

Positions Available

**DEAN
School of Engineering and Applied Science
University of Virginia**

The School consists of nine departments with 170 faculty, 700 MS and PhD students, 1,600 undergraduates and an annual state budget of \$13.5 million. Substantial growth in research productivity has been experienced over the past several years and the School currently conducts a thriving and diversified \$23 million per year program. The Dean reports directly to the Vice President and Provost, the chief academic officer for the University.

The University of Virginia has a proud tradition of academic excellence dating back to its founder, Thomas Jefferson, and currently has over 2,000 faculty, 11,000 undergraduates, and 6,500 graduate students. It is located in Charlottesville, Virginia, at the foothills of the Blue Ridge Mountains, approximately 120 miles from Washington, DC.

Preferred starting date for this position is July 1, 1994. Review of applications will continue until the position is filled. Applications must include a curriculum vitae that contains the names and addresses of four references. Inquiries, applications, and nominations should be sent to: Dr. James H. Aylor, Dean Search Committee, Department of Electrical Engineering, Thornton Hall, University of Virginia, Charlottesville, VA 22903-2442; phone (804) 924-6097.

**CHAIR OF CHEMICAL, BIO & MATERIALS ENGINEERING
Arizona State University**

Arizona State University (ASU) invites nominations and applications for the position of Chair of the Department of Chemical, Bio and Materials Engineering (CBME) in the College of Engineering and Applied Sciences. The CBME Department consists of 27 faculty, and offers BS, MS and PhD degrees in Chemical Engineering, Bio-Engineering, and Materials Science. The departmental enrollment includes 440 undergraduates, 95 masters students and 55 PhD students. Annual research expenditures are at a level of \$2.5/million. Opportunities exist for developing synergistic research programs that combine expertise between traditional Chemical, Bio and Materials Engineering disciplines. The research interests of the faculty include semiconductor processing and characterization, environmental technology, bioprocessing and process control, advanced alloy systems, neuromotor control, biosensors and biomaterials.

ASU is a multi-campus university widely recognized as one of the most rapidly emerging major research institutions in the U.S. Its main campus is located near the heart of metropolitan Phoenix in the city of Tempe. Phoenix is a cosmopolitan, culturally diverse area of approximately two million people. The College of Engineering & Applied Sciences has 11 academic departments and schools and eight research centers. The enrollment in the college includes 4,405 undergraduates and 2,252 graduate students (396 PhDs) with 220 tenured or tenure-track faculty members. The College has been recognized for its innovative Engineered Excellence Program, a three-way partnership between state government, industry, and the university.

The Chair reports to the Dean of the College of Engineering and Applied Sciences, provides intellectual leadership to the department, promotes the development of a shared vision of academic excellence, facilitates cross-disciplinary interactions and represents the department to the academic community at large. The chair takes an active role in faculty development, and works with faculty across the department to encourage innovation in teaching and aggressively pursue a wide range of research opportunities. The Chair promotes cultural diversity and minority development throughout the Department.

Candidates must have an earned doctorate in any area closely related to Chemical, Bio or Materials Engineering, and must be qualified for a tenured full professorship in the department. Candidates must have a strong record of scholarly achievements and must provide evidence of strong leadership, management, and interpersonal skills.

Candidates must supply curriculum vitae, a letter of interest, and names, addresses and phone/fax numbers of at least five references to: Prof. H.J.S. Fernando, Chair, Search Committee for the Chair in CBME, Box 876106, Arizona State University, Tempe, AZ 85287-6106. Questions regarding this position may be directed by e-mail to J.Fernando@asu.edu. The deadline for applications is **March 1, 1994**, or the first of each month thereafter until the position is filled. The position is tenable after July 1, 1994, or as soon as possible thereafter. Salary is competitive.

Arizona State University is an Equal Opportunity, Affirmative Action Employer.

