

**NOVEMBER 1995**

**5-8** ▼ Joint Fall Meeting of American Ceramic Society (Basic Science, Electronics, Glass & Optical Materials, and Nuclear & Environmental Technology Divisions), *New Orleans, LA*. K. Richardson, CREOL, Univ. of Central Florida, 12424 Research Parkway, Orlando, FL 32826; (407) 658-6822; fax (407) 658-6880; e-mail kcr@bravo.creol.ucf.edu.

**12-16** TMS Fall Extraction and Processing Meeting, Point Clear, AL. TMS Meetings Dept., 420 Commonwealth Dr., Warrendale, PA 15086-9928; (412) 776-9050; fax (412) 776-3770.

**27-1** MRS Fall Meeting, Boston, MA. Materials Research Society, 9800 McKnight Rd., Pittsburgh, PA 15237-6006; (412) 367-3003; fax (412) 367-4373. MRS.

**28-30** ▼ NACE Intl. Infrastructure Symposium, *Baltimore, MD*. NACE Intl., P.O. Box 218340, Houston, TX 77218-8340; (713) 492-0535, ext. 81; fax (713) 492-8254.

**DECEMBER 1995**

**3-8** ▼ 10th Intl. Conf. on Solid State Ionics, *Singapore*. B.V.R. Chowdari, Dept. of Physics, Natl. Univ. of Singapore, Singapore 0511; 65-772-2956/2604; fax 65-777-6126; e-mail phychowd@leonis.nus.sg.

**17-22** Transition Metal Carbides and Nitrides, *Honolulu, HI*. S.T. Oyama, Dept. of Chemical Engineering, Virginia Polytechnic Inst. and State Univ., Blacksburg, VA 24061; (703) 231-5309; fax (703) 231-5022. □

**CLASSIFIED**

**Positions Available**

**FACULTY POSITION-BIOMATERIALS**  
Department of Chemical,  
Bio & Materials Engineering  
Arizona State University

The Chemical, Bio and Materials Engineering Department of Arizona State University has an opening for a tenure-track faculty position at the assistant professor level in the area of biomaterials. Qualified candidates must have earned a PhD degree in materials engineering, bioengineering, or a closely related engineering field. The successful candidate should be able to teach existing undergraduate and graduate courses in materials science and biomaterials, and to develop new courses in biomaterials.

It is desirable for the candidate to have soft and/or hard tissue biomaterials background and in vitro and in vivo research experience, and must have published in journals recognized as scholarly in biomaterials. Areas of research interest to the CBME department cover a broad spectrum of biomaterials activities including, but not limited to, new materials synthesis and surface modification. The successful candidate is expected to develop independent and interdisciplinary research. Excellent research facilities are available for use within the department and in various multidisciplinary research centers on campus.

Applications must be received by **February 1, 1995**, or the first of each succeeding month until the position is filled. Candidates should provide a current vita, a summary of research and teaching interests, and the names, addresses, and telephone numbers of three references to: Dr. Lester E. Hendrickson, Chair of the Biomaterials Faculty Search Committee, Department of Chemical, Bio and Materials Engineering, Arizona State University, Tempe, Arizona 85287-6006.



Arizona State University enforces affirmative action hiring policies.

**FACULTY POSITIONS**  
Princeton University

The Princeton Materials Institute (PMI), the Department of Geological and Geophysical Sciences (GGS) and the Department of Civil Engineering and Operations Research (CEOR) announce a coordinated search for two junior faculty appointments, one jointly between GGS (in its Earth Materials specialization) and PMI, the other between CEOR (in its Mechanics, Materials and Structures Program) and PMI. The multidisciplinary Princeton Materials Institute encourages joint research and provides experimental facilities and the combined expertise of faculty in eight departments in science and engineering. Using PMI as a focus, we seek to enhance our activities in the related areas of earth materials and engineering and structural materials. Research interests include synthesis, processing, characterization by spectroscopic probes, microstructures, bulk properties, and structure-property relations of materials such as cement, clays, layered and porous silicates, wood, synthetic and natural composites (rocks), and minerals under various pressure and temperature regimes. To maximize synergy between PMI, GGS, and CEOR a joint search committee will review all applications. Applicants should have an earned doctorate in earth science, engineering, materials science, physics or applied physics, chemistry, or other relevant fields. The search is aimed at a tenure-track assistant professor level but exceptional candidates at the tenured level may be considered. Duties include teaching at the undergraduate and graduate level and the development of an outstanding experimental research program. Send CV, brief summary of research and teaching interests, and the names of three references by **February 15, 1995** to: Prof. Peter Eisenberger, Director, Princeton Materials Institute, Bowen Hall, Princeton University, Princeton, NJ 08544.

