

# Books of the Week

For the editorial information of our readers, books received for review 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.

**ADVANCES IN CARBOHYDRATE CHEMISTRY**, Vol. 17—Melville L. Wolfrom and R. Stuart Tipson, Eds.—Academic Press, 504 p., illus., \$16. On higher-carbon sugars, sugars of the cardiac glycosides, oligosaccharides, dicarbonyl carbohydrates, purine nucleosides, and metabolism of starch and glycogen.

**ANTIPLANE ELASTIC SYSTEMS**—L. M. Milne-Thomson—Academic Press, 265 p., paper, \$11. Concerned with antiplane elastic systems in equilibrium or in steady motion within the framework of the linear theory.

**THE ARTIFICIAL WORLD AROUND US**—Lucy Kavalier—Day, 125 p., illus. by Gloria McKeown, \$3.50. Tells young people about artificial air, odor-making, flavor factories and synthetic diamonds.

**AUTOMATION**—Andrew Bluemle—World Pub. Co., 142 p., photographs, diagrams, \$3.95. A short, graphic, informative survey of the mechanics and uses of automation.

**BASIC CONCEPTS OF NUCLEAR CHEMISTRY**—Ralph T. Overman—Reinhold, 116 p., illus., paper, \$1.95. Concise treatment of the basic principles of nuclear chemistry at the advanced high school or undergraduate college level.

**BUILD-IT-YOURSELF SCIENCE LABORATORY**—Raymond E. Barrett—Doubleday, 340 p., illus. by Joan Metcalf, \$4.50. Tells how to build 200 pieces of science equipment out of inexpensive materials for experiments in chemistry, physics and biology.

**CHEMICALS IN MODERN FOOD AND FIBER PRODUCTION**: Symposium, American Chemical Society, March 1962—Louis Lykken, Chmn.—Nat. Acad. of Sciences-Nat. Res. Council, 104 p., paper, \$2.50. Presents scientific background for the safe use of chemicals in food and fiber production.

**COMMON SENSE ABOUT SMOKING**—C. M. Fletcher and others—Penguin, 128 p., paper, 65¢. Two British physicians, an economist and a member of Parliament discuss the medical evidence, the economic effects and social implications of the cigarette smoking habit.

**CONFERENCE TERMINOLOGY**: A Manual for Conference-Members and Interpreters in English, French, Spanish, Russian, Italian and German—Jean

Herbert, Ed.—Elsevier (N. Y.), 2nd rev. ed., 162 p., \$3.75. Basic word-lists with equivalents, pertaining to the business of conferences, documents, votes and debates.

**CONTINUED FRACTIONS**—C. D. Olds—Random House, 162 p., paper, \$1.95. Written by professional mathematician for the intellectually curious high school student and layman.

**CURRENT STATUS OF TUBERCULOSIS**—E. Grunberg, Ed.—N. Y. Acad. of Sciences, 156 p., illus., paper, \$5. Papers cover recent advances in treatment, diagnosis and chemotherapy.

**THE EARTH IN SPACE**—John and Cathleen Polgreen—Random House, 80 p., illus. by authors, \$1.95. Attempts to give young boys and girls a visualization of earth's place in the solar system.

**THE EARTH'S CRUST**—Irving and Ruth Adler—Day, 48 p., illus. by author, \$2. Explains for young readers the various forces and formations in the earth's outer layers.

**EXPERIMENTS IN MICROBIAL PHYSIOLOGY AND BIOCHEMISTRY**—Gerald R. Seaman—Burgess, 100 p., illus., \$5. Experiments outline procedures in the use of enrichment technique for organism isolation, fermentation, purification of aldolase, and nucleic acid synthesis.

**FEDERAL ORGANIZATION FOR SCIENTIFIC ACTIVITIES, 1962**—National Science Foundation—GPO, 598 p., charts, paper, \$3.50. Comprehensive record of government scientific organization based on data from 40 Federal agencies, informs about program content and financial support of research.

**THE FIRST BOOK OF TIME**—Jeanne Bendick—Watts, F., 70 p., illus. by author, \$2.50. Deals with the various aspects of time, from hours and days to relativity, at the grade school level.

**THE FIRST BOOK OF VOLCANOES AND EARTHQUAKES**—Rebecca B. Marcus—Watts, F., 63 p., photographs, diagrams, \$2.50. The science of seismology at the level of ten-year-olds, explains hot springs, magma flow and volcanic action.

**GERMAN-ENGLISH CHEMICAL TERMINOLOGY**: An Introduction to Chemistry in English and German—Alexander King and Hans Fromherz—Verlag Chemie (Academic Press), 4th ed., 588 p., \$12. Provides students, research scientists and translators, German or English, with the two texts printed on opposite pages to achieve easy familiarity with technical terms and their usage in the other language.

**GRAPHS AND THEIR USES**—Oystein Ore—Random House, 131 p., illus., paper, \$1.95. Mathematician shows how the theory of graphs may be employed in matchings, transportation problems, flow in pipe line networks, games and map coloring.

**AN INQUIRY INTO MEANING AND TRUTH**—Bertrand Russell—Penguin, 333 p., paper, \$1.25. Reprint (1940) of the William James Lectures delivered at Harvard University.

**LISTEN TO LEADERS IN MEDICINE**—Albert Love and James Saxon Childers—Holt, 340 p., \$4.75. Medical authorities tell of their personal experiences and review the opportunities of young doctors in their special fields.

**MARINE SCIENCES INSTRUMENTATION**, Vol. 2: Proceedings of the Symposium on Transducers for Oceanic Research, 1962—R. D. Gaul, Ed.—Instrumentation Soc. of Am. (Plenum Press), 195 p., illus., \$10. Papers cover electrical conductivity, salinity and density, temperature, systems, wave measurements, fluid motion and special devices.