**DEPARTMENT HEAD
Metallurgical and Materials
Engineering
University of Alabama**

The College of Engineering at the University of Alabama invites applications and nominations for the position of Head, Department of Metallurgical and Materials Engineering. The successful candidate should have a PhD in Metallurgical/Materials Engineering. A faculty appointment at the rank of Professor is anticipated for a prominent researcher with excellent leadership skills, administrative experience and interest in education.

The Metallurgical and Materials Engineering Department offers BS, MS, and PhD degrees and consists of five faculty, all of whom have active research programs with national and international recognition. The department has a stable and well-regarded undergraduate program and a strong graduate program. The graduate program consists of over 40 graduate students and research funding in excess of \$1 million in 1992 (sponsors include NSF, NASA, DOE and industry).

The new Department Head will be expected to provide academic and administrative leadership to a dynamic faculty during a period when engineering education is faced with a number of challenges and opportunities. A strong commitment to both teaching and research is required.

Direct applicants should send a letter of interest, a vitae, and the names of three references. Indirect nominations should include information about the prospective candidate, and the nominee's vitae if possible. Full review of applications will begin **January 15, 1994** and continue until the position is filled. All correspondence should be addressed to:

Dr. Garry Warren
Chair, Search Committee
Metallurgical and Materials
Engineering
The University of Alabama
Box 870202
Tuscaloosa, AL 35487-0202

*The University of Alabama is an affirmative action,
equal opportunity employer.*

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call Mary E. Kaufold
at (412) 367-3036
today!**

Positions Available

PROCESS ENGINEER

Semiconductor front end processing experience, min. 3 yrs. Ceramic Recruiters, Inc. (803) 831-7784.

FACULTY POSITION

**North Carolina State University
Department of Materials
Science and Engineering**

A tenure-track position at the Assistant/Associate Professor level in the area of diamond thin-film deposition and characterization is now available. Candidates will be expected to teach undergraduate and graduate courses and to initiate and sustain a vigorous sponsored research program in the thin-film diamond and other areas. Applicants must have a PhD in materials science and engineering or closely related field. As the applicant will assume an existing program and facilities for microelectronics diamond thin-film research, prior diamond research or closely related experience is required. Some research project management experience is also desirable. A cover letter, curriculum vitae, and the names of three references who are familiar with your teaching/research performance should be sent to: Search Committee Chairperson, Department of Materials Science and Engineering, North Carolina State University, Box 7907, Raleigh, NC 27695. **The deadline for submission is March 15, 1994.**

North Carolina State University is an Affirmative Action and Equal Employment Opportunity Institution.

POSTDOCTORAL POSITION

A postdoctoral position will be available in the area of thermoelectric semiconductor materials research. A PhD in materials science, physics, or solid-state chemistry is required. Experience in ceramic processing methods, including sintering and hot isostatic pressing, as well as in the characterization of electrical, thermal, and microstructural properties of semiconductors is highly desirable. Qualified applicants should send a resume and publication list, along with the names and telephone numbers of three references, to: Dr. Glen A. Slack, c/o Ms. Dale Masten, Physics Department, Rensselaer Polytechnic Institute, Troy, NY 12180.

Rensselaer is dedicated to the principles of equal opportunity and affirmative action. Women and minorities are especially encouraged to apply.

FACULTY/RESEARCH POSITIONS

**Institute for Micromanufacturing
Louisiana Tech University**

The Institute for Micromanufacturing (IfM) at Louisiana Tech University is inviting applications from qualified individuals for tenure-track faculty, research engineers, research associates, visiting scholars, postdoctoral and technician positions in the general areas of Micro Electro Mechanical Systems (MEMS) and micromanufacturing. Specific areas include electroplating and injection molding at the microscale, surface and bulk micromachining, x-ray micromachining, electronic circuit and device miniaturization, and electronic packaging. Appointments for the faculty positions will be considered at the Assistant, Associate and Full Professor rank commensurate with qualifications, which include an earned doctorate in electrical engineering, biomedical engineering, chemical engineering, materials science, physics, biology or a related field, and a strong commitment to education and developing externally funded research. The IfM will be housed in a new 40,000 ft² facility dedicated to miniaturization technologies. The Institute is currently installing two beamlines/exposure stations at the Center for Advanced Microstructures and Devices for use in x-ray micromachining. The research engineer and associate positions require a minimum of a BS degree and appropriate professional experience in one of the areas mentioned above. Screening of applicants will begin immediately and applications will be accepted until all positions are filled. Please send resume, names of three professional references and a brief description of teaching and research interests to:

