SunEdison®

MATERALS SCIENTIST

Solar Wafering R&D

SUNEDISON is a global leader in the manufacture and sale of wafers and related intermediate products to the semiconductor and solar industries. With R&D and manufacturing facilities in the U.S., Europe, and Asia, SUNEDISON enables the next generation of high performance semiconductor devices and solar cells. At SUNEDISON, we are looking for talented individuals who are original thinkers, with the ability to succeed in a team environment and the capacity to assume increasing responsibility in a highly successful global organization.

Primary Responsibility

Develop and demonstrate new slicing technologies for silicon solar wafers. Develop and test new materials and new equipment for slicing silicon. Collaborate in the development of new quantitative models for slicing processes and product properties from slicing. Support SunEdison's solar factories with travel up to 50% of the time. Proactively communicate and collaborate with management, team members, and fellow scientists.

Candidate Qualifications

- Education—PhD degree in Materials Science is preferred. In-depth knowledge of materials science with detailed knowledge of fracture mechanics, friction and abrasion science, and mechanical properties of ceramics is desired. The candidate should have hands-on expertise with ceramics testing and characterization equipment, and experience in mathematical modeling of ceramic behavior and properties.
- Job related experience—Experience in silicon processing is desired but not required.
- Other competencies—Data-driven, detail-oriented, persistent, highly collaborative

The candidates are requested to send their resumes to Dr. Larry Shive at **LShive@SunEdison.com**.

Rensselaer

ASSISTANT PROFESSOR

Department of Materials Science and Engineering

The School of Engineering at Rensselaer Polytechnic Institute in Troy, NY invites applications for a tenure-track position at the Assistant Professor level in the Department of Materials Science and Engineering. The Department has broad interests and world-class expertise in glasses, nanostructured and bio materials, electronic materials, metals, polymers and their composites, and computational materials science. Applications will be considered from outstanding candidates in all fields of materials science and engineering, but we have particular interest in candidates whose research is focused at the materials – biology interface. Rensselaer is investing heavily in the broad field of materials research, including a multi-million dollar investment in a state-of-the-art nanoscale characterization core. The institution's commitment to excellence is documented in the Rensselaer Plan (www.rpi.edu/president/plan/index.html). Candidates must have a doctoral degree (or foreign degree equivalent) in a relevant engineering or science discipline and must demonstrate outstanding potential and initial accomplishments in materials research, as well as promise of future distinction in scholarship and education.

Responsibilities of the position include teaching undergraduate and graduate courses, supervision of graduate students, scholarly research, and generation of research funding. The successful candidate will be expected to demonstrate a developing national and/or international reputation in their research field; high quality educational activities including teaching and advising; and a significant level of service to the department, the Institute, and the profession when at Rensselaer.

Applicants must send a current CV including a statement of research and teaching goals, a list of publications, and contact information for a minimum of four references by mail or e-mail to the following address. Selection of candidates for interview will commence on **September 1, 2013**.

Search Committee Chair
c/o Dana M. Chichester
Department of Materials Science and Engineering
Rensselaer Polytechnic Institute
110 8th Street, Materials Research Center, RM-103
Troy, NY 12180-3590
Email: **mse-facrecruiting@rpi.edu**

We welcome applications from candidates who will bring diverse cultural, ethnic, and national and international perspectives to Rensselaer's work and campus communities. Rensselaer is an Affirmative Action/Equal Opportunity Employer.

University of Wisconsin Platteville

Tenure-Track Position

Microsystems/Nanomaterials

Tenure-track position starting Fall 2013; requires PhD degree in solid-state physics, materials science engineering, or closely related discipline, with specialization in experimental micro/nanomaterials. Candidates should have documented micro/nanoscale material fabrication and characterization experience. Individual will play a leading role in micro/nanomaterials curriculum development, and teach introductory physics. For details visit **www.uwplatt.edu/pers/employ/Fac-EngPhys.htm**. Application review begins **June 30, 2013** and continues until the position is filled.

EEO/AA Employer.

