

Positions Available

Material Scientist

The Defense Systems & Electronics Group of Texas Instruments is looking for a project leader to join our Advanced Optical Materials Lab on the development of an optical-quality diamond.

Responsibilities Involve RF, DC, microwave plasma CVD process development, non-equilibrium processes, nucleation and growth, optical and semiconductor properties, and material characterization. You'll assist with proposal efforts and lab administration.

You must have an MS or PhD in Materials Science, Physics, or related field with 5+ years' materials experience to include knowledge of plasma CVD, optical materials, diamonds, nucleation and growth, and characterization. Previous experience with project administration and proposal preparation is essential.

Please send your resume to: Paul Patak/Texas Instruments/PO. Box 660246, M.S. 3186/Dallas, Texas 75266. Or, call (800) 527-3574, in Texas, call (214) 480-1292.

U.S. Citizenship may be required for these positions.

An Equal Opportunity Employer M/F/V/H



TEXAS INSTRUMENTS

POSTDOCTORAL APPOINTMENT Department of Mechanics and Materials Science Rutgers University

An applicant to conduct theoretical research in the area of statistical mechanics, microelasticity and computer simulation of phase transformations in metal and ceramic systems is invited. The successful candidate should have excellent academic records and publications in refereed journals. Experience in the area of phase transformations, work with supercomputers and in computer simulation of atomic structures using the Monte Carlo method is required. General background in materials science is preferred. PhD degree is required.

To apply, send resume, graduate and undergraduate transcript, three letters of reference, copies of publications to:

Prof. A. Khachatryan
Department of Mechanics and
Materials Science
P.O. Box 909
Piscataway, New Jersey 08855-0909

Rutgers is an Equal Opportunity Employer.

MATERIALS SCIENCE University of Minnesota

Department of Chemical Engineering and Materials Science, University of Minnesota, seeks PhD with strong background in chemical or materials engineering or related field, to fill a position as assistant (tenure track) or associate (tenure track or tenured) professor. Assistant professor candidates should have a distinguished academic record, outstanding potential for establishing an independent research program, and a commitment to both undergraduate and graduate instruction in chemical engineering or materials science. Associate professor candidates should have the same qualifications plus several years of quality teaching and/or research experience and a proven publication record. Send nominations and applications with resume and list of three references by **October 1, 1989** to Prof. Frank S. Bates, 151 Amundson Hall, University of Minnesota, 421 Washington Avenue SE, Minneapolis, MN 55455.

The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities.

FACULTY POSITION IN MATERIALS SCIENCE Assistant, Associate or Full Professor

**Brown University
Division of Engineering**

The Division of Engineering of Brown University announces the opening of a faculty position in Materials Science, available July 1, 1990. The appointment may be made at the level of assistant, associate, or full professor within the tenurable ranks of the university. An appointment at the level of associate or full professor will be considered only for a candidate with an exceptional record of accomplishment; such an appointment is expected to include tenure.

Applications are sought from candidates who have a PhD or equivalent degree and research experience in materials science and metallurgy. The appointee will be expected to teach undergraduate and graduate courses in materials science, as well as courses in the undergraduate core curriculum of the Division. The appointee will also be expected to conduct significant experimental and/or theoretical research in materials science and metallurgy, and to have potential for strong interactions with research programs in mechanics of materials. Areas of interests include thermodynamics, phase transformations and microstructure-property relationships in monolithic and composite materials. Excellent facilities are available for mechanical testing, computation, and quantitative microscopy and spectroscopy. An appointee at the senior level is expected to have a distinguished record in research, having demonstrated an ability to develop research programs and to obtain results of major importance. Applicants should be able to make effective oral and written presentations of technical material.

Interested persons should send a complete resume, including the names and full mailing addresses of at least three persons who could supply letters of reference, if requested, to:

Prof. S. Suresh
Materials Science Search Committee
Division of Engineering
Brown University
Providence, Rhode Island 02912

To ensure full consideration, applications should be received by **December 15, 1989**.

Brown University is an Equal Opportunity Employer and welcomes applications from women and minorities.

Positions Available

**FULL PROFESSOR IN
EXPERIMENTAL PHYSICS**
Swiss Federal Institute
of Technology Lausanne
(École Polytechnique Fédérale
de Lausanne)

The Swiss Federal Institute of Technology in Lausanne announces several openings for position of full professor in experimental physics in the following areas:

- Physics of electronic materials
 - Physics of semicrystalline solids
 - Surface physics/surface science
 - Physics for biomedical engineering
- Teaching is in French.

Applications deadline: **November 30, 1989.**

Successful candidates are expected to start their activities in summer-fall 1990.

For more information and application, write to: Secrétariat general de l'École Polytechnique Fédérale de Lausanne, CE-Ecublens, CH 1015 Lausanne - Switzerland.

RESEARCH ASSOCIATE POSITIONS
University of Virginia
Department of Materials Science

The Department of Materials Science at the university of Virginia has several (4) openings for Research Associates in the general area of intelligent processing of materials and advanced sensing.

The scope of the research to be conducted includes development and application of advanced sensing methods (e.g., ultrasonics, eddy currents, acoustic crission, optical...) to materials processing, synthesis of fundamental models describing microstructural evolution during processing, property studies, experimental work to provide insight for the modeling efforts and verification of results, and development of systems for integrated sensing and control of materials processing. Materials systems of interest include: intermetallic composites, high temperature aluminum alloys and thin film compound semiconductors.