Chair, IfM Search Committee
Institute for Micromanufacturing
Louisiana Tech University
P.O. Box 10348
Ruston, LA 71272-0046

Louisiana Tech University is an equal opportunity employer. Women and minorities are encouraged to apply.

CERAMICS/METALLURGY

The Department of Materials Science and Engineering at the University of Cincinnati invites applications for a tenure-track faculty position at the senior level in ceramics or metallurgy. To be considered for the position, applicants should hold an earned doctorate degree in Ceramics, Metallurgy, or related Materials disciplines and appropriate academic or industrial experience. A strong commitment to excellence in teaching at all levels and the ability to develop and sustain a vigorous externally funded research program are also required. The area of research is open, although preference will be given to candidates with interests in sensor materials, electrical materials, materials processing, and phase transformation. Review of applications will begin February 1, 1994 and continue until the position is filled. Candidates should send a resume, description of previous research accomplishments, and a list of three references to: Dr. Ray Y. Lin, Chairman, Faculty Search Committee, Department of Materials Science and Engineering, Mail Location 12, University of Cincinnati, Cincinnati, Ohio 45221-0012.

MIT

FACULTY SEARCH
Materials Science
Materials Engineering

The MIT Department of Materials Science and Engineering has searches in progress for tenure track Assistant Professors. Faculty members are sought with demonstrated potential, creativity and teaching ability in an aspect of the field of materials science and engineering. These positions are potentially open for persons specializing in any of the materials classes (metals, ceramics, polymers or electronic materials), or more broadly in materials science or materials engineering. Doctorate required and experience desirable. Salaries and benefits are competitive. Positions will be filled only if exceptional candidates are found. Appointment to a more senior position is possible based on experience and accomplishments.

Interested persons should send a complete resume including a list of publications and names and addresses of three persons who could supply letters of reference. This material should be sent to: *Professor Merton C. Flemings, Head, Department of Materials Science and Engineering, Massachusetts Institute of Technology, Building 8-309, 77 Massachusetts Avenue, Cambridge, MA 02139-4307.*

MIT is an Equal Opportunity/Affirmative Action Employer
MIT is a non-smoking environment

**Massachusetts
Institute of Technology**

Positions Available

Carnegie Mellon University

The Department of Materials Science and Engineering has two tenure-track faculty openings at the Assistant, Associate or Full Professor level, for exceptionally qualified persons specialized in one of the following areas:

- Modeling of materials processing, with emphasis on applying the principles of heat, mass, and fluid flow to solidification, ceramic processing, and/or composite processing.
- Materials theory, with emphasis on computer simulation/modeling at either the atomistic or continuum scales.
- Semiconducting materials and devices, dielectrics and passivation, and/or contacts and multilevel metallization.
- Microstructural development and the mechanical behavior of metals, ceramics composites, or other structural materials.

Applicants should have a PhD, a demonstrated interest and the ability to develop strong research programs in one of the above areas, and be enthusiastic about teaching at both the graduate and undergraduate levels.

