

NEW AND NOTEWORTHY JOURNALS

Call for papers!

JOURNAL OF MATERIALS SYNTHESIS AND PROCESSING

Co-Editors: Z. A. Munir and J. B. Holt

Journal of Materials Synthesis and Processing, to be published quarterly as of January 1993, is an international forum for peer-reviewed original papers and review articles on all aspects of high temperature synthesis and processing of materials, including ceramic, intermetallic, and composite materials.

Papers are now being accepted for the first issue of *Materials Synthesis and Processing*.

All inquiries should be directed to: Z. A. Munir, Division of Materials Science and Engineering, University of California, Davis, CA 95616-5294.

New!

JOURNAL OF SCIENCE EDUCATION AND TECHNOLOGY

Editor-in-Chief: Karen C. Cohen

Journal of Science Education and Technology begins publication in March 1992 as an interdisciplinary forum for original peer-reviewed articles aimed at improving science education at all levels in the United States. This new quarterly covers learning processes related to the acquisition and understanding of biology, chemistry, physics, mathematics, computer science, and engineering; the latest computer video, audio, and print technology; and legislative, implementation, administrative, and teacher enhancement issues.

JOURNAL OF SUPERCONDUCTIVITY

Co-Editors: Donald U. Gubser, Vladimir Kresin, and Stuart A. Wolf

This international journal features the latest research in the science and technology of superconductivity, with articles on new materials, new mechanisms, new phenomena, and basic and technological properties of superconductivity, as well as both small- and large-scale applications.

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Positions Available

POSTDOCTORAL RESEARCH ASSOCIATE

We are starting a new multidisciplinary project titled Advanced Materials for Photonic, Lasers, and Electro-optics with openings for several Postdoctoral Research Associates. Individuals with backgrounds in the physics and chemistry of optical materials, materials science, and optical engineering are needed for this project. The work will involve the growth and preparation of optical materials, their characterization and their application. The thrust areas are nonlinear and photorefractive materials; sol-gel materials; and II-VI and III-V semiconductors. The initial appointment will be for twelve (12) months and may be renewed annually. Application should be made to: Prof. Joel J. Martin, Department of Physics, Oklahoma State University, Stillwater, OK 74078 before May 15, 1992.

OSU is an affirmative action/equal opportunity employer.

PROJECT SPECIALIST/ TECHNICIAN POSITION

Laboratory for Surface Studies at the University of Wisconsin-Milwaukee

The Laboratory for Surface Studies is seeking applications for the position of Project Specialist/Technician. Skills required include a hands-on knowledge of vacuum technology including machining, welding, UHV equipment designing and building, and electronic equipment maintenance. The position involves interaction with faculty, postdocs, and students in the Laboratory for Surface Studies. LSS offers competitive compensation and a comprehensive benefits program. Send resume including job experience and names, addresses and phone numbers of three references to:

Prof. C.R. Aita,
Chair, Hiring Committee
Materials Department
University of Wisconsin-Milwaukee
P.O. Box 784
Milwaukee, WI 53201

Candidate screening will begin immediately and continue through April 30, 1992. For additional information, contact Prof. Aita at (414) 229-4733 (phone) or (414) 229-6958 (fax).

UW-Milwaukee is an Affirmative Action/Equal Opportunity employer.

POSTDOCTORAL RESEARCH ASSOCIATE

Thin Film Surface Physics

The Thin Film Physics group at the University of Illinois, Urbana-Champaign, investigates the growth mechanisms of group IV semiconductors using *in-situ* spectroscopies. Materials under study include hydrogenated amorphous silicon and silicon-carbon alloys, microcrystalline silicon, and low temperature epitaxial silicon. We seek a Postdoctoral Research Associate with expertise in one or more of the following areas: real time optical probes (spectroscopic ellipsometry, reflection infra-red absorption), mass spectroscopy (appearance potential, modulated beam), plasma-surface interactions (plasma probes, ion sources), growth simulations (TRIM, MD, plasma), and opto-electronic analyses of thin film semiconductors. Send a resume, publication list, copies of two significant publications, and the names of three references to: Prof. John R. Abelson, 1-109 Coordinated Science Laboratory, 1101 W. Springfield Ave., Urbana, IL 61801. Starting date is flexible, and two-year commitment is preferred.

