

Related to Chemistry. Names in Science includes the usual biographical material but in addition contains interesting contributions by the respective authors, which are not found in the usual sources. Scientific Societies and Research Institutes are described from an historical viewpoint and only the better known are included. Topics Related to Chemistry are so diverse that the reader cannot fail to be impressed and stimulated. A few illustrations will serve to indicate the breadth of sampling: antibiotics, brewing, bacteriology, detergents, fluidation, lakes, latex, mixing, oil resistance, plastics, refining, steels, seeds, toxicology, trade marks, wastes, water conditioning, waterproofing, wood, writing inks, yeast. Some items of applied chemistry are not listed as topics but appear in paragraphs within a topic.

How can one evaluate a book of this type? This reviewer is impressed by the coverage, the relative freedom from typographical errors and errors in fact. As mentioned above, this book is not a treatise. The specialist will not find a complete description of his own field. However, he will find great interest in the other topics which are related to his specialty and which focus on chemistry in general. For the scientist, there is a great fund of information the reading of which must give rise to new ideas and awaken new relationships.

The book is eminently worthwhile.

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Ion Exchangers in Organic and Biochemistry. By CALVIN CALMON, The Permutit Co., Birmingham, New Jersey, and T. R. E. KRESSMAN, The Permutit Co., Ltd., London, England, Editors. Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1957. xii + 761 pp. 16.5 × 23.5 cm. Price, \$15.00.

In recent years ion exchange has come to be recognized by chemists as a most valuable tool. This book describes how ion exchangers have been and are being used in the various areas of biological and organic chemistry.

For the most part, each of the 37 chapters is written by a different expert or group of experts. In the first 9 chapters the general theoretical and practical aspects of ion exchange are discussed. Topics such as equilibria, kinetics, commercial materials and techniques, ion exclusion and ion exchange membranes are included. Then follows 28 chapters dealing with specific applications of ion exchange to rather specialized fields. Among these are the following: separation of amino acids, peptides and carbohydrates; ion exchange properties of cells and tissues; ion exchange techniques in enzyme studies; sodium and potassium removal *in vivo*; applications to the pharmaceutical industry; plant physiology; use in treatment of milk, alcoholic beverages and fruit juices; ion exchangers as catalysts; ion exchangers in organic chemistry; and water treatment.

This book is well written and contains much valuable information. There are a large number of references to original literature. As is apt to happen in a book of this type, the organization at times becomes cumbersome. So many facts are presented that the reader may lose sight of the important general principles and techniques of ion exchange. Nevertheless, this book should be very useful to biological or organic chemists who may have occasion to use ion exchange procedures.

DEPARTMENT OF CHEMISTRY
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BOOKS RECEIVED

September 10, 1957–October 10, 1957

H. A. BARKER. "Bacterial Fermentations." CIBA Lectures in Microbial Biochemistry. John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1957. 95 pp. \$3.00.

H. EYRING, Editor, C. J. CHRISTENSEN, Associate Editor, and H. JOHNSTON, Associate Editor. "Annual Review of Physical Chemistry." Volume 8. Annual Reviews, Inc., Grant Avenue, Palo Alto, California. 1957. 527 pp. \$7.00 (U.S.A.), \$7.50 (elsewhere).

HARRY L. FISHER, "Chemistry of Natural and Synthetic Rubbers." Reinhold Publishing Corporation, 430 Park Avenue, New York 22, N. Y. 1957. 208 pp. \$6.50.

I. F. HENDERSON AND W. D. HENDERSON. "A Dictionary of Scientific Terms. Pronunciation, Derivation, and Definition of Terms in Biology, Botany, Zoology, Anatomy, Cytology, Genetics, Embryology, Physiology." Sixth Edition by J. H. KENNETH. D. Van Nostrand, Inc., 126 Alexander Street, Princeton, New Jersey. 1957. 532 pp. \$12.50.

THE INSTITUTION OF METALLURGISTS. "Behaviour of Metals at Elevated Temperatures." Lectures Delivered at the Institution of Metallurgists Refresher Course, 1956. Philosophical Library, Inc., 15 East 40th Street, New York 16, N. Y. 1957. 122 pp. \$6.00.

THE LATE MAX JACOB AND GEORGE A. HAWKINS. "Elements of Heat Transfer." Third Edition. John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1957. 317 pp. \$6.75.

GLENN L. JENKINS, WALTER H. HARTUNG, KENNETH E. HAMLIN, JR., AND JOHN B. DATA. "The Chemistry of Organic Medicinal Products." Fourth Edition. John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1957. 569 pp. \$10.75.

W. JOST, Edited by. "Fortschritte der Physikalischen Chemie." Band 2. "Ausgewählte Moderne Trennverfahren zur Reinigung Organischer Stoffe." By H. RÖCK. Verlag Dr. Dietrich Steinkopff, Holzhofallee 35, Darmstadt, Germany. 1957. 169 pp. DM 24.—

HANS LINSER AND OSWALD KIERMAYER. "Methoden zur Bestimmung pflanzlicher Wachstumsstoffe." Springer-Verlag, Mölkerbastei 5, Wien 1, Austria. 1957. 181 pp. \$7.85.

EUGEN MÜLLER, Editor. "Methoden der Organischen Chemie (Houben-Weyl)." Vierte, Völlig Neu Gestaltete Auflage. Unter Besonderer Mitwirkung von O. BAYER, H. MEERWEIN AND K. ZIEGLER. Band XI/1. "Stickstoffverbindungen II. Amine. 1. Herstellung." Bearbeitet von H. GLASER, F. MÖLLER, G. PIEPER, R. SCHRÖTER, G. SPIELBERGER AND H. SÖLL. Georg Thieme Verlag, (14 a) Stuttgart N, Herdweg 63, Germany. 1957. 1178 pp. \$49.50, Subscription price, \$44.55.

WARD PIGMAN, Edited by. "The Carbohydrates. Chemistry, Biochemistry, Physiology." Academic Press, Inc., 111 Fifth Avenue, New York 3, N. Y. 1957. 902 pp. \$20.00.

G.-M. SCHWAB, Edited by. "Handbuch der Katalyse." Fünfter Band. "Heterogene Katalyse II." Bearbeitet von J. BLOCK, P. BROVETTO, F. H. CONSTABLE, A. G. NASINI, G. NATTA, H. NOLLER, R. RIGAMONTI, G. SAINI AND G.-M. SCHWAB. Springer-Verlag, Mölkerbastei 5, Wien 1, Austria, 1957. 779 pp. \$43.80, ganzleinen, \$44.75.

JESSE T. SIMMONS. "The Physical and Thermodynamic Properties of Helium." Technical Report D-9027. Wm. R. Whittaker Co., Ltd., 915 North Citrus Avenue, Los Angeles 38, California. 1957. 79 pp. \$10.00.

CHEVES WALLING. "Free Radicals in Solution." John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1957. 631 pp. \$14.50.