publications in refereed journals and presentations at professional conferences; Ability to work independently, while integrating effectively into a multidisciplinary team environment.

To learn more about all requirements for 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.

Operated by



Postdoctoral Research Associate

Ultrathin Organic Conductors and Semiconductors



Oak Ridge National Laboratory invites applications for a Postdoctoral Research Associate to conduct research on the electronic properties of complex molecules supported on metallic and insulating surfaces, electron transport in organic molecular films, and doping in organic systems. The experiments will be conducted using a comprehensive suite of surface analytical tools, including cryogenic tunneling and force microscopy and electron spectroscopy. The program incorporates a strong theory component (first-principles and MD) that will be directed to analyze and predict the experimental systems of interest. This position resides in the Center for Nanophase Materials Sciences (CNMS) Division, Imaging Functionality Group, in the Physical Sciences Directorate (PSD) at Oak Ridge National Laboratory (ORNL). The CNMS (<http://cnms.ornl.gov/>) is a nanoscience user research facility supported by the Office of Science, U.S. Department of Energy. The CNMS has a diverse spectrum of nanoscience research activities including a nanofabrication facility; laboratory-based research on macromolecular materials, catalysts, and functional nanomaterials; electron and scanning probe microscopies; x-ray diffraction; theory, modeling, and simulation.

Major Duties/Responsibilities:

- Represent ORNL by providing scientific leadership on the research of electronic properties of complex molecules supported on metallic and insulating surfaces, electron transport in organic molecular films, and doping in organic systems
- Ensure compliance with environment, safety, health, and quality program requirements
- Maintain strong commitment to the implementation and perpetuation of values and ethics

Qualifications Required:

A PhD degree in Condensed Matter Physics, Surface Science, Chemical Physics, or a closely related science discipline is required. The incumbent must have completed all degree requirements before starting their appointment, be within

five years of receiving their Doctorate, and must have had at least five peer-review publications within the last three years. A background in ultra-high vacuum scanning probe microscopy, and familiarity with numerical data analysis is required. Excellent interpersonal, oral, and written communication skills are required, as is a demonstrated ability to communicate in English to an international scientific audience. Must be a self-starter and be safety conscious. The incumbent must have the ability to work independently and be willing to participate creatively in collaborative team efforts. Proven ability to function well in a fast-paced research environment, to independently set priorities, multi-task, and adapt to ever changing needs is required. The ability to work on multiple tasks in a limited amount of time and meet deadlines is a must.

Qualifications Desired:

Experience with the surfaces of correlated electron materials and molecular self-assembly and working knowledge of control and analysis software (Matlab, Mathematica, Labview) is a plus. Firm understanding of the quantum mechanical transport theory, theory of chemisorption and molecular interactions, and familiarity with quantum computation codes is preferred.

This position is for one year with the option to renew term annually for a maximum of three years.

Work Direction and Interfaces:

Position reports to the Group Leader, CNMS Imaging Functionality Group. Interfaces with administrative staff, managers, and visitors to ORNL.

Measures of Effectiveness:

Extract from annual performance measures.

To Apply:

To apply go to <http://www.ornl.gov/ornl/careers>.

Equal Opportunity Employer

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) 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). 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.

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.



GIA®

POSTDOCTORAL POSITIONS IN GEMOLOGY AT GIA

GIA (Gemological Institute of America) invites candidates to apply for Richard T. Liddicoat Postdoctoral Research Associate positions at its New York City and Carlsbad, California locations. Selected applicants will research fundamental issues in gemology involving diamonds, colored stones, pearls, and instrument development. The specific focus will depend on each applicant's interests and expertise, as well as GIA research and laboratory initiatives.

Research Associate appointments are for one year and may be extended based on mutual agreement for a second year. The positions are fully funded, including a benefits subsidy and a travel stipend that will be provided as appropriate.

Requirements

Applicants should hold a Ph.D. in a relevant scientific field, preferably obtained within the last three years. Effective communication in English with scientific and production staff, the ability to prepare written scientific articles for publication, and a willingness to travel domestically or internationally as needed are strongly desired.

For more information about these openings, including application requirements: www.gia.edu and click on "Careers at GIA" in the footer.

About GIA

Established in 1931, GIA is a public benefit, nonprofit institute. GIA is the leading source of knowledge, standards, and education in gems and jewelry.

GIA is an Equal Opportunity Employer



EMORY

FACULTY POSITION Condensed Matter Physics

The Department of Physics at Emory University invites applications for a tenure-track faculty position at the assistant professor level in experimental or theoretical Condensed Matter Physics, to begin in September 2014. This is one of multiple positions planned as part of the strategic expansion of Materials Physics research at Emory University. We are particularly interested in applicants who will benefit from and complement the existing strengths in nanoscience, photonics, spintronics, energy materials, statistical, nonlinear, and computational condensed matter physics. For a detailed description of ongoing departmental research, see <http://www.physics.emory.edu/research.html>.

Applicants must have a PhD degree in physics or a closely related field, and a proven record of research accomplishment. The successful candidate will be expected to establish an independent, internationally recognized and externally funded research program, and demonstrate excellence in teaching at both undergraduate and graduate levels. The successful applicant will have access to the state-of-the-art materials research and nanofabrication facilities maintained by the Department of Physics and other research support centers at Emory, as described at <http://www.physics.emory.edu/Facilities/>.

To apply, submit a curriculum vitae, a research plan, and a teaching statement to search2013@physics.emory.edu. Applicants should arrange for at least three letters of recommendation to be sent to the same address. Review of applications will begin **November 1, 2013** and will continue until the position is filled.

Emory University is an Affirmative Action/Equal Opportunity employer. Women and members of underrepresented groups are particularly encouraged to apply.

MRS MATERIALS RESEARCH SOCIETY®
Advancing materials. Improving the quality of life.

NOMINATE A COLLEAGUE TODAY

for one of these prestigious awards from the Materials Research Society

- Innovation in Materials Characterization Award
- Mid-Career Researcher Award
- MRS Fellow
- Outstanding Young Investigator Award

Nomination Deadline—October 1, 2013

www.mrs.org/awards