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University of Central Florida

TENURE-TRACK FACULTY POSITION

NanoScience Technology Center

The NanoScience Technology Center (NSTC) at the University of Central Florida (UCF) in Orlando invites applications for a tenure-track faculty (Assistant, Associate, Full Professor) and Research faculty position in the area of nanosciences with emphasis on scalable nanomanufacturing and prototype fabrication, nanoelectronics, nano environmental health and safety, nano-biotechnology, or other cutting edge nanotechnology fields. A suitable candidate must have a PhD degree and is expected to teach in their related discipline.

The search will be conducted jointly by the NSTC and the Advanced Materials Processing and Analysis Center, which together consist of 28 faculty (10 NSF CAREER, ONR YIA, DARPA YIA), and over 120 graduate students, PostDocs and staff. Competitive packages are available, and collaboration with researchers in academic departments, schools, and centers, including College of Medicine, Center for Research and Education in Optics and Lasers (CREOL), Florida Solar Energy Center (FSEC), and Burnett School of Biomedical Sciences is encouraged. There are plenty of collaboration opportunities with other institutes and research centers located within a few miles from the UCF campus, including Siemens Energy, Lockheed Martin, Florida Hospital, Sanford-Burnham Medical Research Institute, Nemours Children Hospital, VA, and the MD Anderson Cancer Center. UCF has over 60,000 students and is a comprehensive research and education institute.

Candidates should apply before **October 3, 2013**. The online application can be found at **http://www.jobswithucf.com/postings/35448** and requires a CV, research plans, teaching philosophy, and list of three references. For questions please contact NSTCsearch@ucf.edu. Only online applications will be considered.

UCF is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply. As an agency of the State of Florida, UCF makes all application materials, including transcripts, and selection procedures available for public review upon request.

XJTU–HKUST
JOINT SCHOOL OF SUSTAINABLE DEVELOPMENT

under planning

西安交通大學 XI'AN JIAOTONG UNIVERSITY

香港科技大學 THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

Founding Department Heads for (I) Sustainable Energy; & (II) Sustainable Materials

We seek established academics to be founding Heads of the Joint School of Sustainable Development (JSSD) being built in partnership between The Hong Kong University of Science and Technology (HKUST) and Xi'an Jiaotong University (XJTU). Located in Xi'an, the gateway to the fast emerging western region of China, the Joint School aims at combining the strengths of the two universities to train a new generation of graduates who are capable of contributing to sustainable development and to undertake interdisciplinary high-impact research in energy conservation, resource management and environmental protection. Within the next 5 years, the School is expected to have up to 60 faculty members and an enrollment of more than 1,000 undergraduate and postgraduate students. English is the language of instruction.

Sustainable Energy and Sustainable Materials are two of the three planned departments of the Joint School. Identified core research areas include:

Sustainable Energy — sustainable use of fossil fuels and environmental impact; alternative energy sources; energy distribution and storage; system and engineering design for sustainability; energy policy and management.

Sustainable Materials — fundamentals of materials science and engineering for sustainability; sustainable adoption of materials; design of new materials; application of sustainable materials.

The founding Department Heads will be senior faculty members of HKUST appointed for posting to JSSD in Xian to lead the formation of the departments. Expected to be world-class scholars with a vision to advance education and research in sustainable development, they will typically have substantial experience and proven leadership skills in managing major research programs and human resources in an academic or large-scale research setting. For details please visit https://www.ab.ust.hk/hro/PubDoc/careers/ (Job ID: 1425). Remuneration is highly competitive.

Nominations and applications, including a curriculum vitae, a vision statement of the development of the new department, a brief statement of current interests, as well as the contacts of at least three references should be sent to: **The JSSD Search Committee, c/o Human Resources Office, The Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong**, or by email to: **jssdsearch@ust.hk**.

Sandia National Laboratories

Post Doc Experimentalist
Nanoscale Thermal Effect in 2D

Sandia National Laboratories is searching for a Postdoctoral Appointee for the Nanoscale Sciences Department located in Albuquerque, NM. This position currently does not require a DOE-granted security clearance.

