

NEW BOOKS

Computational Fluid Dynamics and Heat/Mass Transfer Modelling in the Metallurgical Industry, S.A. Argyropoulos and F. Mucciardi (Editors). Canadian Institute of Mining, Metallurgy and Petroleum, Montreal, Canada, 1996, 445 pages, \$100.00.

In this publication, the main focus is on the use of CFD and heat/mass transfer analyses for metallurgical systems. The latest computational algorithms and software packages developed are presented, highlighting metallurgical applications.

Column Flotation 96, C.O. Gomez (Editor). Canadian Institute of Mining, Metallurgy and Petroleum, Canada, 1996, 398 pages, \$145.00.

Proceedings of a conference covering current status and future trends of column flotation technology. Topics covered: Fundamentals (hydrodynamics and modelling), Bubble generation, Testing, Industrial practice (sulphide and non-sulphide minerals), Instrumentation and control, Non-mineral applications.

Magnetic Hysteresis in Novel Magnetic Materials, G.C. Hadjipanayis (Editor). Kluwer Academic Publishers, Dordrecht, The Netherlands, 1997, 916 pages, US\$410.00.

A detailed presentation of the physics of the various hysteresis models that are currently used to explain the magnetisation reversal process. Among other things, temperature, field and angular dependence of coercivity, magnetic interactions and magnetic phenomena are reviewed and their effect on magnetic hysteresis is discussed. Present and future applications of novel materials are presented, including magnetic

circuit design and novel structures created from high-energy permanent magnets.

Mineral Processing and Environment, S. Castro and F. Concha (Editors). University of Concepcion, Chile, 1995, 382 pages.

Proceedings of the IV Meeting of the Southern Hemisphere on Mineral Technology held in Concepcion, Chile, November 20–23, 1994. The volume covers the continuing improvements in grinding, classification, rheology of suspensions, ore characterisation, concentration and environment in mining industry.

Clean Technology for the Mining Industry, M.A. Sanchez, F. Vergara and S.H. Castro (Editors). University of Concepcion, Chile, 1996, 550 pages.

Proceedings of the III International Conference on Clean Technologies for the Mining Industry, held in Santiago, Chile, May 15–17, 1996. The volume covers recent advances on clean technology applied to the mining industry, including subjects such as environmental and economic factors in process design, effluent treatment, waste disposal and rehabilitation of tailings dams, new cleaner separation technologies and process control.

Magnetic Measuring Techniques, E. Steingroever and G. Ross. Magnet-Physik Dr. Steingroever GmbH, Cologne, Germany, 1997, 94 pages.

This publication reviews, in ten chapters, various magnetic measurement techniques. The chapters are as follows: Introduction, The Fluxmeter, Magnetic values measured with the fluxmeter, Hall probe field strength meters, Measurement of the hysteresis curve of hard magnetic materials, Magnet tester for automatic serial measurements, Automatic calibration of permanent magnets, Measurement of the hysteresis curves of soft magnetic materials, Calibration of magnetic measuring devices.

Magnetization, Demagnetization and Calibration of Permanent Magnet Systems, E. Steingroever and G. Ross.

Rare-Earth Iron Permanent Magnets, J.M.D. Coey (Editor). Oxford University Press, 1996, 522 pages, US\$135.00.

The book covers the state of current knowledge of permanent magnet materials that utilise iron as the major component. In eleven chapters, the book takes a reader from basic concepts of magnetism through the measurement techniques, intrinsic magnetic properties, phase relations and structure, to industrial applications of permanent magnets.