Positions Available

YALE UNIVERSITY

The Department of Mechanical Engineering at Yale University announces two openings for postdoctoral research associates and several graduate research assistantships in the area of the mechanical behavior of metals and alloys. The graduate assistantships offer a stipend and full tuition benefits. Specific program areas include characterization of polycrystalline microstructures using automated backscattered Kikuchi diffraction techniques, microstructural representation theory, fracture toughness in intermetallic compounds, dynamic and microstructural aspects of brittle fracture, intergranular embrittlement and creep damage in polycrystals, and texture and microtexture development during thermomechanical processing. A strong background in applied mathematics is desirable. Postdoctoral candidates should arrange for three letters of recommendation.

Applicants should send a letter of interest and request information from:

Professor Brent L. Adams
Department of Mechanical Engineering
Yale University
P.O. Box 2157 Yale Station
New Haven, CT 06520

Yale University is an Affirmative Action/ Equal Opportunity Employer.

POSTDOCTORAL POSITION
Materials Research
California Institute of Technology

A post-doctoral position is immediately available for a qualified individual to join an interdisciplinary effort in the growth and structural characterization of nanometer-scale clusters of III-V compound semiconductor materials for optoelectronic device applications. Candidates should be experienced in structural analysis by transmission electron microscopy and X-ray diffraction. Experience in the growth of III-V compounds by organometallic chemical vapor deposition is also highly desirable. Please send resume, publication list and reference list to: Professor Harry A. Atwater, Applied Physics, M.S. 128-95, Caltech, Pasadena, CA 91125.

FACULTY POSITION
Department of Chemical Engineering
Worcester Polytechnic Institute

The Chemical Engineering Department at Worcester Polytechnic Institute has a full-time tenure track position open at the rank of Assistant Professor. Applicants must have an earned PhD in chemical engineering (or some closely related field), be prepared to teach graduate and undergraduate chemical engineering courses and to develop an active research program. The specific research area of interest to the department is advanced materials which in some way complements the current strengths in the department of zeolite synthesis, catalysis, composite materials, and membrane technology. Interested individuals should submit a resume listing professional experience, publications, summary of research and teaching interests and at least three references to:

Professor R.W. Thompson
Department of Chemical Engineering
Worcester Polytechnic Institute
Worcester, MA 01609

WPI is an Equal Opportunity Affirmative Action Employer.

FACULTY POSITION
MECHANICAL ENGINEERING

The Department of Mechanical Engineering at YALE UNIVERSITY is seeking a faculty member at the level of tenured associate or full professor in the area of "Microstructure and Mechanical Properties of Polycrystalline Materials." The department is interested in work that combines experiment and theory and contributes to the understanding of mechanical behavior of polycrystals at microstructural as well as continuum levels. The faculty member is expected to develop and teach both undergraduate and graduate courses, to advise graduate students and to create a strong sponsored research program. Candidates should send a letter of interest with a detailed resume plus reprints or preprints of recent work before **December 15, 1990** to:

Chairman
Yale University
Department of Mechanical Engineering
P.O. Box 1968 Yale Station
New Haven, CT 06520-1968

Yale University is an equal opportunity/ affirmative action employer.

FACULTY OPENINGS
Materials Engineering
Purdue University

The School of Material Engineering has tenure track faculty openings. Rank of the positions are open and will be consistent with candidates' background and experience. Candidates must have a PhD in some area of Material Science and Engineering. Successful candidates will be expected to conduct effective teaching at undergraduate and graduate levels. A strong interest in both teaching and research is vital. Several opportunities exist to interact and collaborate with various materials programs on campus and to utilize central facilities. Areas of expertise are open with possible special consideration given to aspects of electro-ceramics, polymers, and materials processing.

All applications received by **February 1991** are assured full consideration but the search will continue until the positions are filled. Starting dates will be after July 1991.

Resume and the names and addresses of three references should be sent to:

Professor G.L. Liedl, Head
School of Materials Engineering
MSEE Building
Purdue University
West Lafayette, IN 47907

Purdue University is an Equal Opportunity/ Affirmative Action Employer.