Princeton University is an Affirmative Action Equal Opportunity Employer.

**FACULTY POSITION**  
Materials Engineering  
University of Colorado at Boulder

The Department of Mechanical Engineering at the University of Colorado at Boulder invites applications and nominations for a tenure-track faculty position in materials engineering at the rank of associate professor. For exceptionally well qualified candidates, appointment at the rank of full professor is possible. Candidates must have a PhD in materials or mechanical engineering or a closely related field, an outstanding research record with a focus in materials processing, and a commitment to excellence in undergraduate and graduate instruction. Mechanical engineering is the host department for two materials related interdisciplinary research centers: the Center for Advanced Manufacturing & Packaging of microwave, optical, and digital electronics (CAMP mode) and the Center for Acoustics, Mechanics & Materials (CAMP). The successful candidate will be expected to assume the lead in establishing collaborative materials processing related activities with colleagues in these centers. The appointment will be available at the beginning of the Fall 1995 semester. A complete resume including the names and phone numbers of three references should be sent to: Alan R. Greenberg, Chair; Faculty Search Committee; Department of Mechanical Engineering; Campus Box 427; University of Colorado; Boulder, CO 80309-0427. Review of applications will commence on **February 15, 1995**, and continue until the position is filled.

*The University of Colorado at Boulder strongly supports the principle of diversity, and we encourage applications from women, ethnic minorities, disabled persons, and veterans of the Vietnam era.*

**Positions Available**

**DIRECTOR  
Educational Programs  
Northwestern University**

The NSF Center for Advanced Cement-Based Materials (ACBM) is seeking a Director of Educational Programs. This highly visible position will be responsible for promoting the growth and activities of a newly formed undergraduate education coalition and leading the development of a multimedia curricula enrichment unit for nationwide distribution. The Director of Educational Programs will also work to increase interaction with industry and public agencies in promoting teaching of cement-based materials.

The ideal candidate will have a PhD in civil engineering, materials science, or other technical fields of the center; a minimum of five years in teaching, industry, or research; a demonstrable interest in education; and be qualified to hold an adjunct faculty position.

The ACBM Center is a \$2M per year interdisciplinary research consortium funded by the National Science Foundation, headquartered at Northwestern University, which conducts research in conjunction with the University of Illinois at Urbana-Champaign, Purdue University, University of Michigan, and the National Institute of Standards and Technology.

Interested persons should send a resume and salary requirements to: Prof. Surendra P. Shah, Director, ACBM; Northwestern University; 2145 Sheridan, Room A130; Evanston, IL 60208-4400.

*Northwestern University is an equal opportunity, affirmative action employer.*

**TENURE-TRACK  
FACULTY POSITION  
Materials Science and Engineering  
University of Maryland**

The Department of Materials and Nuclear Engineering at the University of Maryland seeks to fill a position at the assistant professor level in the Materials Science and Engineering Program with an emphasis on the materials processing and synthesis of new polymer-based materials and/or polymer-based devices, or in the area of noncrystalline materials. The closing date for applications is February 15, 1995. Send application and the names of three references to: Prof. K.-N. Yeh, 2100 Marie Mount Hall, Department of Materials and Nuclear Engineering, University of Maryland, College Park, MD 20742.

*The University of Maryland is an AA/EEO employer.*

**POSTDOCTORAL AND RESEARCH ASSISTANT PROFESSOR  
Condensed Matter Theory – Vanderbilt University**

Applications are invited for postdoctoral positions in condensed matter theory in the area of atomic-scale dynamics in solids. Applicants are sought that are either currently completing their PhD or are currently completing a postdoctoral appointment. Experienced individuals may be appointed as research assistant professors.

Research emphasis will be on computational research using first-principles approaches, in particular, density functional theory in the local-density approximation. Experience in computation in these areas is desirable but not required. A wide range of problems will be addressed in the bulk, surfaces, and interfaces of semiconductors and metals, involving the determination of stable atomic structures, defect reactions, growth, diffusion, and other dynamical phenomena, including the effect of energetic beams on materials. There will also be opportunities for research that does not involve heavy computation and for research in other areas such as mesoscopic properties of complex materials.

