

*Lehrbuch der Physiologischen Chemie* von S. EDLBACHER UND F. LEUTHARDT, Walter de Gruyter & Co., Berlin. 10. Auflage 1952. I. Hälfte, XX + 415 p. 38 illustrations. Price D.M. 22.60.

This is a new edition of the well-known book by the late Professor EDLBACHER, completely revised by Professor LEUTHARDT from Zürich.

In the first half of this book, with which the review is dealing, some 100 pages deal with the chemistry of substances in our food and in the body. About 50 pages are used for a thorough review of the physico-chemical basis of biochemistry. The other 250 pages are dedicated to metabolism.

According to the preface, the book was primarily intended for medical students. However, the reviewer was somewhat disappointed in his hope that this book might bring about the much-wanted textbook of biochemistry which gives the right approach for this category of students. Probably the most serious handicap for the author has been that he could not compile the book completely himself, but had to work with the already existing text and therefore was more or less bound by it.

This text presents a, not always logical, chapter sequence that is devoid of interchapter relationships and summaries. References to other parts of the book to stress interconnections are often badly lacking, as for example between vitamins and metabolism.

To specify a few objections: for students unfamiliar with biochemistry, it would have been much more useful to handle first the vitamins and hormones (which are being published in the second half of the book) and only then talk about all those reactions in which these substances participate. In its present form the uninitiated reader will not even notice in the chapter on biological oxidations that the essential part of many coenzymes are vitamins.

It no longer seems useful to adhere to the old scheme of splitting up carbohydrate metabolism in separate, distinct chapters: glycolysis, glycogen breakdown and oxidative breakdown.

The chapters on the regulations of blood glucose, diabetes mellitus and the metabolism of tumours are put unhappily between carbohydrate and protein metabolism. They might have been more at home in the chapters on blood and on chemical regulations of physiological functions.

On page 368 *ff.* the ornithine cycle is extensively handled, but the arginase reaction is not mentioned; neither is there a reference to page 172 where arginase occupies a whole page.

Notwithstanding these objections, this book contains a wealth of up-to-date information and therefore should be a valuable addition to the textbooks of biochemistry in the German language.

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*The Metabolism of Protein Constituents in the Mammalian Body*, S. J. BACH, Clarendon Press, Oxford, 1952. 272 pages, price 40 s.

As the author remarks in his Preface, since about 1930 no comprehensive treatise of amino acid metabolism has been published. In the reviewer's opinion he has therefore rendered biochemists a great service with his effort to compile and discuss the advance in this field since these times, for the progress has been enormous. In this book alanine, glycine, serine, threonine, valine, leucine, isoleucine, cysteine (cystine) and methionine only have been treated, while solely the metabolism in the mammalian body has been considered, and yet the number of references already amounts to about 1200. The remaining amino acids will be dealt with in another volume.

To give an example of the broad scope of the field covered it may be pointed out that in the chapter on the sulphur-bearing amino acids also glutathione (function, degradation, synthesis), the SH-enzymes, cystinuria, transmethylation and lipotropic factors are treated in full.

Dr. BACH may be congratulated with the way he has executed the formidable task which he has imposed upon himself. His book will certainly be a great help to research workers in many fields, as well as to those who require a lucid account of the complicated problems of amino acid metabolism in connection with their duties of teaching.

H. G. K. WESTENBRINK (Utrecht)