



Books of the Week

For the editorial information of our readers, books received for review since last week's issue are listed. For convenient purchase of any U. S. book in print, send a remittance to cover retail price (postage will be paid) to Book Department, Science Service, 1719 N Street, N. W., Washington 6, D. C. Request free publications direct from publisher, not from Science Service.

POLYETHYLENE by Theodore O. J. Kresser. Covers this exciting new material in respect to its uses and why it is frequently preferable to other materials. Emphasizes a practical and selective method which features representative applications with a liberal use of illustrations. Includes recent advances in the field, and their future importance to industry. 1957, \$4.95

ORGANIC SYNTHESIS — In Two Volumes, by Varkes Migdichian. The most systematic, fully integrated, and up-to-date presentation of organic synthesis in all its aspects ever published! Great emphasis is put on the later advances, the "name" reactions, the olefins and acetylenic compounds, and many others. All standard methods are completely covered. This is a truly monumental work that stands unchallenged in the field. 2 Volumes, 1957, \$35.00 (Not sold separately)

ENCYCLOPEDIA OF CHEMISTRY edited by Clark and Hawley. The first complete, multi-author one-volume reference covering a broad spectrum of chemically important subjects. Over 800 articles, 500 contributors, and 1,000 pages of remarkably condensed, authoritative information on modern chemistry from abrasives through Zirconium. No other single volume offers so much to all workers in chemistry and in the dozen or more sciences that border on it. 1957, \$19.50

THE CONDENSED CHEMICAL DICTIONARY, New 5th Edition edited by Arthur and Elizabeth Rose. Over 30,000 revised, up-to-date entries; 1,220 double-column pages as compared with 760 pages in the previous edition; more than 6 years in preparation; enormously expanded trade name information obtained directly from producers; thumb-indexed for quick reference; larger, easier-to-read print. 1956, \$12.50

ORGANIC CHEMISTRY, New 3rd Edition by Louis F. and Mary Fieser. Now larger, more complete, thoroughly revised and brought up to date. Develops in orderly sequence the principles and concepts of modern organic chemistry and the applications of fundamental science to technology, biochemistry and medicine. Covers latest developments in theory and organic structures. 1956, \$10.00

CHEMISTRY OF PLANTS by Erston V. Miller. A clear, concise, up-to-date analysis of the chemical constituents of plants. Covers carbohydrates, proteins and other nitrogen compounds, pigments, enzymes, organic acids, hormones, glycosides, alkaloids, vitamins, elemental constituents, and other plant products. 1957, \$4.75

PLASTICS ENGINEERING HANDBOOK of The Society of the Plastics Industry, Inc. Contains exhaustive, well-arranged engineering information on the design, materials, processes, equipment, finishing, assembly, testing and standards of plastics and plastic products. Entirely rewritten, this new edition of the famous SPI Handbook is almost twice its former size. Suppliers of raw materials will find a complete set of accepted standards and specifications. Designers and engineers will find new testing methods fully described. Users of plastics will welcome the standards for testing, rating, certifying and labeling plastic commodities. 1954, \$15.00

GAS CHROMATOGRAPHY by A.I.M. Keulemans. The modern magic of gas chromatography is now for the first time completely spelled out in both its practical and theoretical aspects. Here is a concise practice manual and an authentic, up-to-the-minute summary of the field written by chemists who have been among the most active investigators of all varieties of chromatography. 1957, \$7.50

HANDBOOK OF FOOD & AGRICULTURE edited by F. C. Blanck. Over 1,000 pages of expert information on the newest applications of science to the food and agricultural fields! Covers: soils and plant growth; fertilizers; insecticides; growth regulators; essential nutrients; storage of raw products; food processing; preservation; packaging; quality control; waste disposal; and many other important topics. 1955, \$15.00

BIOLOGICAL TREATMENT OF SEWAGE AND INDUSTRIAL WASTES, Volume 1, edited by McCabe and Eckenfelder. Covering aerobic oxidation, this volume describes the principles of bio-oxidation, the theory of oxygen transfer, and the design and operation of typical sewage and industrial waste treatment processes. 1956, \$10.00

ENGINEERING USES OF RUBBER edited by A. P. McPherson and A. K. Klemm. Reveals why and how rubber is used in addition to what it is used for, and shows how this information can help solve special problems or develop new applications. Fully discusses products, synthetics, compounding, properties, specifications, inspection, structure, design, and applications. Inside or outside the industry, an indispensable book. 1956, \$12.50

AN A.B.C. OF AERONAUTICS—L. L. Beckford—*Pitman*, 114 p., illus., \$3.95. A dictionary of aeronautical terms from absolute ceiling to zoom. The meaning of the latter term, incidentally, is given as "To use the momentum of a dive or speed in level flight to attain altitude rapidly."

ANESTHESIA AND OTOLARYNGOLOGY—Donald F. Proctor—*Williams & Wilkins*, 267 p., illus., \$7.00. What the anesthetist needs to know about the problems of ear, nose and throat surgery.

AN APPROACH TO MODERN PHYSICS—E. N. da C. Andrade—*Doubleday*, 266 p., illus., paper, 95 cents. Intended primarily for readers with no extensive training in science or mathematics, this book sets forth the basic laws of nature and tells how they were reached.

THE ATLANTIC: A History of an Ocean—Leonard Outhwaite—*Coward-McCann*, 479 p., illus., \$6.50. The Atlantic is the chief drainage basin of all the major continents. Its story tells of how man first learned to travel on the seas and the effect the ocean has had on how men think and feel.