Expertise and interest in one or more of the following areas is required: sensor development, modeling of material behavior during processing, materials characterization (TEM, SEM), simulation/modeling, compound semiconductors, and intermetallic composites.

Send resume to:

Prof. Haydn N.G. Wadley
Materials Science Building, Room 121
School of Engineering and Applied Science
Thornton Hall
University of Virginia
Charlottesville, VA 22901
Phone: (804) 927-7543 or 924-3462

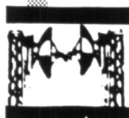
The University of Virginia is an Equal Opportunity/Affirmative Action Employer.

MBE SPECIALIST & NLO POST-DOC
Optical Sciences Center
University of Arizona

*A new laboratory for the growth of GaAs/AlGaAs crystals by the highly specialized technique of MBE has been established. The duties of the MBE Specialist involve maintaining and upgrading the Riber MBE machine and a reactive ion etcher and supervising the operation of both machines. Duties also include training and supervision of students and other personnel who will be working on the instruments. The duties of the Assistant Research Scientist will consist of designing, fabrication and testing GaAs/AlGaAs nonlinear optical devices and identifying architectures for their application to optical signal processing. MBE machine, photolithography, and reactive ion etching support will be provided. Postdoctoral duties will also include supervising graduate students and writing monthly reports. Both positions will be under the general direction of Professor Hyatt Gibbs. Job title and pay are dependent on training and experience. Application deadline is October 20, 1989, or until the position is filled. Please send resume and three letters of recommendation to Professor Hyatt Gibbs, Optical Sciences Center, University of Arizona, Tucson, AZ 85721.

Proof of U.S. citizenship or eligibility for U.S. employment will be required prior to employment; the University of Arizona is an Equal Opportunity/Affirmative Action, Title IX/Section 504 employer.

The Components Research Lab of Motorola's Communications Sector specializes in RF, ferroelectric, electro-optic and superconductive ceramics. We are currently seeking the following individuals to conduct laboratory research to develop advanced thin film materials and applications.



**RESEARCH
ENGINEERS**
MATERIALS ENGINEER

Involved in thin film processing and development for electronic applications. Requires knowledge in thin film deposition techniques and materials evaluation; familiarity with sputtering of non-metallic materials would be helpful. Advanced degree in Materials Science or Physics preferred.

ELECTRICAL ENGINEER

Involved in thin film device design, fabrication and testing. Requires 2+ years experience in IC fabrication with knowledge of design and operation of test systems for thin film devices (specifically RAM). RF circuit (up to 2 GHz) design and evaluation experience helpful. BSEE or equivalent required; advanced degree preferred. As part of the Motorola Inc. organization, you will receive a competitive salary/benefits package. For consideration, send your resume in confidence to: Personnel Department, MOTOROLA INC., 4800 Alameda Blvd., NE, Albuquerque, NM 87113. An Equal Opportunity/Affirmative Action Employer.



MOTOROLA INC.

Advanced Electronics for a More Productive World

Positions Available

HEAD, CHEMISTRY DIVISION

Research Department
Naval Weapons Center
China Lake, California

The Chemistry Division is a 50-person unit specializing in basic and applied research in the chemistry of energetic materials, polymeric materials, optical and electronic materials, and instrumental analysis as applied to materials characterization and process diagnostics. The Division is part of the 150-person Research Department that provides a stimulating work environment and state-of-the-art instrumentation. The Division Head provides broad direction and guidance both in basic research and research tasks specifically directed toward Navy needs, and long range planning for projects, personnel, facilities, and space. Incumbent will deal with personnel issues and be expected to communicate with all levels of management and Navy sponsors.

Applicant **must be** a U.S. citizen, **preferably with a Ph.D.** in chemistry or chemical engineering, must have a strong record of accomplishment in research, and a record of demonstrated effective leadership in a supervisory position. Excellent communication skills are **essential**. Applicant should have a good understanding of the Navy establishment or the aptitude and willingness to learn. Applicant must support Equal Opportunity policies. **Salary \$49,000- \$74,000**. Interested candidates should send a resume and three letters of recommendation by September 30, 1989 to Dr. R. L. Derr, Code 38, refer to Ann# 225-38-KD. Naval Weapons Center, China Lake, CA 93555.

The Naval Weapons Center is located 150 miles north of Los Angeles in the Mojave Desert in the shadow of California's Sierra Nevada Mountains.

POSTDOCTORAL POSITION in HIGH RESOLUTION ELECTRON MICROSCOPY Rutgers University

A postdoctoral position is available at Rutgers University in the area of high resolution imaging of interfaces. The work will include atomistic studies of grain boundaries in metal and metal-ceramic interfaces using an ISI 002B microscope. Prior experience in the field of interface studies is desirable but not a requirement.

Please send resume and names of three (3) references to:

Prof. F. Cosandey
Dept. of Mechanics &
Materials Science
Rutgers University
Piscataway, NJ 08855-0909

Rutgers is an Equal Opportunity Employer.

Positions Wanted

CRYSTAL GROWER AND THIN FILMS PREPARATIONIST

Considerable experience in the growth of inorganic crystals. Single crystals were grown to study their optical, magnetic, and superconducting properties. Thin films were prepared for superconducting studies and ion implantation. Thin film devices have been fabricated by photolithography. Considerable experience in cryogenic techniques. L.H. Peirce, 914 Abbiegail Dr., Tallahassee, Florida 32303.

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Advertising Contact

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