

The following recently published books and journals, relevant to materials science, have come to the *MRS Bulletin's* attention. Some of the books listed here may be reviewed in future issues of the *MRS Bulletin*.

Books

Composites: An Insider's Technical Guide to Corporate America's Activities, 2nd ed. Turner Moss, New York, 1994. Paperback, 434 pp, \$149.00, ISBN 0-9623228-5-7.

Continuous Casting of Steel, W.R. Irving, Institute of Materials, London, 1993. Hardcover, 207 pp, \$90.00, ISBN 0-901716-53-7.

Conversion of Polymer Wastes & Energetics, H.H. Krause and J.M.L. Penninger, eds. Chem-Tech Publishing, Toronto-Scarborough, 1994. Hardcover, 134 pp, \$78.00, ISBN 1-895198-06-2.

Corrosion and Related Aspects of Materials for Potable Water Supplies, P. McIntyre and A.D. Mercer, eds. Institute of Materials, London, 1993. Hardcover, 282 pp, \$160.00, ISBN 0-901716-47-2.

Effects of Explosions on Materials: Modification and Synthesis Under High-Pressure Shock Compression, S.S. Batsanov. Springer-Verlag, New York, Berlin, 1994. Hardcover, 194 pp, \$98.00, ISBN 0-387-94123-1.

Engineering Materials Technology: Structure, Processing, Properties & Selection, 2nd ed., J.A. Jacobs and T.F. Kilduff. Prentice Hall, Englewood Cliffs, New Jersey, 1994. Hardcover, 634 pp, ISBN 0-13-278284-7.

Ferromagnetic Materials: Structure and Properties, R.A. McCurrie. Academic Press, London, San Diego, 1994. Hardcover, 297 pp, \$45.00, ISBN 0-12-482495-1.

Fractal Surfaces, J.C. Russ. Plenum Press, New York, 1994. Hardcover, 309 pp, \$55.00, ISBN 0-306-44702-9. Includes diskette.

High Temperature Component Life Assessment, G.A. Webster and R.A. Ainsworth. Chapman & Hall, London, New York, 1994. Hardcover, 327 pp, £69.00, ISBN 0-412-58520-0.

Introduction to the Electronic Properties of Materials, D. Jiles. Chapman & Hall, London, New York, 1994. Paperback, 372 pp, £22.50, ISBN 0-412-49590-2.

Materials Science and Engineering Handbook, 2nd ed., J.F. Shackelford, W. Alexander, and J.S. Park, eds. CRC Press, Boca Raton, 1994. Hardcover, 1,532 pp, \$99.95, ISBN 0-8493-4250-3.

Microanalysis of Solids, B.G. Yacobi, D.B. Holt, and L.L. Kazmerski, eds. Plenum Press, New York, 1994. Hardcover, 460 pp, \$95.00, ISBN 0-306-44433-X.

Microscopy of Oxidation 2, *Proc. 2nd Intl. Conf. on Microscopy of Oxidation, Cambridge, March 1993*, S.B. Newcomb and M.J. Bennett, eds. Institute of Materials, London, 1993. Hardcover, 593 pp, \$170.00, ISBN 0-901716-50-2.

Modifications of Passive Films, *Proc. European Symposium on Modifications of Passive Films, Paris, February 1993*, P. Marcus, B. Baroux, and M. Keddam, eds. Institute of Materials, London, 1994. Paperback, 343 pp, ISBN 0-901716-52-9.

Nanoceramics, R. Freer, ed. Institute of Materials, London, 1993. Hardcover, 211 pp, \$115.00, ISBN 0-901716-41-3.

Optical Materials, R.M. Wood. Institute of Materials, London, 1993. Hardcover, 131 pp, \$50.00, ISBN 0-901716-44-8.

Physics of New Materials, F.E. Fujita, ed. Springer-Verlag, New York, Berlin, 1994. Hardcover, 304 pp, \$79.00, ISBN 0-387-56851-4.

Polymer Surfaces: From Physics to Technology, F. Garbassi, M. Morra, and E. Occhiello, eds. Wiley & Sons, Chichester, United Kingdom, New York, 1994. Hardcover, 462 pp, \$89.95, ISBN 0-471-93817-3.

Powder Metallurgy Science, 2nd ed., R.M. German. Metal Powder Industries Federation, Princeton, New Jersey, 1994. Hardcover, 472 pp, \$60.00, ISBN 1-878954-42-3.

Quenching and Carburising, *Proc. 3rd Intl. Seminar of the Intl. Federation for Heat Treatment, Melbourne, 1991*. Institute of Materials, London, 1993. Hardcover, 309 pp, \$130.00, ISBN 0-901716-51-0.

