

Positions Available

MATERIALS SCIENCE RESEARCH POSITION
Metals and Ceramics Division
Oak Ridge National Laboratory

Opportunity exists for a PhD level materials scientist or materials engineer to join the Physical Properties Research Group and User Center in the High Temperature Materials National User Facility of the Metals and Ceramics Division of the Oak Ridge National Laboratory.

The successful candidate will be responsible for conceiving, developing, and applying experiments designed to improve knowledge of materials, particularly high temperature structural ceramics, of potential interest in energy generation systems and/or of materials used for energy conservation.

The individual will also collaborate with researchers from industry and universities in using the specialized research equipment in the Physical Properties Research Group and User Center. The responsibilities include overseeing their operation and assisting users in interpreting data obtained from these instruments.

A minimum of 5 years industrial or university experience and a proven record of research and publication are required. The candidate must be well grounded in at least one computer programming language and many of the following high temperature measurement methods: laser flash thermal diffusivity, thermal conductivity, thermal expansion, DSC-TGA with simultaneous mass spectrometry, and x-ray diffraction.

A resume, publication list, and names of three potential references should be sent to:

Dr. C.R. Hubbard, Group Leader
 High Temperature Materials Laboratory
 Bldg. 4515, MS 6064
 Oak Ridge National Laboratory
 P.O. Box 2008
 Oak Ridge, TN 37831-6064



VENTURES PROFESSORSHIP IN ENGINEERING
Materials/Material Processing

The College of Engineering of Michigan Technological University seeks candidates for its chaired Professorship in Engineering which was recently funded by the Ventures Group.

The Ventures Professorship is intended to bring to the faculty an individual who will provide strong leadership in an area of current research emphasis in the college. Of particular interest is the area of materials/material processing. The college has active research programs in metals/alloys and their composites, polymeric composite materials, ceramics, mechanics of materials, coal/mineral processing, material design and forming, and manufacturing.

A major commitment has been made by the university and the State of Michigan in constructing a new Minerals and Materials Building to be occupied by 1990. This \$47 million facility will provide state-of-the-art capability for materials characterization and processing, including pilot-plant scale processing facilities.

Michigan Tech, a state university, was founded in 1885 and enrolls approximately 6,500 students of whom 4,270 are engineering majors. One of the largest engineering schools in the nation, the college offers programs of education and research in chemical, civil, electrical, geological, mechanical, metallurgical and mining engineering.

Address inquiries and applications to Prof. Edward Fisher, Search Committee Chairman, College of Engineering, Michigan Technological University, Houghton, MI 49931.

*Michigan Technological University is
 an equal opportunity educational institution/equal opportunity employer.*

PRINCIPAL INVESTIGATOR
Condensed Matter/Material Science

EG&G Idaho, Inc., prime operating contractor for the Department of Energy's Idaho National Engineering Laboratory, has an immediate opening for the above position.

This position will be responsible for leading a basic science research team that will experimentally and theoretically investigate the influence of defects on electrical, magnetic and thermal properties of solids. The position requires a strong theoretical background with respect to defects in solids and solid state properties and a familiarity with state-of-the-art computational methods for predicting those properties. The technical leader must be cognizant of experimental techniques for solid state property determinations and of the utilization of measured and theoretical information to establish a scientific understanding of defect-property relationships. The technical leader should have a demonstrated ability to lead, to provide technical direction in an evolving research effort, to develop new programs, and to establish working relationships with applied programs in a multi-disciplinary approach to ensure technological impact of this research.

A Ph.D. in Material Science or Solid State Physics is desirable with a minimum of 10 years experience in research on defects/solid state properties. The applicant must have a proven record as a leader in defect/solid state property fields substantiated by publications and peer recognition.

The INEL is located in Idaho Falls, a small friendly community in the heart of one of the most scenic recreational areas in the country, including Sun Valley, Jackson Hole, Yellowstone and Teton National Parks.

If interested and qualified, please submit resume with salary requirements to: **Employment Services (MRH-74) EG&G Idaho, Inc., P.O. Box 1625, Idaho Falls, Idaho 83415-3127.** We are an equal opportunity employer. U.S. Citizenship required.

