

Book Reviews

Enzymic Hydrolysis of Food Proteins. By J. Adler-Nissen. Elsevier Applied Science Publishers, London. 1986. xxiv + 427 pp. Price: £53.50. ISBN 0-85334-386-1.

The author of this book has attempted to describe, in a coherent manner, the scientific background for, and recent developments in, dealing with the technological problems of the enzymic hydrolysis of food proteins. There are eleven chapters on topics ranging from fundamental aspects and general issues of food protein hydrolysis, specific areas such as peptide bitterness, methods, kinetic and quantitative treatment, to the production and properties of iso-electric soluble soya protein hydrolysate. The obstacles to the widespread use of enzymic hydrolysates are discussed with particular emphasis on the author's own work with soya protein. Unfortunately, little space is devoted to other protein sources.

Chapter 5 presents, in a useful, coherent form, methods in food protein hydrolysis and in the characterisation of protein hydrolysates although there is little information on amino acid analyses, perhaps because they were not carried out in the author's own laboratory. Indeed, most of the sources of data for the amino acid composition of various proteins (Table 14) are rather dated, as were a good many of the other 700 references. It is rare to find Kjeldahl's original paper on the analysis of nitrogen cited so that if it is really essential it should be ascribed to the right century.

The book, intended for food scientists, food technologists and nutritionists, has been accepted as a dissertation for the Danish Doctorate of Engineering and this shows in the presentation. Apart from the glut of

references, the subject index is much too brief to be of real use. However, the book is very readable and the author has achieved his stated objective and, as such, it can be recommended. It does, unfortunately, relate to just one method of protein 'tailoring' and one which may well be overtaken by others, such as genetic engineering, before its technological problems are solved.

A. P. Williams

Protein Tailoring for Food and Medical Uses. Edited by Robert E. Feeney and John R. Whitaker. Marcel Dekker, New York. 1986. xii + 392 pp. Price: US\$83.50. ISBN 0-8247-7616-X.

This book aims to review chemical and enzymatic techniques for the modification of both food and medicinal proteins. There are 14 chapters based on papers presented at an American Chemical Society symposium held in September, 1985, in Chicago. The book is intended for food scientists, food technologists, medicinal and agricultural chemists and biochemists, nutritionists and pharmacologists. Although highly recommended to those currently working or about to start research in protein engineering or 'tailoring', they should be warned that there are only five chapters relating to food compared with eight on medicinal uses. Those interested in the latter also get better qualitative value, as exemplified by the two chapters on genetic engineering in which the medical applications are excellently reviewed by Wetzel in a way in which even newcomers to the field will find interesting and easy to follow. In contrast, the preceding chapter on food contained a number of mistakes, not least of which was the four ways of spelling engineering, which made it difficult to follow.

Since the editors had stated that rapid advancement in this area had resulted in the coinage of new words and phrases that have different meanings to different individuals, one would have wished for greater care to have been taken in this respect. This, of course, is one of the risks taken with direct reproduction of the original manuscripts. The advantage is the speed with which symposium proceedings can be published and for that, the editors, publishers and participants are to be congratulated. The references are also very up to date, another important factor in a fast developing field.

This is the third of this series of symposia and comparison of the contents pages of the proceedings shows a considerable change of emphasis. Apart from those already mentioned, the current volume contains chapters on the covalent attachment of essential amino acids to proteins (Whitaker), enzymatic modification of proteins (Arai *et al.*), bitter peptides (Adler-