

Positions Available

ASSISTANT PROFESSOR

**Ceramic Science and Engineering
The Pennsylvania State University**

The Materials Research Laboratory and The Materials Science and Engineering Department at Penn State invite applications for a joint, tenure-track, Assistant Professor position effective in the 1990-91 academic year.

Candidates demonstrating expertise in the processing of ceramics, with an emphasis on materials chemistry, are encouraged to apply. The successful candidate is expected to organize an independent research program and to develop and teach courses at the undergraduate and graduate levels.

A PhD in ceramics, materials science or related fields with proven research and development experience is a requirement. Senior level appointments will be considered for candidates with exceptional records.

Curriculum vitae and references should be submitted by **August 15, 1990** to:

Prof. David J. Green, Ceramic Science
Dept. of Materials Science and Engineering

The Pennsylvania State University
231 Steidle Bldg.
University Park, PA 16802

*Penn State is an equal opportunity/
affirmative action employer.*

RESEARCH ASSOCIATE

Research Associate to conduct independent research into the properties of amorphous metals including preparation of alloy samples by melt-quenching and quench co-condensation, studies of the crystallization process and stability, low temperature electron transport (thermopower, resistivity, Hall effect magnetoresistance) measurements, determination of the superconducting properties (critical field and temperature, low temperature heat capacity), sample characterization (x-ray diffraction, differential scanning calorimetry, compositional analysis); maintain laboratory instrumentation; supervise and train graduate students in use of laboratory facilities; prepare research reports and publications. Salary \$22,000 per year. 40 hours per week. Requires Master of Science or equivalent in physics and 2 years experience in low temperature physics. Apply at the Texas Employment Commission, Bryan, Texas, or send resume to the Texas Employment Commission, TEC Building, Austin, Texas 78778, J.O. #5518169.

Ad Paid by an Equal Employment Opportunity Employer.

SENIOR SCIENTIST

Solar Energy Research Institute in Golden, Colorado, seeks Senior Scientist to develop measurement techniques for the characterization and diagnostics of polycrystalline thin films, including $CuInSe_2$ and $CdTe$, photovoltaic semiconductors and solar cells; develop inexpensive state-of-the-art methods for the fabrication of compound semiconductors and solar cell devices; collaborate with companies in the private sector and educational institutions; publish findings in technical journals and present results at technical meetings. Requires PhD in physics and two years experience in the characterization and diagnostics of polycrystalline thin films, including $CuInSe_2$ and $CdTe$ and fabrication of compound semiconductor and solar cell devices using low-cost techniques.

SALARY: \$46,000/year; 8:00-5:00 M-F

Respond by resume to Colorado Department of Labor & Employment, Division of Employment & Training, 600 Grant Street, Suite 900, Denver, CO 80203-3528, Attn: Jim Shimada, and refer to Job Order No. CO 3193371.

**Postdoctoral
Opportunity
Biomimetic Ceramics**

The Biomimetic Ceramics program at Battelle, Pacific Northwest Laboratories, has openings for two post-doctoral candidates in the areas of Organic Chemistry, Materials Science or Inorganic Chemistry. Individuals will be involved with developing new thin film and composite materials based on methods by which bone, tooth and mollusk shell are formed.

SYNTHETIC ORGANIC CHEMIST: will develop methods for coupling specific organic functional groups to polymer, oxide, and metal surfaces. Experience with self-assembling monolayers, Langmuir-Blodgett films, or a strong background in surface science is essential. A working knowledge of FTIR, solid state NMR, XPS and/or SIMS is desirable.

MATERIALS SCIENTIST/INORGANIC CHEMIST: will develop methods for deposition of metal oxides and other minerals on derivatized substrates. Experience with sol-gels colloidal dispersions, or crystal growth techniques is essential. A strong background in surface analytical techniques and inorganic synthetic methods will be valuable.

This multi-disciplinary project requires individuals willing to explore outside the regular bounds of their chosen field as well as interact and communicate with others from widely different backgrounds.

Please send resume to: **Dr. Peter Rieke, Battelle, Pacific Northwest Laboratories, P.O. Box 999, Richland, WA 99352.** An equal opportunity employer.



Battelle
Pacific Northwest Laboratories