Book Review

Analysis of Food Carbohydrate. Edited by G. G. Birch. Elsevier Applied Science Publishers Ltd, London, 1985. vii + 311 pp. Price: £40.00.

The book is of a far higher quality than a cursory examination might suggest, as an unfavourable initial impression is created by the insertion of a loose errata sheet in the book and the apparent absence of an editorial statement informing the reader of the aims and objectives of the book; to some extent, though, Chapter 1 fulfils this latter function. Eight of the nine chapters in the book are written by authors located in one or other of the food research establishments based in Reading, UK, the other chapter being by R. S. Shallenberger from Cornell University, USA. All the chapters are well written and are very useful contributions to the literature concerned with the analysis and chemistry of food carbohydrates. I was particularly impressed with the chapters devoted to the use of high-pressure liquid chromatography (Chapter 4), gas-liquid chromatography (Chapter 5) and nuclear magnetic resonance spectroscopy (Chapter 7) by R. Macrae, D. J. Folkes and Elner B. Rathbone, respectively. These three chapters are excellent and should be essential reading for all people planning to use these techniques in the analysis of carbohydrates. Chapter 1 (by G. G. Birch) discusses the general properties, significance and sensory analysis of food carbohydrates and serves as a useful introduction. Chapter 2 (by M. W. Kearsley) is an account of the classical physical, chemical and biochemical methods of analysis whilst Chapter 3 (by R. S. Shallenberger) is concerned with the use of monochromatic polarimetry. This unfortunately leads to some overlap as this technique is also discussed in some depth in Chapter 2. Chapter 6 (by D.

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M. Clode) is devoted to discussion of the use of carbohydrate analysis as an aid to synthesis, and inevitably there is further discussion of the techniques dealt with in more depth in Chapters 2, 3, 4, 5 and 7. Chapter 8 (by S. Z. Dziedzic and P. A. Ireland) is an informed discussion of the analysis of glycosides while Chapter 9 (by A. B. McAllan) deals with the increasingly important area concerned with the analysis of the carbohydrate in the alimentary tract and its nutritional significance.

Overall, the book will be an invaluable source of reference to all workers concerned with carbohydrate analysis, in this respect the index is a very useful part of the book, and certain chapters could well be read by undergraduates interested in acquiring knowledge regarding the scope and limitations of the various analytical techniques.

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