



Book Review

Chemical and Functional Properties of Food Components

Z.E. Sikorski (Ed.), CRC Press, Boca Raton, FL, 2002, 367 pages, ISBN 1-58716-149-4 (£ 113.00)

The main food components water, carbohydrates, lipids, proteins and minerals have a responsible role in providing nutrition in foods. There are also other constituents present in smaller quantities which contribute to food quality such as colorants, flavour compounds, vitamins, probiotics and additives. There are various chemical and biochemical changes and interactions between these components during storage and processing.

In *Chemical and Functional Properties of Food Components* the emphasis is placed on the mechanism of reaction of these components. It also examines the overall effect of food quality in terms of the nutrition and sensory attributes. Each chapter is well revised and two new chapters on chemical composition and food structure and probiotics in foods are included. This volume is a concisely presented documentation of the current knowledge on content, structure, chemical reactivity and functional properties most important to food quality.

The first two chapters of the book summarise the roles of constituents in food quality and the chemical composition and structure of foods. Chapters 3 to 7 present detailed information of the main components which are water, minerals, saccharides, food lipids and proteins. It is a pity that the author uses the archaic term *saccharides* rather than

the terms *carbohydrates* and *carbohydrate polymers*. However, these chapters cover various aspects such as structures, chemical and physical interactions with other food components, toxicity, roles in food processes. The functional properties of carbohydrates are discussed in terms of their use in taste, colorants, flavour and aroma, texture, encapsulation and polysaccharide containing biodegradable materials. Chapter 8 looks at the rheological properties of food systems. Chapters 9 and 10 detail the effect of the constituents on the colour and flavour of foods while Chapter 11 looks at the scientific basis of probiotics and its effects on foods. Chapter 12 addresses the major food additives followed by Chapter 13 concerning food safety and the final Chapter 14 focuses on mutagenic, carcinogenic, and chemopreventive compounds in foods.

This informative publication, put together by international experts, provides accurate basic and advanced discussions on vast areas concerned with food quality. This volume is aimed at food scientists in industry, academia and nutritionists and generally those interested in the areas of food constituents and their roles. The references at the end of each chapter refer to papers both in English and other languages.

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