Amino acid metabolism

by D. A. Bender
John Wiley & Sons Ltd.; London, New York, Sydney, Toronto, 1975
xi + 234 pages. £10

Dr Bender's book is intended for final year undergraduates and post-graduate students. His aim is to bridge the gap between specialist books and reviews and those general biochemistry texts which treat amino acid metabolism perfunctorily.

Four chapters (146 pages) deal with general amino metabolism and another four chapters (80 pages) are entitled: 'The ecology of nitrogen', 'The role of vitamin B_6 in amino acid metabolism'; 'Amino acids in the central nervous system' and 'Nutritional aspects of amino acids'. The book is well produced and printed clearly on good quality paper.

The impression conveyed by the book is that the emphasis is on factual content rather than on a critical appraisal of the subject and the book does contain an amount of material which cannot be found elsewhere in a single volume. Whether students who read the book would gain more from a deeper analysis of fewer topics is a matter of opinion.

The book's main strength lies in the chapters dealing with amino acid metabolism which encompass animals, higher plants and bacteria. This is a laudable approach, but brings with it the problem that when referring to a particular enzyme or pathway, the author has to generalize broadly. One is sometimes left uncertain whether the statements refer to a particular species or not! The solution, to compile tables of data from different organisms, would probably render the book more encyclopaedic than the author intended, but might ha been a useful device occasionally.

The chapter on nutrition is contributed by Profess A. E. Bender. This area is virtually ignored by moderr biochemistry texts and I believe that the authors miss a great opportunity by not writing together a chapter with a strong biochemical flavour. The existing chapt contains conventional nutritional information and giv the impression of being an appendix to the main worl There is some duplication of material given elsewhere the book.

The author represents structures of carboxylic acic in the unionized forms but frequently (and inconsiste names them as the ionized forms. This mixed nomenclature is especially troublesome in diagrams, which a otherwise clearly drawn.

References in the text are collected at the end of t book and each chapter is appended with recommenda tions for further reading. The titles of all references a given – a worthwhile extra. I was surprised to discove that neither 'Biochemistry of the amino acids' by Alt Meister, nor 'Metabolic Pathways' volume III (3rd edition, edited by David M. Greenberg) were cited.

The price seems high for a book intended for stude use, unless the publishers have a paper-back edition in mind.

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