FACULTY POSITION
Materials Science
Columbia University

The Metallurgy and Materials Science Division of the Henry Krumb School of Mines at Columbia University announces the availability of a tenure track faculty position for an experimentalist in the field of electronic materials. Applicants should have a doctorate in materials or solid state science or a related engineering field as well as postdoctoral research experience in fields related to electronic materials.

Interested persons should send a complete resume, including the names and addresses of at least three persons who could supply letters of reference, to Professor Daniel N. Beshers, Chairman, Search Committee, 1105 Mudd Building, Columbia University, New York, NY 10027. Phone (212)-854-2918. Applications will be received until the position is filled.

Columbia University is an Equal Opportunity Affirmative Action Employer and Welcomes Applications from Qualified Minorities and Women.

https://doi.org/10.1557/S0883769400058528 Published online by Cambridge University Press

Positions Available

DEPARTMENT HEAD
Department of Materials Science and Engineering
University of Cincinnati

The College of Engineering at the University of Cincinnati seeks applications and nominations for the position of Head of the Department of Materials Science and Engineering. This rapidly growing Department has 150 undergraduates in a 5 year cooperative study program and 60 graduate students and 14 faculty pursuing wide-ranging research on fundamental and applied topics in metals, polymers, and ceramics. The Department offers a BS degree program in Materials Engineering with options in metals, polymers, and ceramics as well as MS and PhD programs in Materials Science and Metallurgical Engineering. Candidates for the position should hold a doctorate in Materials Science or Engineering or a related field and have a nationally recognized reputation for leadership, teaching, and research. The Department Head is expected to provide leadership and guidance to the faculty to further develop the academic and research programs within the Department, and to act as liaison with industry and state and national agencies. This is an outstanding opportunity to work in and lead an active and exciting department. The selection process will begin December 1, 1990 and continue until the position is filled. Applications or nominations should be sent to Dr. George Simitses, Chair, Materials Science and Engineering Headship Search Committee, Mail Location 70, University of Cincinnati, Cincinnati, Ohio 45221-0070. Telephone: (513) 556-7069. FAX: (513) 556-5038.

The University of Cincinnati is an Equal Opportunity, Affirmative Action Employer.

CATALYSIS/STRUCTURAL CHEMIST
Brookhaven National Laboratory

The Chemistry Department at Brookhaven National Laboratory has a career opening within its research program devoted to Structure and Reactivity in Catalysis. Both junior and senior candidates with research interests in the area of catalysis and an orientation toward structural chemistry will be considered. Salary and terms of appointment will depend upon the experience of the successful candidate. The normal career objective of independent researchers in the Chemistry Department is a tenured appointment.

Major facilities in Catalysis/Structural Chemistry include the National Synchrotron Light Source (with an operational tunable wavelength x-ray beamline, and a surface science station currently under construction), and the High Flux Beam Reactor. An up-to-date x-ray diffraction laboratory, featuring two single-crystal diffractometers, and excellent departmental computing resources are available as well.

Applications should be sent as soon as possible to:
The Search Committee Chair
Chemistry Department
Brookhaven National Laboratory
Associated Universities, Inc.
Upton, L.I., New York 11973

TENURE-TRACK FACULTY POSITION
EXPERIMENTAL OPTICS
California State University, Northridge
Department of Physics and Astronomy

The Department of Physics and Astronomy at California State University, Northridge, expects a tenure-track faculty position in experimental optical studies of solids to be available at the assistant professor rank beginning Fall 1991. Candidates will be expected to interact actively with existing experimental and theoretical programs such as surface science, semiconductor heterostructures, modulation spectroscopy, and studies of electronic structures. Preference will be given to experimentalists in the areas of light scattering and advanced optical spectroscopy who have an interest and commitment to improve and expand some of our upper division laboratory courses. Candidates must have a PhD degree in physics or related field, a strong commitment to teaching, effective communication skills, and the ability to teach both undergraduate and graduate course; they are also expected to carry out research activities involving participation by undergraduate and graduate students at CSUN, and to have the potential for obtaining outside funding. It is anticipated that reduced first-year teaching assignments and start-up equipment funds can be provided by the Department. In addition, small grants for research or instructional improvement are normally made available by the University on a competitive basis. Release time from teaching is also normally provided by the University to faculty members who carry out research with substantial outside support. The campus is located in the San Fernando Valley of Los Angeles, close to other universities and major research centers. Send resume and three letters of recommendation by **January 15, 1991** to: Search and Screen Committee, Department of Physics and Astronomy, California State University, Northridge, CA 91330. Please make reference to Position #91-12.

