

*Biochemistry, An Introductory Textbook*, by F. HAUROWITZ. John Wiley and Sons, Inc., New York, 1955, xvi + 485 pages, 59 figs., \$ 6.75.

At last a book has alighted on our desk for which we have been waiting a long time, namely a book of restricted dimensions in which the fundamentals of biochemistry are clearly and concisely exposed. Its language is commendably plain, which will encourage students who are still unfamiliar with biochemistry to get to grips with this subject. Although, according to the foreword, it is primarily intended for seniors and graduate students majoring in bacteriology, botany, chemistry, physiology or zoology, I am convinced it will also be employed with profit by medical students.

In several respects this book departs from the conventional pattern of the more elaborate textbooks. After a brief introduction and mention of some indispensable principles of physical chemistry in a manner just sufficient to brush up previously acquired knowledge, the mechanism of biochemical reactions is discussed. Thereupon the different types of compounds: carbohydrates, proteins, lipids, etc. are treated. In this treatment a discussion of chemistry (only the bare essentials) and metabolism of each class of compounds are happily combined in one chapter. The principal methods of determination are also included. The book concludes with chapters on enzymes, energy balances and nutrition, and human biochemistry, the latter containing a collection of facts that had not yet found a place in preceding chapters.

Tastes differ and so upon perusal of this book one is sometimes inclined to wonder whether certain matters have been presented to their best advantage. For instance, the question may be put whether it is desirable, as HAUROWITZ has done, to let the synthesis of the several types of compounds precede a discussion of their breakdown, instead of the other way round. It seems easier to comprehend the pathways of synthesis when one is already acquainted with the pathways of breakdown. Further, is there any advantage in the early mention of the citric acid cycle as a biochemical mechanism, out of context of carbohydrate (and fat) metabolism? Some subjects tend to be rather scattered over different chapters. This applies to the enzymes in particular. They are barely mentioned in the discussion of the metabolic processes in which they take part, but have to be looked for in the separate chapter on enzymes or that on biochemical mechanisms.

Of course, in a book of this size many things have to go unmentioned or can only just be touched upon. In some instances this is perhaps rather regrettable: for instance it would have been pleasant to find a little more about digestive processes and the structure of the polysaccharides. Some items are mentioned so briefly that they might as well have been left out altogether: for instance, transaldolation and transketolation. These processes are difficult to understand without a more elaborate discussion of the hexose monophosphate oxidative pathway.

But criticism is easy, and it will be much more difficult to improve upon this book without losing its great advantage of conciseness. Some commendable features may still be indicated: a list of abbreviations and lists of biochemical literature, including selected references at the end of each chapter. The book is handsomely produced and is illustrated with many formulae and diagrams. Altogether it may be warmly recommended for what it is: an introductory textbook.

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*A Symposium on Amino Acid Metabolism*, edited by WILLIAM D. McELROY AND H. BENTLEY GLASS, The Johns Hopkins Press, Baltimore, 1955, xvi + 1048 pages, \$ 12.50.

Das Symposium hat 1954 an der Johns Hopkins Universität stattgefunden und alle Autoren, die mit Erfolg auf dem Gebiet des intermediären Stoffwechsels der Aminosäuren gearbeitet haben, waren mit Vorträgen vertreten. So bekommt man über die einzelnen Gebiete Auskunft aus erster Hand. Der gesamte Inhalt gliedert sich in sechs Teile. Im ersten Teil sind die allgemeinen Reaktionen der Aminosäuren zusammengefasst wie Desaminierung, Transaminierung, Aufnahme der Aminosäuren in die Zellen, Aufbau von Proteinen und Fermenten aus Aminosäuren. Die anderen Teile bringen den Stoffwechsel der einzelnen Aminosäuren in Gruppen nach der Verwandtschaft ihres Schicksals geordnet. Am Schluss fasst BENTLEY GLASS alles zusammen. Sein Aufsatz gibt einen geschlossenen Überblick über den gegenwärtigen Stand unserer Kenntnisse vom intermediären Stoffwechsel der Aminosäuren und in den vorausgehenden Kapiteln erfährt man die Einzelheiten der experimentellen Beweise. In den Diskussionen, die ebenfalls abgedruckt sind, wird manches ergänzt, anderes eingeschränkt. Das macht das Buch lebendig und seine Lektüre anregend. Nur eines ist auszusetzen. Auf dem Titelblatt erfährt man, dass das Buch dem intermediären Stoffwechsel der Aminosäuren gewidmet ist. Das wird auf jeder linken Seite wiederholt, als ob man es vergessen könnte. Besser hätte man erwähnt welche Aminosäure gerade behandelt wird. Das hätte die Benutzung des Buches wesentlich erleichtert.

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