

taste that allow decisions to be made with respect to the probable nature of the recognition chemistry for the different tastes, and the probable nature of the receptor(s) for those tastes.

The initial section defines taste and gives a detailed account of taste receptors on the tongue and the effect of taste blocking (e.g. the action of certain sweetness suppressants such as indoleacetic acid and α -naphthyl sulphate). Taste measurement and an overview of chemical tastes is also discussed. Other topics include discussions on taste chemistry principles, water and inorganic compounds, and the structure and properties of sugars.

A number of sections are devoted to specific groups of chemicals such as polyhydroxy alcohols and cyclitols, amino acids, peptides and proteins and other organic compounds. There is an attempt to identify the common saporous units for taste. Since taste is due to chemical reactions, substances that taste sweet, salty, bitter or sour have different saporous groups that lead to characteristically different reactions.

Overall this is a well presented and extremely informative volume. All sections in the text are identified with a number code for cross-reference purposes. There is also an author and subject index and a glossary, making information retrieval easy. It is therefore thoroughly recommended to anyone within the food industry or within academia who has any interest in this particular area of science.

John F. Kennedy
Charles J. Knill

Sugars and Sweeteners. Edited by N. Kretchmer and C.B. Hollenbeck, CRC Press, Boca Raton, 1994. x + 297 pp. Price £58.00. ISBN 0-8493-8835-1.

At the present moment the future of sucrose is complicated by substitutes, subsidies and claims that it is deleterious to health. Strong interest continues in developing new non-nutritive sweeteners, reduced calorie sweeteners and more recently, reduced calorie fat replacements. A major driving force for this interest is a change in perceptions about diet and health and preventing disease.

'*Sugars and Sweeteners*' discusses various aspects of the chemistry and metabolisms of mono- and disaccharides, sugar alcohols and synthetic sweeteners. The opening chapter, by N. Kretchmer, outlines briefly the history of sugar (sucrose), its origins and influences. The following 13 chapters bring together information on sugars in diabetic diet; obesity, clinical aspects of sucrose; metabolism of fructose/sucrose; sugars and hyperactivity; the metabolism of aspartame and its effects on the central nervous system; dental effects of sugars and sweeteners; metabolism of cyclamate; and saccharin. The last chapter covers the regulation of non-nutritive sweeteners and sugar substitutes.

This book provides useful information for the study of sugars and sweeteners and is recommended for specialists in food technology, as well as dieticians and researchers working in this field.

John F. Kennedy
Marion Paterson