

Positions Available

Electronic and Optical Materials Scientists

The Basic Industry Research Laboratory (BIRL) of Northwestern University is a new 130,000 square-foot materials R&D laboratory. Our scope extends from fundamental applied research to pilot-scale development of materials, processes, devices and equipment. Experienced scientists and engineers with advanced degrees and interdisciplinary backgrounds are needed to help guide the development of BIRL. Successful candidates will be technically strong and will have some experience in proposal writing and project management. Of immediate interest are scientists and engineers with experience in:

- Optical coatings
- Liquid and vapor epitaxy
- Bulk and film crystal growth
- Sensor development
- Modulator, switch, and storage device development
- Electronic packaging materials development

BIRL offers a stimulating environment, growth potential, and a competitive salary and benefits package. If you qualify, please send your resume with salary history to:

Patricia Ronaldson
Basic Industry Research Laboratory
 Northwestern University
 720 University Place
 Evanston, IL 60208-1142
 (312) 491-7600



An affirmative action,
 equal opportunity employer

RESEARCH PHYSICIST
 GS-1310-12 \$34,580 to \$44,957 per annum
 (salary dependent on qualifications)

NAVAL RESEARCH LABORATORY
Condensed Matter and Radiation Sciences Division

Research Physicist to perform basic and applied research in support of the Naval Research Laboratory's Superconducting Space Experiment. The research involves a study of the effects of natural and hostile radiations on the properties of high temperature superconducting materials and devices, and involves making electrical measurements at cryogenic temperatures and the use of various radiation sources. The research will emphasize displacement damage and ionization effects in high temperature superconducting materials and devices at temperatures down to liquid helium temperature.

Qualifications: PhD or equivalent in experimental solid state physics at cryogenic temperatures, preferable in the area of high temperature superconductors.

Interested applicants should submit a Personnel Qualification Statement (SF-171) or detailed resume by **June 30, 1989** to:

Naval Research Laboratory
 Civilian Personnel Office
 Attn: 46-013-14 (bc)
 4555 Overlook Ave., SW
 Washington, DC 20375-5000

*An Equal Opportunity Employer.
 U.S. Citizenship Required.*

FACULTY POSITION
CERAMICS/MATERIALS SCIENCE

The Department of Metallurgy and Materials Science at Polytechnic University is seeking a ceramics/materials scientist at the associate or full professor level on a tenure track. The post would involve teaching at the undergraduate and graduate level, and research in the area of ceramics. Applicants should have an established research reputation, and compensation will be commensurate with experience. The post is available for the Fall 1989 semester. Currently, the Department is active in composite, superconductor and electronic materials research. Interested persons should submit a resume and three references to:

Prof. Harold Margolin
 Chairman of Search Committee
 Metallurgy & Materials Science
 Polytechnic University
 333 Jay Street
 Brooklyn, NY 11201

Equal Opportunity Employer/M/F/H/V

FACULTY POSITION
Materials Science and Engineering
Stevens Institute of Technology

The Department of Materials Science and Engineering is seeking applicants for a tenure-track position at the assistant, associate or full professor level. Earned doctorate is required. The candidate should have a strong research background in transmission electron microscopy and surface/interface studies. Applicants are expected to teach undergraduate and graduate courses and to develop an independent research program. The successful applicant will be in charge of the electron microscopy facility of the Advanced Technology Center for Surface Engineered Materials.

Interested applicants should send a curriculum vitae, list of publications and the names of three references to: Dr. Bernard Gallois, Head, Department of Materials Science and Engineering, Stevens Institute of Technology, Hoboken, NJ 07030.

*Stevens Institute of Technology is an affirmative action/
 equal opportunity employer.*

DISTINGUISHED VISITORS PROGRAM
High Resolution Electron Microscopy

The ASU Facility for High Resolution Electron Microscopy has funds to support distinguished visitors to the Facility. The objective is to facilitate the interaction of ASU faculty and staff with U.S. leaders in those areas of science where the special techniques available in the Facility have known, or potential, impact so that research projects in the Facility will be more clearly directed toward the major current problems in research on materials. The visitors, though not necessarily electron microscopists themselves, should be aware of the value of electron microscopy as a research tool and be interested in the application of the advanced techniques available in the Facility to problems in current science or technology.

Distinguished visitors may be supported for a few weeks or months, or obtain a supplement for a sabbatical leave.

Expressions of interest in participation in this program should be addressed to: John M. Cowley, Director ASU Facility for HREM, Center for Solid State Science, Arizona State University, Tempe, AZ 85287-1704.

Arizona State University is an Affirmative Action/Equal Opportunity Employer.

Positions Available

**MATERIALS ENGINEERING
AND SCIENCE**

University of Missouri-Rolla

The Metallurgical Engineering Department of the University of Missouri-Rolla is seeking qualified faculty applicants for a tenure-track position at the Associate or full Professor level effective August 1, 1989. The position is being funded by the state-supported Eminence Program in Materials Engineering and Science. The individual will spend 25% time teaching courses in his/her academic department and will also hold the title of Senior Investigator in the Graduate Center for Materials Research with 75% time for conducting research in the area of advanced materials, such as solid-state electronic materials or high-temperature composites. Candidates must possess a PhD in metallurgical engineering or a closely related discipline. The ability to undertake and develop external funding for research in the area of expertise is required.