Application letters with resume, representative reprints/preprints, and letters of reference should be sent to: Prof. Sokrates T. Pantelides, McMinn Professor of Physics, Vanderbilt University, Nashville, TN 37235. Professor Pantelides was at the IBM T.J. Watson Research Center in Yorktown Heights, NY for about 20 years and joined the Vanderbilt faculty in September 1994.

*Vanderbilt University is an Equal Opportunity, Affirmative Action Employer. Women and minority candidates are particularly encouraged to apply.*

**FACULTY POSITION  
Theoretical Condensed Matter Physics – Vanderbilt University**

The Department of Physics and Astronomy at Vanderbilt University has a tenure-track faculty opening at the rank of assistant or associate professor for a theorist in the general area of condensed matter physics. Candidates for this position should have a PhD and postdoctoral experience. Although an assistant professor is preferred, a candidate with greater experience may be considered for appointment at the associate professor level; in such cases, the award of tenure will depend on previous academic experience. The successful candidate will be expected to initiate a vigorous research program supported by external funding while performing with a high degree of effectiveness in the classroom. In condensed matter physics, there are research programs in electron-, ion- and photon-stimulated processes at surfaces; nonlinear optical physics of nanocluster composites; laser-induced desorption and ablation for materials processing and analysis; semiconductor spectroscopy; biopolymer dynamics; and the theory of electronic processes and atomic dynamics in solids. The Vanderbilt Free-Electron Laser Center operates the most powerful tunable mid-infrared free-electron laser in the world. The department has experimental and theoretical research programs in nuclear physics, particle physics and astronomy, computational physics, and living-state physics. Applicants should send a curriculum vitae and a statement of research plans, and arrange to have at least three or more references sent to: Prof. Sokrates T. Pantelides, Chair; Condensed-Matter Theory Search Committee; Department of Physics and Astronomy, Box 1807-B; Vanderbilt University; Nashville, TN 37235 by **February 15, 1995**.

*Vanderbilt University is an Equal Opportunity, Affirmative Action Employer. Women and minority candidates are particularly encouraged to apply.*

**STEVENSON PROFESSOR OF PHYSICS  
Vanderbilt University**

The Department of Physics and Astronomy at Vanderbilt University invites applications and nominations for the position of Stevenson Professor of Physics, an endowed chair in experimental condensed matter physics. Candidates must be internationally recognized leaders in their research and committed to teaching. In condensed matter physics, there are research programs in electron-, ion- and photon-stimulated processes at surfaces; nonlinear optical physics of nanocluster composites; laser-induced desorption and ablation for materials processing and analysis; semiconductor spectroscopy; biopolymer dynamics; and the theory of electronic processes and atomic dynamics in solids. The Vanderbilt Free-Electron Laser Center operates the most powerful tunable mid-infrared free-electron laser in the world. The department has experimental and theoretical research programs in nuclear physics, particle physics and astronomy, computational physics, and living-state physics. Nominations or applications with the names of at least four references should be sent to: David J. Ernst, Chair, Department of Physics & Astronomy, Vanderbilt University, Box 1807, Station B, Nashville, TN 37235. Phone: (615) 322-2828.

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

*Vanderbilt University is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are particularly encouraged to apply.*

**Positions Available**

**FACULTY POSITION  
Department of  
Manufacturing Engineering**

Nominees and applicants are sought for a faculty position in the Department of Manufacturing Engineering at Boston University.

The Department is principally interested in applicants with expertise in the areas of materials engineering with emphasis on CVD, PVD, as well as composite technologies. Candidates with experience in industry and a good record of patents and publications will be preferred.

Applicants at all levels will be considered, and the eventual appointment will be at a level consistent with the experience of the candidate. Senior level candidates must have strong research credentials, a commitment to teaching, and a documented record of attracting and conducting extramurally funded research. Junior level candidates must demonstrate evidence of becoming respected researchers and excellent teachers.

The successful candidate must hold an earned doctorate in an appropriate engineering discipline. An excellent package of amenities can be tailored to satisfy the successful candidate's needs.

