

BOOK REVIEWS

The Enzymes, Chemistry and Mechanism of Action, Volume I, Part I, edited by JAMES B. SUMNER AND K. MYRBÄCK. Academic Press Inc., New York, 1950, pp. XVII + 724. \$ 13.50.

This comprehensive treatise of enzymology, of which the first part has now appeared, must be welcomed as a worthy successor of two wellknown German handbooks, *viz.*, the renowned *Die Fermente und ihre Wirkungen* by the late CARL OPPENHEIMER and the *Handbuch der Enzymologie*, edited by F. F. NORD AND R. WEIDENHAGEN. Except for the chapters on the kinetics of enzyme reactions OPPENHEIMER himself was the author of the whole text of the earlier editions of his book, but even he with his unsurpassed aptitude for compiling enormous numbers of experimental results, was compelled to invite a co-worker (W. ROMAN) responsible for various chapters, in order to finish the supplement to the fifth and last edition in a reasonable time. NORD AND WEIDENHAGEN realized that in modern times it is impossible for one author to cover the whole field and a truly excellent work, which appeared in 1940, was created through the joint efforts of many, chiefly German, scientists. Since that year no other comprehensive treatise has been published. In view of the enormous accumulation of new experimental data and the development of several new theoretical conceptions, not only during, but in particular since the war, the lack of such a treatise could no longer be compensated by the regular appearance of review articles in the series *Advances of Enzymology* and many other yearbooks and periodicals. Our thanks are therefore due to Professors SUMNER AND MYRBÄCK for having undertaken the task of planning, of bringing together 78 specialists and of co-ordinating their efforts to create a monument of enzymology marking the turn of the 20th century.

The complete work will consist of two volumes, each divided in two parts. The first part of Volume I has now appeared.

The introduction, containing definitions, terminology and classification, history, and general remarks concerning properties and determinations of enzymes, has been written by the Editors themselves. This part further contains several chapters of general interest, *viz.*, Physical Chemistry and Chemical Kinetics of Enzymes by E. A. MOELWYN-HUGHES; Enzyme Specificity, by B. HELFERICH; Enzymes in Relation to Genes, Viruses, Hormones, Vitamins, and Chemotherapeutic Drug Action, by M. G. SEVAG, J. S. GOTS AND E. STEERS; Cytochemical Foundation of Enzyme Chemistry, by A. L. DOUNCE; Modern Aspects of Enzymatic Adaptation, by S. SPIEGELMAN; Enzyme Inhibition, by L. MASSART; Enzymes and Immunology, by J. R. MARRACK.

Then follows the treatment of special topics in a series of chapters, which will be continued in the three remaining Parts of the work. These chapters are entitled: Enzymes Hydrolyzing Fats and Esters, by R. AMMON AND M. JAARMA; Acetylcholine Esterase and Choline Esterase by K. B. AUGUSTINSSON; Metaphosphate and its Enzymatic Breakdown, by B. INGELMAN; Sulfatases, by C. FROMAGEOT; Invertase, by C. NEUBERG AND I. MANDL; α -D-Glucosidases, by A. GOTTSCHALK; β -Glucosidase, by S. VEIBEL; Hydrolysis of Galactosides, Mannosides, and Thioglycosides, by S. VEIBEL; β -Glucuronidase, by W. H. FISHMAN; Amylases and the Hydrolysis of Starch and Glycogen, by K. MYRBÄCK AND G. NEUMÜLLER.

A great wealth of knowledge, experimental as well as theoretical, has been accumulated, both in the general and in the special chapters of this book. In the reviewer's opinion the work, when completed, will have filled up a severe gap in the library of every biochemical laboratory.

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