

# Books of the Week

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**ADVANCES IN APPLIED MICROBIOLOGY**, Vol. 5—Wayne W. Umbreit, Ed.—Academic Press, 385 p., illus., \$13. Includes discussion of microbial fuel cells, molecular biology of cancer, aeration in the laboratory, and the actinomycetes and their antibiotics.

**ADVANCES IN ELECTRONICS AND ELECTRON PHYSICS**, Vol. 17—L. Marton, Ed.—Academic Press, 451 p., diagrams, \$14. On the theory of space-harmonic traveling-wave electron interaction, thermionic energy conversion, thermoelectricity, and ultrahigh vacuum.

**ADVANCES IN X-RAY ANALYSIS**, Vol. 6—William M. Mueller and Marie Fay, Eds.—Plenum Press, 480 p., illus., \$17.50. Proceedings of the Eleventh Annual Conference on Application of X-Ray Analysis, held August 8-10, 1962, sponsored by the Denver Research Institute.

**AMERICAN LIONS AND CATS**—B. F. Beebe—McKay, 176 p., illus. by James Ralph Johnson, \$3.95. Tells young people how the jaguar, bobcat, lynx and cougar live in the wild.

**ANALYTICAL METHODS FOR PESTICIDES, PLANT GROWTH REGULATORS AND FOOD ADDITIVES**, Vol. I: Principles, Methods and General Applications—Gunter Zweig, Ed.—Academic Press, 637 p., illus., \$24. On the principles of formulation, residue and food additive analysis, toxicological testing methods, gas and paper chromatography, bioassay and residue analysis.

**DICTIONARY OF MODERN ACRONYMS & ABBREVIATIONS**—Milton Goldstein—Sams, 158 p., \$4.95. Easy-to-use single source of more than 6,000 acronyms used for government agencies, military services, computers and other specialized fields.

**DYNAMICS OF SATELLITES: IUTAM Symposium**, Paris, 1962—Maurice Roy, Ed.—Academic Press, 335 p., diagrams, \$15. Papers include discussion of long-range effects on the motion of artificial satellites and prediction of satellite orbits.

**ELSEVIER'S DICTIONARY OF AUTOMATIC CONTROL** in Four Languages: English/American, French, German and Russian—Compiled and ar-

anged on an English alphabetical base by W. E. Clason—Elsevier Pub. Co. (N.Y.), 211 p., \$12.50. Provided with alphabetical indexes for each of the languages included.

**FUR AND FURY: The Talented Weasel Family (Mustelidae)**—C. B. Colby—Duell, 127 p., photographs, \$3.50. Introduces the individual members of the rarely seen, mostly nocturnal animal family that includes minks, otters, martens and skunks.

**HANDBOOK OF LABORATORY DISTILLATION**—Erich Krell; E. C. Lumb, Ed., transl. from 2nd German ed. by C. G. Verver—Elsevier Pub. Co. (N. Y.), 561 p., illus., \$18. Provides a comprehensive account of distillation on a laboratory or semi-technical scale, intended primarily for physicists, chemists and research engineers.

**HANDBOOK OF TRANSISTOR CIRCUIT**—Allan Lytel—Sams, 224 p., illus., paper, \$4.95. A compilation of more than 200 transistor and rectifier circuits used for a wide variety of applications.

**ILLUSTRATED KEYS TO THE FAMILIES OF NORTH AMERICAN INSECTS**—Harrison M. Tietz—Burgess, 206 p., illus. by author, \$5.75. For students in entomological taxonomy.

**INSTRUMENT TRANSDUCERS: An Introduction to Their Performance and Design**—Hermann K. P. Neubert—Oxford Univ. Press, 390 p., diagrams, \$13.45. A book on tool-making for the experimental physicist and related researchers, deals with the mechanical input and electrical output characteristics of transducer types.

