he presents an interesting if slightly controversial view of the fascinating control systems in reticulocytes, Safer on 'initiation complexes' and Moldave on 'initiation factors', Bosch on 'the structure and function of the 3'-terminus of 16 S rRNA'. But there are many more and as I previously mentioned there are compar-

atively unknown names from Poland, Czeckoslovakia, DDR and USSR.

The book appears to be carefully edited and adequately illustrated although the electron micrographs are sometimes very poorly reproduced.

.P. N. Campbell

Amino Acid Metabolism

by D. A. Bender John Wiley; London, New York, Sydney, Toronto, 1978 xi + 234 pages. £5.50

This publication is the paperback edition of a clearly-written textbook first published in 1975. There is more information concerning the degradation and biosynthesis of amino acids than in general biochemistry textbooks and therefore this publication offers a useful service to third year undergraduates and research students interested in the field of amino acid metabolism. Indeed, this paperback version is likely to be quite popular amongst such students.

The contents of the book show a bias towards human biology, as made clear in the preface.

The chapter 'amino acids in the central nervous system' seems a little isolated from the rest of the book and could have possibly been improved by including similar chapters on the involvement of amino acids in chemoreception and osmoregulation. In such chapters a clearer presentation of amino acid transport could have been given. This would have been a marked improvement on the 4-page section describing the  $\gamma$ -glutamyl cycle hypothesis which is presented somewhat out-of-place in a chapter on amino acids synthesised from glutamate.

A more serious omission is the lack of a chapter concerning the biochemistry of non-protein amino

acids. There are over 400 of these amino acids now structured. They appear to be very widely distributed in plant tissues, many of them possessing powerful pharmacological and biochemical properties. By introducing such aspects Dr Bender would have produced a book with a much wider appeal.

A further minor criticism is that, for a book totally devoted to amino acid metabolism, there is remarkably little information concerning amino acid oxidases.

The 4 chapters dealing with general amino acid metabolism provide an excellent review of the subject. The information is not presented in an encyclopaedic fashion but in logical sections which make interesting reading. These sections also describe the biosynthesis of porphyrins, phospholipids, creatine, the proteins of connective tissue, melanin, thyroid hormones and auxins. The metabolic sequences are clear and presented in a relatively uncluttered fashion.

The book is reasonably priced.

A review by P. B. Nunn, concerning the hardback edition of this book has been published in FEBS Lett. (1976) 64, 241.

R. C. Hider