Please send resume and names of three references to:

Professor David E. Laughlin
 Chair, Faculty Search Committee
 Department of Materials Science and Engineering
 Carnegie Mellon University
 Pittsburgh, PA 15213-3890
 Phone: (412) 268-2706, FAX (412) 268-7596

Equal Opportunity/Affirmative Action Employer

POSTDOCTORAL FELLOWSHIPS

Royal Melbourne Institute of Technology

Department of Electrical Engineering at Royal Melbourne Institute of Technology (RMIT), Melbourne, Australia offers 2 postdoctoral fellowships in micro mechatronics and micro machine technology. The research is partially supported by the Japanese Micro Machine Centre, under a research program sponsored by NEDO, an agency of the Japanese Ministry of International Trade and Industry (MITI). The positions are available until the end of 1994 with the possibility of renewal until April 1996. Applicants should have a PhD (or near completion) in the fields of Physics, Engineering, Materials Science or Chemistry. Experience in micro mechanics and micro machines preferred. Qualified applicants should send their curriculum vitae, qualifications, and the names, addresses and fax numbers of two references by **February 28, 1994**. Applications should be addressed to: Appointments Officer, Human Resources Management Group, G.P.O. Box 2476V, Melbourne, Victoria 3001 Australia. Salary in the range of A\$36,285- A\$38,950. For further information and a position description, contact: Dr. Ronald B. Zmood, phone 61 3 660 2100 or fax 61 3 660 2007 or e-mail: rzmood@rmit.edu.au.

Equal opportunity is university policy.

FACULTY POSITION

**Massachusetts Institute of Technology
 Department of Mechanical Engineering**

The MIT Department of Mechanical Engineering invites applications for a tenure-track position. A faculty member is sought with demonstrated accomplishments, creativity and teaching ability in the broad areas of mechanics and materials, and materials processing and manufacturing. This position is open for a person specializing in TRIBOLOGY/SURFACE ENGINEERING. The position will be filled only if an exceptional candidate is found. The appointment is expected to be at the Assistant Professor level; however, an appointment to a more senior position is possible based on experience and accomplishments.

Applicants should hold a doctorate in mechanical engineering or a related field. Experience is desirable. Interested persons should send a complete resume including a list of publications, and names, addresses and telephone numbers of at least five persons who could supply letters of reference. The applications should also include a 1 to 2-page statement of current and future research interests, and *no more than five* representative publications. This material should be sent to:

Tribology Search Committee
 Room 3-173
 Department of Mechanical Engineering
 77 Massachusetts Avenue
 Massachusetts Institute of Technology
 Cambridge, MA 02139-4307

Application packages received by
April 1 will be given full consideration.



*MIT is an Equal Employment Opportunity/Affirmative Action Employer.
 Women and members of minority groups are strongly urged to apply.*

FULL-TIME, TENURE-TRACK POSITION

**Mechanical Engineering and Energy Processes
 Southern Illinois University at Carbondale**

The Department of Mechanical Engineering and Energy Processes, College of Engineering, Southern Illinois University at Carbondale, has an open tenure-track position at the assistant/associate professor level beginning August 16, 1994. The position requires a doctor's degree in materials or metallurgical engineering or equivalent. Effective undergraduate and graduate teaching and the development of a research program leading to external funding is also required. Experience in industry or a research laboratory is a positive factor. The person in this position is expected to enhance the Department's active materials research program.

Applicants should send a letter, resume, and names of three references to:

Albert Kent, Chair
 Mechanical Engineering and Energy Processes
 Southern Illinois University at Carbondale
 Carbondale, IL 62901

Consideration of applications will begin February 1, 1994, or until position is filled.

Southern Illinois University at Carbondale is an equal opportunity/affirmative action employer.

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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

Senior postdoc in materials science and engineering seeks position in industrial/academic R&D, process engineering and manufacturing. PhD in solid state physics. Seven years experience in high permittivity oxide and ferroelectric materials. Background includes electric characterization (CV, IV, dielectric breakdown, etc.), electronic microscopy, elastic measurements, x-ray diffraction, thin-film processing, etc.
Employers—Please reply to **Box XIX, No. 101**.

