PII: S0308-8146(97)00115-5

Food Chemistry (3rd edition). Owen R. Fennema (ed.). Marcel Dekker, New York, 1996. ISBN:0 8247 9346 3 (hardcover); 0 8247 9601 8 (softcover). 1088 pp. $185 (hc), $55 (sc).

Over the past 20 years there have been a number of text books on the subject of food chemistry, but none has been as well received or as widely recommended as Food Chemistry edited by Owen Fennema. Therefore it is very pleasing to see the book enter its third edition.

The book comprises 17 chapters, which cover each of the major constituents of food (proteins, lipids, carbohydrates and water), the minor components, including vitamins, minerals, colorants, flavours, food additives and toxic substances, and a substantial chapter on enzymes. These are followed by chapters dealing with the chemistry of food systems as encountered by milk, edible muscle tissues and edible plant tissues. This edition sees the welcomed introduction of chapter on dispersed systems which had previously been dealt with within the chapters on proteins, carbohydrates and lipids. Another significant change from the previous edition is the creation of separate chapters on vitamins and minerals, which had previously been covered in a combined chapter. At the same time the chapter on eggs has disappeared completely and eggs receive no mention at all anywhere in the book. Whether such a topic needed a whole chapter may be debatable, but this does show that the emphasis of this text book is on the major and minor constituents of foods rather than food commodities. Perhaps this is the correct emphasis, but the end point of food chemistry is its role in food products and, therefore, sections dealing with a wider range of commodities, including alcoholic and non-alcoholic beverages, would be welcome.

Each chapter is written by a different contributor, which allows the topics to be covered in sufficient depth for an advanced food chemistry textbook. Careful editing has ensured good continuity throughout the book. This third edition has seen the rewriting of many of the chapters with many new contributors. These include the topis of proteins,dispersions, enzymes, vitamins, minerals, animal tissues, toxicants and colorants. Other chapters have seen substantial modification, which leads to an edition which is claimed to be more than 60% new.

Overall the layout is good with consistent styles, between the chapters, in the presentation of sections and tables. It is very well referenced which is appropriate for a book which presents the topic at an advanced level. The text contains many figures which are, for the most part, well drawn and presented. However, the presentation of chemical structures is very variable through the text with no consistency of font or style which is rather disappointing in a book that will receive a very wide circulation.

This third edition of what has become a standard food chemistry text book will be welcomed by food scientists working in industry and research. It is recommended to both the established food scientist and to students studying university courses in food science, since it can serve both as a course textbook and a reference book.

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