

RMIT VICTORIA UNIVERSITY
OF TECHNOLOGY

Research Scientist - MMTC

Salary Range: \$A43,984 - \$A55,393 (Ref: 184/14/AS)

Applications are invited for a Principal/Senior Research Scientist at RMIT within the Microelectronics and Materials Technology Centre (MMTC).

The Centre has major research activities in the areas of semiconductor and materials science, with large efforts in both silicon and gallium arsenide device technology, thick and thin film technology and advanced surface processing of materials. Ion-beam processing and analysis plays a central role in many of these activities.

You will be required to initiate, undertake and develop ion-beam related research activities within the Centre, apply for external research funding and supervise postgraduate students.

You should possess a Ph.D. with a strong research background in ion-beam processing and analysis of materials, particularly semiconductors. Experience with the operation and development of ion implanters or high energy Tandem or Van de Graaff accelerators would be an advantage.

Further enquiries should be directed to Dr J. S. Williams, Director, Microelectronics and Materials Technology Centre on (613) 660 2840.

Phone Personnel Services on (613) 660 4600 for a Position Description. Written applications should be addressed to The Senior Appointments Officer by 13 October, 1990.

Equal Opportunity is Institute Policy.

RMIT anticipates becoming the major part of the
Victoria University of Technology
to be inaugurated in 1990

Royal Melbourne Institute of Technology Limited
GPO Box 2476V, Melbourne, Victoria, Australia. 3001

arm37085

MATERIALS RESEARCH

THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (formerly the National Bureau of Standards) seeks materials scientists and/or physicists to conduct research in the following fields:

- Composite Materials: Failure Mechanisms
- Electronics Packaging: Mechanical Behavior of Thin Films
- Nondestructive Evaluation: Sensors/Physical Measurements
- Physical Metallurgy: Thermomechanical Processing
- Welding: Arc Physics

Candidates should possess a PhD degree (or equivalent) in physics or materials science. Candidates with an MS degree and outstanding academic records will also be considered. Up to four positions are available: two permanent positions for experienced researchers with strong publication records, and two postdoctoral positions for two-year terms.

The positions are with the Materials Reliability Division of NIST in Boulder, Colorado. Competitive salaries commensurate with experience will be offered in the range of \$40,000 to \$65,000. U.S. Citizenship is required. Interested candidates should send resumes to U.S. Department of Commerce, MASC-Personnel Div., ATTN: Floyd Powell, MC 23, 325 Broadway, Boulder, CO 80303.

NIST is an EEO Employer.

Assistant Scientist

Experimental Studies of Solid State Phase Transformations in Ceramics

The Materials Science Division has an experimental assistant scientist opening in the area of solid state phase transformations in ceramic materials. A PhD in materials science or solid state physics with at least 1-3 years experience is required. Candidates should have considerable knowledge in the following areas: physics and chemistry involved in phase transitions; additional areas of materials science; formulating scientific problems; understanding abstract concepts and synthesizing results within the current experimental and theoretical framework. Proficiency in written and oral communications essential. References and three letters of recommendation should be forwarded to: Walter D. McFall, Box D-MSD-85283-2W, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439. Argonne is an equal opportunity/affirmative action employer.



**ARGONNE
NATIONAL LABORATORY**

University of Chicago/DOE



Foreign Research Scientist

Nissan Motor Company, Ltd. Central Engineering Laboratories in Japan has an immediate 2-3 year contract available for a Material Scientist. The position requires an ability to develop methods for the growth of oxide thin films (super conductors, etc.) and wide band-gap semiconductors of silicon carbide and diamond. Participation in solid state physics, chemistry and ceramics is necessary for this research opportunity.

The ideal candidate should have a record of outstanding performance in physics or chemistry with emphasis on high vacuum processing and characterizing techniques. An MS or PhD in an allied field is preferred as well as a strong interest and clearance for overseas travel.

If becoming part of a dynamic company on the leading edge of automotive technology interests you, please forward a resume, in confidence, to: **Nissan Research & Development, Inc., P.O. Box 8036-DH, Plymouth, MI 48170-8036.** Equal Opportunity Employer.



RESEARCH CHEMIST/ MATERIALS SCIENTIST (at Edwards Air Force Base, CA)

The University of Dayton Research Institute has an immediate requirement for a Research Chemist/Materials Scientist at the U.S. Air Force Astronautics Laboratory at Edwards Air Force Base, California. Will assist principal investigator conducting basic research in the field of carbon fiber characterization, fiber surface modification, and composite manufacture. Studies involve surface characterization by chemical means and using scanning tunneling microscope as well as composite fabrication using CVD, sol-gel and pack cementation techniques.

Position requires a BS or MS degree in chemistry, materials science or a related discipline with 1-2 years of relevant work experience. Specific experience with induction heating desirable. U.S. CITIZENSHIP IS MANDATORY.

Send detailed resume with copy of college transcript(s) to:

Robert M. Artman
Personnel Administrator
University of Dayton
Research Institute
Dayton, Ohio 45469-0105

An Equal Opportunity Employer/Affirmative Action Employer.