The postdoctoral associate will conduct experimental research related to thermal phenomena at the nanoscale and its impact on the properties of two-dimensional systems, along with devices composed of these materials. Through the use and development of advanced characterization techniques, including Raman thermal imaging, scanning photocurrent microscopy, IR-thermography, time/frequency domain thermoreflectance (TDTR/FDTR), and scanning probe techniques-fundamental thermal properties including thermal conductivity, specific heat and Kapitza conductance will be measured as a means to understand and leverage the thermal properties of two-dimensional materials in order to enhance the total performance of the vast array of devices, based on this nascent material class. It is anticipated that the postdoctoral researcher's activity will generate a significant number of high impact archival journal articles, while also having the potential to generate intellectual property related to novel device concepts, cooling solutions, and next generation characterization techniques.

Requirements
A Ph.D. (awarded within the past 5 years) in Engineering, Physics, Materials Science or a related discipline; Strong academic performance with a preferred undergraduate GPA of at least 3.2/4.0 and a preferred graduate GPA of at least 3.5/4.0.

To learn more about additional requirements for this position, and to apply online, please visit our Careers site at http://www.sandia.gov/careers/search-openings.html, and reference Job Opening ID Number: 643776.

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

LOCKHEED MARTIN

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DIRECTOR, MATERIALS R&D

YTC America Inc. (A Yazaki Group Company)

YTC America Inc., a wholly owned subsidiary of Yazaki Corporation, Japan, is inviting applications for the position of Director, Materials R&D.

Yazaki Corporation is a multinational company engaged in the design, engineering, and manufacturing of automotive parts such as wire harnesses, harness components, and instrumentation clusters for multiple types of automobiles. Yazaki has substantial presence in various countries and regions of the world to support automotive OEMs. In addition to the automotive group, Yazaki Energy Systems Corporation, another group company, focuses on energy related equipment/system development and manufacturing. The total revenue of Yazaki group in 2012 exceeded US $12.0 billion.

Yazaki Technology Center (YTC), Susono, Japan is the corporate R&D center supporting technology development needs for Yazaki group worldwide. YTC America (YTCA), operating in California since 1992, is the first R&D center for Yazaki group outside of Japan. YTCA is responsible for developing leading edge technology to support Yazaki's current business sectors and also to create new business opportunities. The company typically engages in longer term R&D themes, starting from fundamental research in a chosen field and transitioning to application-specific R&D activities. YTCA is active in the field of nanotechnology (carbon nanotubes, optical thin films, organic-inorganic hybrids), EMI shielding, biopolymers, metal-matrix composites, etc., and has developed a number of commercially successful products. Whereas the company has always been funded internally and will continue its operation mostly that way, the future aim is also to compete selectively for research grants from U.S. Government agencies for the purpose of establishing a professional network and creating technology commercialization opportunities.

Job Responsibilities

- Managing multiple R&D projects in diverse fields of materials science
- Conceptualizing and proposing new R&D themes
- Providing idea leadership to scientists in solving challenging technical problems
- Providing leadership to scientists in transitioning from basic research to development of commercially feasible products and processes
- Ensuring high quality results
- Reporting R&D results to a global audience of high level executives
- Budgetary planning and management
- Preparing research proposals for funding from U.S. Government agencies
- Interacting with technical staff of Yazaki international group companies

Expected Profile

- PhD degree in Materials Science or related technical discipline with a minimum of 10 years of experience in R&D project management
- Dynamic, motivated, and entrepreneurial with strong leadership qualities
- Ability to conceptualize and develop new R&D proposals—present proposals at high level executive meetings for approvals
- Well-structured, logical, timely, and systematic working methods
- Experienced in managing a team of technical staff with advanced technical degrees in multiple disciplines
- Experienced in providing guidance to technical staff in solving challenging problems
- Objective but demanding with evaluation of staff performance
- Experienced in securing funding from U.S. Government funding agencies
- Experienced with technology licensing and collaborations
- Ability to interact with people of different countries and culture with patience and sensitivity to complete tasks effectively
- U.S. Citizen or Permanent Resident (Green Card holder)

Interested applicants should forward a cover letter outlining research management expertise, career interest plus a resume with full list of patents and publications by mail to Mrs. Linda Cohen, Manager HR, YTC America Inc., 3401 Calle Tecate, Camarillo, California 93012, or by e-mail to **lcohen@ytca.com**.

YTCA is an Equal Opportunity Employer

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