A letter of interest or nomination, curriculum vitae, and the names of at least three references should be sent to:

Prof. John Baillieul, Chairman  
Department of Manufacturing Engineering  
Boston University  
44 Cummington Street  
Boston, Massachusetts 02215



*An equal opportunity, affirmative action institution.*

**SENIOR FACULTY POSITION  
Advanced Materials  
Georgia Institute of Technology**

Georgia Institute of Technology, School of Materials Science and Engineering seeks applicants for one or more tenure-track positions at the rank of professor in advanced, high performance materials.

Applicants should be well established with an outstanding record of research accomplishments, a demonstrated ability to secure research support and to provide leadership, and a strong commitment to excellence in teaching and research. Successful candidate(s) will be expected to conduct innovative, highly visible research at the leading edge of his/her specialty, to educate graduate students in the science of experimental research, to teach courses from the school's curriculum, and to perform academic service.

Applicants should submit a curriculum vitae, a summary of research accomplishments and proposed research, and copies of three key publications to:

Dr. Miroslav Marek  
Chair, Faculty Search Committee  
School of Materials Science  
and Engineering  
Georgia Institute of Technology  
Atlanta, GA 30332-0245  
Fax: (404) 853-9140

Applications will be accepted until the position is filled. Applications from members of underrepresented groups are strongly encouraged.

*GIT is an equal opportunity/affirmative action employer.*

**DIRECTOR  
Division of Materials Research  
National Science Foundation**

NSF's Directorate for Mathematical and Physical Sciences seeks qualified candidates for the position of Director, Division of Materials Research. The incumbent will provide management and direction to the Division which includes research support programs in condensed matter physics; solid-state chemistry and polymers; metals, ceramics, and electronic materials; materials theory; and materials research science and engineering centers.

Appointment to this Senior Executive Service position may be on a career or two-to-three year limited basis, with a \$96,830 to \$111,839 salary range. Alternatively, selectee may be assigned under Intergovernmental Personnel Act provisions, retaining current salary and benefits. Applicants must have a PhD or professional experience in a materials-related scientific or engineering discipline (e.g., materials science and engineering, physics, chemistry); substantial research experience and strong evidence of scholarship in materials research or recognized leadership in research administration, and demonstrated supervisory skills.

Applicants should contact Robyn Daniels on (703) 306-0755 or (703) 306-1187 (hearing impaired individuals may call TDD (703) 306-0189) to request announcement EP 95-2 for complete qualification requirements and application procedures. Please specify appointment type(s) in which you are interested. Applications should be mailed to Robyn Daniels, National Science Foundation, Executive Personnel and Development Branch, Suite 315, 4201 Wilson Blvd., Arlington, VA 22230. Applications must be received by **January 31, 1995**.

*NSF is an Equal Opportunity Employer committed to Employing a Highly Qualified Staff that Reflects the Diversity of our Nation.*

**HEAD  
Department of Materials Science  
and Engineering  
Carnegie Mellon University**

Nominations/applications are invited for the position of the Head of the Department of Materials Science and Engineering at Carnegie Mellon University. Currently, the department comprises 18 faculty members, distributed among four areas of emphasis: (1) structural materials, (2) electronic and magnetic properties, (3) materials processing, and (4) surfaces and interfaces. The department is a leader in curricular innovation with newly developed, highly flexible BS and graduate programs. With an annual budget of over \$5 million, the department is home to the NSF Industry/University Cooperative Center for Iron and Steelmaking Research, the Center for Advanced Deformation Processing Research, and the CMU Electron Optics Central Research Facility. The department also has strong research ties to the CMU-NSF Engineering Research Centers in data storage systems and engineering design as well as the Integrated Microsystems Laboratory. Research facilities include extensive computational resources including access to several supercomputers at the Pittsburgh Supercomputing Center; and state-of-the-art facilities for materials synthesis and processing, characterization, and testing. The successful candidate should have an earned PhD in materials science and engineering or related fields, an internationally recognized research stature, and the experience and abilities to lead the teaching and research excellence of the department. Nominations/applications, along with vitae and the names, addresses, and phone numbers of three references should be sent to:

Prof. Brent L. Adams  
MSE Department Head  
Search Committee  
Department of Materials Science  
and Engineering  
Carnegie Mellon University  
Pittsburgh, PA 15213-3890

The search committee will consider all applications and nominations received up to **February 1, 1995**.