**INTERNATIONAL REVIEW OF CYTOLOGY**, Vol. 15—G. H. Bourne and J. F. Danielli, Eds.—Academic Press, 444 p., illus., \$16. Includes discussion of intercellular transfer of genetic information, cellular basis of morphogenesis, and plant tissue culture in relation to cytology.

**INTRODUCTORY NUCLEAR REACTOR THEORY**—Herbert S. Isbin—Reinhold, 624 p., \$22.50. Offers a broad treatment of reactor analysis including basic principles and theory, experimental approaches, available literature sources and applications.

**IONIC EQUILIBRIA IN ANALYTICAL CHEMISTRY**—Henry Freiser and Quintus Fernando—Wiley, 334 p., \$4.95. Textbook presenting a logical stepwise development of the principles of chemical equilibrium and techniques of calculation.

**JAMES WATT**—L. T. C. Rolt—Arco, 144 p., illus., \$3.95. Biography of the famous British engineer who invented the steam engine, includes many autobiographical quotations.

**LIGHT**—R. W. Ditchburn—Interscience, 2nd ed., 833 p., illus., \$12. Provides a complete course on physical and geometrical optics. Revised text includes chapters on coaxial systems of lenses and the limitations of optical instruments.

**THE LIMB-DEFICIENT CHILD**—Berton Blakeslee, Ed.—Univ. of Calif. Press, 391 p., photographs by Mary Louise Histon, \$8.50. Comprehensive summary of modern techniques in treating the child amputee, the biomedical problems of fitting prosthetic replacements, including the skeletal, neuromuscular, learning and psycho-social factors involved.

**LINEAR TOPOLOGICAL SPACES**—J. L. Kelley, Isaac Namioka and others—Van Nostrand, 256 p., \$8. Discusses linear and linear topological spaces, the category theorems, convexity and duality.

**THE MAMMALS**—The Editors of LIFE, text by Richard Carrington—Time Inc. Book Division, 192 p., illus. 66 p. full color, \$3.95 direct to publisher, 540 N. Mich. Ave., Chicago 11, Ill. Remarkable photography and authoritative text explore mammalian evolution, their habits and relationship to man.

**MARINE ELECTRONICS HANDBOOK**—Leo G. Sands—Sams, 2nd ed., 288 p., illus., paper, \$4.05. A guide to the installation, maintenance and use of marine electronic equipment.

**MASS SPECTROMETRY OF ORGANIC IONS**—F. W. McLafferty, Ed.—Academic Press, 730 p.,

diagrams, \$24. Concerned with the chemistry and physics of organic ions, treats both theories and significant applications.

**MATHEMATICAL THEORIES OF TRAFFIC FLOW**—Frank A. Haight—Academic Press, 242 p., \$9. Mathematical treatment of vehicular traffic flow with emphasis on theories of queuing and mathematical probability.

**MATHEMATICS AND THE PHYSICAL WORLD**—Morris Kline—Doubleday, 546 p., diagrams, paper, \$1.95. Reprint (1959) of compact history of mathematics showing the simultaneous growth and interaction of mathematics and the physical sciences.

**MATHEMATICS FOR SCIENCE AND ENGINEERING**—Philip L. Alger—McGraw, 366 p., diagrams, paper, \$2.95. Reprint (1957), based on Engineering Mathematics by Charles Proteus Steinmetz. Includes answers to problems.

**MEDICAL AND BIOLOGICAL PROBLEMS OF SPACE FLIGHT: Proceedings, Bahamas Conference, 1961**—Goffrey H. Bourne, Ed.—Academic Press, 289 p., illus., \$12. Deals with advanced manned space systems, space vehicle simulators, cardiovascular adaptability, the use of Chlorella as food, and problems of water recovery.

**METHODS IN COMPUTATIONAL PHYSICS: Advances in Research and Applications, Vol. 1: Statistical Physics**—Berni Alder, Sidney Fernbach and Manuel Rotenberg, Eds.—Academic Press, 304 p., diagrams, \$10. Among others, deals with the numerical theory of neutron transport and various applications of the Monte Carlo Method.