UES

Universal Energy Systems, Inc. (UES), a rapidly growing high tech R&D company in Dayton, Ohio, is seeking a tribologist with a minimum MS degree (PhD acceptable) in mechanical engineering. The position requires a minimum of five years tribology experience related to characterization of physical properties (viscosity, density, film thickness, fraction, fatigue resistance etc.) of high temperature liquid and solid lubricants, evaluation techniques for bearings and gears and materials for wear in high temperature applications. Knowledge of mechanical systems in gas turbine engines and machine design is a plus. The candidate must have excellent oral and written communication skills and the ability to lead a small group in a multidisciplinary team environment.

Salary will be commensurate with qualifications and experience. UES offers excellent compensations and a comprehensive benefit package. No-smoking environment.

Send resume if you are a U.S. Citizen/Permanent resident to:

Ms. Marty Barker
Universal Energy Systems, Inc.
Materials Research Division
4401 Dayton-Xenia Division
Dayton, OH 45432

Advertising Contact: Mary E. Kaufold, MRS BULLETIN, Materials Research Society, 9800 McKnight Road, Pittsburgh, PA 15237; telephone (412) 367-3036; fax (412) 367-4373.

**DIRECTOR OF ACCELERATOR
LABORATORY**

**Institute for Materials Research
McMaster University**

Applications and nominations are sought for the position of Director of the McMaster Accelerator Laboratory.

This laboratory has a well-equipped FN (11.5 MV terminal) tandem accelerator, a KN-4000 Van de Graaf and a 150-kV ion implanter with associated beam lines, goniometer facilities, etc. for a wide range of accelerator-based research studies in solid state, atomic and molecular physics and in materials science and engineering. It is associated with McMaster's Institute for Materials Research which supports a comprehensive program of interdisciplinary materials research.

We are seeking a senior scientist or engineer with an active, internationally recognized research program utilizing accelerator-based techniques in one or more of the above areas of science and engineering.

The Director of the Accelerator Laboratory will be expected to hold a senior faculty position in an appropriate department within either the Faculty of Science or the Faculty of Engineering. The Director will oversee a broad program of accelerator-based research and will be responsible for coordinating proposals for funding support of the accelerator. With the imminent retirement of the present director, the successful candidate will have a unique opportunity to expand the accelerator-based research program into new areas of interest.

The appointment is to be filled as soon as possible with a starting date no later than July 1, 1991.

Nominations and applications, together with a detailed curriculum vitae and the names of three referees, should be sent to:

Dr. R.F. Childs
Vice President (Research)
Gilmour Hall-113
McMaster University
Hamilton, Ontario, Canada
L8S 4L8

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

**SENIOR
RESEARCH
TECHNICIAN**

**Lawrence Berkeley Laboratory (LBL)
University of California (UC)**

LBL is a national research facility funded by the U.S. Department of Energy and managed by UC. A technician is needed to maintain the JEOL JEM-ARM 1000 atomic resolution microscope. Position requires electron microscope technician training or experience. Salary range is \$10.87-\$18.42/hour with an excellent UC benefits package.

To apply, send resume to LBL, Job #A/5956, #1 Cyclotron Road, M.S. 90/1042, Berkeley, CA 94720. EEO/AA.



**LAWRENCE
BERKELEY
LABORATORY**

**ASSISTANT PROFESSOR
University of Minnesota**

Department of Chemical Engineering and Materials Science, University of Minnesota, seeks PhD with strong background in materials science and engineering to fill a tenure-track, assistant professor position. Candidates should have a distinguished academic record, outstanding potential for establishing an independent research program, and a commitment to both undergraduate and graduate instruction in materials science. Individuals with research interests in ceramics, physical metallurgy, or related fields are especially encouraged to apply. Send application with resume list of three references by **September 30, 1990** to Prof. Henry S. White, 151 Amundson Hall, University of Minnesota, 421 Washington Avenue SE, Minneapolis, MN 55455. The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities.

**DEPARTMENT HEAD
Metallurgical Engineering and
Materials Science
Carnegie Mellon University
Pittsburgh, PA**

Applications and nominations are now being accepted for this position. Candidates must have a commitment to education, a distinguished record of research and a willingness to deal with managerial issues. We seek a leader of vision with a broad view of materials science and engineering who can coordinate and strengthen programs in metallurgy, ceramics, electronic and magnetic materials. Applications should be sent to:

Prof. W.W. Mullins
Department of Metallurgical
Engineering and Materials Science
Carnegie Mellon University
Pittsburgh, PA 15213-3890

**STAFF PHYSICIST
Florida State University**

Applications are invited for a position to be filled as soon as possible in the Department of Physics. The duties of the person filling this position are the utilization of MBE facilities for thin film growth and characterization of metallic, alloy and modulated structure thin films. Experience in ultrahigh vacuum techniques is essential and experience with thin film growth and analysis (including MBE technology) is desired. This position is a state university system position. Please send resume and names of three references to Dr. Jack Crow, Director, Martech, Florida State University, Tallahassee, FL 32306.

RESEARCH ASSOCIATE

Research Associate to be involved in the growth of III-V materials by Atomic Layer Epitaxy (ALE) and laser-assisted MOCVD. PhD in EE or related field with experience in material characterization such as photoluminescence, DLTS, SEM and transient response in the picosecond range. Experience in fabrication and characterization of optoelectronic and microwave devices is also required. Salary \$26,000/yr. 40 hours/wk. Contact the Job Service office at 700 Wade Avenue, Raleigh, NC 27611 or the Job Service office nearest you. Refer to Job Order number NC 7295617.