STANFORD UNIVERSITY
Department of Applied Physics

The Department of Applied Physics at Stanford University seeks candidates for a faculty position in the general area of experimental materials physics. The position could be tenure or tenure-track, depending on the qualifications of the candidate. We seek candidates with both potential for distinction in research and a strong interest in teaching. While the specific research area of the candidate is not specified, an ability to couple to both the condensed matter physics community and the broader materials research community at Stanford is desirable. Stanford University is an equal opportunity employer and welcomes nominations of and applications from women and minority group members.

Interested applicants should send a curriculum vitae, list of publications and the names of three suitable references by **March 15, 1989** to Prof. M.R. Beasley, Department of Applied Physics, Stanford University, Stanford, California 94305-4090.

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Positions Available



ARIZONA STATE UNIVERSITY

SCIENCE AND ENGINEERING OF MATERIALS



Arizona State University announces a new interdisciplinary research/graduate education program in the Science and Engineering of Materials. The program will emphasize the synthesis of new high performance materials and their structure/property relations. Examples of materials of interest are nanocrystalline ceramics, ceramic precursor compounds, metal and ceramic matrix composites, thin films and multilayer materials. Positions available in the first phase of the program are described below. All positions are tenure track. Full implementation of this program, which involves new space and equipment as well as personnel, will occur over the next five years.

**Asst. Professor of Chemistry
Synthetic Materials Chemistry**

Research interests in any aspect of synthetic materials chemistry such as inorganic and organic materials precursor chemistry and synthesis of ultra-fine structured materials such as thin films, powders, composites and related areas.

Search Chair: Wm. Petuskey, Ph.D.
Telephone: (602)965-5858

**Asst. Professor of Chemical/Bio/
Materials Engineering
Materials Synthesis, Characterization**

Research interests in microchemical analysis, microstructural analysis, synthesis of structural and electronic ceramics, composites and related areas.

Search Chair: Imre Zwiebel, Ph.D.
Telephone: (602) 965-3313

**Asst. Professor of Physics
Materials Physics**

Research interests in film synthesis, growth mechanisms, kinetics, structure, structure stability, coherency loss and related areas.

Search Chair: I.S.T. Tsong, Ph.D.
Telephone: (602)965-3563

**Asst. Professor of Electrical and
Computer Engineering
Electronic Materials**

Research interests in processing and characterization of semiconductor heteroepitaxial structures with emphasis on quantum wells and superlattices grown by MBE and MOCVD.

Search Chair: George Maracas, Ph.D.
Telephone: (602)965-2562

**Research Specialist: Electrical and
Computer Engineering
Electronic Materials**

Research interests in III-V semiconductor materials grown by MBE and MOCVD. Knowledge of growth and characterization techniques for heteroepitaxial structures, quantum wells and superlattices.

Search Chair: George Maracas, Ph.D.
Telephone: (602)965-2562

All faculty positions require teaching. Doctorates are required and experience is desirable. Salaries and benefits competitive. Appointments to more senior positions on basis of experience/accomplishments are possible. To apply send resume (include citizenship and/or visa status), brief outline of research plans and three references to the appropriate Search Chair, Science and Engineering of Materials Program, PSB-234, Arizona State University, Tempe, Arizona 85287-1704. Review of applications will begin after March 15, 1989, and will continue until positions are filled by exceptional candidates.

Arizona State University is an Affirmative Action/Equal Opportunity Employer

Positions Available

CHAIRPERSON - CERAMIC ENGINEERING

**School of Mines and Metallurgy
University of Missouri-Rolla**

The Department of Ceramic Engineering invites applications and nominations for the position of Chairperson. Candidates should have a doctorate in the materials area, a proven research record, and educational experience to merit the rank of full professor. Preference will be given to individuals whose background and experience indicates that he/or she could provide strong academic leadership in traditional as well as innovative research and teaching programs in Ceramic Engineering.

This position requires an individual who can work constructively with students, faculty, and other materials-related faculty groups within the University. Responsibilities include decisions with respect to administrative, academic, and personnel matters of the Department.

The Department currently has six state-funded positions, approximately 100 undergraduate students, and approximately 40 graduate students. Current research activities have a broad range extending from fundamental problems to applied programs with industrial potential.

A new \$20 million 145,000 ft² building houses the Department together with other departments constituting the School of Mines and Metallurgy. An opportunity will exist for departmental development in the next five years, when several new faculty appointments will be possible.

