

Positions Available

**FACULTY POSITION
EXPERIMENTAL CONDENSED MATTER PHYSICS**

The Department of Physics and Astronomy at the University of Alabama has a tenure-track faculty position at the assistant professor level in the area of materials for information storage. The successful candidate should have a PhD degree with publications in an appropriate area, good communication skills, and a strong interest in undergraduate and graduate teaching. Postdoctoral experience is desirable. The selected candidate will be expected to participate cooperatively in the Center for Materials for Information Technology, a multidisciplinary research program involv-

ing several academic departments. Presently, research is being conducted on high magnetization particles and films, thin films exhibiting giant magnetoresistance, magnetic time decay, high speed magnetization reversal, and other topics relevant to information storage. Please send a complete resume, a publication list, a statement of research and teaching interests, and the names of three references by **March 1** (or until a suitable candidate is hired) to Prof. William D. Doyle, Department of Physics and Astronomy, University of Alabama, P.O. Box 870324, Tuscaloosa, AL 35487-0234.

The University of Alabama is an equal opportunity/affirmative action employer.

**FACULTY POSITION
EXPERIMENTAL CONDENSED MATTER PHYSICS
Carnegie Mellon University**

We seek to hire an outstanding senior condensed matter physics experimentalist. The successful candidate should bring an active research program and should be ready to take a leading position in the condensed matter group as well as in the Department and the University. This person will be expected to play a major role in our efforts to hire additional faculty over the next five years. We will consider applicants from all areas of active condensed matter research but we have identified the following as areas of particular interest: composite, electronic, and other new materials; scanning microscopies and advanced optical techniques; nanostructures and mesoscopic physics;

magnetism, nonlinear dynamics; surface and interface science; and x-ray and neutron scattering. We currently have efforts in optical properties of nanostructures, wetting and organic thin films, surfaces and interfaces, magnetism, and x-ray and neutron scattering. The experimental group is complemented by our strong condensed matter theory group and by interdisciplinary research efforts throughout the University. Please send resumes and supporting information by **January 31, 1993** to Robert F. Sekerka, University Professor and Chair of the Search Committee, Department of Physics, Carnegie Mellon University, Pittsburgh, PA 15213.

Carnegie Mellon University is an affirmative action, equal opportunity employer.

Coming in February...

Guest Editors John R. Rodgers, National Research Council Canada, and Pierre Villars, Intermetallic Phases Databank, Switzerland, will focus on Trends in Advanced Materials Data: Regularities and Predictions. Articles on this topic will include:

Theory and Practice in the Prediction of New Materials, by Karin M. Rabe, Yale University;

Prediction of Inorganic Compounds: Experiences and Perspectives, by N.N. Kiselyova, Russian Academy of Sciences, Moscow;

Some Uses of Crystallographic Databases and Bibliographies, by James C. Phillips and T. Siegrist, AT&T Bell Laboratories, New Jersey; and

Data Compilation, Analysis, and Access: The Role of the Computer, by Jack H. Westbrook, Brookline Technologies, New York.

**Ad closing for the March
MRS Bulletin is
February 1, 1993.**

**To place your ad, call
Mary E. Kaufold at
(412) 367-3036 today!**

POSTERMINARIES

Interview

Our phone was graced recently by a call from Professor Science I.M. Sage. He is chairman of the Blue Ribbon Policy and Prophecy Institute, a for-profit consulting organization located in a motor home/office complex in constant circumnavigation of the Washington, DC Beltway. Known affectionately to cellular phone operators as Prof. S.S., he staffs his own 24-hour science policy primer line, ready at a moment's notice to explain the policy machinations of the day to any well-heeled, interested party. He kindly consented to be interviewed for Postterminaries free of charge, on the condition that these introductory italics precede the interview

text and that he have complete editorial control over what's printed. We, of course, enthusiastically agreed!

MRSB: Thank you for taking time from your busy day to chat with us for Postterminaries.

SS: My pleasure. A little free advertising is always welcome and, judging from your inability to correctly spell "postterminaries" (Brit.), you are in dire need of my advice.

MRSB: Yes, well, let us then pose our first question. We have noticed a great

deal of concern in Congress and in industry with the effectiveness of the federal R&D dollar in contributing to the nation's economic competitiveness. Is there really a problem or is this just so much political rhetoric?

