

Positions Available

POSTDOCTORAL RESEARCH ASSOCIATES
Science and Technology Center for
High Pressure Research

We have openings for one or two research associates for the new STC, a joint SUNY Stony Brook, Carnegie Institute Geophysical Lab, and Princeton University enterprise. One position will develop calorimetric techniques at high pressure, gas medium and solid medium apparatuses, including piston-cylinder and multi-anvil technology, over a period of three-five years. Another position may be available to study thermochemistry of phases (both minerals and ceramics) synthesized at high P and T. Both positions, though based at Princeton, would be expected to travel to Stony Brook, NY, and Washington, DC to pursue parts of the work.

Desired qualifications include: PhD in materials science, geology, chemistry, or physics. Expertise in high pressure experimentation is essential.

Contact:

Alexandra Navrotsky, Chairman
 Department of Geological and
 Geophysical Sciences
 Princeton University
 112 Guyot Hall
 Princeton, NJ 08544
 609-258-4674
 Fax: 609-258-1274

Princeton University is an Affirmative Action Equal Opportunity Employer and women and members of minority groups are encouraged to apply.

SENIOR RESEARCH SCIENTISTS
METAL-MATRIX COMPOSITES

UES, Inc., a high technology research and development organization is seeking to fill two research positions in the area of advanced metal-matrix composites (MMC) for high temperature structural applications. One position is at the principal investigator (PI) level while the other position is at a senior scientist level. Both positions require a PhD in metallurgy/material science and a minimum of five years of relevant experience. The PI will take a leading role in the formulation, planning, execution, and overseeing of various research projects. Candidates must have strong background/interest in some or all of the following research topics: (1) thermochemical and thermomechanical compatibility between a matrix and a reinforcement, (2) relationship of constituent properties to the composite properties, (3) determination of interface properties and their relation with composite properties, (4) relationship between mechanisms of deformation, damage accumulation, and failure initiation on an appropriate microstructural scale, and (5) micromechanical modeling both on the microstructural and continuum levels.

The research will be carried out at the Air Force Materials Laboratory, where a strong program already exists on advanced MMCs. These are permanent positions with a unique opportunity to utilize state-of-the-art laboratory facilities and interact with scientists engaged in research on the high temperature structural materials. Please send resume to: Personnel Department, UES, Inc., 4401 Dayton-Xenia Road, Dayton, OH 45432-1894.

UES is an Equal Opportunity/Affirmative Action Employer.

TECHNICAL LEADERSHIP OPPORTUNITY
Pulsed High Magnetic Field Facility

For over four decades, Los Alamos National Laboratory has challenged the frontiers of science, combining basic sciences with engineering and technological advances. As one of the largest multiprogram national laboratories in the United States, we are recognized as one of the world's leading scientific and engineering institutions.

We are seeking candidates with a strong leadership background to head the National High Magnetic Field Laboratory (NHMFL), pulsed high magnetic field facility in Los Alamos. The NHMFL is jointly operated by Florida State University, University of Florida and Los Alamos. In addition to responsibility for the pulsed magnet program at Los Alamos, the successful candidate will serve as a member of the NHMFL management team and have an appointment in the appropriate department at Florida State University or University of Florida.

We are looking for candidates with a strong technical background in condensed matter physics or other scientific disciplines where high magnetic

fields are a major tool. A Ph.D. in Physics, Chemistry, Materials Science or related field is required.

The Los Alamos National Laboratory is operated by the University of California and is located in the mountains of northern New Mexico at an elevation of 7400 feet. The living is uncrowded, casual and pollution free. The sunny climate is superb - cool summers and mild winters. Los Alamos has excellent schools and unequaled outdoor recreation opportunities. Fringe benefits provide for 24 days annual vacation; 18 days annual sick leave; 12 paid holidays; medical, dental and retirement programs. Interview and relocation expenses paid.

To formally apply for this position, interested candidates should forward a resume in confidence to James Trout (MS P280), Personnel Services Division 10059-I, Los Alamos National Laboratory, Los Alamos, New Mexico 87545.

Affirmative Action/Equal Opportunity Employer. Active DOE "Q" Security Clearance desired, which normally requires U. S. citizenship.

Los Alamos
 NATIONAL LABORATORY

Positions Available

**CSX PROFESSORSHIP IN
APPLIED SCIENCE**

William and Mary

William and Mary invites nominations and applications for the CSX Endowed Professorship in its new PhD Program in Applied Science. The university is seeking an individual with a strong record of scholarship, leadership, and teaching in materials science with interests in one or more of the following: physical, mechanical, nondestructive, or chemical characterization; polymer synthesis; and surface analysis. The position is expected to be filled by August 16, 1992.

