

Food Flavours, Ingredients and Composition. G. Charalambous, Elsevier, Amsterdam, 1993. xxx + 1087 pp. Price Dfl. 575.00. ISBN 0-444-89523-X.

With the tide of legislative change that has recently swept through Europe has come a greater desire for food component characterisation. The consumer will no longer blindly accept whatever the food manufacturer puts in foodstuffs. With the introduction of more stringent laws governing food composition there has been an increase in the demand for knowledge about food chemistry, such as the effects of storage on food starch content, the difference in foodstuffs due to geographical parameters, and new methods of foodstuff production.

This 32nd volume in the *Developments in Food Science* series encompasses the proceedings of the 7th International Flavour Conference in Samos, Greece. Papers presented in this volume cover a broad-ranging field of expertise, discussing very different aspects of food science. Many different foodstuffs are covered, such as potatoes, papaya, olive oil, apricots, etc., as well as a number of processing techniques, such as membrane separation processes. The majority of papers cover specific compositional analyses, such as dynamic headspace analysis of volatile compounds in cheeses.

Overall, this is a well presented and extremely informative volume, providing a dearth of detailed information on food compositional analysis. It has a good index which facilitates for easy information retrieval. The papers included are perhaps too specific as to make it a good general reference manual, but it is suitable to form part of the library of someone working within the food industry or in academia.

John F. Kennedy
Charles J. Knill

Plant Biochemistry and Molecular Biology. P.J. Lea and R.C. Leegood, John Wiley & Sons, Chichester, 1993. viii + 312 pp. Price £19.95/US\$31.95. ISBN 0-471-93313-9.

It appears that plant cells are not simple versions of animal cells which possess cellwalls and chloroplasts. Plant cells have many individual features of metabolism and gene expression. Through progress in the knowledge of biochemistry and molecular biology, the field of plant biochemistry and that of plant molecular biology are coming together. Transgenic plant techniques represent a powerful skill to study the mechanisms of energy production or biomolecular metabolism. Enzymes concerned in metabolism are main targets for molecular biology. It is therefore necessary for plant biochemists to become familiar with molecular biology and *vice versa*. These subjects are helpful even for plant

scientists that do not deal directly with biochemistry or molecular biology.

This book aims to give a concise overview of plant biochemistry and molecular biology and comprises 12 chapters organized into two parts: biochemistry part and molecular biology part. The former part from chapter 1 to 8 deals with energy production in chloroplasts and mitochondria, carbohydrate metabolism, lipid metabolism, nitrogen metabolism, and pigments. The latter part from chapter 9 to 12 contains genome organization, the regulation of gene expression and the control of development.

This book does not contain basic biochemistry and molecular biology (e.g. amino acid structures, principles of enzyme reactions and DNA structures), possibly because the book must focus on both biochemistry and molecular biology in limited pages. This may however prevent undergraduates from understanding easily.

Plant Biochemistry and Molecular Biology is recommended to graduate students and all other researchers in the plant sciences that need an overview of plant biochemistry and molecular biology and that have new textbooks for neither of these subjects.

J. Shimizu
J.F. Kennedy

Polymeric Delivery Systems Properties and Applications. Magda A. El-Nokaly, David M. Piatt and Bonnie A. Charpentier, American Chemical Society, Washington, 1993. 411 pp. Price \$99.95. ISBN 0-8412-2624-5.

Polymers are suitable materials of construction for delivery systems because their properties can be modified and controlled. They can be shaped and applied relatively easily by a large variety of methods. In general, polymers have little or no toxicity. They principally serve as matrices in which the active ingredient is dispersed or dissolved, or as carriers which are chemically attached to the active ingredient.

Although controlled release systems have been developed in the past 30 years for applications in pharmaceutical and agricultural applications, their use can be extended to other areas such cosmetics, food, etc.

Polymeric Delivery Systems Properties and Applications was developed from a symposium sponsored by the Division of Cellulose, Paper and Textile Chemistry and the Biotechnology Secretariat at the 203rd National Meeting of the American Chemical Society held in San Francisco, California in 1992.

It sets out to provide the reader with a compendium of the latest research on polymeric delivery systems as well as some review articles on the topic. The text comprises 28 articles collected from different authors including polymeric delivery systems and controlled

release technology for the pharmaceutical, cosmetic, agricultural, and food industries. The main topics covered include concepts, preparations, properties and applications of the polymeric delivery systems, mechanisms governing drug release, drug release from biodegradable systems and some medical applications.

This book is in essence a great amount of useful data and also stimulate new ideas for the application of

polymeric drug delivery in other fields besides therapeutic applications. It is an excellent book and we warmly recommend it to those who can see the potential commercial application of polymeric delivery systems.

John F. Kennedy
Zilda M.B. Figueiredo