

New Books

Gmelins Handbuch der anorganischen Chemie, 8. Auflage, System-Nummer 10. Selen, Teil B: Die Verbindungen des Selens. Gmelin-Verlag, Clausthal-Zellerfeld, 1949. DM 40.

For many decades, Gmelin's Handbuch has been the reference book of inorganic chemistry, unparalleled in breadth of scope and completeness of references. After the German collapse, the Gmelin Institute quite naturally met with considerable difficulties. All chemists will be pleased to know that it has been able to continue its work, as shown by the appearance, in 1949, of four new issues of Gmelin's Handbuch (Se B, Sb B2, Sb B3, and Pt A5).

Issue Se B treats the compounds of selenium. Since selenium has a low number (10) in Gmelin's system, only compounds of elements with very low numbers (H, O, N, the halogens, and S) are included. Following the traditions of Gmelin, not only the chemical properties in a narrow sense (preparation, reactions, equilibria, etc.) but also physico-chemical and physical properties are very thoroughly reported.

The text in all respects seems to be up to pre-war standards. A number of pages is devoted to the increasing use of selenium dioxide as an oxidant in organic chemistry.

On page IV we find the notice "Die Literatur ist berücksichtigt bis 1. Januar 1948". Had they but desired, Dr Pietsch and his collaborators could certainly have written a thrilling preface telling about all the difficulties they have had in accomplishing this result.

Lars Gunnar Sillén

E. Waldschmidt-Leitz. *Chemie der Eiweisskörper*. Sammlung chemischer und chemisch-technischer Vorträge, Neue Folge Heft 49. Ferdinand Enke Verlag, Stuttgart, 1950. vi + 187 pp. DM 16.—

The author states in the preface that this book is designed primarily for German readers who have had difficulty in finding the modern literature on protein chemistry. However, the book is of great interest far outside German territory. Prof. Waldschmidt-Leitz has written a relatively short but most valuable monograph on the chemistry of proteins by discussing particularly the recent advances in this subject. The physico-chemical properties and the physiological metabolism of the proteins are only described in broad outline. The literature has been considered till the end of 1948 and the volume contains a comparatively large number of references (about 1500).

The first half of the book describes in five chapters the general chemical properties of proteins. Chapter I (23 pp.) describes the amino acids as constituents of proteins. The modern methods for the separation of amino acids are shortly mentioned and the most important ones for their quantitative determination are summarised with a comprehensive list of references. Chapter II (7 pp.) discusses shortly the synthesis, constitution, properties, occurrence, and isolation of peptides. In Chapter III (15 pp.) the general properties of the proteins as colloids are described.

The degradation of proteins is described in Chapter IV. In its first part (6 pp.) the non-hydrolytic reactions are briefly

mentioned. The second and main part of this chapter (24 pp.) discusses the hydrolysis of proteins. As expected, enzymic hydrolysis is exhaustively described and the result is a most valuable survey of the chemistry of the proteinases and peptidases.

The various hypotheses about the structure of proteins are discussed in Chapter V (29 pp.) As with most of the problems described, the author reviews this complex question by considering the most recent literature.

The second half of the book (Chapter VI; 70 pp.) contains a description of the different groups of proteins. The physical constants and the amino acid constituents

are summarised clearly in many tables. The book ends with a survey of "physiologically active proteins", such as hormones, enzymes, viruses, toxins, and bacteriophages.

The generally accepted nomenclature for amino acids (D and L, instead of *d* and *l*) now in use in all modern textbooks and periodicals of biochemistry, has not been incorporated. There are only a few missprints (*e.g.*, p. 5, structure of iodogorgoic acid; p. 105, cytochrome *c*).

The book is well written and printed. It is recommended to all who want to get a short introductory survey of protein chemistry.

Klas-Bertil Augustinsson