CSUN is an Equal Opportunity, Affirmative Action, Title IX, Section 504 Employer. Applications from women and members of underrepresented minority groups are particularly encouraged.

Foster-Miller is one of the most innovative technology development companies in the U.S. We're currently seeking qualified candidates for the following position in our Boston area office.

SENIOR SCIENTIST

Due to the expansion in our polymer composites technology division, Foster-Miller is seeking a talented Senior Scientist to join our team of cutting edge research and development professionals. You will provide new materials concepts, direct R&D programs for material development and applications, generate new business in non-linear optical materials and maintain contacts with government and industry organizations.

Qualified candidates should have a Ph.D. in chemistry, materials science and/or proven research experience in structure/property relationships of electronically and optically active polymers. A strong synthetic polymer materials chemistry background with demonstrated report-writing and presentation skills is required. Experience in a contract R&D environment preferred.

If you are looking for an exciting research and development position in the area of advanced polymers and composites for high technology, please forward your resume to **Dina Miller, Foster-Miller, Inc., Technology Developers, 350 Second Ave., Waltham, MA, 02154-1196.** An Equal Opportunity/Affirmative Action Employer M/F/H/V.

FOSTER-MILLER, INC.

https://doi.org/10.1557/S0883769400058528 Published online by Cambridge University Press

Positions Available

SUPERVISORY METALLURGIST

$59.2 - $76.9K

We're the Metallurgy Division at the National Institute of Standards and Technology, an agency of the Department of Commerce and formerly the National Bureau of Standards. Join our ranks and you'll work side by side with some of the most competent and knowledgeable professionals in the industry.

From our Gaithersburg office, you'll head a research group comprised of six permanent researchers (all with PhDs), several visiting researchers, students and a support staff. As group leader, you will actively participate in the research and development of advanced nondestructive evaluation sensors and predictive models for metallurgical process control.

The qualified candidate will have proven leadership and research expertise plus knowledge of materials science and engineering, specifically metallurgical processing and sensing; process sensing/modeling program planning and research skills; and the ability to direct the fiscal management of the Group and interact with users and funding agencies. Additionally, applicants must meet education and experience requirements as stated in OPM Handbook X-118.

To apply, submit an application for Federal Employment (SF-171) or resume and copies of transcripts to: Rosemary Hormuth (NIST/DH-90-1126/RH), Rm. A-123, Administration Building, National Institute of Standards and Technology, Gaithersburg, MD 20899. NIST is an Equal Opportunity/Affirmative Action Employer. U.S. citizenship is required.

NIST **United States Department of Commerce**
National Institute of Standards and Technology

CVD MATERIALS RESEARCH

BANDGAP TECHNOLOGY CORPORATION, a producer of ultrapure CVD chemicals and III-V epitaxial semiconductor materials, has two positions open in the CVD materials research group. This group is working to develop CVD precursors for next-generation silicon ULSI technology.

Research Scientist

This scientist will carry out basic research in the deposition of thin film nitrides and metallization alloys. The position requires a PhD in Materials Science, Chemistry, or Physics with a strong research background in CVD of thin film materials. Familiarity with VLSI technology is highly desirable.

Research Associate

This associate will be responsible for running and maintaining CVD reactors and coordinating analysis of thin film samples in the metallization research program. A degree in Materials Science or a related field is required (MS or BS plus equivalent experience). Some experience in areas related to CVD or vacuum technology is necessary.

Send resume with publication list and salary history to: **Bandgap Technology Corporation, Human Resources-CVD, 325 Interlocken Parkway, Broomfield, CO 80021.**
Equal Opportunity Employer.

