

NEW BOOKS

Magnetism, Magnetic Materials and Their Applications, Proceedings of the 3rd Latin American Workshop, Merida, Venezuela, 1995. World Scientific Publishing Co., Singapore, US\$86.00.

The proceedings contain 45 contributions dealing with magnetic materials, twelve of which contain information on rare-earth compounds and alloys. The topics covered include magnetocrystalline anisotropy in rare earth intermetallics, magnetic phase transitions, giant magnetoresistance, exchange interactions and others.

Basic Introduction to Bioelectromagnetics, Carl N. Durney and Douglas Christensen CRC Press, Boca Raton, FL, USA, 1999, 200 pp, US\$59.95.

The book discusses the basic concepts, fundamental principles and characteristic behaviours in electromagnetics. In six chapters the following issues are covered; Electric and magnetic fields: basic concepts, EM behaviour when the wavelength is large compared to the object, about the same size as the object and much smaller than the object, Dosimetry and Examples of medical applications of electromagnetic fields.

Electromagnetic Analysis and Design in Magnetic Resonance Imaging, Jianming Jin CRC Press, Boca Raton, FL, USA, 1999, 304 pp, US\$79.95.

This book offers a comprehensive treatment of electromagnetic analysis and design of three critical devices for an MRI system, namely the magnet, gradient coils and RF coils. It also describes the analysis and characterisation of the interactions of electromagnetic fields and biological subjects.

Chemical Separation Technologies and Related Methods of Nuclear Waste Management, Gregory R. Choppin and Mikhail Kh. Khan-khasayev (Eds.) NATO Science Partnership Sub-series: 2: Environmental Security 53 Kluwer Academic Publishers, Dordrecht, The Netherlands 1999, 320 pp, hardcover, US\$150.00.

These Proceedings of the NATO Advanced Study Institute, Dubna, Russia, May 18–28, 1998 cover in five chapters the subjects of the past, present and future nuclear separation methods and technologies, Technology needs for nuclear waste processing, Nuclear wastes and environment and Risk assessment and safety issues. The major emphasis of the book is on research opportunities in the utilisation of innovative and potentially more efficient and cost-effective processes for waste processing.

Permanent-Magnet Materials and Their Applications, K.H.J. Buschow Trans Tech Publications Ltd., Uetikon-Zürich, Switzerland, 1998, 82 pp, US\$48.00.

This book presents a review of the history, production and uses of permanent magnets. In eight sections properties and applications of rare-earth magnets, hard ferrites, Alnicos, sintered and bonded magnets are covered.

Magnetism, Magnetic Materials and Their Applications, Proceedings of the 4th Latin American Workshop on Magnetism, Magnetic Materials and their Applications, Sao Paulo, Brazil, June 1998. Materials Science Forum 302–303 (1999). Trans Tech Publications Ltd., Brandrain 6, CH-8707 Uetikon-Zurich, Switzerland (www.ttp.net), US\$174.00 (soft cover), 499 pp.

The proceedings contain 85 contributions to the workshop and the topics covered include superconducting oxides, giant and colossal magnetoresistance, hard magnets, magnetic fluids, magneto-optics and others.