

Book review

The Chemical Physics of Food, P. Belton (Ed.), Blackwell (2007), ISBN: 978-14051-2127-9

The text revisits areas of food physics which are of fundamental importance to both food scientists and food technologists alike. The aspects covered, while not extensive, are of direct interest to both practitioners and students in these areas.

The section on emulsions contains a good description of the systems and a clear explanation of the dynamics involved while the chapter on starch gives some indication of the likely interaction mechanisms with other molecules. The investigations into the behaviour of water in foods give a good overview of the subject and particularly water–biopolymer interactions.

Glass-like systems are of specific interest to the low moisture food sector and this volume gives a good clear introduction to the subject and insight into both “biopolymer” and “colloidal glasses”. The section on powders shows clearly the increasing emphasis on research into particulate systems. Information provided on gel systems (and

mixed gel systems) should give the reader a better understanding of some of the more complex food structures. The final chapter of the book, wheat flour rheology, has tried to pull together both the rheological/physical attributes, the underlying chemistry and to some extent the genetics of the system.

This title has attempted to integrate several areas of “core knowledge” used in the food industry, while linking the information to related concepts from other disciplines. It would make an excellent text for those wishing to update their knowledge in the field or to students wishing to grasp the relevance of some of the physical aspects of food systems to the modern food industry.

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