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continuous persecution since at least the sixteenth century, when Harvey used it to demonstrate the circulation of blood" (p. 226), and crazy about music: "... within the geometry of Lobachevski, the web of geodesics must swell and shrink to lawful music" (p. 374). It is good that from time to time the author makes us keenly aware that there is more to the world in which we live than science; ethics, morality, and even religion must be considered and thought about.

The pages abound with scientific statements which are inexact, which are wrong, and which are meaningless. Often somewhat gaudy language obscures the intended meaning; and yet Dr. Schneer has given us a stimulating, over-all look at physical science. The book is worth reading even if it infuriates the reader. It is a pity; a little judicious pruning and careful revision could have made it so very much better.

Tables of Physical and Chemical Constants, and Some Mathematical Functions (12th Revised Ed.). Originally compiled by G. W. C. Kaye and T. H. Laby. Revision eds., N. Feather, H. Barrell, E. A. Coulson, J. M. C. Scott. 231 pp. Longmans, Green & Co., New York, 1959. \$5.50. *Reviewed by E. J. Öpik, University of Maryland.*

THIS compilation may be called the British counterpart of the Smithsonian Physical Tables. The need for concise data of this kind cannot be enough emphasized. Despite the small size, these British tables contain a wealth of information which to a great extent is not covered by other similar sources, so that, instead of duplicating, the different publications supplement one another.

Thus, in a sample of 25 items of special interest to the reviewer chosen from the British tables, it was found that 44 percent are not covered, 32 percent are equally covered, and 24 percent are more completely covered by the Smithsonian tables. Among those not covered there are such items as electron recombination coefficients, total electron collision cross sections, and ionization cross sections.

The current 12th edition is up to date and can be warmly recommended to physicists, astrophysicists, geophysicists, and other scientists who are in need of a handy source of numerical information.

Physicochemical Measurements at High Temperatures. Edited by J. O'M. Bockris, J. L. White, J. D. Mackenzie. 394 pp. (Butterworths, England) Academic Press Inc., New York, 1959. \$13.50. *Reviewed by R. A. Pasternak, Stanford Research Institute.*

ADVANCEMENT of modern technology, particularly in the areas of nuclear energy and of jet propulsion, has been intimately tied to the development of high-temperature materials and processes. Many of the techniques for the investigations of high-temperature systems are of relatively recent date, and thus not yet to be found in monographs or textbooks. The editors

PLASMA PHYSICS

By S. Chandrasekhar. A course given at the University of Chicago. Notes compiled by S. K. Trehan. These brilliant lectures on the study of the properties of highly ionized gases in strong magnetic fields will be highly informative reading for all connected with current thermonuclear research.

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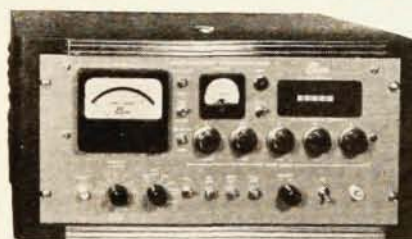
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of *Physicochemical Measurements at High Temperatures* have done a great service by collecting some of the most significant methods in one volume.

Initial chapters are concerned with general aspects of high-temperature research, i.e., temperature measurements, attaining and controlling temperature, stability of container materials. Successive chapters treat phase and chemical equilibria, calorimetry, liquid densitometry, surface tension, vapor pressure, electrochemistry, scattering and absorption of light in fused salts, ultrasonic velocity, diffusivity, and viscometry. Seven appendixes provide information on container materials for melts, melting points, and vapor pressures of the elements and other subjects primarily of practical value for the worker in the field.

This volume is an example of international scientific cooperation at its best and undoubtedly much of the credit belongs to the editors. Although each chapter originates from a different laboratory in the United States or Europe, it is well integrated into the over-all concept of the book, and is uniform in style and presentation. In general, a chapter consists of a short theoretical discussion, followed by a description of important experimental techniques. The concise presentation suffices to give the reader a fair idea of the principles involved; and since it is accompanied by an extensive list of references, needed details are made easily available.

In a book of such large scope, it is not surprising that some topics have been omitted, e.g., thermal and electrical conductance, emissivity, and crystal structure, each of which is of great practical and theoretical importance. It is hoped that these omissions will be remedied by a sequel to the present volume.

Books Received

FRONTIERS OF NUMERICAL MATHEMATICS: Symp. Proc. (U. of Wisc., Madison, Oct., 1959). Edited by Rudolph E. Langer. 132 pp. The U. of Wisconsin Press, Madison, Wisc., 1960. \$3.50.

CHEMICAL INSTRUMENTATION: A Systematic Approach to Instrumental Analysis. By Howard A. Strobel. 653 pp. Addison-Wesley Publishing Co., Inc., Reading, Mass., 1960. \$9.75.

BERYLLIUM. By G. E. Darwin and J. H. Buddery. No. 7 of *Metallurgy of the Rarer Metals*, edited by H. M. Finnis-ton. 392 pp. (Butterworths, London) Academic Press Inc., New York, 1960. \$13.50.