The Applied Science Program has special strengths in accelerator science, polymers, quantitative materials characterization, and surface science. Students perform thesis research, in many instances on complex projects requiring collaborative efforts from several disciplines, at William and Mary and in the nearby laboratories of the NASA Langley Research Center (LaRC) and the Continuous Electron Beam Accelerator Facility (CEBAF). The program will have about 25 faculty, including members of the chemistry, computer science, mathematics, and physics departments, scientists and engineers at CEBAF and LaRC, and new faculty to be hired.

William and Mary, a state university, has 1,600 graduate and professional students in 19 advanced degree programs, in addition to 5,200 undergraduates. LaRC employs 2,800 science and engineering professionals and support staff who engage in a broad spectrum of aeronautical and space-related research activities. Of particular interest to Applied Science is LaRC's strength in structures, materials, nondestructive evaluation, and computational methodologies. CEBAF, when completed in 1993, will produce a continuous, high-intensity beam of 4-GeV electrons. Funded by the Department of Energy and managed by the Southeastern Universities Research Association, it employs 350 physicists, engineers, and support staff.

Nominations and applications for the CSX Professorship should be sent to: Prof. Robert A. Orwoll, Chair, CSX Search Committee, Program in Applied Science, College of William and Mary, Williamsburg, VA 23185. Each application should include a curriculum vitae and the names of four persons who can serve as references. The review of applications and nominations will begin June 1, 1991, and continue until the successful applicant has been identified.

AA/EOE. Minorities and women are encouraged to apply. April 10, 1991

**RESEARCH ASSOCIATE AND POST-DOC
POSITIONS IN THE AREA OF
ELECTRONIC MATERIALS**

Kobe Steel Research Laboratories, USA - Electronic Materials Center, located in Research Triangle Park, NC, has two Research Associate level openings and one Post-doc position available. The Electronic Materials Center is a newly established division of Kobe Steel Ltd. of Japan. Its charter is the research and development of electronic materials and devices with initial emphasis on diamond thin films.

Insulator/dielectric Deposition

Applicant should hold a BS or MS in Electrical Engineering, Materials Science, Physics, or closely related field. Experience in insulator deposition and characterization is preferred. Established record in independent research is strongly desired. Contact: **Dr. David L. Dreifus, Research Scientist.**

Metallization

Applicant should have a BS or MS in Materials Science, Physics, or related field. Experience in wide variety of physical vapor deposition techniques (sputtering, e-beam evaporation, ion beam assisted deposition) is required. Proven record of independent research is highly desirable. Contact: **Mr. Dale G. Thompson, Lab Operations Manager/Researcher.**

Post-doc in Ion Implantation

Applicant should have strong Physics, Electrical Engineering, or Materials Science background. Thesis study in implantation is preferable. Experience in characterization of electrical parameters and familiarity with Si or GaAs processing technology is desirable. Contact: **Dr. Kumar Das, Research Scientist.**

Close collaboration with colleagues in Japan, possibly including extended working visits, is encouraged. Full consideration for all of these positions will be given to recent graduates. Salary is commensurate with experience. Resumes should be directed to: (Contact), P.O. Box 13608 Research Triangle Park, NC 27709

RESEARCH SCIENTIST

Tenure-track position, Science and Engineering of Materials Program in synthesis of new materials interfaces. Successful applicant is expected to devote half his/her effort to performance of original research within this broad topical area. Will collaborate with established researchers, and is expected to establish independent externally funded research program. Will assist other researchers, including graduate students with research instrumentation germane to this subject.

A doctorate in materials science, ceramics, solid state physics, solid state chemistry, or directly related field is required. Requisites include four years of scientific research experience, one year of which must be as a postdoctoral associate but may be a combination of academic and work experience in HREM experimental and image simulation analysis of grain boundaries/interfaces, and AEM field emission (EELS or EDS) high spatial resolution analysis of oxide film on silicon and metal precipitation in silicon, and UHV materials synthesis. Familiarity with VAX/VMS computer systems required. Publications documenting experience required. Salary \$45,000 for 12 months.

Qualified applicants send resume or application letter with ad by 20 days from last ad date to: AZ DES JOB SERVICE, ATTN: 732A RE: 2198544, P.O. Box 6123, Phoenix, AZ 85005 (job location: Tempe, AZ. EMP PD AD. Proof of authorization to work in U.S. required if hired.)

Equal Opportunity/Affirmative Action Employer.

To place your ad in the MRS Bulletin,
call Mary E. Kaufold at (412) 367-3036 today!