

## New Books

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### **I.S. GRANT AND W.R. PHILLIPS: ELECTROMAGNETISM**

A textbook suitable for physics undergraduates, especially for a general course on electromagnetism.

John Wiley & Sons, 1990, 552 pp, US\$34.40 (paperback), US\$91.90 (hardcover).

### **C. CHRISTOPOULOS: AN INTRODUCTION TO APPLIED ELECTROMAGNETISM**

Designed and written as a first course in electromagnetism. The author places emphasis on the grasp of physical processes, the development of models for these processes and their use in the study of engineering problems.

John Wiley & Sons, 1990, 196 pp, US\$30.95.

### **W.T. RUHMER: HANDBOOK ON THE ESTIMATION OF METALLURGICAL PROCESS COSTS**

The second edition of this handbook, extensively expanded and updated. A series of rapid methods are described for estimating the initial capital and operating costs of major unit operations and processes in metallurgical plants. Up-to-date data are provided to produce quick estimates for new or modified processes or operations, and the handbook is an aid in the selection of process routes where several possibilities exist. The economic implications of the process decisions can be evaluated by the use of the rapid costing techniques described.

Mintek Special Publication No. 14, 1991, US\$160.00

### **G.J. LONG AND F. GRANDJEAN: SUPERMAGNETS, HARD MAGNETIC MATERIALS**

Kluwer Academic Publishers (Belgium), 1991

### GRAVITY SEPARATION

Minerals Engineering, Vol. 4, No. 3/4: A special issue on gravity-separation technology.

Editor-in-Chief: B.A. Wills.

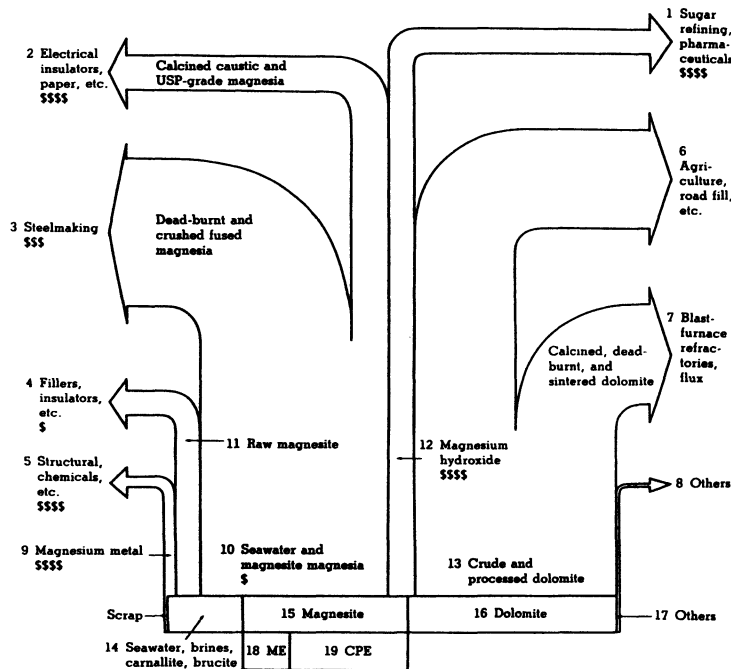
The issue contains the proceedings of an international symposium on gravity separation held at Camborne School of Mines, Cornwall, UK, on September 12-14, 1990.

Pergamon Press, 1991, 534 pp, DM98.00

### PROFITS FROM PROCESSING

The book highlights the potential that exists for the manufacture of added-value products from a wide spectrum of minerals and draws attention to the opportunities for industry to generate additional profits. Twenty seven important elements are examined as potential starting materials. Coloured charts, like the reduced version shown below illustrate the flowpath of each element from the raw material through the various processing steps to its end uses. The relative increase in value at each stage is shown, together with the magnitude of world production.

Mintek Special Publication No. 13 (1989), 65 pp. US\$100.00.



**INDUSTRIAL MINERALS DIRECTORY**

A world guide to producers and processors. Contact details for mine owners, operators, producers and processors of over naturally occurring and synthetic minerals are listed alphabetically by country. For each company, information is published giving company name, address, telephone/fax/telex numbers, description of minerals produced or processed, location of mines/agents/processing plants and a guide to major markets served. Metal Bulletin Books Ltd., 1991, US\$210.00.

**INDUSTRIAL MINERALS: GEOLOGY AND WORLD DEPOSITS**

The title contains information on more than 50 industrial rocks and minerals. It includes data on physical and chemical properties, industrial and economic uses, geographical locations of deposits and information on the origin of the rocks and minerals covered. Metal Bulletin Books Ltd., 1990, US\$82.00.

**INDUSTRIAL CLAYS**

This guide provides commercial information on those clay minerals most used in industry. Information on world production, mining companies, specifications and market influence on trade is included. Metal Bulletin Books, Ltd., 1989, US\$121.20.

**TRADING IN INDUSTRIAL MINERALS**

This is a new guide to the major factors and key players involved in minerals trading industry. The first section contains information on trading and marketing, through transportation, processing, quality control and countertrade. The second section contains a directory of the main trading companies involved in this industry. Metal Bulletin Books, Ltd., 1989, US\$78.00.

**MINERAL MARKETS IN THE NEXT DECADE**

A compilation of six papers presented by leading industry experts at Industrial Minerals' Open Forum held in November 1989. The papers examine future trends and possible scenarios within the specialised areas of industrial minerals. Metal Bulletin Books, Ltd., 1990, US\$91.50.

**PROCEEDINGS OF THE 9TH INDUSTRIAL MINERALS INTERNATIONAL CONGRESS**

Sydney, Australia, March 1990. This volume contains all the papers presented at the above meeting.

Metal Bulletin Books, Ltd., 1990, US\$132.00.

**T. KANEYOSHI: INTRODUCTION TO SURFACE MAGNETISM**

Designed as an introductory text to surface magnetism for physics and materials science students. General topics discussed include the physical characteristics of magnetically ordered systems, the structural aspects of surfaces, magnetic surfaces, the Weiss molecular field and other effective field theories, the scaling concept and scaling relations, ferro- and ferrimagnetism and spin waves.

CRC Press, Inc., London, 1990, 176 pp, £62.00.

**M.N.O. SADIKU: NUMERICAL TECHNIQUES IN ELECTROMAGNETICS**

The book is intended to teach students how to pose, numerically analyze, and solve electromagnetic problems. Topics covered include fundamental concepts in electromagnetism, numerical methods, finite difference methods, variational methods and Monte Carlo methods. The text is suitable for teaching or self-study by undergraduates, graduate students and practising engineers.

CRC Press, Inc., London, 1991, 650 pp, £50.00.

**S.A. NASAR AND C.R. PAUL: ESSENTIAL ENGINEERING EQUATIONS**

This book provides methods for solving general equations of four most common types of equations encountered in engineering (linear simultaneous algebraic equations, ordinary differential equations, partial differential equations and difference equations). The book is suitable for engineering students and professional engineers.

CRC Press, Inc., London, 1990, 175 pp, £15.50.