Applications from women and minorities are especially encouraged. The initial screening of applicants will begin May 1989, although applications will be accepted until the position is filled. Applicants should send their resume and the names and telephone numbers of four references to: Dr. John L. Watson, Chairman, Metallurgical Engineering Department, University of Missouri-Rolla, Rolla, MO 65401.

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

**University of Geneva
Announces an Opening for a
FULL PROFESSOR
in
COMPUTATIONAL CONDENSED
MATTER PHYSICS**

The new professor will have the responsibility for research and teaching in computational condensed matter physics. He will in particular have the task to develop the research activities of the Institut Romand de Recherches Numériques en physique des Matériaux (IRRMA) situated at the campus of the Ecole Polytechnique Fédérale de Lausanne. He will assume the direction of this Institute for a certain number of years and it is also expected that he actively participate in the scientific and academic life of the University of Geneva.

The applicant should have a PhD in physics or an equivalent degree. Experience in teaching, leading and management of research groups as well as some experience in university administration is desirable.

Letters of application, a curriculum vitae and a list of publications should be addressed before **June 30, 1989** to: Secrétaire de la Faculté des Sciences, 20, quai Ernest-Ansermet, CH-1211 Geneva 4, Switzerland, where additional information may be obtained.

**VISITING PROFESSOR
KYOTO UNIVERSITY
Ion Beam Engineering
Experimental Laboratory**

This position is to be filled for up to one year by a professor having extensive experience in low or medium energy ion beam physics or engineering related to thin film deposition, surface modification, and surface analysis. Positions at all academic levels will be considered. Emphasis will be on ionized cluster beam deposition, ion beam deposition and modification of organic and inorganic thin films. A wide range of equipment is available for research, including a 400 kV ion implanter, UHV ionized cluster beam deposition systems, AES, XPS, RHEED, SEM, TEM, RBS, x-ray diffraction, ellipsometry, etc. Assistance in finding suitable housing will be given. All faculty and most students in this laboratory speak English. This position will remain open until a suitable candidate is found. Salary will be based on Japanese government standards for visiting professors according to experience. Send letter, resume and the names of three references to:

Prof. Isao Yamada, Director
Ion Beam Engineering
Experimental Laboratory
Kyoto University
Sakyo, Kyoto 606, Japan
Telephone 075-753-5951
Fax 075-751-6774



**POSTDOCTORAL RESEARCH ASSOCIATE
MATERIALS SCIENCE**

North Carolina State University

The Department of Materials Science and Engineering at North Carolina State University has openings for Materials Scientists or Physical Chemists.

Positions are available within an extensive and highly interactive program on a range of oxide thin films (superconductors, ferroelectrics, electro-optical ceramics) as well as wide band-gap semiconductors (SiC and diamond).

The emphasis is on high vacuum processing and characterization techniques. A particular need is for a researcher who has some chemistry background to participate in an exciting new project on the deposition of oxide superconductors using organometallic precursors.

The University is in an attractive location, and a competitive salary and benefits package is offered.

Send resume and the names of three references to:

Prof. Angus I. Kingon
Department of Materials Science and Engineering
North Carolina State University
Box 7907
Raleigh, NC 27695-7907
(919) 737-2377 or (919) 737-2377

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Positions Available

**CHEMICAL VAPOR DEPOSITION
AND
ELECTRONICS AND OPTICS**

The Basic Industry Research Laboratory (BIRL) of Northwestern University is a new 130,000 square-foot materials R&D laboratory. Our scope extends from fundamental applied research to pilot-scale development of materials, processes, devices and equipment.

BIRL has immediate openings for innovative CVD Specialists with a fundamental understanding of conventional and modified CVD technology. Preferred candidates will have an advanced degree or a B.S. with at least 5 years' experience in a materials-related discipline. The ability to design and construct innovative coating devices on both laboratory and pilot-scale level is essential.

We also are recruiting experienced scientists and engineers with advanced degrees and interdisciplinary backgrounds in the following areas:

- Optical coatings
- Liquid and vapor epitaxy
- Bulk and film crystal growth
- Sensor development
- Modulator, switch, and storage device development
- Electronic packaging materials development

Candidates should have some experience in proposal writing and project management. BIRL offers a stimulating environment, growth potential, and a competitive salary and benefits package. To apply, please send your resume with salary history to:

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**CENTER FOR SOLID STATE SCIENCE
Arizona State University**

Research Specialist in Chemical High Resolution Electron Microscopy to perform collaborative research with Center for Solid State Science faculty, postdocs and students using the HREM Facility. Doctorate in physical science (chemistry, physics, geology, mineralogy, crystallography or allied discipline) and at least two years experience in HREM required. Knowledge of diffraction physics, crystallography, crystal chemistry, and physical chemistry desirable.

This position involves collaborative research and service, and time to pursue one's own research. This is a permanent state-funded position. The successful applicant will be hired on a probationary basis with yearly contracts and, subject to satisfactory performance will be granted permanent status in a period not to exceed six years. We seek a dynamic researcher who will interface between the new instrumental developments in the HREM Facility and their applications to problems of chemical interest. Salary and benefits will be competitive, and reflect the experience of the successful applicant.

A resume (include citizenship and/or visa status), a brief outline of research plans, and three letters of reference should be sent to: R.W. Carpenter, Director, Center for Solid State Science, Arizona State University, Tempe, AZ 85287-1704. The application deadline is **June 15, 1989**. The appointment can be made immediately.

*Arizona State University is an Affirmative
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Pittsburgh, PA 15237
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