

## Book Review

**Gums and Stabilisers for the Food Industry 2. Applications of Hydrocolloids.** Edited by G. O. Phillips, D. J. Wedlock and P. A. Williams. Pergamon Press, Oxford. 1984. 578 pp. Price: £62.00.

This book is the published proceedings of the 2nd International Conference on Gums and Stabilisers for the Food Industry which was held at the North East Wales Institute of Higher Education, Wrexham, 1983. The book is divided into six chapters, each of which deals with a different aspect of the properties and applications of hydrocolloids used by the food industry.

The first chapter deals with the chemical and structural analysis of hydrocolloids. Strategies used in their analysis in food are discussed together with examples of particular analytical procedures. Analytical techniques covered include g.c. analysis, the quantitative removal of starch by the use of amyloglucosidase to facilitate the identification of other polysaccharides, and the use of  $\beta$ -D-mannanases and computer simulations to study the fine structure of carob (locust bean) and guar galactomannans.

Many of the physical parameters used to characterise hydrocolloids are described in the second chapter. A general introduction to the concepts and techniques of polymer rheology is followed by papers on the rheological properties of xanthan, starch-hydrocolloid systems and mixed polymer gels.

The third and fourth chapters examine product and end-use areas and the effect of hydrocolloids on food processing. The functionality of gums and stabilisers is examined. Utilisation of particular gelling systems such as the calcium alginate system is discussed as are the uses of complicated mixtures of stabilisers, for example in ice-cream formulations. These chapters reveal the complex considerations which

necessarily lie behind any decision to use a particular stabiliser or blend of stabilisers in a food product.

Legislative and toxicological aspects of food hydrocolloids are covered in the fifth chapter. These subjects are of major importance when considering food formulations. Included in this section are data on the food status and purity specifications of many hydrocolloids.

Recent developments and future trends in the utilisation of food hydrocolloids are dealt with in the final chapter. Contributions to the chapter include the use of immunoassay techniques for food analysis, the use of model food systems in the assessment of food texture, studies on the new polysaccharide gellan gum and on thermally-reversible malto-dextrin gels, and the production and potential use of immobilised enzymes.

Poster presentations on a range of topics are given at the back of the book.

The book should be of interest to those working in the areas of stabiliser analysis and applications – both academics or industrialists, but perhaps more particularly those who have interests in learning, teaching and business. It covers a wide range of topics and contains a considerable number of useful references.

**A. J. Griffiths**  
**John F. Kennedy**