

data on the velocity (including dispersion) and absorption of high frequency sound in gases and liquids. All the standard methods of measurement are explained in detail and much attention is paid to the comparison between experimental results and theoretical predictions. Some of the most interesting features of ultrasonics involve the relation between sound absorption and velocity and other physical properties of fluids, e.g., the relative concentration of components in mixtures. These are very well illustrated, and in fact constitute the most valuable part of the book.

As has already been emphasized, the author makes no pretense of having produced a treatise on ultrasonics as a whole. The book contains, for example, no reference to the important problems of high frequency transmission in solids, and the whole field of ultrasonic application is absent. Nevertheless all those interested in ultrasonics and in particular all investigators in fluid acoustics will find this volume a very useful one.

R. B. Lindsay
Brown University

Scientific Manpower

A survey of *Employment, Education, and Earnings of American Men of Science* has recently been published by the U. S. Department of Labor's Bureau of Labor Statistics in cooperation with the Department of Defense. Covering 42,000 of the 50,000 scientists listed in the 1949 edition of *American Men of Science*, the report deals predominantly with research workers and teachers. Information for the study was collected for the Department of Defense by the National Research Council, in cooperation with the publisher of *American Men of Science*. The report (Bureau of Labor Statistics Bulletin No. 1027) may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., for \$0.45 per copy.

International Trade

Trade Barriers to Knowledge, compiled by the Division of Free Flow of Information of Unesco's Department of Mass Communication, with the aid of the Intelligence Unit of the *Economist*, London, and published by Unesco, cites the regulations affecting international trade in educational, scientific, and cultural materials. The manual covers 43 countries and gives detailed data on tariffs, sales taxes, exchange controls, licensings, quota, and export regulations. *Trade Barriers to Knowledge* is on sale at the Columbia University Press, New York, for \$1.00 per copy.

Radiological Protection

Recently published by the National Bureau of Standards, NBS Handbook 47, *Recommendations of the International Commission of Radiological Protection and of the International Commission on Radiological Units, 1950* (vi, 29 pp. supplement), presents recommendations adopted at the Sixth International Congress of Radiology. Copies are available from the Government Printing Office, Washington 25, D. C., for 15 cents.

Books Received

INTRODUCTION TO MODERN ALGEBRA AND MATRIX THEORY. By O. Schreier and E. Sperner. 378 pp. Chelsea Publishing Company, New York, 1951. \$4.95.

POSITIVISM: A STUDY IN HUMAN UNDERSTANDING. By Richard von Mises. 404 pp. Harvard University Press, Cambridge, Massachusetts, 1951. \$6.00.

CALCULUS AND ANALYTIC GEOMETRY. By George B. Thomas, Jr. 685 pp. Addison-Wesley Press, Inc., Cambridge, Massachusetts, 1951. \$6.00.

HEAT AND THERMODYNAMICS (Third Edition). By Mark W. Zemansky. 465 pp. McGraw-Hill Book Company, New York, 1951. \$6.00.

ASTROPHYSICS. A Topical Symposium. Edited by J. A. Hynek. 703 pp. McGraw-Hill Book Company, Inc., New York, 1951. \$12.00.

INTRODUCTION TO NUMBER THEORY. By Trygve Nagell. 309 pp. John Wiley and Sons, Inc., New York, 1951. \$5.00.

THE CLASSICAL THEORY OF FIELDS. By L. Landau and E. Lifshitz. 354 pp. Addison-Wesley Press, Inc., Cambridge, Massachusetts, 1951. \$7.50.

PANORAMA OF SCIENCE, 1951. Annual Supplement to the Smithsonian Series for 1951. Compiled and Edited by Webster Prentiss True. 416 pp. The Series Publishers, Inc., New York, 1951. \$5.50.

PHASE MICROSCOPY. Principles and Applications. By Alva H. Bennett, Helen Jupnik, Harold Osterberg, and Oscar W. Richards. 320 pp. John Wiley and Sons, Inc., New York, 1951. \$7.50.

STATISTICAL METHODOLOGY REVIEWS 1941-1950. Edited by Oscar Krisen Buros. 340 pp. John Wiley and Sons, Inc., New York, 1951. \$7.00.

TENSOR ANALYSIS FOR PHYSICISTS. By J. A. Schouten. 275 pp. Oxford University Press, New York, 1951. \$6.00.

HOW TO STUDY HOW TO SOLVE ARITHMETIC—CALCULUS (Second Edition). By H. M. Dadourian. 121 pp. Addison-Wesley Press, Inc., Cambridge, Massachusetts, 1951. \$0.60.

MAGNETIC MATERIALS. By F. Brailsford. 156 pp. John Wiley and Sons, Inc., New York, 1951. \$1.50.

RADIOLOGIC PHYSICS (Second Edition). By Charles Weyl and S. Reid Warren, Jr. 491 pp. Charles C Thomas Publisher, Springfield, Illinois, 1951. \$10.50.

X-RAY ANALYSIS OF CRYSTALS. By J. M. Bijvoet, the late N. H. Kolkmeier, and Caroline H. Maggillavry. 304 pp. Interscience Publishers, Inc., New York, 1951. \$6.50.

FUNDAMENTALS OF ELECTRONICS. By F. H. Mitchell. 243 pp. Addison-Wesley Press, Inc., Cambridge, Massachusetts, 1951. \$4.50.

AN INTRODUCTION TO ACOUSTICS. By Robert H. Randall. 340 pp. Addison-Wesley Press, Inc., Cambridge, Massachusetts, 1951. \$6.00.

AN INTRODUCTION TO THERMODYNAMICS, THE KINETIC THEORY OF GASES, AND STATISTICAL MECHANICS. By Francis Weston Sears. 348 pp. Addison-Wesley Press, Inc., Cambridge, Massachusetts, 1950. \$6.00.

TIME'S ARROW AND EVOLUTION. By Harold F. Blum. 222 pp. Princeton University Press, Princeton, New Jersey, 1951. \$4.00.

ANNUAL REVIEW OF PHYSICAL CHEMISTRY. Volume II, 1951. Edited by G. K. Rollefson and R. E. Powell. 462 pp. Annual Reviews, Inc., Stanford, California, 1951. \$6.00.