Inquiries, applications and nominations should be directed to
Dr. Harlan U. Anderson
Department of Ceramic Engineering
278 McNutt Hall
University of Missouri-Rolla
Rolla, MO 65401
Telephone: (314) 341-4886

All inquiries, applications and recommendations will be held strictly in confidence. The search will remain open until a suitable applicant is found, but it is planned to complete an initial screening by May 1, 1989, to permit an appointment by September 1, 1989.

The University of Missouri-Rolla is an Equal Opportunity/Affirmative Action Employer

**PART-TIME FACULTY POSITION
Helsinki University of Technology-Finland**

Helsinki University of Technology is the oldest and largest university of technology in Finland, having 10,000 students and a teaching and research staff of approximately 1,500 persons. The university is located on a modern campus 10 km west of Helsinki.

The University seeks a candidate for a new part-time professorship in MATERIALS SCIENCE AND ENGINEERING. The salary will be about 80,000 FIM per year, which corresponds to 1/3 of a full professorship. The successful candidate will be expected to spend at least a part of his time each year in Finland in order to initiate and conduct research, supervise postgraduate students and teach postgraduate courses. The contract can be made for a limited time from one to four years. Candidates are sought in all areas of materials science and engineering including preparation and/or processing of metals, electronic materials, polymers, ceramics and composites. Special emphasis will be placed on advanced materials and computer-aided modeling in materials processing. A doctorate in a relevant field and strong background in teaching and/or research are required.

Applicants are encouraged to respond as soon as possible. The position will be filled starting from September 1, 1989. Send a detailed resume with publication list and names of at least two references to Prof. Kaj Lilius, Chairman, Institute of Materials Technology, Helsinki University of Technology, Vuorimiehentie 2 A, 02150 Espoo, Finland; Telephone 3580-4512769, fax 3580-4512660.

**CHAIRMAN
Department of Metallurgical and Materials Engineering**

Illinois Institute of Technology invites applications and nominations for the chairmanship of the Department of Metallurgical and Materials Engineering. The successful candidate will hold the recently endowed Charles and Lee Finkl Chair.

The department consists of eight full-time faculty members, including the provost of the university. The department's current full-time student enrollment consists of 41 undergraduate and 30 graduate students. In addition, there are 13 part-time graduate students.

The current research focus of the department is in the area of advanced metallic materials, with an emphasis upon powder metallurgy, advanced high-temperature materials, and thermomechanical processing. However, applications are also encouraged from highly qualified candidates with research interests in other areas.

The new chairman must provide innovative and aggressive leadership in the development of educational and research programs of the department and will be strongly supported by a vigorous, forward-thinking administration. He or she must also be capable of strengthening links with other academic departments, the IIT Research Institute, the Pritzker Institute of Medical Engineering at IIT, and materials groups in industry and national laboratories. Candidates should have an earned doctorate and a record of achievement in education and research.

Applications with resumes, that include the names, addresses and telephone numbers of three references, should be submitted to:

Prof. S. Kalpakjian
Search Committee Chairman
Illinois Institute of Technology
Chicago, Illinois 60616.

The appointment is expected to be made effective Fall Semester 1989.

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REGENTS EMINENT SCHOLAR POSITION

**High Temperature Materials
Ohio State University**

Applications are invited for a position as an Ohio Regents Eminent Scholar in the Department of Materials Science and Engineering of The Ohio State University. The position will be filled at the full professor level and is available as early as July 1. Applicants must have a PhD degree in a materials-related discipline and significant educational or industrial experience in the area of high-temperature materials. A major record of publications and research is expected. The appointee would interact directly with the faculty of other departments, with industrial and government research centers, and with international societies. The Eminent Scholar is expected to provide a strong focus in high-temperature materials. The Department has an enrollment of approximately 200 undergraduate students and 100 graduate students and an annual research budget of about \$4 million.

Send resume with publication list and the names of three references to Prof. George R. St. Pierre, Chairman, Department of Materials Science and Engineering, The Ohio State University, 116 West 19th Avenue, Columbus, OH 43210. Phone: (614) 292-2491.