SS: Yes. There is a real political problem.

MRSB: How would you characterize the various facets of the problem?

SS: Constituencies.

MRSB: Please elaborate.

SS: Well, all right, but this is pretty basic, self-evident stuff, which you should

already know. Those impatient for practical fruits of research that can be converted to profits or votes view basic research as irrelevant "sandbox" research and its practitioners as effete intellectual snobs (ring a bell?) who think feeding at the federal trough is an entitlement. They feel that if only these dilettantes would work on immediately useful problems and transfer their results to industry, we'd keep manufacturing jobs on shore and leave our foreign competition in the dust.

MRSB: Is there any validity to these views?

SS: Wrong question. The question is, *What do the folks in the field think?* Take this professor friend of mine who slaves over graduate students and proposal writing all day. She contends that technology transfer is generally a long, arduous process that works more like diffusion of both ideas and people, with more sinks than sources along the way. She likens the grains of sand in her sandbox to the basic research dollars from government—the grain is to the beach as the dollar is to the national debt—and wonders why the fuss over so small an issue.

MRSB: Quite poetic, but what advice did you give her?

SS: Simply to adopt a "fortress ivory tower" mentality and wait for the wolves at the door to be otherwise distracted. Oh, I also told her to get off her high horse and treat peer sand and pork sand as "just sand."

MRSB: Is that fair to those who worry about American industry?

SS: Fair is not the issue. It's a question of perceptions and sacred cows. It's being in favor of the right thing at the right time and not biting hands that feed you. If you can't solve the big problem that involves all sorts of micro- and macroeconomics, tax incentives, level playing fields, patient capital, etc., then appear to solve the small problem, i.e., basic research run amuck. A problem solved is a problem solved.

MRSB: That seems rather cynical. What advice do you give industry in this area?

SS: Ah, finally a good question! Just recently a manufacturer friend of mine who makes pineapple harvesting equipment had been planning to move his operation to Hawaii. What he would save in shipping costs would provide relocation expenses for employees and good raises to boot. Luckily, he spoke to me first. I was able to warn him of our government's bias against firms that move manufacturing jobs offshore. Now he is doing just fine in Acapulco where his shipping

costs are up but labor costs are way down. You see, not one ounce of technology growing out of basic research contributed to his decision.

MRSB: Is there a point to your anecdote?

SS: I really must spell everything out, mustn't I? Yes, there is a point. The issue is large and complex and will not give way to simple, near-term solutions. For all the expert advice abroad on this topic, no sector has displayed patience for the scientific or political process or articulated a politically acceptable *raison d'être* for research for research's sake. This deplorable situation guarantees me a good livelihood for the foreseeable future.

MRSB: So there are three constituencies: your professor friend, your manufacturing friend, and your impatient political clients. Right?

SS: Yes, and add to that the small fertile group of people who devise technology transfer algorithms for their own sake. They've devised wondrous mechanisms to bridge the research-manufacturing chasm. Unfortunately, their bridge construction has so far failed to meet building codes on either shore. But be assured: if and when they connect, my office will log a lot of miles on that bridge.

MRSB: Since you made this a collect

call, perhaps we should wrap this up by thanking you and asking for any final thoughts.

SS: It's been a pleasure. Before you ring off though, let me invite you and your readers to my next workshop. For a small fee to cover note paper and fuel, you can spend a day with me in my office discussing "Policy Impediments to In-Transit Refueling of Motor Vehicles." The event includes portal-to-portal transport to and from the Silver Springs Metro Station on a rendezvous with the Blue Plate Lunch Truck. You should bring some cash for that, but please leave your valuables at home. Due to the recession, we've had more than the usual number of encounters lately with the Beltway Bandito.

As a follow up, Postterminaries is attempting to obtain the report on Prof. Sage's previous workshop on "Application of Diffusion, Percolation, Chaos, and Catastrophe Theories to Technology Transfer," which we understand has been embargoed by the Maryland State Highway Patrol.

Reported by E.N. Kaufman

Note added in proof: As we were going to press, Professor Sage called to insist that we remind our readers that, notwithstanding twelve years of scurrilous rumors to the contrary, he has been a lifelong Democrat. □