BANDGAP
Technology Corporation

MATERIALS SCIENCE AND ENGINEERING
Washington State University

Academic year, tenure-track faculty position available for August 1991 at the assistant professor level. PhD in materials science or a closely related academic area is required. Special consideration will be given to candidates with background and experience in one or more of the areas of: electronic materials, ceramic materials, kinetics, processing and physical properties of materials. Duties include developing and conducting externally funded research, publish in refereed journals and present papers at meetings and symposia, teaching graduate and undergraduate courses, and supervising and advising graduate and undergraduate students. The department offers BS, MS and PhD degrees. Letters of application, resumes, and names of four references should be sent to: Chair, Search Committee (MSE), Department of Mechanical and Materials Engineering, Washington State University, Pullman, WA 99164-2920. The closing date is December 15, 1990 or until the position is filled.

WSU is an EO/AA educator and employer. Protected group members are encouraged to apply.

SENIOR FACULTY POSITION
Experimental Condensed Matter Physics: Superconductivity
Kent State University

KSU invites applications for an appointment at the level of associate or full professor in experimental condensed matter physics. The successful candidate will have a strong record of significant research and the ability to act as leader of a research program in superconductivity; including the recruitment and selection of new faculty. A desire and aptitude for teaching graduate and undergraduate students is essential.

Areas of current strength include liquid crystal physics, critical phenomena, low temperature physics, non-linear optics, computational physics, and medium energy nuclear physics.

Salary is open and commensurate with qualifications. It is understood that substantial institutional support for equipping labs will be provided.

Applicants should send a resume and the names and addresses of references to: Prof. D.L. Johnson, Department of Physics, Kent State University, Kent, OH 44242.

Kent State University is an affirmative action/equal opportunity employer.

https://doi.org/10.1557/S0883769400058528 Published online by Cambridge University Press

KOBE DEVELOPMENT CORPORATION

SATISFY YOUR RESEARCH AMBITIONS IN THE 90'S

KOBE DEVELOPMENT CORPORATION, a subsidiary of Kobe Steel, Ltd. of Japan, is expanding its R & D strategy, in advanced technologies, into the 90's and beyond, with a newly created R & D Center in Palo Alto, CA..

Situated nearby Stanford University, and in conjunction with their Material Science and Engineering Departments, Kobe Development is creating innovative technology using state-of-the-art equipment in the electronics, semiconductor, computer systems, and peripheral equipment industries.

These newly created positions focus on recording media and systems for the data storage technology.

R & D RESEARCHER – MAGNETIC THIN FILM
REF # TF1

The goal is to initially focus on research through experimentation and testing and lead the development of an advanced recording media and data storage capabilities.
Responsibilities would include to evaluate the sputtering deposition, structural and magnetic-optical characterizations and optimization of the entire sputtering process, along with assessing the utilization of related thin films.

A MS with a PhD preferred, in Material Science or Physics, with a minimum of 3 years direct experience in a magnetic thin film , vacuum technology environment.

R & D RESEARCHER – MAGNETIC RECORDING
REF # MR1

The goal is to initially focus on research by certifiying magnetic recording media, the analysis and optimization of media properties and media/head interfaces for high density magnetic recording, with the subsequent development of advanced high density magnetic recording devices.

A MS with PhD preferred in Electronics Engineering or Physics, with a minimum of 3 years direct experience in a magnetic recording technology or comparable data storage environment with analyzing and designing electrical equipment.

PROCESS R & D ENGINEER
REF # PE1

Responsible for the operation and maintenance of our R & D facility equipment with emphasis on sputtering equipment and magnetometer.

Supports the design, installation and operation of various equipment used in advancing the data storage technology, including their maintenance and that of other test equipment.

Requires a BS or EE with MS/ME preferred with a minimum of 2 years direct experience in a vacuum equipment operation environment.

Forward or FAX your resume, with salary history, to our affiliate company, Kobe Precision, Inc. for immediate consideration with the reference # indicated. Expand your research ambitions with unique opportunities found at Kobe Development, a company of tradition and success.