ATOMIC ENERGY COMMISSION TWENTY-SECOND SEMI-ANNUAL REPORT—Lewis L. Strauss, Chairman—*Govt. Printing Office*, 257 p., illus., paper, 75 cents. During the first six months of 1957, steady progress was made in promoting the free world's use of atomic energy for mankind's benefit and in developing nuclear weapons.

C.R.C. STANDARD MATHEMATICAL TABLES—Charles D. Hodgman, Ed.-in-Chief—*Chemical Rubber Publishing Co.*, 11th ed., 480 p., \$3.00. Many changes have been incorporated in this new edition to make the book increasingly useful.

DAIRY BACTERIOLOGY—Bernard W. Hammer and Frederick J. Babel—*Wiley*, 4th ed., 614 p., illus., \$9.00. The content is that of the beginning course in the subject at Iowa State College.

ELECTRONS GO TO WORK—J. Gordon Cook—*Dial*, 192 p., illus., \$3.00. In the last half century, the electron has worked wonders in the world of physics and engineering.

IRON ORE BENEFICIATION—Lawrence A. Roe—*Minerals Publishing Company*, 305 p., illus., \$5.00. Purpose of the book is to bring together the many scattered bits of information on the processing of iron ore.

JOURNAL OF MOLECULAR SPECTROSCOPY: Volume 1, Number 1, July, 1957—Harald H. Nielsen—*Academic*, 80 p., illus., paper, Volume 1, 4 issues \$10.00, single issues \$3.00. Devoted to publication of original research papers dealing with both the experimental and the theoretical aspects of molecular spectroscopy.

LABORATORY EXPERIMENTS IN COLLEGE PHYSICS—Cicero Henry Bernard—*Ginn*, 2d ed., 328 p., illus., paper, \$4.25. A laboratory manual intended to accompany the standard first-year course in college physics.

MEREDITH'S SCIENCE OF HEALTH—Warren H. Southworth and Arthur F. Davis—*McGraw-Hill*, 3d ed., 492 p., illus., \$5.00. This edition is brought factually up to date and contains a new 8-page color atlas of human anatomy.

NEW FRONTIERS OF KNOWLEDGE: A Symposium by Distinguished Writers, Notable Scholars & Public Figures—M. B. Schnapper, Ed.—*Public Affairs Press*, 125 p., \$2.75. Based on a series of talks broadcast throughout the world by the U. S. Information Agency.

NOBEL PRIZE WINNERS—L. J. Ludovici, Ed.—

Associated Booksellers, 226 p., illus., \$3.75. A collection of brief biographies of eight winners of Nobel Prizes in literature and six in science.

THE ORIGINS OF PSYCHOANALYSIS: Letters, Drafts and Notes to Wilhelm Fliess, 1887-1902—Sigmund Freud, edited by Marie Bonaparte, Anna Freud, Ernst Kris, authorized translation by Eric Mosbacher and James Strachey, introduction by Ernst Kris—*Doubleday*, 384 p., diagrams, paper, \$1.25. These letters, the editors explain, do not reveal any "secrets" of the private life of the great Freud, but they do amplify the early history of psychoanalysis.

POLYETHYLENE—Theodore O. J. Kresser—*Reinhold*, 217 p., illus., \$4.95. The status of applications at this time and a little history and projection to give perspective.

QUANTITATIVE ORGANIC ANALYSIS—James S. Fritz and George S. Hammond—*Wiley*, 303 p., diagrams, \$6.50. A previous course in elementary physical chemistry is desirable but not essential to the understanding of this text.

RUSTY RINGS A BELL—Franklyn M. Branley and Eleanor K. Vaughan—*Crowell*, illus. with drawings by Paul Galdone, \$2.50. A book for little children telling how a boy with a bad cold found diversion in learning how to put a doorbell together.

SEMICONDUCTORS: Their Theory and Practice—G. Goudet and C. Meuleau with a preface by E. M. Deloraine, translated by G. King—*Macdonald and Evans (Essential Books)*, 316 p., illus., \$18.90. To understand the nature of these weight- and power-saving elements, there is need for theoretical ideas outlined here.

A STUDENT'S HISTOLOGY—H. S. D. Garven—*Livingstone (Williams & Wilkins)*, 650 p., illus., \$11.00. A textbook for the study of tissues.

SYSTEMATIC ORGANIC CHEMISTRY: Theory and Applications—Hugh C. Muldoon and Martin I. Blake—*McGraw-Hill*, 828 p., illus., \$7.75. A text for the general student.

VANGUARD! The Story of the First Man-Made Satellite—Martin Caidin—*Dutton*, 288 p., illus., \$3.95. Telling of the plans for this important American participation in the International Geophysical Year.

VIRUS IN THE CELL—J. Gordon Cook—*Dial*, 208 p., illus., \$3.00. In spite of the revolution in disease fighting caused by modern drugs, we still have nothing to use against the virus. This book on what can be done is written for the layman.

WE LIVE BY THE SUN—J. Gordon Cook—*Dial*, 192 p., illus., \$3.00. Telling the story of light and how it affects the daily life of everyone.

Science News Letter, September 7, 1957

Using a failure predictor device, a single operator at a central location now can monitor the performance of many radars at remote areas.

The average personal income after taxes, in terms of today's dollar, has gone up from about \$900 a year in 1935 to about \$1,700 a year for every man, woman and child in the U. S.

Molybdenum first gained prominence as a substitute for tungsten and an ingredient of new alloys during World War I.

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