Real Structure of High-T_c Superconductors, V.S. Shekhtman, ed. Springer-Verlag, New York, Berlin, 1993. Hardcover, 189 pp, \$89.00, ISBN 0-387-56559-0.

Reversible Crystal Plasticity, V.S. Boyko, R.I. Garber, and A.M. Kossevich. American Institute of Physics, New York, 1994. Hardcover, 294 pp, \$85.00, ISBN 0-88318-869-4.

Semiconductor Growth, Surfaces and Interfaces, G.J. Davies and R.H. Williams, eds. Chapman & Hall, London, New York, 1994. Hardcover, 158 pp, £30.00, ISBN 0-412-57730-5.

Semiconductor-Laser Physics, W.W. Chow, S.W. Koch, and M. Sargent III. Springer-Verlag, New York, Berlin, 1994. Hardcover, 497 pp, \$49.95, ISBN 0-387-57614-2.

Structure and Properties of Polymeric Materials, D.W. Clegg and A.A. Collyer. Institute of Materials, London, 1993. Hardcover, 296 pp, \$70.00, ISBN 0-901716-39-1.

Surface Analysis by Electron Spectroscopy, G.C. Smith. Plenum Press, New York, 1994. Hardcover, 160 pp, \$49.50, ISBN 0-306-44806-8.

Surface and Colloid Chemistry in Advanced Ceramics Processing, R.J. Pugh and L. Bergström, eds. Marcel Dekker, New York, 1994. Hardcover, 363 pp, \$145.00, ISBN 0-8247-9098-7.

Theory of CMOS Digital Circuits and Circuit Failures, M. Shoji. Princeton Univ. Press, Princeton, New Jersey, 1994. Hardcover, 596 pp, \$79.50, ISBN 0-6910-8763-6.

Vacuum Methods in Electron Microscopy, W.C. Bigelow. Portland Press, London, 1994. Hardcover, 492 pp, \$175.00, ISBN 1-85578-053-4.

VLSI for Neural Networks and Artificial Intelligence, J.G. Delgado-Frias and W.R. Moore, eds. Plenum Press, New York, 1994. Hardcover, 320 pp, \$85.00, ISBN 0-306-44722-3. □

Positions Wanted

The following advertisements are from MRS members seeking employment in materials research and development.

PROSPECTIVE EMPLOYERS—
To correspond confidentially with the applicant,
REPLY TO THE APPROPRIATE
BOX NUMBER, AS FOLLOWS:

Box _____, No. _____,
c/o MRS Bulletin
Materials Research Society
9800 McKnight Road
Pittsburgh, PA 15237-6006

MS in electrical engineering (with background in materials science) seeks position in the semiconductor industry. Expertise in CVD, rapid thermal processing of electronic materials; process development and simulation (SUPREM III/IV); RTP/CVD equipment design and development. Industrial experience in VLSI design; very good computer hardware/software skills. **Employers—Please reply to Box XIX, 802.**

Polymer Chemist/Engineer, PhD, Postdoctoral. Seeking a position in plastics manufacturing. Experienced in synthesis of high-performance thermoplastics and thermosets; fabrication of composites, foams, fibers, adhesives; prototype design; pilot plant scale-up; analytical, thermal, mechanical testing. **Employers—Please reply to Box XIX, 801.**

PhD in materials science and engineering (1994) seeks industrial/academic position. Extensive experience in processing (sputtering, evaporation, diffusion bonding), microstructural analysis (TEM, SEM, XPS, AES, XRD, AFM) and mechanical testing (fiber pushout, four-point bending, nanoindentation, tribology) of metal/ceramic composites, thin films, biomaterials, and alloys. Seven first-author journal publications. Ten plus first-author proceedings papers and presentations. **Employers—Please reply to Box XIX, 804.**

PhD seeks industrial/academic research position. Three years postdoctoral research experience. Substantial experience with pulsed laser ablation of HTSC, plasma CVD of dielectric films, post processing using focused ion beam and ion implantation, UHV techniques, computer automation in manufacturing and control, and computer simulation of growth using parallel computers. **Employers—Please reply to Box XIX, 805.**

Process Chemist. Experience in technical support and R&D of manufacturing processes for 15 years: MLC package fabrication, slip formulation for tape casting and spray drying, powder evaluation, thick and thin film metallization, instrumental analysis, electrochemistry, furnacing, computer skills. BS *cum laude* in chemistry. Consulting and interim projects considered. **Employers—Please reply to Box XIX, 803.**

