

Book Review

Gums and stabilisers for the food industry, by G.O. Phillips, P.A. Williams & D.J. Wedlock (Eds.). Oxford: Oxford University Press, 1996, xii + 458 pp., £70.00. ISBN 0-19-963627-3

This volume encompasses the proceedings of the 8th International Conference held in Wrexham, Clwyd, Wales, and places major emphasis on new and innovative processing methods. The volume is divided into nine sections, the first section covering the role of hydration processes in product formulation, focusing upon the application of a variety of techniques such as confocal laser scanning microscopy, viscosity relaxation, spectroscopic studies, etc., for examining the hydration of a diverse spectrum of materials ranging from hydrocolloids to cornstarch and carboxymethylcellulose. The second section deals with the stabilisation of chilled and frozen products, an area that has increasingly moved into the scientific arena and hence commands a prominent place in this volume.

New developments in biopolymer characterisation are discussed in the third section, and specific interactions which influence the character of the end product are dealt with in some detail. Thus, emphasis is also placed upon those interactions which influence product functionality, notably incompatibility and phase separation of biopolymers, which are dealt with in sections four and five, respectively. The practical applications of mixed biopolymers is covered in the sixth section, whilst high pressure and high temperature processing is dealt with in section seven, making the volume of particular interest to the end user of food hydrocolloids.

The penultimate section outlines the functionality of hydrocolloids in low moisture products, and the final, and perhaps most important, section provides an interesting overview and examples of new materials and emerging techniques. The former includes the properties of gellan gum, the production of konjac mannan, alternatively refined carrageenans, and the properties and food uses of pectin fractions, materials that are now commanding the attention of manufacturers and food regulators. Whilst the latter includes interesting contributions dealing with new techniques investigating food hydrocolloid aggregate systems, notably, extensional viscosity, FT-IR spectroscopy methods for the study of protein-polysaccharide mixtures, scanning tunneling and scanning force microscopy. These are non-invasive techniques which deal with the entire hydrocolloid mixed matrix, and takes the scientist even further towards the final food product.

The conferences upon which these volumes are based have always emphasised and encouraged the collaboration between industrial and academic scientists, and the resultant balance of the volume has resulted in an extremely informative volume for individuals in all areas of food science which we are pleased to classify as 'Highly Recommended'.

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