

Positions Available

**POST DOCTORAL POSITION
IN THEORETICAL MATERIALS PHYSICS
University of Southern California**

The departments of Materials Science and Physics seek applications from highly qualified candidates having a strong background in theoretical materials/solid state physics and high performance computing to participate in a multidisciplinary program focused upon synergistic theoretical and experimental studies of *in situ* semiconductor nanostructure formation and their elastic, electronic, and optical properties. The work involves theoretical studies, including high performance computing via such methods as molecular dynamics and simulated annealing, of the fundamental surface processes underlying nanostructure formation via growth, the determination and role of surface stress fields, their potential non-linear interactions, and the potential for self-organized growth. The position offers a unique opportunity to interface with leading edge experimental work performed simultaneously within the same program. The position is available starting **March 1, 1995** and renewable for up to three years.

**POST DOCTORAL POSITION
IN EXPERIMENTAL MATERIALS PHYSICS
University of Southern California**

The departments of Materials Science and Physics seek applications from highly qualified candidates having a strong background in materials science, physics, or electrical engineering to participate in a multidisciplinary program focused upon synergistic theoretical and experimental studies of *in situ* semiconductor nanostructure formation and their elastic, electronic, and optical properties. The position involves primarily experimental studies of *in situ*, material property sensor feedback based adaptive control of UHV *in situ* etching and regrowth processes, including participation in the development of appropriate control models/strategies, software, and interfacing with instruments. Applicant must have sound knowledge of dry etching (using RF or ECR source) and related *in situ* monitoring technique(s), as well as software development and implementation for computer control. Applicants having some background knowledge of growth techniques such as MBE or PECVD and UHV techniques would be considered desirable as the work will be performed in an all-UHV interconnected growth-processing-characterization system. The position is available starting **March 1, 1995** and is renewable for up to three years.

Applications comprising a current C-V, list of publications, a short statement of interests and three confidential letters of reference should be sent to: Prof. A. Madhukar, Director; Photonic Materials and Devices Laboratory, VHE 506; University of Southern California; Los Angeles, CA 90089-0241, USA. Inquiries may be sought via fax at (213) 740-4333 or e-mail at madhukar@mizar.usc.edu.

USC is an equal opportunity/affirmative action employer.

**SENIOR ENGINEER
The Hong Kong University
of Science and Technology (HKUST)
Centre for Advanced Engineering Materials (CAEM)**

The CAEM is seeking to appoint an energetic and committed person with suitable qualifications and experience as Senior Engineer. The CAEM is established within the School of Engineering at HKUST. Its major aims are: (1) to form interdisciplinary groups to conduct collaborative research on engineering materials with particular emphasis on polymer blends and composite materials; (2) to foster interchange with industry state-of-the-art design, development, and manufacturing technologies of advanced engineering materials; (3) to provide support for undergraduate/postgraduate training in materials related subjects.

Reporting to the Director of CAEM, the Senior Engineer will undertake a leadership role in the management, planning, and operation of the CAEM, including such administration duties as may be assigned by the Director. The Senior Engineer will be responsible for providing technical support for research, teaching, and training at both undergraduate and postgraduate levels in the general field of advanced engineering materials technology. It is expected that the successful applicant will actively develop his/her own research interest and be directly involved in research and development projects contracted to the CAEM. Applicants must have a degree(s), preferably postgraduate research degree, in a relevant engineering field(s) plus at least 13 years of professional experience in an industry and/or laboratory environment in more than one of the following areas: (1) polymer processing/manufacturing; (2) fibre composite design/fabrication; (3) mechanical testing and characterization; and (4) powder metallurgy and ceramics.

Annual salary (non-superannuable but attracting 25% terminal gratuity) is in the range of US\$82,300–US\$100,000. Generous fringe benefits including housing, medical, and dental benefits, annual leave, and children's education allowances are provided. Air passages are also provided where applicable. Initial appointment will generally be on a three-year contract.

Further particulars on the position can be obtained from Ms. Grace Tsang (Fax: (852) 23359298; E-mail: CATCM@usthk.ust.hk). Applications together with a curriculum vitae and the names and addresses of at least three referees should be sent to the Personnel Office at the Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong (Fax: (852) 23580700).