Positions Available

DIREKTOR/DIREKTORIN
Institut für Ionenstrahlphysik
und Materialforschung

Das FORSCHUNGSZENTRUM ROSSENDORF wird aufgrund der Empfehlungen des Wissenschaftsrates als Institut der Blauen Liste zum 1. Januar 1992 gegründet. Rossendorf ist ein traditioneller Forschungsstandort östlich der Landeshauptstadt Dresden.

Das Forschungszentrum hat mit etwa 500 Mitarbeitern die Aufgabe, Grundlagen und anwendungsorientierte Forschung auf den Gebieten Kernphysik, Materialforschung insbesondere mit Ionenstrahlen, Sicherheitsforschung, Radiochemie und bioanorganische Chemie in enger Zusammenarbeit mit Hochschulen und anderen Instituten durchzuführen.

Wir suchen für das neugegründete INSTITUT für IONENSTRAHLPHYSIK und MATERIALFORSCHUNG einen Wissenschaftler oder eine Wissenschaftlerin als Direktor/Direktorin (C4).

Ein Arbeitsbereich des Institutes umfaßt überwiegend anwendungsorientierte Grundlagenforschung auf den Gebieten Ionenstrahlbeeinflussung von Materialien in Oberflächennähe. Das betrifft in erster Linie die Modifizierung von Halbleitern, Metallen, Keramiken aber auch die gezielte Veränderung organischer Materialien. Techniken sind die Ionenimplantation, das Ionenstrahlmischen und die Ionenstrahlgestützte Abscheidung. Ionenstrahltechniken werden zur Erzeugung von Festkörperstrukturen für die Mikrosystemtechnik, insbesondere von Sensoren eingesetzt. Eine theoretische Gruppe soll an physikalischen Modellen zur Computersimulation der Ion-Festkörperwechselwirkung sowie der Wirkung nachfolgender thermischer Prozesse arbeiten.

Ein weiterer Arbeitsbereich des Institutes umfaßt Grundlagenuntersuchungen und anwendungsorientierte Grundlagenforschung auf den Gebieten Ion - Festkörper - Wechselwirkungen, insbesondere die Wechselwirkung hochgeladener Ionen mit Festkörperoberflächen sowie die Weiterentwicklung der Analytik mit hochgeladenen und schweren Ionen.

Zu dem Institut gehören die Ionenbeschleuniger (2 MV Van-de-Graaff, 5 MV Tandem, 4 Implanter) und ein Labor für Halbleiterpräparation. Eine wichtige Aufgabe besteht in der Anpassung der Beschleunigertechnik an die wechselnden Aufgaben des Institutes.

Gesucht wird ein/e Wissenschaftler/in mit nachgewiesener Erfahrung in der Ionenstrahlphysik und/oder in der Ionenstrahlanalytik, der/die auch das Gebiet der elektrostatischen Beschleuniger überschaut und angemessener Qualifikation. Verlangt werden die Fähigkeit zur Leitung einer größeren wissenschaftlichen Gruppierung, die sowohl experimentell als auch theoretisch arbeitet, Erfahrungen in der akademischen Lehre und die Bereitschaft zur Kooperation mit anderen Forschungseinrichtungen und Universitäten im In- und Ausland.

Es ist vorgesehen, den/die Direktor/in gleichzeitig auf einen entsprechenden Lehrstuhl der Technischen Universität Dresden zu berufen. Dabei sind in der akademischen Ausbildung die Gebiete Wechselwirkung von Ionen mit Festkörpern sowie Anwendungen von Ionenstrahlverfahren in der Oberflächenphysik und Dünnschicht-technik oder der Einsatz von Ionenstrahltechniken in der Fertigung von Halbleiterbauelementen zu vertreten. Habilitation oder gleichwertige wissenschaftliche Leistungen werden vorausgesetzt.

Die Auswahl der Kandidaten/innen wird durch eine vom Gründungskomitee des Forschungszentrums Rossendorf gebildete Berufungskommission vorgenommen. Bewerbungen mit Lebenslauf, Zeugnissen, Veröffentlichungsliste und einer kurzen Darstellung der bisherigen wissenschaftlichen Tätigkeit richten Sie bitte bis zum **27 April 1992** an den Wissenschaftlichen Direktor des Forschungszentrums Rossendorf, Herrn Prof. Dr. Wolf Häfele, Postfach 19, O-8051 DRESDEN, Germany.

