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Book reviews

Gums and Stabilisers for the Food Industry 5: edited by Glyn O. Phillips, P. A. Williams, and David J. Wedlock, Oxford University Press, Oxford, 1990, xv + 609 pp, £ 55.00.

Gums and Stabilisers for the Food Industry 5 is the fifth volume in the series, and was taken from the Proceedings of the 5th International Conference held at Wrexham, Clwyd, Wales, in July 1989. The chairman stated in the preface that the objective was to combine the "technical and industrial considerations with more basic interpretation of functionality"; this was, for the most Part, accomplished.

This volume is organized into 7 parts according to product. It begins with Part 1, on gum arabic, consisting of four chapters on structure and properties and one chapter each on processing and supply. The heterogeneity and role of polysaccharide–protein components in the formation of emulsions is discussed. This section ends with a presentation of factors affecting supply, such as development projects, economics, and local environmental concerns. Part 2 is on starch. Much of this section deals with the applications of starch, and its function in these applications.

Whereas most of this book in devoted to polysaccharides, Part 3 deals primarily with gelatin, a food protein. The first three chapters provide an introduction to the processes used to derive gelatin from collagen, factors affecting its gelling properties and the use of gelatin–polysaccharide mixture to form gels. The latter chapters deal with the uses of gelatin and other gel-forming globins.

The next part, treating pectin, begins with an excellent overview of the chemistry, properties, and uses of pectin. Part 5 discusses the industrial microbial-polysaccharides. Because xanthan is the major microbial polysaccharide produced for use in food, much of this section concerns the production, uses, and properties of xanthan. The first 2 chapters are an introduction to industrial microbial-polysacharides. The intriguing problem of producing self-thickening vinegars by using acetan-producing *Acetobacter* is presented in a chapter on the properties of the anionic heteropolysaccharide acetan.

Part 6 is on cellulose. Most of the last section, Part 7, presents the physical properties of marine polysaccharides, such as carrageenans and alginates. On the whole, the editors accomplished their purpose in integrating a presentation of industrial considerations with some basic science. Most of the sections contain adequate introductory material for readers not in the field, such as chemists with a personal interest in food chemistry.

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