

The last chapter is "Cathodes for Practical Applications," a title covering radiation detectors and imaging tubes. The whole book is user oriented and fulfills the requirements as completely as is possible within the limited space of a monograph. I recommend it very warmly.

LADISLAUS MARTON
Office of International Relations
National Bureau of Standards

Introduction to Modern Physics

By C. H. Blanchard, C. R. Burnett, R. G. Stoner, R. L. Weber
(2nd edition) 497 pp. Prentice-Hall
Englewood Cliffs, N. J., 1969. \$9.95

I have examined this revised text from a different viewpoint than may usually have been done. Being a physicist in a medical-school environment and teaching in a medical-physics program, I continually look for suitable books. A less than advanced text that covers the basics of modern physics is required for students having undergraduate majors in biology and chemistry, so they can study more advanced topics usually found in medical-physics curricula.

From this point of view, the book has much to offer, because it only requires a knowledge of elementary calculus and quite clearly introduces other mathematical tools as required. Basic concepts such as electric and magnetic fields and collision theory are clearly presented. In addition, a good selection of problems is given on each topic.

In the areas of radiation interactions and the fundamentals required to understand radiation instrumentation, the book covers the gas laws, kinetic theory, ionization, x-ray physics, interactions of radiation with matter, semiconductors, radioactivity, particle accelerators, nuclear interactions and an introduction to the principles of quantum mechanics.

The material can adequately serve as a base for a more advanced treatment of these areas. In this respect, it bridges a gap between the less advanced course in elementary physics and the more sophisticated courses usually available to the advanced physics student. Its primary usefulness, therefore, is in courses designed for either interdisciplinary or engi-

neering curricula, such as in nuclear engineering.

The book is well written, presenting each topic clearly and concisely, and the subject matter is representative and timely.

NORMAN A. BAILY
Professor of Radiology
University of California, San Diego

NEW BOOKS

CONFERENCE PROCEEDINGS

Recent Developments in Ellipsometry. (Conf. Proc., Symposium of Recent Developments in Ellipsometry, Electrical Materials Laboratory, Univ. of Nebraska, Lincoln, Nebraska, 7-9 Aug. 1968.) N. M. Bashara, A. B. Buckman and A. C. Hall, eds. 452 pp. North-Holland, Amsterdam, 1969. \$24.00

Proceedings: International Conference on Properties of Nuclear States. (Conf. Proc., International Conference on Properties of Nuclear States, Montreal, Canada, 25-30 Aug 1969.) M. Harvey, R. Y. Cusson, J. S. Geiger and J. M. Pearson, eds. 811 pp. Les Presses de L'Université de Montréal, Montreal, Canada, 1969. Canada \$15.00

Vth International Congress on X-Ray Optics and Microanalysis; Tübingen 1968. (Conf. Proc., The Fifth International Congress on X-Ray Optics and Microanalysis, organized by the Institute of Applied Physics at Tübingen Univ., Western Germany, 9-14 Sept 1968.) G. Möllenstedt and K. H. Gaukler, eds. 612 pp. Springer-Verlag, New York, 1969. \$54.50

Clean Air Turbulence and Its Detection. (Conf. Proc., Symposium on Clear Air Turbulence and Its Detection, Seattle, Washington, 14-16 August 1968.) Yih-Ho Pao and Arnold Goldburg, eds. 552 pp. Plenum, New York, 1969. \$22.50

Boston Studies in the Philosophy of Science, Vols. IV and V (Conf. proc., Boston Colloquium on the Philosophy of Science 1966/1968). Robert S. Cohen and Marx W. Wartofsky, eds. 537 pp. Humanities Press, Inc., New York, 1969. \$20.00

Exploitation of Space for Experimental Research, Vol. 24 (Conf. proc., AAS 14th Annual Meeting, Dedham, Mass., 13-15 May 1968). Harry Zuckerberg, ed. 363 pp. American Astronautical Society, Tazana, Calif., 1969. \$14.25

Mass Loss From Stars (Conf. proc., 2nd Trieste Colloquium on Astrophysics, 12-17 Sept. 1968). Margerita Hack, ed. 345 pp. Springer-Verlag, New York, 1969. \$19.50

Hierarchical Structures (Conf. proc., Douglas Advanced Research Laboratories, Huntington Beach, California, 18-19 Nov., 1968). L. Law Whyte, A. G. Wilson and D. Wilson, eds. 322 pp. American Elsevier, New York, 1969. \$12.50

Nuclear Isospin (Conf. proc., 2nd Conference on Nuclear Isospin, Asilomar-Pacific Grove, California, 13-15 March 1969). John D. Anderson, Stewart D.

Oxford



Electrical Aspects of Combustion

By JAMES LAWTON, and FELIX WEINBERG, both of Imperial College, University of London. Recent years have seen a rapid growth of interest in ionization in flames, detonations, and other combustion phenomena. This has been stimulated by the practical implications of the subject, including direct generation of electricity from flame gases and the like. Dr. Lawton and Professor Weinberg have been actively engaged in these developments, and this book is entirely devoted to the formation, behavior in fields, diagnostics, and use of ions, electrons, and charged particles in combustion processes. 124 illustrations. \$11.20

Electron Paramagnetic Resonance of Transition Ions

By A. ABRAGAM, Collège de France; and B. BLEANEY, University of Oxford. This book gives the first comprehensive treatment of electron paramagnetic resonance of ions of the transition groups. A general survey presents such topics as the classical and quantum resonance equations, the spin Hamiltonian, Endor, spin-spin and spin-lattice interactions, together with an outline of the observed behavior of ions of each of the five transition groups. Finally, a theoretical survey discusses the fundamentals of the theory of paramagnetism. (International Series of Monographs on Physics.) 158 text figures. \$35.20

Non-Destructive Testing VIEWS, REVIEWS, PREVIEWS

By H. B. EGERTON. This volume of essays surveys non-destructive testing methods developed for the United Kingdom Atomic Energy Authority at Harwell. The essays are grouped in three sections covering data-processing and electronic techniques and the implications of advanced non-destructive testing techniques for the designer, techniques under development, and existing techniques. (Harwell Post-Graduate Series.) Paper \$8.00

The Metric System A CRITICAL STUDY OF ITS PRINCIPLES AND PRACTICE

By M. DANLOUX-DUMESNILS, l'Ecole Nationale Supérieure de l'Aéronautique; translated by ANNE GARRETT, and J. S. ROWLISON, both of Imperial College, University of London. This study traces the history, form, and development and extension of the metric system. It deals with how the metric system came into being, how it developed, what are S. I. units, and how they are related to older units and to the English system. The book is directed toward the proper use in practice which follows only after a full understanding of the principles that underlie the metric system. (The Athlone Press.) Paper \$2.40

OXFORD
UNIVERSITY
PRESS
200 Madison Avenue,
New York, N.Y. 10016