

Positions Available

**POSTDOCTORAL POSITION
School of Engineering and
Applied Science
Princeton University**

A postdoctoral assistant is needed for the period January 1, 1999 to December 31, 1999 to study the mechanical properties of gels and aerogels. The goal of the project is to relate the structure of the gel network to the modulus and permeability of the gel. The ideal candidate would be familiar with sol-gel processing and supercritical drying, and would have experience in characterization of aerogels by sorption, permeability, electron microscopy, and/or small-angle scattering; experience with NMR or quasielastic light scattering would be helpful. Responsibilities include helping to coordinate the research of a graduate student and undergraduates working on related problems.

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**POSTDOCTORAL RESEARCH
POSITIONS
Johns Hopkins University**

The Department of Materials Science and Engineering and the Department of Mechanical Engineering invite applications for two postdoctoral research positions in the areas of phase transformations and mechanical properties of bulk metallic glasses. Candidates with experience in the following areas are especially invited to apply: (1) x-ray scattering techniques, particularly small-angle scattering, anomalous small-angle scattering, or real time *in situ* wide-angle x-ray scattering; (2) transmission electron microscopy, particularly electron energy-loss spectroscopy (EELS) and extended energy-loss fine structure (EXELFS); and (3) mechanical properties of materials, particularly high strain-rate deformation behavior. Additional information about these research projects may be found on the website at <http://www.jhu.edu/~matsci/people/faculty/hufnagel/postdoc.html>.

Candidates must have a PhD degree, or equivalent, in materials science, mechanical engineering, or a related field. To apply, please send curriculum vitae, statement of research interest, copies of two selected publications, and a list of three references to Professor Todd C. Hufnagel, Department of Materials Science and Engineering, Johns Hopkins University, 3400 North Charles Street, Baltimore, MD 21218; fax: 410-516-5293; e-mail: hufnagel@jhu.edu. Positions will be awarded for an initial period of one year, with the possibility of renewal in one-year increments.

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Women and minorities are especially encouraged to apply.*

**STAFF POSITIONS
NZ Applied Technologies**

NZ Applied Technologies is a fast growing, high-tech corporation which is focused on novel photonic devices. We have several immediate openings for qualified engineers to work on (1) sol-gel growth of complex-oxide films, (2) photonic devices (isolator and VOA), and (3) sensors (scintillator, magnetic sensors, and pyroelectric detectors). NZAT offers competitive employment package and excellent career growth opportunities. For consideration, please fax resume to 781-935-2188, or mail to HR, 8A Gill St., Woburn, MA 01801.



**TENURE-TRACK FACULTY POSITION
IN APPLIED PHYSICS
California Institute of Technology**

The Applied Physics program at Caltech invites applications for one tenure-track position as assistant professor. We are seeking highly qualified candidates who are committed to a career in research and teaching. Consideration will be given to any research area within the broadly defined scope of applied physics.

Interested applicants are encouraged to complete the registration form at the URL <http://www.cco.caltech.edu/~aphhome/register.html> and send a resume with a publication list and a less than five page research prospectus appended. Please attach your resume/prospectus file in an e-mail addressed to vahala@cco.caltech.edu. Make the e-mail subject "aphcit search" and use your name as the resume/prospectus file name. Submission of Adobe pdf files is encouraged; however, Word 5.x, 6.x, 98 for Mac or Word 95, 6.x, and 97 for Windows will be accepted.

The appointment is contingent upon completion of the PhD program and the term of the initial appointment is normally four years.

Caltech is an Equal Opportunity/Affirmative Action Employer. Members of underrepresented minority groups, veterans, and disabled persons are encouraged to apply.

**POSTDOCTORAL POSITION
Computational Materials Modeling
Sandia National Laboratories**

Postdoctoral opening in computational modeling of ceramics processing at Computational Materials Modeling, Sandia National Laboratories, Albuquerque, New Mexico at \$56,300 annually. Responsibilities will include developing a model for simulating sintering in ceramics on the mesoscale that can be incorporated into continuum models and utilizing a variety of mesoscopic and continuum simulation techniques to study microstructural evolution due to coarsening, pore migration, and densification facilitated by a variety of diffusion mechanisms.

Modeling and simulation efforts within the department focus on collaborative projects with other computational departments within Sandia and academia and industry. Participation in these projects will provide many opportunities to interact with a broad network of scientists in the field. Additionally the computational resources being used and developed in this research are at the highest state-of-the-art in computational materials science.

Requirements include a PhD degree in materials science, condensed matter physics, or a related field with a solid background in general materials science and modeling. Background in mechanics is desired. A strong background in computational theory and practice is needed. Excellent written and oral communication skills are essential. U.S. citizenship is normally required.

Send resume, publication list, and three references to Veena Tikare, Sandia National Laboratories, P.O. Box 5800, MS 1411, Dept. 1834, Albuquerque, NM 87185-1411, or e-mail to vtikare@sandia.gov.

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