

High School Isotope Booklet

Twenty high school experiments and demonstrations making use of radioisotopes are described in a booklet issued by the AEC. The experiments are designed to show the uses of isotopes in biology, chemistry, and physics as well as to illustrate their properties. Entitled *Laboratory Experiments with Radioisotopes for High School Science Demonstrations*, the booklet may be obtained for 25 cents from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Hyperbolic Protractor

Many microwave impedance problems can be solved by using a special hyperbolic protractor in conjunction with the projective chart devised by Deschamps or with the more familiar Smith or Carter reflection charts. This protractor and a 44-page instruction booklet written by G. A. Deschamps (available from the International Telephone and Telegraph Corporation, 67 Broad Street, New York 4, N. Y. for \$2.50) is especially applicable to calculations involving transmission lines, waveguide junctions, and polarization. Twenty-one typical problems are solved as illustrations in the booklet and Deschamps' paper on the projective chart is included as an appendix.

Compton Effect

A new publication of the National Bureau of Standards, *Graphs of the Compton Energy-Angle Relationship and the Klein-Nishina Formula from 10 Kev to 500 Mev* (89 pp.), by Ann T. Nelms, is designed to serve the purpose of tables in considering the Compton scattering of unpolarized gamma rays in the above energy interval. The accuracy of the curves is estimated at 1 percent, and the graphical presentation permits interpolation with an accuracy of 2 percent. (NBS Circular 542, obtainable from the U. S. Government Printing Office, Washington 25, D. C. for 55 cents.)

Vacuum Technique

High vacuum applications is the subject of a 60-page bulletin published by the Central Scientific Company. Besides covering in detail the instruments and accessories supplied by Cenco, this booklet (Bulletin 10F) also discusses low pressure techniques in general, including material on vacuum system planning and gages. Available without charge from the Central Scientific Company, 1700 Irving Park Road, Chicago 13, Illinois, this publication is certain to be of interest and assistance to many physicists.

Books Received

METHODS OF THEORETICAL PHYSICS. Parts I and II. By Philip M. Morse and Herman Feshbach. 1978 pp. McGraw-Hill Book Company, Inc., New York, 1953. \$15.00 each.

THE SUN. THE SOLAR SYSTEM. Volume I. Edited by Gerard P. Kuiper. 745 pp. The University of Chicago Press, Chicago, Illinois, 1953. \$12.50.

THE PHYSICS OF VIRUSES. By Ernest C. Pollard. 230 pp. Academic Press Inc., New York, 1953. \$5.50.

ANNUAL REVIEW OF NUCLEAR SCIENCE. Volume 3. Edited by James G. Beckerley, Martin D. Kamen, Donald F. Mastick, and Leonard I. Schiff. 412 pp. Annual Reviews, Inc., Stanford, California, 1953. \$7.00.

EXPERIMENTAL COLLEGE PHYSICS. A LABORATORY MANUAL (Third Edition). By Marsh W. White and Kenneth V. Manning. 347 pp. McGraw-Hill Book Company, Inc., New York, 1954. \$5.00.

STATIC ELECTRIFICATION. A symposium held by The Institute of Physics, London, 1953; Supplement No. 2 of the *British Journal of Applied Physics*. 104 pp. The Institute of Physics, London, England, 1953. Paperbound.

INTRODUCTORY CIRCUIT THEORY. By Ernst A. Guillemin. 550 pp. John Wiley & Sons, Inc., New York, 1953. \$8.50.

MÉCANIQUE PHYSIQUE. By P. Fleury and J.-P. Mathieu. 439 pp. Éditions Eyrolles, Paris, France, 1953. 2900 francs.

NEUTRON OPTICS. By D. J. Hughes. 136 pp. Interscience Publishers, Inc., New York, 1954. Paperbound \$2.50.

NUCLEAR MOMENTS. By Norman F. Ramsey. 169 pp. John Wiley & Sons, Inc., New York, 1953. \$5.00.

ADVANCES IN ELECTRONICS. Volume V. Edited by L. Marton. 420 pp. Academic Press Inc., New York, 1953. \$9.50.

LES APPLICATIONS DE LA MÉCANIQUE ONDULATOIRE A L'ÉTUDE DE LA STRUCTURE DES MOLÉCULES. Collection des Réunions et Mises au Point, held under the presidency of Louis de Broglie. 223 pp. Revue d'Optique Théorique et Instrumentale, Paris, France, 1953. Paperbound 1600 francs.

THE AIM AND STRUCTURE OF PHYSICAL THEORY. By Pierre Duham. Translated by P. P. Wiener. 344 pp. Princeton University Press, Princeton, New Jersey, 1954. \$6.00.

ELEMENTS OF ELECTRICAL ENGINEERING (Sixth Edition). A Textbook of Principles and Practice. By Arthur L. Cook and Clifford C. Carr. 682 pp. John Wiley & Sons, Inc., New York, 1954. \$6.75.

CLIMATIC CHANGE. EVIDENCE, CAUSES, AND EFFECTS. Edited by Harlow Shapley. 318 pp. Harvard University Press, Cambridge, Massachusetts, 1953. \$6.00.

NATURE AND STRUCTURE OF COLLAGEN. Edited by J. T. Randall, assisted by Sylvia Fitton Jackson. 269 pp. Academic Press Inc., New York, 1953. \$6.50.

HEAT AND THERMODYNAMICS (Fourth Edition). By J. K. Roberts. Revised by A. R. Miller. 593 pp. Interscience Publishers, Inc., New York, 1954. \$5.50.

FLOW PROPERTIES OF DISPERSE SYSTEMS. (Volume V of a monograph series, Deformation and Flow.) Edited by J. J. Hermans. 445 pp. North-Holland Publishing Co., Amsterdam; Interscience Publishers, Inc., New York, 1953. \$9.90.

SOFT MAGNETIC MATERIALS FOR TELECOMMUNICATIONS. (Symposium in England 1952.) Edited by C. E. Richards and A. C. Lynch. 346 pp. Interscience Publishers, Inc., New York, 1953. \$9.00.

AMPEREX ELECTRONIC TUBES. 561 pp. Amperex Electronic Corporation, Hicksville, New York, 1953. Paperbound \$2.00.

ASTRONOMICAL PHOTOELECTRIC PHOTOMETRY. A Symposium held in Philadelphia, 1951. Edited by Frank Bradshaw Wood. 141 pp. American Association for the Advancement of Science, Washington 5, D. C., 1953.

PROGRESS IN COSMIC RAY PHYSICS. Volume II. Edited by J. G. Wilson. 322 pp. Interscience Publishers, Inc., New York, 1954. \$8.50.