PHYSICAL METHODS IN CHEMICAL ANALYSIS, Vol. 1 (2nd Revised Ed.). Edited by Walter G. Berl. 686 pp. Academic Press Inc., New York, 1960. \$19.00.

PROPERTIES OF ELEMENTAL AND COMPOUND SEMICONDUCTORS: Conf. Proc. (Boston, Mass., Aug.-Sept. 1959). Vol. 5 of *Metallurgical Soc. Confs.* Edited by Harry C. Gatos. 340 pp. Interscience Publishers, Inc., New York, 1960. \$8.50.

RADIATIONS AND MATTER. By André Berthelot. Translated from 1956 French ed. by F. R. Paulsen. 180 pp. (Leonard Hill Ltd., London, 1958) The Macmillan Co., New York, 1960. \$5.75.

PROGRESS IN ELEMENTARY PARTICLE AND COSMIC RAY PHYSICS, Vol. 5. Edited by J. G. Wilson and S. A. Wouthuysen. 461 pp. (North-Holland Publishing Co., Netherlands) Interscience Publishers, Inc., New York, 1960. \$10.75.

STRESS WAVE PROPAGATION IN MATERIALS: Internat'l Symp. (Penn. State U., June-July 1959). Edited by Norman Davids. 337 pp. Interscience Publishers, Inc., New York, 1960. \$10.00.

HANDBOOK OF GEOPHYSICS (Revision of 1957 Ed.). Edited by C. F. Campen, Jr., A. E. Cole, T. P. Condrion, W. S. Ripley, Norman Sissenwine, Irving Solomon. 673 pp. The Macmillan Co., New York, 1960. \$15.00.

FUNDAMENTALS OF TRANSISTOR PHYSICS. By Irving Gottlieb. 146 pp. John F. Rider Publisher, Inc., New York, 1960. Paperbound \$3.90.

BASICS OF GYROSCOPES. Vol. 1, 101 pp. Vol. 2, 114 pp. By Carl Machover. John F. Rider Publisher, Inc., New York, 1960. Paperbound \$3.30 each.

HIGH SPEED TESTING, Vol. 1: Symp. Proc. (Boston, Mass., Dec. 1958). Cochairmen A. G. H. Dietz and Frederick R. Eirich. 112 pp. Interscience Publishers, Inc., New York, 1960. \$5.00.

MERCURY BAROMETERS AND MANOMETERS. By W. G. Brombacher, D. P. Johnson, J. L. Cross. 59 pp. NBS Monograph 8. US Govt. Printing Office, Washington, D. C., 1960. Paperbound \$4.00.

ELEMENTARY MODERN PHYSICS. By Richard T. Weidner and Robert L. Sells. 513 pp. Allyn & Bacon, Inc., Boston, Mass., 1960. \$8.50.

TRAVAUX PRATIQUES DE PHYSIQUE NUCLÉAIRE ET DE RADIOCHIMIE: Détection des Rayonnements et Méthodes d'Etude de la Structure nucléaire. By M. Duquesne, R. Grégoire, M. Lefort. 324 pp. Masson & Cie, Paris, France, 1960. Paperbound 39 NF.

THE FOUNDATIONS OF CHEMICAL KINETICS. By Sidney W. Benson. 703 pp. McGraw-Hill Book Co., Inc., New York, 1960. \$13.50.

APPLIED BOOLEAN ALGEBRA: An Elementary Introduction. By Franz E. Hohn. 139 pp. The Macmillan Co., New York, 1960. Paperbound \$2.50.

KERNTECHNIK: Physik, Technologie, Reaktoren. Edited by Wolfgang Riezler, Wilhelm Walcher, Wolfgang Finkelnburg, Heinz Maier-Leibnitz. 1002 pp. B. G. Teubner Verlagsgesellschaft mbH, Stuttgart, Germany, 1958. DM 150.00.

PHYSICS: Foundations and Frontiers. By George Gamow and John M. Cleveland. 551 pp. Prentice-Hall, Inc., Englewood Cliffs, N. J., 1960. \$7.95.

INFRARED RADIATION. By Henry L. Hackforth. 303 pp. McGraw-Hill Book Co., Inc., New York, 1960. \$10.00.

INFORMATION PROCESSING: Conf. Proc. (UNESCO, Paris, June 1959). 520 pp. UNESCO, Paris, 1960. (Distributed by UNESCO Publications Center, New York.) \$25.00.

NON-CRYSTALLINE SOLIDS: Conf. Proc. (Alfred, N. Y., Sept. 1958). Edited by V. D. Fréchette. 536 pp. John Wiley & Sons, Inc., New York, 1960. \$15.00.

THÉORIE RELATIVISTE DES FLUIDES A SPIN: Recherches sur la Dynamique du Corpuscule tournant relativiste et l'Hydrodynamique relativiste des Fluides dotés d'une Densité de Moment angulaire interne. No. 10 of *Les Grands Problèmes des Sciences*. By Francis Halbwachs. 294 pp. Gauthier-Villars, Paris, 1960. Paperbound \$12.50.