Positions Available

**DIRECTOR OF MICROSCOPY FACILITY
Cornell University Materials Science Center**

The Cornell Materials Science Center, supported by the National Science Foundation, is seeking applicants for a position as director of its Microscopy Facility. The director would be responsible for overseeing the operation of facility equipment in support of approximately 50 research groups. Major equipment includes three TEMs, two SEMs, an electron microprobe, and apparatus for specimen preparation. A PhD in materials science or physics is required. A strong background in the use and maintenance of TEMs is required. Applicants should be interested in working closely with graduate students to teach them the effective use of advanced instruments and techniques. Opportunities will exist to conduct research and co-author proposals for research projects and facility equipment. The starting salary will be commensurate with applicant's experience. Applicants without extensive administrative experience should not be discouraged in applying. Letters of applications and resume, including the names of three references, should be addressed to Professor Stephen L. Sass. Consideration of applications will begin **August 1, 1994** and continue until the post is filled. For further information contact either of the following people:

Prof. Stephen L. Sass, Cornell University, Department of Materials Science & Engineering, Bard Hall, Ithaca, New York 14853, (607) 255-5239, e-mail: sass@msc.cornell.edu
Noel Desch, Cornell University, Materials Science Center, 627 Clark Hall, Ithaca, New York 14853, (607) 255-4274, e-mail: noel@msc.cornell.edu

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**FACULTY POSITION
Department of Mechanical
Engineering Stanford University**

The Thermosciences Division of the Department of Mechanical Engineering seeks applicants for a tenure-track appointment at the level of assistant professor. Applicants must have demonstrated promise of excellence in teaching and research. Candidate specializations include plasma science, materials processing, combustion, propulsion, optical science, and other areas compatible with thermosciences programs.

Send resume and names of three references to Prof. Reginald E. Mitchell, Department of Mechanical Engineering, Stanford University, Stanford, CA 94305-3032.

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**RESEARCH PROFESSOR
POSITIONS**

Two research professor positions are currently available at the University of Missouri-Rolla, Graduate Center for Materials Research. A **research assistant professor position** is available to perform research on nanoscale electrodeposited ceramic superlattices. The ideal candidate will have postdoctoral experience in electrochemistry, scanning probe microscopy, x-ray diffraction, or surface crystallography. Work will involve a study of epitaxial growth in these layered materials by potential-step transient analysis, x-ray diffraction, and STM. A **research associate professor position** is available to perform research on plasma assisted chemical vapor deposition of metal inorganic compounds, silicon carbide composites, and polymer thin films. The ideal candidate should have postdoctoral experience in plasma science and applications, x-ray diffraction, and a high degree of experience in diverse analytical and characterization tools. Must have experience with scale-up and design of lab-scale chemical processes. Applicants must possess a PhD in materials science or chemistry. Excellent written and verbal communication skills are a must.

Application deadline: **August 31, 1994**. Send resume and names and telephone numbers of three references to:

Director
Graduate Center for Materials Research
University of Missouri-Rolla, MO 65401

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**POSTDOCTORAL POSITIONS
Magnetic Materials for
Information Technology
The University of Alabama**

The Center for Materials for Information Technology at the University of Alabama has a continuing need for postdoctoral fellows to participate in an expanding multidisciplinary research program focusing on magnetic materials for flexible media and heads. Support is provided by the university, industrial sponsors, and federal agencies. Fifteen faculty from six academic programs including chemistry, chemical engineering, electrical engineering, materials science, metallurgical engineering, and physics participate in a wide range of experimental and theoretical research areas. Selected postdoctoral candidates will be requested to have extensive research experience in a related discipline, strong oral and written communication skills, and leadership qualities.

Applicants should send a curriculum vitae, a brief statement of research interests, and the names of three references to:

Prof. William D. Doyle, Director
Center for Materials for Information
Technology,
University of Alabama
Box 870209
Tuscaloosa, AL 35487-0209

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FACULTY SEARCH
Materials Science
Materials Engineering

The MIT Department of Materials Science and Engineering has searches in progress for tenure track Assistant Professors. Faculty members are sought with demonstrated potential, creativity and teaching ability in an aspect of the field of materials science and engineering. These positions are potentially open for persons specializing in any of the materials classes (metals, ceramics, polymers or electronic materials), or more broadly in materials science or materials engineering. Doctorate required and experience desirable. Salaries and benefits are competitive. Positions will be filled only if exceptional candidates are found. Appointment to a more senior position is possible based on experience and accomplishments.

Interested persons should send a complete resume including a list of publications and names and addresses of three persons who could supply letters of reference. This material should be sent to: *Professor Merton C. Flemings, Head, Department of Materials Science and Engineering, Massachusetts Institute of Technology, Building 8-309, 77 Massachusetts Avenue, Cambridge, MA 02139-4307.*

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