

BOOKS

Dictionary of Rubber, K. F. Heinisch, Halsted Press, New York (1974), 545 pages. \$43.50.

Dr. Heinisch, who is associated with the Malaysian Rubber Bureau in Vienna, has over a period of many years compiled his own lexicon of terms, concepts, and trade names. These were originally (1966) condensed and published in German as *Kautschuk-Lexicon* by A. W. Gentner, Stuttgart. In this English translation the author states in his introduction that some new material has been added to bring the work up to date but that no attempt was made to alter the method of presentation or the technical approach.

This book contains practically every word or phrase associated with rubber technology. Common trade names are included for both U. S. and European products and even some products no longer commercially available. Included in Dr. Heinisch's definitions where appropriate are also references to ASTM, DIN, and ISO standards. Of particular value to the occasional user is a 10-page listing of 443 producers and marketing organizations, which is numbered and referenced to the trade names in the dictionary.

The book is remarkably error-free, the only major error detected being the author's misspelling of *Celogen* in his main heading. It, interestingly, is spelled correctly in his explanatory text. The sole criticism of this reviewer is the author's use of an obsolete classification system, that of the 1943 War Production Board of the U.S.A., for carbon blacks. In view of the update, translation, and publication of this book for the American market, the ASTM D1765 nomenclature currently in use in this country should have been included in this reference work.

This is a very comprehensive work covering over 4,000 entries and well cross-referenced. It should be very useful not only to those working in the field of rubber technology but also to those, like plastics engineers, who have occasional contact with this field.

ROBERT L. BERGEN, JR.
UNIROYAL, INC.

Physical Properties of Inorganic Compounds by A. L. Horvath, Edward Arnold (Publishers) Ltd., 1975, Price: 22.50 Pounds.

In the July, 1973 issue of the Journal, we reviewed two volumes by Robert Gallant that presented physical and thermodynamic data for hydrocarbons and related materials. The volume by A. L. Horvath compliments these by a broad coverage of common inorganic compounds. Halogens, halogen acids, CO, CO₂, SO₂, H₂O, NH₃, N₂H₄, . . . are included for a grand total of 31 substances. For each, a literature survey is presented and point values of many common properties tabulated. In addition, plots are given (in most cases) to show the effect of temperature on vapor pressure, density (gas and liquid), enthalpy of vaporization, heat capacity (gas, liquid, and solid), viscosity and thermal conductivity (gas and liquid), surface tension, and the solubility in water.

The book is advertised to be in S.I. units, and N/m² is consistently employed—but °C, not K are used! A random check of the values listed indicated the book was not free of errors. ΔG_f° for N₂O appears low by an order of magnitude; the viscosity scale for liquid hydrogen is incorrect, the normal boiling point of SF₆ does not agree with the vapor pressure curve, etc.

On the whole, the book is expensive, but it is a definitive source book which will find wide application. For use in machine estimation systems, it will be necessary to convert the plots into equation form.

ROBERT C. REID
DEPT. OF CHEMICAL ENGINEERING
MASSACHUSETTS INSTITUTE OF
TECHNOLOGY
CAMBRIDGE, MASSACHUSETTS 02139

Chromatographic Methods, R. Stock and C. F. B. Rice, Halsted Press, New York (1974). 383 Pages. \$15.75 (cloth). \$8.95 (paper).

Chromatographic Methods is an introductory text to the entire field of chromatography which will be valued by both the novice and expert. In a smoothly flowing narrative, the authors develop the history, theory, and lab-

oratory techniques of liquid, paper, gas, and thin layer chromatography. The abundant references cited (more than 400) and the bibliography of more than 50 titles will make this a universally accepted text for classroom and industry.

Chemical engineers engaged in laboratory work in chromatography will be most interested since this is a veritable do-it-yourself book. The authors describe lab techniques with profuse illustrations, give helpful hints on which methods to try when separating unknowns, and discuss the types of equipment available. All fields of chromatography are treated impartially, and tedium is often avoided by the injection here and there of dry British wit.

CLEM A. BARRERE, JR.
CONTINENTAL OIL COMPANY

ERRATA

In "Multicomponent Mass Transfer in Turbulent Flow" by Warren E. Stewart [19, 398 (1973)], Equation (20), $[k_x]$ should read $[k_x]$. With this change, the solution for the fluxes N_{j0} is direct, as stated.

In "Optimal Temperature Policy for Reversible Reactions with Deactivation: Applied to Enzyme Reactors," by W. R. Haas, L. L. Tavlarides, W. J. Wnek [20, 707 (1974)] the following corrections should be made:

On page 710, the fourth line before Equation (27) should read . . . min⁻¹ and 15,500 cal/g mol, . . .

On page 711, the second line should read, . . . to be $k_{-10} = 7.9 \times 10^5$ min⁻¹ and . . .

On page 711, the second line following Equation (28) should read

$$\kappa_0 = 2 \times 10^{17} \text{ min}^{-1}$$