

Positions Available

**POSTDOCTORAL RESEARCH ASSOCIATE
MATERIALS SCIENCE AND ENGINEERING**

Responsibilities include development and performance of research on ideal alloy thin film catalysts on exposure to various gaseous environments. This position requires a PhD degree in materials science and engineering and 3 years of experience gained as part of a job or an academic program leading to a PhD degree with emphasis on: (1) alloy source synthesis for vapor deposition of alloy thin films to investigate physical and chemical properties of materials; (2) experience in the development and performance of research that examines polymer and alloy thin film surfaces to study the properties that lead to the development of fundamental understanding of their performance under specialized gaseous exposures; (3) experience in initiating and performing advanced characterization of physical and chemical properties of thin films using XPS, AES, TEM, XRD, SEM, SIMS, ISS and FTIR; (4) experience in design and installation of computer interface to acquire data using DEC PDP 11/23 systems, SUN 3/60 system, IBM-PC and peripherals, as well as data processing using the above and IBM mainframe; and (5) experience in ultrahigh vacuum equipment operation and maintenance related to vapor deposition and surface analysis instruments. Working conditions: office and laboratory, 40 hours per week (8:00 A.M. to 5:00 P.M.). Salary will be \$27,000 per year. Send resumes for referral to: Matilda Moore, Kentucky Department for Employment Services, 300 South Upper Street, Lexington, Kentucky 40508. Ref. No. 789178.

**RESEARCH ASSOCIATE
Penn State**

Materials Research Laboratory invites applications for a Research Associate position in the area of electroceramics. Applications are invited from candidates with strong background in ferroelectric materials. The applicant should have research experience in ferroelectric, pyroelectric, and electrostrictive properties of lead zinc niobate-based relaxors and the liquid-assisted sintering behavior of barium-titanate-based normal ferroelectric materials. An earned PhD in solid state science, materials sciences or ceramic science is required. Salary range: \$26,000-30,000. Location: The Pennsylvania State University, University Park, PA. Benefits: Health, Dental, Vision, and Life Insurance. Send letter of application, resume, and salary requirements, by August 1, 1990, to: Director, Materials Research Laboratory, Dept. MRS, The Pennsylvania State University, University Park, PA.

*An Affirmative Action/Equal Opportunity Employer.
Women and minorities encouraged to apply.*

DEPARTMENT CHAIRPERSON

**Department of Materials Science and Engineering
Pennsylvania State University**

The Department of Materials Science and Engineering at the Pennsylvania State University invites nominations and applications for chairperson. Candidates should have an outstanding publication record in materials science and engineering and be qualified for appointment as a tenured professor of the Department. The successful candidate also will have demonstrated abilities in administration and education.

The Department is comprised of 42 tenure-track faculty and is organized into four programs: Ceramic Science and Engineering, Fuel Science, Metals Science and Engineering, and Polymer Science. Each program awards BS, MS and PhD degrees. The faculty are also actively engaged in the interdisciplinary, intercollege Graduate Program in Materials which grants MS and PhD degrees. The total undergraduate enrollment is approximately 250 and the number of graduate students is currently 180.

The Department chairperson is expected to maintain the strong materials science research and academic programs in the Department as well as to promote collaborative research initiatives within the University, the Materials Research Laboratory, and the Center for Advanced Materials.

Interviews for the position will commence in September and will continue until a candidate is chosen. Applications with the names, addresses and phone numbers of at least four references should be submitted to:

Prof. Gary L. Messing
Chairman of the Search Committee
Pennsylvania State University
119 Steidle Bldg.
University Park, PA 16802

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STAFF SCIENTIST

Solar Energy Research Institute, located in Golden, CO seeks Staff Scientist to perform fabrication, characterization, and diagnosis of high-efficiency ITO/InP solar cells for space applications. Employ film fabrication techniques such as magnetron sputtering and thermal evaporation, plus device processing, including photolithography and electroplating, using instruments such as high vacuum thin film deposition system, ultraviolet mask aligner, and thin film ellipsometer. Requires PhD in applied physics or electrical engineering and two years experience in all phases of fabrication and characterization of high-efficiency InP-based solar cells. \$40,000/year; 8:00-5:00, M-F. Respond by resume to Colorado Department of Labor & Employment, Division of Employment & Training, 600 Grant St., Suite 900, Denver, CO 80203, ATTN: Phil Mirjarez, and refer to Job Order No. CO3193394.

EOE.

Now Available...1990 MRS Publications Catalog Supplement

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

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**In the next issue...a special focus on
materials education...**

Guest Editor Reza Abbaschian, chairman and professor, Department of Materials Science and Engineering, University of Florida, has compiled a series of 10 articles that discuss issues, ideas, and actions.

POSTERMINARIES

Rooting Around in the C Pile

If you have subjected yourself to a time-management course, you know about the A, B, and C piles. Time-critical action items move through the A pile lickety-split. Longer term, time-sensitive matters work their way through the B pile in due course. And languishing in the C pile are all those things that no one will notice aren't done. We have C piles at home, at the office, in our electronic note pads and on the back burners of our brains.

Many items deserve to be ignored in the C pile. Those of us who have trouble moving anything directly from the in-basket to wastebasket have an overabundance of such items. At times we are moved to rearrange or even flip through our C piles. This usually occurs when its height becomes unsightly or perilous, when something is lost and we've searched everywhere else, or when we are overcome by C-pile guilt. The last is indeed a rare occurrence for most of us. For whatever reason we delve into our lowest priority stacks, we often find items—the ones that deserved to rest there—which are now outdated, are more obviously irrelevant, or fail to spark any recollection of why they were saved in the first place. Out they go with no opportunities lost and, with some luck, that side chair that had been in your office for visitors will fit back in again.

Now let's look at the positive side for us who habitually C-pile higher and deeper. We saved some of that stuff because, at the time, we felt there might be something worth considering in it at our leisure. In fact, many C piles include our own little notes scribbled to ourselves to preserve flashes of genius which occur at inconvenient times and places—on the airplane, while daydreaming at a meeting, in the shower. Commonly, these are office ideas spawned at home or the reverse. These

gems sink in the C pile waiting to be rediscovered.

Have you ever thought of something clever to do only to find that months later someone else had done it while your brainchild was trapped in the C pile? Has something ever not gone as well as it might have if you had pursued that not-so-urgent idea or read that not-so-central report earlier? These experiences attest to the inherent value of our C piles, true treasure troves of the most creative products of our busy minds and of our ability to identify things of potential value in our mail.

What do you suppose would happen to a gross national product, a trade deficit, a research program, or a curriculum if the sparks of ingenuity were not smothered in the low priority bin? Some time ago, Rustum Roy (Penn State), a founder and former president of MRS, recommended that scientists would benefit from a form of tithing which would release 10% of their time for just thinking. In a later editorial,¹ he upped the percentage to 20, suggesting that funds be used to

"purchase 20% (one day/week) of the time of 5,000 of all the senior-most materials researchers in the country, and allocate it to doing absolutely nothing—just thinking about the problem, asking the deeper questions, questioning the usual approaches....maybe even dreaming a little."

If ever this wonderful algorithm should be widely applied, C piles beware! For all those nuggets of forgotten wisdom will be rooted out and the remnants will fade into dust-collecting ignominy, where all truly useless memos, reports, and cancelled checks belong.

1. R. Roy, *MRS BULLETIN*, 10 (2) March/April 1985, p. 18-19.