

of updating knowledge and whetting appetites for further developments. The reasonable price of this book makes it an imperative purchase for all who are interested in the subject.

G. G. Birch

Methods of Enzymatic Analysis. Volume III: Enzymes 1: Oxidoreductases, Transferases. By Hans Ulrich Bergmeyer. Verlag Chemie, Weinheim, Deerfield beach (Florida), Basel, 1983. xxvi + 605 pp. Subscription price: DM 191, post subscription price DM 224. (Subscription prices apply when all 10 volumes are ordered. Individual volume price: DM 258.)

The third volume of Bergmeyer's *Methods of Enzymatic Analysis* deals with oxidoreductases and transferases as analytical reagents. The oxidoreductases are possibly the most important class of enzymes used in analytical chemistry; every food scientist is familiar with glucose oxidase. This volume also contains three review sections on: methods of enzyme determination, the measurement of catalytic activity in body fluids other than blood, and isoenzyme analysis. The review chapters are well written and should be of especial interest to those new to enzymology.

The meat of the book, however, deals with the assay of various selected enzymes and the use of these enzymes as analytical reagents. While most of the chapters present sensible logical assays, some do not. The assay given for xanthine oxidase for example seems needlessly complicated, involving the coupling of peroxide formation to acetaldehyde oxidation via catalase and alcohol dehydrogenase. Since acetaldehyde is a good substrate for xanthine oxidase as well as aldehyde dehydrogenase it is surprising that the authors found this assay to be accurate. This chapter also has a glaring typographical error, the product of acetaldehyde oxidation is not urate but acetate.

My other complaint against the book concerns the practice of having several separate chapters on one enzyme. Surely it would have been possible for one author to consider the merits of lactate dehydrogenase in one chapter rather than four.

There is no author index, and I found the general index a bit sparse. However, on the whole the book is well produced.

There is no doubt that this series is an invaluable aid to those who routinely use enzymes in chemical analysis. It seems a pity, though, that a

book such as this, which should ideally be in the lab as a quick ready source of information is so expensive that only libraries will be able to afford it.

F. F. Morpeth

Solvent Extraction and Ion Exchange. Edited by E. Philip Horwitz and James D. Navratil. Marcel Dekker, Inc., New York and Basel. ISSN 0736-6299.

This new journal should prove to be of interest to those who are concerned with Separation Processes and Hydrometallurgy. The first volume has set a high standard and this bodes well for the future of the publication. J. Calvin Giddings is to coordinate the publication as this is a companion journal to *Separation Science and Technology*.

M. Hudson

World Vegetables: Principles, Production and Nutritive Values. By Mas Yamaguchi, Ellis Horwood Ltd, Chichester, Great Britain, 1983. xv + 415 pp. Price: £30.00.

This book is divided into twenty-five chapters in three parts. Part III is further subdivided into parts A and B. Part I (five chapters) serves as an introduction to the subject, dealing with vegetables as a food supply, with their origins, classification and nutritional significance. The subjects are dealt with in such a way as to give the required information in a clear, easy-to-read manner without overwhelming the reader with too much detail. An interesting chapter concerns folk medicinal uses of some vegetables. Part II (two chapters) deals with the principles of growing vegetables and includes a discussion of environmental factors which influence growth and production of vegetables out of season by artificial climatic control. Part III describes world vegetables on a more specific basis under the general headings: Part A—starchy roots, tubers and fruits; Part B—succulent roots, bulbs, tops and fruits.

Parts I and II occupy about a quarter of the book and the greater part is therefore devoted to a comprehensive description of world vegetables with the more important crops receiving most attention, as appropriate.