**NATIONAL CONFERENCE FOR SCIENTIFIC INFORMATION**, New York City, February 16, 17, 1963—Ralph McCallister and Diana Brown, Eds.—Scientists' Institute for Public Information, 124 p., photographs, paper, single copies free upon request direct to publisher, 2 E. 63rd St., New York 21, N. Y. Addresses and workshop discussions.

**NATURE'S GUARDIANS: Your Career in Conservation**—Harry Edward Neal—Messner, 191 p., photographs, \$3.65. Informative career guide for young people.

**THE NEW WORLD OF GLASS**—Irmengarde Eberle—Dodd, 79 p., photographs, \$3. Tells about modern and historical methods of glassmaking and its specialized uses.

**NEWER METHODS OF NUTRITIONAL BIOCHEMISTRY: With Applications and Interpretations**—Anthony A. Albanese, Ed.—Academic Press, 583 p., diagrams, \$18.50. Discusses utilization of dietary proteins, intestinal absorption, the vitamins B, carbohydrate and lipid metabolism, and biostatistical methods.

**THE NEXT HUNDRED YEARS: Man's Natural and Technological Resources**—Harrison Brown, James Bonner and John Weir—Viking, 193 p., graphs, paper, \$1.45. Reprint (1957) of a discussion prepared for leaders of American Industry.

**1001 QUESTIONS ANSWERED ABOUT FLOWERS**—Norman Taylor—Dodd, 335 p., photographs, illus. by James Macdonald, \$6. Cross-indexed information about the orchids, eastern and western wildflowers, older and modern cultivated flowers, and flowering shrubs and trees.

**A STUDY OF BIRD SONG**—Edward A. Armstrong—Oxford Univ. Press, 335 p., photographs, diagrams, \$10.50. Ornithologist's analysis of bird song viewed as one aspect of a delicately integrated complex of behavior, taking into account characteristics such as the nature of its pair-bond, coloration, foraging behavior and other adaptations.

**TEACHING ELEMENTARY SCHOOL SCIENCE: Methods and Resources**—Paul E. Kamby and John E. Suttle—Ronald, 492 p., illus., \$6.50. Designed to help prospective and practicing teachers learn about the values of science to children and how to teach it to achieve these values.

**THREE LECTURES: The Heritage of Mind in A Civilization of Machines**—Frank Stanton, Gerard Piel and Oscar Handlin; foreword by Robert E. L. Strider—Colby College, 60 p., paper, limited supply of single copies free upon request direct to college, Waterville, Maine. Addresses presented at Sesquicentennial Convocation of Colby College.

**TWO YEARS AFTER THE COLLEGE DEGREE: Work and Further Study Patterns**—Bureau of Social Science Research—NSF (GPO), 335 p., paper, \$1.75. Principal findings for a cross section of college graduates in the 1958 graduating classes.

**THE VELVET PAW: A History of Cats in Life, Mythology and Art**—Jean Conger—Obolensky, 182 p., illus. by R. Bornschlegel, \$5. A compilation of cat lore around the world.

**VIEW FROM A HEIGHT**—Isaac Asimov—Doubleday, 252 p., \$4.50. Seventeen essays on science.

**WASP FARM**—Howard Evans—Nat. Hist. Press (Doubleday), 178 p., illus., photographs by author, \$3.95. Entomologist's personal observations of the life cycles, behavior and resourcefulness of the pompilids, sphecids and vespids.

**WONDERS OF THE LIVING SEA**—Carleton Ray—Home Lib., 56 p., illus. by Oscar Liebman, \$2.95. Invites young people to find out about marine and ocean bottom life.

• Science News Letter, 84:188 Sept. 21, 1963

## EXPLORE THE SKIES!

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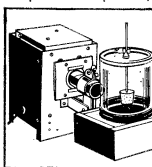
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