KOBE PRECISION, INC.
31031 HUNTWOOD AVE.
HAYWARD, CA 94544
FAX# : 415-487-9550
EOE

https://doi.org/10.1557/S0883769400058528 Published online by Cambridge University Press

Positions Available

FACULTY MEMBER
Engineering Materials
University of Maryland

Applications are invited for a new tenure track faculty position in polymer science in the Engineering Materials Program.

Applicants should have a PhD and a strong interest in fundamental or applied research in Polymer Science and Engineering as well as in teaching. The successful candidate will be a member of a growing Materials Science and Engineering Program and a new College-wide Polymer Initiative. The position is at the junior faculty level and the candidate should have an interest in experimental research and some experience beyond the doctoral degree. Rank and salary will depend upon qualifications. Letters of application containing a complete curriculum vitae, a brief summary of research interest and goals, and the names of three references will be welcomed by Dr. Isabel Lloyd, Chairman Search Committee, Engineering Materials Program, Materials and Nuclear Engineering, University of Maryland, College Park, MD 20742-2155.

Applications will be accepted until the position is filled. The University of Maryland is an Equal Opportunity Employer, Affirmative Action Employer, and welcomes applications from qualified minorities and women.

BIOCHEMICAL ENGINEER

Solar research institute in Golden, Colorado seeks Staff Biochemical Engineer to design, conduct, and analyze bench and pilot-plant experiments and computer-based mathematical models to identify and resolve critical engineering issues in biochemical conversions, such as analyzing the biochemical conversion of lignocellulosic biomass to ethanol, using fermentation and enzyme technology and gene cloning and expression. Conduct experimental and analytical evaluations of alternative renewable fuel production processes to determine research issues and recommend new program initiatives. Requires PhD in chemical engineering and one year of experience in both computer-based mathematical modeling and experimentation and data analysis in areas of fermentation and enzyme technology and gene cloning and expression. (Experience may be gained through employment or in educational program.) $50,000/year; 8:00 a.m. - 5:00 p.m., M-F. Please respond by resume to Colorado Department of Labor & Employment, Division of Employment & Training, 600 Grant Street, Denver, CO 80203, ATT: James Shimada, and refer to Job Order No. CO3194027.

FACULTY POSITION
Materials Science & Engineering
The Johns Hopkins University

The Department of Materials Science and Engineering at The Johns Hopkins University is seeking applicants to fill a tenure-track position. The applicants selected will be expected to teach at both the undergraduate and graduate levels, as well as to develop innovative and imaginative research programs. Genuine commitment to excellence in teaching and supervision of graduate student research is cardinal. Areas of research activities in the department are: materials characterization (nondestructive evaluation methodology); polymers, ceramics and composites; corrosion and electrochemistry; mechanical and physical properties of thin films; fracture of solids; and conservation science. The Johns Hopkins University is an equal opportunity, affirmative action employer. Candidates should submit a resume which includes their professional achievements as well as the names, addresses and telephone numbers of at least three references. Applicants for positions other than Assistant Professor, should have a demonstrated record of extensive research support. Applications should be submitted no later than **January 1, 1991** to: Professor Moshe Rosen, Chairman, Department of Materials Science and Engineering, The Johns Hopkins University, Baltimore, Maryland 21218.

FUTURE MRS FALL MEETINGS

1991	December 2 - 7 Boston, Massachusetts
1992	November 30 - December 5 Boston, Massachusetts
1993	November 29 - December 4 Boston, Massachusetts
1994	November 28 - December 3 Boston, Massachusetts
1995	November 27 - December 2 Boston, Massachusetts

Ad Closings for the 1991 MRS BULLETIN

Ad Closing	Issue
December 3, 1990	January
January 2, 1991	February
February 1, 1991	March
March 1, 1991	April
April 1, 1991	May
May 1, 1991	June
June 3, 1991	July
July 1, 1991	August
August 1, 1991	September
September 3, 1991	October
October 1, 1991	November
November 1, 1991	December

For information about 1991 display ad and classified ad rates, call Mary E. Kaufold at (412) 367-3036; FAX (412) 367-4373. Ask for the 1991 rate card and editorial schedule.