*Carnegie Mellon University is an affirmative-action equal-opportunity employer.*

**SEND BULLETIN NEWS TO:**  
Editor, MRS Bulletin, Materials Research Society,  
9800 McKnight Road, Pittsburgh, PA 15237-6006  
FAX: (412) 367-4373

**Positions Available**

**ASSOCIATE DIRECTOR**

The Environmental Molecular Sciences Laboratory (EMSL) at Battelle, Pacific Northwest Laboratories is a multi-disciplinary user facility for studying the structure and reactions of materials and processes relevant to a broad range of problems in environmental restoration, preservation and waste management. The EMSL will house state-of-the-art facilities for NMR, mass, and laser spectroscopies, computational chemistry, surface science and catalysis, environmental geochemistry, and chemical processing.

The Associate Director will lead a team of scientists, engineers and collaborators in defining and executing research programs forming the essential scientific basis of innovative technologies for environmental remediation and waste management. This will require extending an understanding on the molecular level to bridge the gap between scientific observations and engineering solutions. Additional responsibilities will include identifying potential users of the technologies developed within the EMSL and generating programmatic support for this research from within the DOE, its contractors, and other government and industrial sources. This team will work with other EMSL groups in laboratory space housing, chemical processing and analytical equipment that will eventually support a staff of about 20.

A Ph.D. in Chemical Engineering, Chemistry or Material Science with outstanding credentials and at least 5 years' managerial experience are required. The ideal candidate will be able to assume responsibilities by October 1, 1995.

Interested candidates should submit a resume referencing #10-2059-017-PLB to: Battelle, PNL, P.O. Box 999, MSN: K6-21, Richland, WA 99352. Or, e-mail to: pnl\_employ@pnl.gov, WP5.1 or ASCII. Or, fax to (509) 373-6841. PNL is operated for the U.S. DOE by Battelle Memorial Institute and is an Affirmative Action/Equal Opportunity Employer and supports diversity in the workplace. M/F/D/V are encouraged to apply.



**Positions Wanted**

The following advertisements are from MRS members seeking employment in materials research and development.

**PROSPECTIVE EMPLOYERS**—To correspond confidentially with the applicant,

**REPLY TO THE APPROPRIATE BOX NUMBER, AS FOLLOWS:**

Box \_\_\_\_\_, No. \_\_\_\_\_,  
c/o MRS Bulletin  
Materials Research Society  
9800 McKnight Road  
Pittsburgh, PA 15237-6006

**PhD (1990).** More than eight years experience in the area of UHV techniques, thin film deposition and characterization (structural, optical, and electrical properties). Strong expertise in thin film plasma processing and *in situ* diagnostics. Research work includes electron cyclotron plasma chemical vapor deposition of dielectric, semiconductor, and refractory metal thin films.  
**Employers—Please reply to Box XX, 101.**

**Surface/Materials Chemist, PhD (1994)** seeking industrial/academic position. Industrial experience in polymer lubricant additives. Skilled in the synthesis, characterization, and processing of nanosized semiconductor particles, self-assembly membranes, polymers, ceramics. Hands-on with TEM, SEM, AFM, NSOM, XRD, fluorescence, lasers, etc. Proficient with computers.  
**Employers—Please reply to Box XX, 103.**

**Materials Scientist (Prof., DSc, PhD)** from FSU seeks research or faculty position. Extensive experience in MOS and MNOS systems, amorphous and porous silicon, porous silica glasses. Expertise in various electrical and optical characterization techniques, measuring equipment design. Proven track record. Twelve years experience in teaching and supervision of graduate student research.  
**Employers—Please reply to Box XX, 105.**

**PhD (expected March 1995)** seeks industrial or research position. Four years research experience in materials science and electrical engineering. Strong background in materials processing and characterization. Experienced in thin film processing, microstructural analysis, cryogenics, and UHV technology. Team worker with excellent analytical and problem-solving skills.  
**Employers—Please reply to Box XX, 104.**

**Surface Chemistry/Advanced Material, PhD (2/95).** Seeking postdoctoral and R&D position. Research experience in chemical vapor deposition of c-Si, W, PZT, BST; surface kinetics in CVD process by *in situ* FTIR and spectral interpretation; simulation of film-growth contour and thermodynamic equilibrium. Hands-on GC, MS, TDS, FTIR, Raman, XPS.  
**Employers—Please reply to Box XX, 102.**

**Services Available**

**TRANSLATION** of journal articles, patents, reports, manuals, etc. from German and French into English by experienced materials specialist. Outstanding quality, fast turnaround, competitive rates. For more information call Nicholas Hartmann (708) 524-1191 or fax (708) 524-1355.

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