

▶ BASIC PROCESSES OF GASEOUS ELECTRONICS

By Leonard B. Loeb

A discussion of the basic atomic, electronic, molecular, and kinetic mechanisms that lead to the electrical behavior of gases. The latest techniques and critical evaluations of results are presented. Of interest are most recent values for the physical quantities of gases of known purity, and a summary of material presented at the Seventh Gaseous Electronics Conference, October, 1954. Although directed primarily to the physicist, chemist, or engineer, the book is intelligible to anyone with a knowledge of basic atomic structure and relatively little kinetic theory.

1028 pages, 307 illus. \$13.50

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The Goodyear Aircraft Corporation
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Sons, Inc., New York, 1954, 132 pp., \$2.00), by K. E. Bullen of the University of Sydney, provides an introduction to this and other problems involved in interpreting earthquake waves. A considerable amount of material is presented in this brief treatment, and the numerous references to original work should add to its utility.

Radiation Handbooks

A series of handbooks on the general subject of radiation protection has been prepared under the sponsorship of the National Bureau of Standards. The most recent of these are: Recommendations for the Disposal of Carbon-14 Wastes (*Handbook 53*, 15 cents); Protection Against Radiations from Radium, Cobalt-60, and Cesium-137 (*Handbook 54*, 25 cents); Protection Against Betatron-Synchrotron Radiations up to 100 Million Electron Volts (*Handbook 55*, 25 cents); Safe Handling of Cadavers Containing Radioactive Isotopes (*Handbook 56*, 15 cents); Photographic Dosimetry of X- and Gamma Rays (*Handbook 57*, 15 cents); Radioactive Waste Disposal in the Ocean (*Handbook 58*, 20 cents); and Permissible Dose from External Sources of Ionizing Radiation (*Handbook 59*, 30 cents). Ranging in size from 14 pages to 79, the individual booklets may be obtained from the Government Printing Office, Washington 25, D. C.

American Men of Science

The current ninth edition of *American Men of Science*, cosponsored by The Science Press and R. R. Bowker Company, is divided into three volumes, one each for the physical, biological, and social sciences. *Physical Sciences*, the 2180-page first volume, contains 43 518 entries; the succeeding volumes will have an estimated 25 000 entries each. The increase in size of almost 100 percent represents "a phenomenal recent expansion in almost every field of science" since the earlier edition of 1949. In cases where a scientist's specialty is in a field such as biochemistry or biophysics, his name will appear in both volumes 1 and 2, with the biographical note appearing in the volume of his choice. The material is easily read without recourse to lists of abbreviations. Edited by Jaques Cattell, Volume 1 is available from the R. R. Bowker Company, 62 West 45 Street, New York 36, N. Y., for \$20.00 postpaid.

Correction

The book *Basic Mechanisms in Radiobiology, Physical and Chemical Aspects*, edited by Magee, Kamen, and Platzman, can be purchased by writing to the National Research Council, Washington 25, D. C. It is not available from the Government Printing Office as was indicated in the April issue of *Physics Today*, p. 18.

Books Received

ELECTRICITY AND MAGNETISM. By Ralph P. Winch. 755 pp. Prentice-Hall, Inc., New York, 1955. \$7.75.

MULTIPOLE FIELDS. By M. E. Rose. 99 pp. John Wiley & Sons, Inc., New York, 1955. \$4.95.

APPLIED X-RAYS (Revised Fourth Edition). By George L. Clark. 843 pp. McGraw-Hill Book Company, Inc., New York, 1955. \$12.50.

ADVANCED MATHEMATICS FOR ENGINEERS (Revised Third Edition). By H. W. Reddick and F. H. Miller. 548 pp. John Wiley & Sons, Inc., New York, 1955. \$6.50.

UNIVERSITY PHYSICS (Complete Second Edition). By Francis Weston Sears and Mark W. Zemansky. 1031 pp. Addison-Wesley Publishing Company, Inc., Cambridge, Massachusetts, 1955. \$10.00.

SPONSORED RESEARCH POLICY OF COLLEGES AND UNIVERSITIES. A Report of the Committee on Institutional Research Policy. 95 pp. American Council on Education, Washington, D. C., 1954. \$1.50.

NUCLEAR PHYSICS. By Alex E. S. Green. 534 pp. McGraw-Hill Book Company, Inc., New York, 1955. \$9.00.

ABSTRACTS OF THE LITERATURE ON SEMICONDUCTING AND LUMINESCENT MATERIALS AND THEIR APPLICATIONS, 1953 ISSUE. Compiled by Battelle Memorial Institute and sponsored by The Electrochemical Society, Inc. 169 pp. John Wiley & Sons, Inc., New York, 1955. Paperbound \$5.00.

TABLE OF SALVO KILL PROBABILITIES FOR SQUARE TARGETS. 33 pp. NBS Applied Mathematics Series 44. Government Printing Office, Washington 25, D. C., 1954. Paperbound \$3.00.

ELEKTRONISCHE HALBLEITER. EINE EINFÜHRUNG IN DIE PHYSIK DER GLEICHRICHTER UND TRANSISTOREN. By Eberhard Spenke. 379 pp. Springer-Verlag, West-Berlin, Germany, 1955. DM 34.50.

THE ELEMENTS OF PROBABILITY THEORY AND SOME OF ITS APPLICATIONS. By Harald Cramér. 281 pp. (Almqvist & Wiksell, Sweden) John Wiley & Sons, Inc., New York, 1955. \$7.00.

PHYSICO-CHEMICAL CALCULATIONS. By E. A. Guggenheim and J. E. Prue. 491 pp. (North-Holland Publishing Company, Netherlands) Interscience Publishers, Inc., New York, 1955. \$7.00.

APPLIED MASS SPECTROMETRY (Conference, London, October 1953). Edited by G. Sell. 333 pp. The Institute of Petroleum, London, England, 1954. £2, 10s.

PHYSICS. A DESCRIPTIVE INTERPRETATION. By C. H. Bachman. 497 pp. John Wiley & Sons, Inc., New York, 1955. \$5.50.

PROCEEDINGS OF THE FIRST CONFERENCE ON TRAINING PERSONNEL FOR THE COMPUTING MACHINE FIELD (Michigan, June 1954). Edited by Arvid W. Jacobson. 104 pp. Wayne University Press, Detroit, Michigan, 1955. \$5.00.

WAVE DIAGRAMS FOR NONSTEADY FLOW IN DUCTS. By George Rudinger. 278 pp. D. Van Nostrand Company, Inc., New York, 1955. \$6.00.

TITANIUM IN IRON AND STEEL. By George F. Comstock. 294 pp. John Wiley & Sons, Inc., New York, 1955. \$6.00.

ELECTRICITY. By Eric de Ville. 159 pp. Penguin Books, Inc., Baltimore, Maryland, 1955. \$65.

CHEMISORPTION. By B. M. W. Trapnell. 265 pp. (Butterworths Scientific Publication, England) Academic Press Inc., New York, 1955. \$6.80.

MATHEMATICS FOR THE CHEMIST. Mathematical Analysis for Chemists, Physicists, and Chemical Engineers. By G. J. Kynch. 356 pp. (Butterworths Scientific Publications, England) Academic Press Inc., New York, 1955. \$4.80.

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