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If you are interested, please submit your resume to:

Jacqueline J. Fraser, Manager, Human Resources,
Siemens Solar Industries

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THIN FILM MATERIALS

University of California, Berkeley Department of Materials Science & Mineral Engineering

The University of California at Berkeley, Department of Materials Science & Mineral Engineering, invites applicants for a tenure-track position in thin film materials with expertise in the control of microstructure during thin film synthesis and processing. Preference will be given to an appointment at the assistant professor level, although appointment at a tenured level will be considered for an exceptionally qualified and experienced candidate.

The successful candidate will be responsible for teaching undergraduate and graduate courses in the Department, and must show potential for high quality research. A doctoral degree in an appropriate field is required. The position is available in the Spring Semester of 1993.

Interested persons should apply (include resume, statement of interest, copies of publications, names and addresses of references) by **July 1, 1992** to:

Prof. Ronald Gronsky, Chairman
Department of Materials Science
& Mineral Engineering
210 Hearst Memorial Mining Building
University of California
Berkeley, CA 94720
Phone: (510) 642-3801

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Positions Available

CHAIR

**Department of Materials Science and Engineering
University of Alabama at Birmingham**

Applications and nominations are invited for the position of Chair of the UAB Department of Materials Science and Engineering. UAB is one of three autonomous institutions in the University of Alabama System. The department consists of eight full-time faculty members, approximately 20 junior-senior undergraduates, and 25 doctoral degree candidates. The faculty currently direct sponsored research programs in excess of \$1M/year. The department offers BS, MS, and PhD degree programs in materials engineering. A PhD degree in materials science is also offered in collaboration with other universities in the University of Alabama System. The Chair will be expected to serve as the UAB Campus Director of the Materials Science PhD program.

Candidates for the position should have an earned doctorate in materials science, materials engineering, or a related field, and have a record of successful teaching and scholarship. The candidate should demonstrate the leadership qualities necessary to enhance the current growth and quality of the program, and provide interactions with related disciplines. The department is seeking the appropriate leadership to help it continue to advance toward its goal of national recognition as a leader in materials research and education. Position available to all qualified U.S. citizens and resident aliens. Applications should include a resume that contains a description of current research, and a list of future research goals. Applications and nominations will be accepted until the position is filled. Please respond to:

Dr. Martin McCutcheon
Chairman, Materials Science and Engineering Search Committee
Department of Biomedical Engineering
University of Alabama at Birmingham
UAB Station
Birmingham, Alabama 35294
Telephone: 205-934-8420

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**FACULTY POSITION
IN MATERIALS CHARACTERIZATION
University of North Texas**

Center for Materials Characterization at the University of North Texas has a tenure-track position at the assistant professor level, starting in August 1992, the fall semester. Applicants should have a doctorate in materials science or a related discipline, with an emphasis in metallurgy. Applicants should be qualified to teach undergraduate and graduate courses in materials science, develop independent and cooperative research programs. Research areas of special interest include high temperature behavior of metals, failure analysis, microstructural development, innovative semiconductors, and high resolution electron microscopy. Applicants should submit a complete resume including a summary of past and proposed research, a list of publications and three letters of recommendation.

Contact: David Golden, Chair Search Committee, Center for Materials Characterization, University of North Texas, P.O. Box 5308, Denton, TX 76203. Applications will be accepted until position is filled.

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公募について**

科学技術庁と理化学研究所とは、連携して我が国の基礎研究を強力に推進するため、平成5年度の基礎科学特別研究員を募集します。斬新な研究課題を自主的に遂行できる若い在外の我が国研究者の応募を期待します。

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8. その他/本件は関係予算の成立を前提としており、その事情により変更があり得ますので、その旨御承知おき下さい。

**FACULTY POSITION IN SURFACE
TECHNOLOGY**

**Swiss Federal Institute of
Technology Zurich (ETHZ)**

Responsibilities include the teaching of undergraduate and graduate courses in science and technology of surfaces and interfaces. Research will focus on the creation and modification of specifically functionalized surfaces, the tribological functions being of particular interest. The new professor is further expected to build up and supervise the operation of a service laboratory for surface analysis.

Candidates must hold a university degree and have accomplished outstanding research work in the above-mentioned area, and they should be interested in interdisciplinary cooperation.

Please apply with a curriculum vitae, a record of projects and a list of publications, by **June 15, 1992**, to the President of ETHZ, Prof. Dr. J. Nüesch, ETH Zentrum, CH-8092 Zurich. The ETHZ specifically encourages women to apply with a view towards increasing the proportion of female professors.

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