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Positions Available

**FACULTY POSITION
IN X-RAY LITHOGRAPHY**
Louisiana State University

The Department of Electrical and Computer Engineering at LSU invites applications for anticipated tenured or tenure-track faculty position available August 1989 in the area of x-ray lithography. Ideally the person should have experience in optical lithography, electron beam techniques, and x-ray lithography including beam-line technology. A background and working knowledge of semiconductor devices and fabrication technology is highly desirable. Research in x-ray lithography would be conducted with the Center for Advanced Microstructures and Devices (CAMD). The central research tool at CAMD will be an electron storage ring optimized for x-ray lithography and materials research. A PhD or equivalent is necessary. Rank is open. Salary is competitive and commensurate with qualifications and experience. Release time and resources are provided in order to enhance the development of a quality research program. Opportunities for summer support are available. Send resume, names of three references, a statement of teaching and research interests, and verification of employment eligibility in compliance with the Immigration Reform and Control Act of 1986 to: Alan H. Marshak, Chairman, Electrical and Computer Engineering, Louisiana State University, Baton Rouge, LA 70803-5901.

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**ENDOWED CHAIR POSITION/
FACULTY POSITION**
Information Technology
Materials Research

A newly endowed chair and a new faculty position have been established at the University of Alabama in the area of materials science as related to information technology materials. The holders of both positions will be expected to develop his/her own research programs, and play an active role in current and developing materials science research. The ability to attract funds for research is an important consideration for both positions. The holder of the chair position will also provide leadership in the fields of magnetic recording and/or other information science technologies, and in the enhancement of university-industry interactions. Research areas of particular interest are particulate magnetic materials applicable to recording, magnetic thin films, and radiation curing of particulate media. It is expected that the successful applicants will have a PhD degree in a science or engineering discipline, and experience in both university and industry settings. Applicants should send curriculum vita, list of publications, and three references to Dr. Chester Alexander, Jr., Materials Science Coordinator, The University of Alabama, Box 870324, Tuscaloosa, AL 35487-0324. The initial screening date for applications is March 1, 1989.

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

**MATERIALS SCIENCE
FACULTY**

MIT Department of Materials Science and Engineering has searches for tenure track assistant professorships available involving teaching and research in the areas noted below:

- **Electronic Materials**
- **Physical Ceramics**
- **Chemical Synthesis/Processing of Materials**
- **Materials Science and Engineering**

Doctorate required and experience desirable. Salaries and benefits competitive. Positions will be filled only if exceptional candidates are found. Appointment to a more senior position is possible based on experience and accomplishments. **Send resume (including citizenship and/or visa status), publications list and references to Professor Merton C. Flemings, Head, Department of Materials Science and Engineering, Massachusetts Institute of Technology, Cambridge, MA 02142. MIT is a non-smoking environment.**

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A COMMUNITY AT WORK.



**POSTDOCTORAL ASSOCIATE
POSITIONS**

The University of Virginia has three openings for Postdoctoral Associates in the general area of materials processing. The scope of the research to be conducted includes development and application of advanced sensing methods to materials processing, synthesis of fundamental models describing microstructural evolution during processing, experimental work to provide insight for the modeling efforts and verification of results, and development of systems for integrated sensing and control of processing equipment. Expertise and interest in one or more of the following areas is required: sensor development, modeling of material behavior during processing, materials characterization (TEM, SEM), computational capabilities, inter-metallic composites.

Send resume to: Prof. J.A. Wert
Department of Materials Science
Thornton Hall-School of Engineering
and Applied Science
University of Virginia
Charlottesville, VA 22901

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FACULTY POSITION
University of Florida

The Department of Materials Science and Engineering is seeking applicants for two tenure-track positions at the assistant, associate, or full professor level. Applicants should have a PhD in Materials Science or a closely related field with an expertise in microelectronic, optoelectronic and/or dielectric materials. Candidates with expertise and experience in the following areas are of particular interest: (a) growth of semiconductor single crystals, (b) growth and properties of thin film dielectrics, optical and electro-optical materials and devices, (c) electrically active defects in semiconductors, (d) theory of electronic materials. The positions involve teaching undergraduate and graduate courses and conducting a strong sponsored research program. A curriculum vitae, list of publications, three personal references, and a statement of research interests must be submitted for the first position by **March 22, 1989**, and for the second position by **May 9, 1989** to:

Dr. Paul H. Holloway
Chairman of the Search Committee
Department of Materials Science
and Engineering
University of Florida
Gainesville, FL 32611.

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