

Book Reviews

Crystallization Technology Handbook. Ed. A. Mersmann. Marcel Dekker Inc., New York, 1995. ISBN 0 8247 9233 5. 688 pp. Price: \$195.

The aim of this book is to provide reliable information on the science of crystallization from solution or melt, as well as considering design procedures of laboratory, and especially industrial, crystallizers.

Contributing chapters are provided by academics and industrialists from France, Germany, Japan, Canada, Israel and USA. The emphasis is very much geared towards chemical engineering and applied chemistry, and it is notable that none of the authors appear to be involved in the food industry.

The book certainly provides a thorough grounding in the fundamentals of crystal formation, the design and control of crystallization through to the economics of the process. The theoretical and mathematical treatments of the processes involved, such as heat and mass transfer and fluid dynamics, are very detailed. Considerable attention is paid to scale-up of crystallizers. An extensive appendix listing important physical properties of many crystallization systems is provided along with some design data for industrial crystallizers. The book lacks general information on applications of crystallization, and is rather heavy-going.

The work is clearly beyond the scope of students of Food Science or Technology, but would serve as a useful reference volume for people in academia or industry who are involved in industrial-scale crystallization. It is a shame that more emphasis is not placed upon examples of applications in the food industry.

The presentation is quite good and it is well-referenced and reasonably well-written, although it should be stressed that it is a handbook and not a light read!

Alistair Grandison

A Dictionary of Food and Nutrition. Arnold E. Bender & David A. Bender. Oxford Paper Back Reference, 1995. ISBN 0 14 280006 X (6000 entries). Price: £7.99.

This extremely useful little book appears to be the sequel to the original hardback Butterworth text but it now has more entries as well as retaining some important appendices (units, energy and reference nutrient intakes, E-numbers, vitamins, etc.). In fact the only slight drawback from the original text is the lack of page numbering, but that does not matter in a dictionary.

Some of the new entries are fascinating! I had never heard of 'stamp and go' (acra) which is a Caribbean battered salt cod dish or 'old clothes stew', which is a Castillian dish made of left-over meat, with onions, peppers, aubergines, tomatoes and garlic. 'Hindle wakes' turns out to be an old English dish of chicken stuffed with fruit and spices including prunes while 'Caudle' is hot spiced (mulled) wine. It was good to see an important new sweetener, 'sucralose' (trichloro-trideoxy galactosucrose) listed, though the figure of 2000 for its sweetness potency is wrong, as it is actually nearer to 600.

The Benders should be congratulated on producing this useful little book which is so attractively low in price that no-one could even think twice about acquiring it.

Gordon Birch

Food Macromolecules and Colloids. Eds E. Dickinson & D. Lorient. RSC, 1995. ISBN 0 85404 700 X. xiv + 586 pp. Price: £92.50.

This superbly produced book is the proceedings of an International Symposium held in March 1994, at the University of Burgundy, Dijon and was the fifth in a series of biennial Meetings organised by the Food Chemistry Group of the Royal Society of Chemistry. The programme's main aim was to determine the role of macromolecular interactions in determining the physical and biochemical properties of well-defined, multi-phase, multi-component systems. To a large extent the book succeeds in these aims.

The book contains 79 articles composed of invited, overview lectures (most of which are excellent), short oral presentations and poster presentations. After an Introductory lecture (article) by Professor Eric Dickinson of the University of Leeds, in which he succinctly and clearly summarises developments over the last eight or so years in primarily, but not exclusively, his own areas of expertise, the book divides naturally into eight sections: Adsorbed Layers, Protein Interactions and Functionality, Emulsions, Foams, Mixed Biopolymers Systems, Gels and Networks, Rheological and Mechanical Properties and Glasses.

The invited articles lend a natural coherency to the book and will, in most cases, make a very useful source of reference for both established workers in the area and new converts to the intricacies of food macromolecules. The contributed articles are in all cases presented as short (3-7 pp.) research papers and in many cases are merely ploughing the same furrow a little deeper. Why