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Book Review

Colloids in Food. By E. Dickinson and G. Stainsby. Applied Science Publishers Ltd, London. 1982, xiv + 533 pp., ISBN 0-85334-153-2. Price: £48.00 (US$98.50).

Proteins and polysaccharides are the two major classes of colloidal materials in foods and, it must be owned, proteins rather than polysaccharides are the main burden of this book.

Nevertheless when such an important work as this is published reviewing a field of immediate interest to the food industry, it is necessary to see the implications of the theory and practice described to polysaccharides, even though there are only fifteen such references in the index. The relevance is obvious, for the primary approach is that of treating the proteins as polymers which, therefore, can be transferred, as appropriate, to polysaccharides.

The book explains how the structure, stability and rheology of food dispersions, emulsions and foams can be understood in terms of electrostatics, hydrodynamics, thermodynamics and statistical mechanics. Solid, indigestible fare? Satisfying, is the appropriate answer. The basic theory is well and easily described – the structure and stability of colloids, the relation of adsorption to stability and, in particular, a comprehensive chapter on the oil–water interface and emulsion stability; this is followed by an extensive review of experimental methods. To perform this task, a great range of literature has been thoroughly

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digested and is helpfully alluded to in the references. All of the treatment thus far is relevant to polysaccharides as well as proteins.

The final 200 pp. of the book are more oriented to protein aspects, except for a most useful chapter on the rheological properties of colloidal systems.

Here, then, is a book for which the food scientist and those of related disciplines have been waiting. Breathing erudition, comprehensive, up-to-date and, at the same time, attempting to tackle at least some of the real problems – the one treated in depth is a case study of milk and derived products.

The authors are to be commended on producing such a splendid volume.

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