

no mention is made of the G. N. Lewis theory, nor is there any discussion of the effect of formal charge on acid strength. In particular, the section on the chemical reaction suffers from the general inability to use structure to predict reactivity except to a limited degree.

The volumes are valuable as a reference to all phases of molecular structure. The historical development of fundamental chemical concepts is excellent and gives a special charm to many chapters.

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The Chemistry of Heterocyclic Compounds: Thiophene and Its Derivatives. Howard D. Hartough, with special chapters by F. P. Hochgesang and F. F. Blicke. New York-London: Interscience, 1952. 533 pp. \$16.50; sub. price, \$15.00.

This book is the third in a series of monographs on "The Chemistry of Heterocyclic Compounds" (Arnold Weissberger, consulting editor). The present volume thoroughly and critically covers and catalogues the literature on thiophene published prior to October 1949. Condensed ring systems containing thiophene rings are scheduled for publication in a separate volume.

The opening chapter presents a general discussion of thiophene: its detailed history, occurrence, isolation, nomenclature, analysis, etc. This is followed by a review by F. F. Blicke of the biological and pharmacological activity of thiophene and its derivatives. There is also a special chapter by F. P. Hochgesang on the spectrochemical and related properties of thiophene compounds; this includes much unpublished data. Several sections consider such topics as the synthesis, physical properties, and special reactions of thiophene and its homologs, and factors affecting substitution reactions in thiophene and its derivatives. In the remaining ten chapters, the syntheses and properties of various classes of thiophene compounds and their selenium and tellurium analogs are considered.

Valuable aid in the laboratory preparation of derivatives of thiophene is offered by the final section. It presents satisfactory methods for the synthesis of approximately 30 different compounds; many of the procedures were checked independently.

Steinkopf's book, *Die Chemie des Thiophens*, is also an exhaustive treatment of this subject; however, it was published in 1941. In view of the rapid progress in thiophene chemistry since 1944, Dr. Hartough, who has made several contributions to the recent literature in this field, has filled a great need by his book. Furthermore, it is well written and organized, and throughout the monograph liberal use is made of references to the original literature. It will be useful to chemists working in this field and as a text in seminars or courses at the graduate level.

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Scientific Book Register

Journal of Researches into the Geology and Natural History of the Various Countries Visited by H. M. S. Beagle. Fac. repr. of 1st ed., 1839. Charles Darwin. New York-London: Hafner, 1952. 615 pp. and plates. \$7.50.

Problems of Aging. Transactions of the Fourteenth Conference, September 7-8, 1951, St. Louis. Nathan W. Shock, Ed. New York: Josiah Macy, Jr. Fdn., 1952. 138 pp. \$3.00.

A Hundred Years of Anthropology. 2nd ed. T. K. Penniman, with contributions by Beatrice Blackwood and J. S. Weiner. London: Duckworth; New York: Macmillan, 1952. 512 pp. \$5.00.

The Electromagnetic Field. Repr. Max Mason and Warren Weaver. New York: Dover, 1952. 390 pp. \$3.95; paperbound, \$1.85.

Pathologie Chimique, Vol. II. Michel Polonovski, Ed. Paris: Masson, 1952. 770 pp.

An Explaining and Pronouncing Dictionary of Scientific and Technical Words. 10,000 scientific and technical words in 50 subjects explained as to a person who has little or no knowledge of the particular subject. W. E. Flood and Michael West; illus. by Charles A. Baker. London-New York: Longmans, Green, 1952. 397 pp. \$2.25.

Acids and Bases: Their Quantitative Behaviour. R. P. Bell. London: Methuen; New York: Wiley, 1952. 90 pp. \$1.50.

Diagnostic Electroencephalography. Hans Strauss, Mortimer Ostow, and Louis Greenstein. New York: Grune & Stratton, 1952. 282 pp. \$7.75.

The Zoological Record, Vol. 86. Records of zoological literature relating chiefly to 1949. Malcolm Smith, Ed. London: Zoological Society, 1952. 19 sections. £6 for complete volume, with special prices for separate sections.

Renal Function. Transactions of the third conference, October 18-19, 1951, New York. Stanley E. Bradley, Ed. New York: Josiah Macy, Jr. Fdn., 1952. 210 pp. \$3.50.

Advances in Enzymology and Related Subjects of Biochemistry, Vol. XIII. F. F. Nord, Ed. New York-London: Interscience, 1952. 413 pp., incl. cumulative index for Vols. I-XIII. \$8.50.

Die Chirurgie des Dickdarms. Wiener Beiträge zur Chirurgie, Vol. VII. Hans Finsterer. Vienna-Düsseldorf: Wilhelm Maudrich, 1952. 382 pp. \$12.50.

Parasitism and Symbiosis. Maurice Caullery; trans. by Averil M. Lysaght. London: Sidgwick and Jackson; New York: Macmillan, 1952. 340 pp. \$5.50.

Spatial Vectorcardiography. Arthur Grishman and Leonard Scherlis. Philadelphia-London: Saunders, 1952. 217 pp. \$6.00.

The Shoals of Capricorn. A 20,000-mile expedition to the Seychelles Islands in the Indian Ocean. F. D. Ommanney. New York: Harcourt, Brace, 1952. 322 pp. \$4.00.

Correction: It has been called to my attention that in my review of *Contributions to Embryology*, Vol. XXXIV, which appeared in SCIENCE, May 23 (115, 580 [1952]), I stated that the paper "On Cyclic Changes in the Endometrium of the Macaque" was by "Bartelmez, with the collaboration of Corner and Heuser." The authorship should have read "Bartelmez, with the collaboration of Corner and Hartman."—A. ELIZABETH ADAMS.