

analytical separations and those dealing with natural organic products fare better than those verging on industrial processes and those developed in research on the production of atomic energy. However, an attempt to include every pertinent citation would have lowered the ratio of usefulness to price of the book.

The German style is clear and straight-forward, and the mathematics limited to algebra. The book is very well manufactured; only three trivial misprints have been noted. It is heartily recommended.

OKLAHOMA A. AND M. COLLEGE
STILLWATER, OKLAHOMA

O. C. DERMER

Elsevier's Encyclopaedia of Organic Chemistry. Series III. Carbocyclic Condensed Compounds. Volume 14—Supplement. Nor-Steroids. Steroids. Hydrocarbons. Halogen, Nitrogen, and Unsubstituted Monohydroxyl Compounds. Edited by F. RADT. Elsevier Publishing Company, 2330 Holcombe Blvd., Houston 25, Texas. 1954. xxxix + pages 1347 S–1868 S. 18.5 × 25.5 cm. Price, \$36.00 for set subscribers, \$42.00 for subscribers to Series III, \$48.00 per single copy.

It is difficult to add anything complimentary about this new supplement in the "Elsevier" series, which has not been said already about earlier volumes. The physical appearance, the organization and the general approach are superb and in so far as coverage of steroids or triterpenes is concerned, there simply does not exist anything comparable in the chemical literature.

The original volume 14 covered steroids and triterpenes up to 1936, but in view of the enormous research effort expended in those fields since that time, it has been impossible to cover the next period (1937–1946) in one single supplement. The section on triterpenes has appeared already and the present supplement represents the first of several which will cover the steroid literature up to 1946.

The present volume is concerned chiefly with sterols and some of their halogenated derivatives; sterols containing amino and nitro groups also are included. The portion on "nor-steroids" does not deal with the physiologically important 19-norhormones but rather with sterols in which rings A or B are five-membered. Finally, both aromatic (1,2-cyclopentenophenanthrene and analogs) and perhydro steroidal (androstane, cholane, etc.) hydrocarbons are covered.

A particularly impressive feature is that while the coverage concerning compounds ends in 1946, almost every section includes references from the 1947–1954 literature, where this pertains to recent changes in the structure or stereochemistry of the particular compound under discussion. A few striking examples of this up-to-dateness follow.

Most of the 1953–1954 references to the absolute configuration of steroids are listed in the nomenclature and stereochemistry section in the beginning of this volume. The section on cholestan-1-ol and cholestan-2-ol contains two references from 1944, one each from 1949 and 1952 and two from the 1954 literature. The structures of the dienone-phenol rearrangement products in the cholestaene series all have been corrected in the light of latest structural revisions (1951) in spite of the fact that this subject presumably will be covered again in a future 1947–1956 supplement.

The section on cholesterol is particularly impressive, covering as it does over 100 pages and over 1000 references. This material represents for all practical purposes a monograph on cholesterol and is concerned with the physical constants, occurrence, chemistry and biological effects of this substance. The other sterols (e.g., ergosterol, stigmasterol, sitosterols) are discussed in an equally complete manner. It is interesting to note that of the 1000 references dealing

with cholesterol, nearly 300 refer to literature citations prior to 1936 in spite of the fact that cholesterol already has been reviewed up to 1936 in the original volume 14.

The system of nomenclature is outlined in the introduction and the wisdom of some of the editorial decisions appears open to question. While the Fieser system is used generally, some of the more recent recommendations of the Ciba Foundation Conference on Steroid Nomenclature are not employed, principally because these terms are not found in the 1937–1946 literature with which this volume is concerned. While this is not regrettable for names such as "gonane" which have never received general acceptance, the *i*-steroids surely could have been named according to the "cyclo" system and similarly ring scission should have been indicated by the prefix "seco" rather than by following the antiquated (1938) Sobotka proposals. Admittedly, these are minor objections but since the present nomenclature may constitute a precedent for future supplementary volumes, it might be pertinent to reconsider some of the editorial decisions along those lines.

Possibly the most commendable practice in the preparation of the "Elsevier" volumes has been to cover first of all fields (such as steroids) of current interest which for all practical purposes are not even mentioned in other compendia such as Beilstein. Consequently, it is somewhat surprising that this first supplementary volume on steroids should concern itself chiefly with sterols rather than with steroid hormones, which certainly have received and are receiving the main emphasis in current steroid research and where a more recent coverage is extremely desirable. Similarly, the section on steroidal sapogenins in the original volume 14 is completely out of date since the structural formulas have been revised since that time (1936) and indeed the majority of sapogenins only were isolated in the period 1937–1946; a supplement of this subject is sorely needed.

"Elsevier" has become so indispensable to the steroid chemist that it is hoped that the remaining supplements to volume 14 will be issued shortly.

WAYNE UNIVERSITY
DETROIT, MICHIGAN

CARL DJERASSI

BOOKS RECEIVED

July 10, 1955—August 10, 1955

- R. B. BARLOW. "Introduction to Chemical Pharmacology." John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1955. 343 pp. \$6.25.
- RICHARD T. COX. "Statistical Mechanics of Irreversible Change." The Johns Hopkins Press, Homewood, Baltimore 18, Maryland. 1955. 130 pp. \$5.00.
- VICTOR GRIGNARD, G. DUPONT, and R. LOCQUIN (Editors). "Traité de Chimie Organique." Vol. XXIII. Masson et Cie, Éditeurs, 120 Boulevard Saint-Germain, Paris VI, France. 1954. 360 pp. Broché 8.000 Fr., Cartonné toile 8.600 Fr.
- WILLARD F. LIBBY. "Radiocarbon Dating." Second Edition. University of Chicago Press, 5750 Ellis Avenue, Chicago 37, Illinois. 1955. 175 pp. \$4.50.
- LEONARD B. LOEB. "Basic Processes of Gaseous Electronics." University of California Press, Berkeley 4, California. 1955. 1012 pp. \$13.50.
- J. MURRAY LUCK, Editor, HUBERT S. LORING, and GORDON MACKINNEY, Associate Editors. "Annual Review of Biochemistry." Volume 24. Annual Reviews, Inc., Stanford, California. 1955. 805 pp. \$7.00.