PhD in materials research and solid-state physics seeks position in company or university. Familiar with preparation and investigation of the structure and electrical properties and phase transitions of complex oxides including ferroelectric, piezoelectric, and related materials. Conceived and developed a database "ACMAT" on these materials. Over 20 years experience in x-ray powder diffraction. Author of commercial software packages for powder diffraction. Directed and coordinated activity of my private company PhRRAM. **Employers**—Please reply to **Box XIX, No. 102**.

POSTERMINARIES

Transition Support

We humans are fragile creatures who by and large like the *status quo*. Nature, however, rarely leaves us be. There are friends and family and trained professionals out there to help us recover from natural disasters, job loss, adolescence, and other such serious life-changing experiences. There is, however, another arena, in professional life, where transition support is sorely lacking.

No doubt you have experienced this yourself. It is a vicious, largely self-inflicted cycle which, ultimately, one must deal with all by oneself. It starts innocently enough. The phone rings. It is a respected colleague inviting you to give a talk and write a paper. A letter arrives. It is another respected colleague inviting you to author a chapter in her book. There are so many reasons to accede to the request. You are flattered to be chosen from among the throngs of other experts in your field. Such a prestigious venue for your work will enhance your position professionally—more and better contacts, a more impressive list of publications, and the kind of external approbation that is rewarded by your employer. Besides, you want to be helpful to your colleague, too, by contributing to the quality and success of the project.

There is only one reason to decline. You are already somewhat busy with your daily routine and a few other prior commitments. But the due date for this new invitation is months and months away, so you say "Yes," having every good intention to follow through with the methodical and measured production of an opus any editor would give her eyeteeth to acquire. Sometime later a confirmation arrives, perhaps with some

guidelines about format and such and, as it is wont to do, *tempus fugit*.

As the deadline looms, you view your acquiescence to your colleague's invitation as the aberration of a weak moment. She knew how busy you are and should have known better than to take advantage of you. And now a reminder from her, a person you never suspected possessed such tyrannical tendencies, lands on your desk. Well, the preparation that you envisioned would have been done by now isn't. It's really too late to back out without leaving your colleague and the other contributors in the lurch. Even if they found a replacement, it couldn't be anyone who would do the topic justice, as you would.

So, motivated by the crisis of no time left to dawdle and an abundance of prospective guilt, you buckle down to work. And, after the predictable frustrating period of adjustment when all the references are not at your fingertips and when the writing hasn't quite homed in on the requested level and style, things begin to flow. Writing becomes a joy, although the approaching deadline is building stress by the day. The deadline becomes recent history, but you obtained a short reprieve from your understanding colleague and the finished product is pretty darn good.

You swear on a stack of unread mail that you will never, ever again be caught volunteering for a chore that eats so much energy and time. Your family, who haven't seen you in daylight for several weeks, applaud the pledge. Then the book is published and you get an advance specimen copy directly from the publisher. You see your chapter typeset and experience the swollen pride of

authorship which is later only exacerbated by a greater than expected number of reprint requests, even from countries where there is no shortage of photocopy machines. And the seeds of the next weak moment are sown.

If we were talking about chocolate cake, the diagnosis would be "classic compulsive, addictive, self-defeating behavior." Abstinence, or at least moderation, would be prescribed for the cake indulger, but what about the inveterate over-committer? True, actual over-commitment is also only cured as if it were cake. But was the above scenario over-commitment or bad time management? We submit that transition support, judiciously provided after the enthusiastic acceptance and well before the deadline-induced panic, would be most efficacious.

Trained professionals would not be fooled by the procrastinator's plea that "I only work well in a crisis." They would see through the more scientist-specific excuses as well: "I am an inertial creature only moved by an external force." "It is entropy that makes me disorganized without an outside agent's intervention." Great lines, but perhaps the best is one of anonymous authorship that appeared in my own in-basket in the midst of just such a weak moment/panic/pride cycle: "God put me on Earth to accomplish a certain number of things. Right now, I am so far behind, I will never die." Self-preservation is the strongest instinct we have. There is a *POSTERMINARIES* topic in here somewhere, but who's got the time to write it!

E.N. KAUFMANN