**MATHEMATICAL THEORY OF ELASTIC EQUILIBRIUM** (Recent Results)—Giuseppe Grioli—Academic Press, 168 p., paper, \$7.25. Develops some subjects treated in original recent papers, that are basic either from the physical or the analytical point of view to a complete theory of elasticity.

**MEASUREMENT IN PERSONALITY AND COGNITION**—Samuel Messick and John Ross—Wiley, 334 p., illus., \$5.75. Research papers on personality measurement by specialists with diverse backgrounds and interests, ranging from factor analysis to psychoanalysis.

**THE MECHANICAL INVESTIGATIONS OF LEONARDO DA VINCI**—Ivor B. Hart, foreword

by Ernest A. Moody—Univ. of Calif. Press, 2nd ed., 240 p., illus., paper, \$1.95. Originally published in 1925, contains new introduction by author.

**MODERN CHEMICAL KINETICS**—Henry Eyring and Edward M. Eyring—Reinhold, 114 p., diagrams, paper, \$1.95. Outlines for undergraduates the important developments of the last three decades in the field of reaction rate chemistry.

**MYTH AND MANEATER**: The Story of the Shark—David Kenyon Webster—Norton, 223 p., photographs, \$4.95. A readable book presenting what has become known about sharks.

**NEW DATA ON RARE ELEMENT MINERALOGY**—A. I. Ginzburg, Ed., transl. from Russian—Consultants, 140 p., illus., \$17.50. Data derived from comprehensive studies of rare-element deposits in the Soviet Union, concentrating on the essential composition of these deposits, discovery of new minerals and determination of rare-element content in these minerals.

**NORMED LINEAR SPACES**—Mahlon M. Day—Academic Press, 2nd ed., 139 p., paper, \$5.50. Compact introduction to the subject and to the related theory of linear topological spaces.

**OPTICAL CHARACTER RECOGNITION**—George L. Fischer Jr. and others, Eds.—Spartan Bks., 412 p., illus., \$10. Conference proceedings of 1962 symposium exploring the field of operating character recognition systems and the trends in utilization and use requirements.

**POLITICAL HANDBOOK AND ATLAS OF THE WORLD**: Parliaments, Parties and Press as of January 1, 1963—Walter H. Mallory, Ed.—Harper, for Council on Foreign Relations, 36th ed., 294 p., 32-page map supplement, \$6.95. Compact sourcebook of up-to-date information on the composition of governments and newspapers in every country of the world.

**RADIO ASTRONOMY FOR AMATEURS**—Frank W. Hyde—Norton, 236 p., photographs, diagrams by Ralph Goring, \$5. Shows how amateurs can be useful in the overall program of radio astronomy and suggests construction and operation of equipment.

**SCIENCE, GOVERNMENT AND INFORMATION**: The Responsibilities of the Technical Community and the Government in the Transfer of Information—The President's Science Advisory Committee—White House (GPO), 52 p., paper, 25¢. Report with recommendations to the technical community and to government agencies.

**SCIENCE AND HISTORY**—Ernest Cuneo—Duell, 237 p., \$3.95. Lawyer's readable re-examination of world history in the light of the physical laws that govern mass, velocity and energy.

**SECOND WORLD CONFERENCE ON ADULT EDUCATION**—Unesco (Columbia University Press), 48 p., paper, 50¢. Reviews the development of adult education, its programs, forms and methods, over the past decade.

**SELECTED SCIENCE BOOKS FOR SECONDARY SCHOOLS**: A Bibliography (Chemistry Addendum)—R. Vincent Cash and others—Conn. Science Teachers Assn., 28 p., paper, 25¢ direct to publisher, Central Conn. State College, New Britain, Conn. Annotated and graded list of chemistry titles of value for reference and supplementary reading.

**SPACE RADIATION GUIDE**—Aerospace Medical Research Laboratories—OTS, 210 p., illus., paper, \$3.50. Intended as a reliable, easily understood handbook on the nature of cosmic rays, solar radiation and the geomagnetically trapped (Van Allen) radiations.

**STABILITY OF MOTION**: Applications of Lyapunov's Second Method to Differential Systems and Equations with Delay—N. N. Krasovskii, transl. from Russian by J. L. Brenner—Stanford Univ. Press, 188 p., \$6. Rigorous analysis of fundamental work applied to a variety of problems.

**THE STUDENT PHYSICIAN AS PSYCHOTHERAPIST**—Ralph W. Heine, Ed.—Univ. of Chicago Press, 241 p., \$5. Reviews the program and methods used in the Chicago Medical School experiment designed to provide nonpsychiatrically trained personnel with the knowledge and skills needed for dealing with mentally disturbed patients.

**TECHNIQUES AND INVESTIGATIONS IN THE LIFE SCIENCES**—Solomon Feldman—Holt, 182 p., illus., paper, \$1.32. A good book for young experimenters, teaching the use of some of the newer physical techniques in biological research.


**TITANIUM METAL POWDER**—Alfred R. Globus—Vantage Press, 64 p., photographs, \$2. Describes the properties of this remarkably stable, yet highly active, metal powder and its uses in alloys, plastics and propellants.

**THE TRUE BOOK OF ENERGY**—Illa Podendorf—Childrens Press, 48 p., illus. by George Wilde, \$2. For the youngest readers.

**UNDERSTANDING AMATEUR RADIO**—George Grammer—Am. Radio Relay League, 319 p., illus., paper, \$2. Presents selected subjects basic for all phases of amateur radio, including information on circuit design, construction, testing and adjustment.

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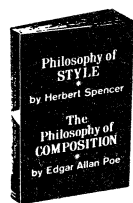
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