The search will continue until a suitable appointment is made.

**GRADUATE FELLOWSHIP
Michigan Technological University**

Graduate fellowship for research in applied experimental physics/materials science. Applied research in properties of aerospace coatings for earth-orbiting spacecraft, planetary spacecraft, and commercial jet aviation. Participation with NASA in-space experiments program. Good experimental skills and keen interest in space exploration and technology necessary. MS or PhD studies. Interdisciplinary academic program in Atmospheric Remote Sensing available. U.S. citizen or permanent visa. *Women and minorities encouraged to apply.* Contact J. Cordaro; Department of Physics; Michigan Technological University; Houghton, MI 49931-1295. Internet jcordaro@phy.mut.edu.

*Michigan Technological University is an
equal opportunity educational institution/equal opportunity employer.*

1995 AD CLOSING DEADLINES

March 1, 1995for the April issue
April 3, 1995for the May issue
May 1, 1995for the June issue

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SEND BULLETIN NEWS TO:

Editor, *MRS Bulletin*, Materials Research Society,
9800 McKnight Road, Pittsburgh, PA 15237-6006.
Fax (412) 367-4373.

Positions Available

PROGRAM DIRECTOR Division of Materials Research National Science Foundation

The National Science Foundation's Division of Materials Research is seeking qualified applicants for two Program Director positions to commence October 1995 (or possibly sooner) for a period of one year to two years, and may be filled on a visiting scientist/temporary basis or via the Intergovernmental Personnel Act (IPA) Program.

(1) Program Director for Materials Theory: Applicants must hold a PhD or equivalent experience in materials science and engineering, condensed matter physics, materials chemistry, or a related field of science or engineering plus six or more years of research experience beyond the PhD. Familiarity with a broad spectrum of the materials research community, demonstrated administrative ability, and theoretical expertise in one or more of the above-mentioned areas are desired.

(2) Program Director for the Ceramics portion of the Metals, Ceramics, and Electronic Materials Program: Applicants must hold a PhD or equivalent experience in materials science and engineering or a related field of science or engineering, plus six or more years of research experience beyond the PhD. Familiarity with a broad spectrum of the ceramics and materials research community, and demonstrated administrative ability are desired. The salary range, which includes a locality pay adjustment, is from \$60,925 to \$94,953 per annum. Applicants must submit a resume, with current salary, and up to three letters of recommendation by **April 1, 1995** to:

National Science Foundation
Attn: Nina Beard
Division of Human
Resource Management
Suite 315, 4201 Wilson Blvd.
Arlington, VA 22230.

For general information, call Ms. Beard at 703-306-1185, ext. 3026. For technical information, contact John H. Hopps, Jr., Division Director, at 703-306-1811 or Adriaan M. de Graaf, Executive Officer, at 703-306-1812. Hearing-impaired individuals should call TDD 703-306-0189.

Qualified individuals who are women, ethnic/racial minorities, and/or persons with disabilities are strongly encouraged to apply. NSF is an equal opportunity employer committed to employing a highly qualified staff that reflects the diversity of our nation.

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TWO POSTDOC RESEARCH POSITIONS AVAILABLE Northwestern University

Northwestern University currently seeking qualified postdoctorals to fill two research positions with concentrations in the following areas:

1. Carbon Nanotube Research

This research focuses on the understanding of carbon nanotube formation mechanism, its properties, and applications.

Essential Experience: vacuum equipment, optical and mass spectroscopy, carbon chemistry, crystal growth.

2. Atomic Layer Epitaxy of High Temperature Superconducting Layers and Heterostructures

This research focuses on the understanding of atomic layer epitaxy of complex oxide layers using organometallic precursors. Device applications will also be considered.

Essential Experience: surface science background, high vacuum equipment, knowledge of crystal growth, etc.

Interested candidates should send a current resume, including the names, addresses, and telephone numbers of three references to:

Linda M. Stewart, Project Assistant
Materials Science &
Engineering Dept.
Northwestern University
2225 N. Campus Drive, MLSF #2036
Evanston, Illinois 60208

EEO/AA Employer. Employment eligibility verification required upon hire.

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