

ENGINEERING

ENVIRONMENTAL SYSTEMS ENGINEERING

LINVIL G. RICH, Clemson University. *McGraw-Hill Series in Water Resources and Environmental Engineering*. 1973, 405 pages (tent.), \$16.50 (tent.)

In this quantitative introduction to the subject, Professor Rich uses a systems approach, in which the focus is on the system as a whole and how its components interact. Although water environment is considered in greatest detail, also included are air pollution and its control, solid waste management and radiological health. The mathematics of systems analysis and computer solutions is used extensively.

THERMODYNAMICS, Second Edition

JACK P. HOLMAN, Southern Methodist University. 1974, 608 pages (tent.), \$14.50 (tent.). *Solutions Manual*. Six audio-tutorial cassette tapes with an accompanying student workbook, \$50.00 (tent.)

All standard thermodynamics topics can be covered from either the classical or statistical viewpoint or from any desired integration of the two with this book. This revision includes a sixty per cent expansion of classical thermodynamics and applications, and many new examples and problems worked in both fps and SI units have been added.

MOMENTUM, HEAT AND MASS TRANSFER, Second Edition

C. O. BENNETT, University of Connecticut, Storrs and J. E. MYERS, University of California, Santa Barbara. 1974, 604 pages (tent.), \$16.50 (tent.). *Solutions Manual*

Combining a rigorous approach to fundamentals with an extended treatment of practical problems, this revision treats principles of transport phenomena as applied to simple geometries and then extends the discussion to analyze practical areas such as flow in pipes and equipment, filtration, heat exchangers and evaporators, gas absorption, liquid-liquid extraction and distillation.

THE INTERPRETATION AND USE OF RATE DATA

STUART W. CHURCHILL, University of Pennsylvania. 1974, 512 pages (tent.), \$17.50 (tent.)

Here is a completely new treatment of rate processes in which a generalized structure is used, greatly simplifying and reducing the number of concepts needed to study bulk transfer, momentum transfer, heat transfer and chemical relations. Emphasis is on the relationship between design and uncertainties in measurement, and these concepts are reinforced with over 300 problems based on raw experimental data from the literature.

SOLIDIFICATION PROCESSING

MERTON C. FLEMINGS, Massachusetts Institute of Technology. 1974, 580 pages (tent.), \$19.50 (tent.)

Here is the only significant book in the field in ten years. Building on the foundations of heat flow, mass transport and interface kinetics, the author presents the fundamentals and relates them to practice. Among the processes considered are crystal growing, shape casting, ingot casting, growth of composites and splat cooling.

INTRODUCTION TO METALLURGICAL THERMODYNAMICS

DAVID R. GASKELL, University of Pennsylvania. 1973, 550 pages, \$19.50

Treating in depth the thermodynamics of high temperature systems encountered in metallurgy, this book demonstrates the thermodynamic method through an extensive illustration program, using as examples real systems which have been carefully selected to illustrate the principles involved. The text introduces basic laws and necessary thermodynamic functions and makes applications that are numerous and thoughtful.

McGraw-Hill Book Company

MEANS McGRAW-HILL

MASS TRANSFER

THOMAS K. SHERWOOD, ROBERT L. PIGFORD, CHARLES R. WILKE, all of the University of California at Berkeley. 1974, 512 pages (tent.), \$18.50 (tent.)

Compared with the 1952 version, *Absorption and Extraction*, this volume is substantially more sophisticated, providing a much broader coverage of mass transfer. Emphasis is on the practical aspects and real problems that demand an understanding of theory. Yet theoretical derivations are minimized by explicit citation of over 1100 contemporary references.

SCIENTIFIC STREAM POLLUTION ANALYSIS

NELSON LEONARD NEMEROW, Syracuse University. 1974, 380 pages (tent.), \$16.50 (tent.)

A careful balance of the hydrological, chemical and mathematical concepts involved in the evaluation of stream quality is achieved in this comprehensive description of the analysis of water pollution. Practice problems are presented to demonstrate the difficulties surrounding stream analysis, and computation techniques for deoxygenation and reaeration rates are described and analyzed, as are all factors affecting oxygen concentration to give and overall oxygen sag curve in a stream.

AIR POLLUTION

H. C. PERKINS, University of Arizona. 1974, 480 pages (tent.), \$16.50 (tent.). *Solutions Manual*

To date, this is the only truly engineering-oriented text on the subject that draws on the student's background in analyzing and solving problems in air pollution. The treatment is sufficiently detailed to enable chemical, mechanical and sanitary engineering students to solve a variety of problems, and many applications-type problems are included.

ENVIRONMENTAL PROTECTION

EMIL T. Chanlett, University of North Carolina at Chapel Hill. 1973, 569 pages, \$15.50

ENVIRONMENTAL PROTECTION is man-centered. This book describes the rationale for the management and protection of our land, air, water and energy resources, and examines the consequences of mismanagement at three levels: 1) effects on health, 2) effects on comfort, convenience, efficiency and esthetics and 3) effects on the balance of ecosystems and of renewable resources.

CONSERVATION OF MASS AND ENERGY

JOHN C. WHITWELL and RICHARD K. TONER, both of Princeton University. 1973, 512 pages, \$14.95. *Solutions Manual*

Unique in chemical engineering literature is this treatment of degrees of freedom for material and energy balances. Either chemical or physical processing elements are handled in a unified manner. The authors have included the first law of thermodynamics, unsteady state mass and energy balances and all physical chemistry required. The modular organization of the material offers the instructor a wide choice for his particular syllabus.

EXPERIMENTAL METHODS FOR ENGINEERS, Second Edition

JACK P. HOLMAN, Southern Methodist University. 1971, 448 pages, \$14.50. *Solutions Manual*

A broad treatment of instrumentation and analysis of experimental data is offered in this revision, which contains more information on experiment planning and the importance of feedback during experiments, emphasizing the analysis of uncertainties in planning experiments and instrumentation. A variety of numerical examples, problems and methods are included.

Prices subject to change without notice.

1221 Avenue of the Americas, New York, N.Y. 10020

