

approximation. A discussion of the validity of the various approximations used is included.

Having spent over half of the seventy-one pages of text on these basic concepts, the authors consider the pile as a whole. They set up the basic balance equation and show how it is solved in the case of a pile of uniform composition. The treatment of the case of a pile with non-uniform composition is restricted to a pile with a reflector and is carried out on the basis of two-group theory.

The last ten pages of the book are concerned with the problem of pile control and the transient behavior of a pile.

On the whole, this volume is a clear, concise presentation of elementary pile theory with emphasis on large thermal piles. Its most visible lack is a set of references. A further need is a few examples of pile designs. The reader is led to understand how a pile operates, but would have little concept from reading this book of how to design and build a pile.

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Age of the Earth

Report of the Committee on the Measurement of Geologic Time (1948-49). 139 pp. Division of Geology and Geography, National Research Council, Washington, D. C., 1950. \$1.00.

This compilation by a special committee of the NRC reviews the scientific background of the problem of the earth's age and covers all relevant scientific material bearing on the question. Work in progress in various laboratories on measurements of radioactivity, chemical composition, and isotopic composition of minerals is discussed, including both W. F. Libby's carbon-14 method for dating recent geologic time and the measurements made by G. L. Davis on meteorites, dunites, and other natural materials of very low radioactivity. The importance of low activity work in theories of the earth's thermal history is emphasized. A review of the "age of the ocean" problem points out the divergent results obtained by measuring ions in solution if it is assumed that all ocean minerals were first carried by rivers. A record of Japanese analyses of radioactive minerals, 1936-46, appears as an appendix. Also included is a comprehensive bibliography of articles related to the measurement of geologic time.

Books Received

PHOTOGRAPHY IN ASTRONOMY. By E. W. H. Selwyn. 112 pp. Eastman Kodak Company, Rochester, N. Y., 1950. \$2.75.

SOME APPLICATIONS OF NUCLEAR PHYSICS TO MEDICINE. By W. V. Mayneord. Supplement No. 2, British Journal of Radiology. British Institute of Radiology, London, 1950.

HIGH-SPEED COMPUTING DEVICES. By the staff of Engineering Research Associates, Inc., Supervised by C. B. Tompkins and H. H. Wakelin, Edited by W. W. Stifler, Jr. 451 pp. McGraw-Hill Book Company, Inc., New York, 1950. \$6.50.

PHYSICAL CHEMISTRY. By Walter J. Moore. 592 pp. Prentice-Hall, Inc., New York, 1950. \$5.00.

THE CLINICAL USE OF RADIOACTIVE ISOTOPES. By Bergram V. A. Low-Beer. 414 pp. Charles C. Thomas, Springfield, Illinois, 1950. \$9.50.

SOME RELATIONS BETWEEN VISION AND AUDITION. By J. Donald Harris. 56 pp. Charles C. Thomas, New York, 1950. \$1.50.

FIRST PRINCIPLES OF ATOMIC PHYSICS. By Richard F. Humphreys and Robert Beringer. 390 pp. Harper and Brothers, New York, 1950. \$4.50.

AN INTRODUCTION TO PROBABILITY THEORY AND ITS APPLICATIONS. VOLUME I. By William Feller. 419 pp. John Wiley and Sons, Inc., New York, 1950. \$6.00.

THE ACCELERATION OF PARTICLES TO HIGH ENERGIES. (Physics In Industry Series) 58 pp. Institute of Physics, London, England, 1950. 10s. 6d.

FOURIER SERIES. By Werner Rogosinski. 176 pp. Translated by Harvey Cohn and F. Steinhardt. Chelsea Publishing Company, New York, 1950. \$2.50.

SUPER-REGENERATIVE RECEIVERS. By J. R. Whitehead. 169 pp. Cambridge University Press, New York, 1950. \$4.75.

SCIENTIFIC RESEARCH: ITS ADMINISTRATION AND ORGANIZATION. Edited by George P. Bush and Lowell H. Hattery. 190 pp. American University Press, Washington, D. C., 1950. \$3.25.

PHYSICS. By George Shortley and Dudley Williams. 1,271 pp. (In two volumes.) Prentice-Hall, Inc., New York, 1950. VOLUME I. \$6.00. VOLUME II. \$7.35.

PHYSICAL MECHANICS. (2nd Edition) By Robert Bruce Lindsay. 451 pp. D. Van Nostrand Company, Inc., New York, 1950. \$5.00.

INTRODUCTION TO THE TRANSFER OF HEAT AND MASS. By E. R. G. Eckert. 284 pp. McGraw-Hill Book Company, New York, 1950. \$4.00.

NATURE OF PHYSICAL THEORY. By P. W. Bridgman. 138 pp. Dover Publications, New York, 1949. (Princeton University Press, Princeton, New Jersey, 1936) \$2.25.

HIGH-FREQUENCY VOLTAGE MEASUREMENT. U. S. Department of Commerce Circular 481. 14 pp. Government Printing Office, Washington, D. C., 1950. \$0.20.

SUMMARY OF CONTEMPORARY RESEARCH ON LIGHT, VISION AND VISUAL ENVIRONMENT. 15 pp. Illuminating Engineering Society, New York, 1950. No charge.

TABLE OF POWERS OF COMPLEX NUMBERS. By Herbert E. Salzer. 44 pp. U. S. Government Printing Office, Washington 25, D. C., 1950. \$0.25.

THERMAL EXPANSION OF SOLIDS. 29 pp. U. S. Government Printing Office, Washington 25, D. C., 1950. \$0.20.

NICKEL AND ITS ALLOYS. 72 pp. Government Printing Office, Washington 25, D. C., 1950. \$0.50.

INTERNATIONAL RADIO TUBE ENCYCLOPEDIA. Edited by Bernard B. Babani. 410 pp. British Industries Corporation, New York, 1950. \$6.50.

PROCEEDINGS OF THE FIRST NATIONAL AIR POLLUTION SYMPOSIUM. 149 pp. Sponsored by Stanford Research Institute, California Institute of Technology, the University of California, and the University of Southern California. \$2.50.

WAVE MECHANICS. ELEMENTARY THEORY. (1st American Printing of Oxford University Press 2nd Edition, 1936) By J. Frenkel. 312 pp. Dover Publications, Inc., New York, 1950. \$3.50.

WAVE MECHANICS. ADVANCED GENERAL THEORY. (1st American Printing of Oxford University Press 1st Edition, 1934) By J. Frenkel. 525 pp. Dover Publications, Inc., New York, 1950. \$5.00.