

respective fields of natural fibres, manufactured fibres, spinning, weaving, knitting and lace, nonwovens, narrow fabrics, finishing, clothing, floor-coverings, technical and testing and quality. Many new definitions (especially in clothing), and certain basic terms in textile and fashion design are covered in this edition for the first time. The ISO codes and symbols for manufactured fibres, systems for yarn number or count, and SI units and conversion factors are also listed in the final part of the book. Textile terminology in this book is defined simply and effectively for both the professional and the students, and also newcomers to the field.

This volume is the authoritative and comprehensive reference work on textile terminology and is an essential reference manual for all researchers in academia and industry with interests in the design, manufacturing, analysis, marketing and use of textile products.

John F. Kennedy*,
Meng M. He
Chembiotech Laboratories,
Institute of Research and Development,
University of Birmingham Research Park,
Vincent Drive, Birmingham B15 22, UK

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*Corresponding author. Tel.: +44-121-414-7029; fax: +44-121-414-7030.
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Textures in Food Volume 1: Semi-solid Foods

Brain M. McKenna, editor (2003, Woodhead Publishing Ltd, Cambridge, UK) xvi + 425 pages, ISBN 1-85573-673, £135.00

At the question ‘How to make good food, and for cheaper if possible’; food manufacturers found an answer in food rheology science. Indeed, the first assessment of food quality is dictated by the ‘mouthfeel’ which is the sensory experience derived from the sensations in the mouth and on the tongue after ingestion of the food. The ‘mouthfeel’ is influenced by the food texture. Therefore, food manufacturers are interested in generating a food texture that would improve the ‘mouthfeel’ using cheap ingredients, replacing expensive ones, and thus reducing costs of production. Semi-solid products such as sauce, yoghurts and ice cream are more and more numerous so the study of their structure and its influence on texture and thereby the ‘mouthfeel’ is also increasing.

This volume discusses the texture of semi-solid food and is divided two parts. Part I focuses on food structure and texture including general information about the rheology of emulsions, phase transitions and phase separation in foods

as well as the characteristics of starch-based foods, biopolymer systems, and two chapters about rheology techniques. Food rheology is the study of deformation and flow of food under defined conditions of stress and strain. The study of the response of the food material is now measure in-line (i.e. directly in the food processing chain). It often involves the measurement of viscosity using capillaries or disc viscometers. Part II focuses on product development and enhancement including emulsion and gel engineering, emulsifiers and thickeners and ultimately, specific examples of yoghurts, ice cream, spreads and soups, and sauces and salads. The water-oil emulsions such as sauces, soups and salad dressing and made with added emulsifiers like starch or xanthan in order to thicken and stabilise the product.

To summarise, *Textures in food Volume 1: Semi-solid Foods* is the first of two volumes that provide detailed information on the principles and applications of rheology, and is therefore an excellent reference for students, academics and industrial researchers interested in food rheology, in particular with respect to food structure.

Francois Meullenet
John F. Kennedy*
Chembiotech Laboratories,
Institute of Research and Development,
University of Birmingham Research Park,
Birmingham B15 23, UK

Available online 24 July 2004

*Corresponding author. Tel.: +44-121-414-7029; fax: +44-121-414-7030.
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Chemical and Functional Properties of Food Saccharides

Piotr Tomasik, editor (2004, CRC Press, Boca Raton, USA)
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Food saccharides are present everywhere in the daily diet, either in their natural form, e.g. starch in potatoes, cellulose and fructans in plants, and pectins in fruit, or in modified forms in prepared food products. Although their basic structures are relatively simple, polysaccharides have extensive physiochemical properties that have made them useful in food processing applications. Polysaccharides extracted from raw material sources are used in the food industry mainly as emulsifiers or thickeners, e.g. the use of starches in soups and pectins in jam. Research to increase the application and nutritional value of food saccharides is continuous and increases as food markets increase.

Chemical and Functional Properties of Food Saccharides presents in an up to date context, information on the sources, structures, functional properties and uses of the

most common food saccharides. Four chapters present general information on the structure and reactivity of carbohydrates. The first chapter focuses on the basic structure of saccharides; open and cyclic structure interconversion and a collection of more than 100 mono-, oligo-, and polysaccharides common in food chemistry. Reduction, oxidation, alkylation and other chemical modifications of mono-, and disaccharides is presented in the second chapter, whilst chapters 9 and 10 deal with chemical and enzymatic modifications of high molecular weight polysaccharides, respectively. Sources, modifications and applications of low-molecular weight carbohydrates are reviewed in three chapters, the third chapter focusing on sugar alcohols, caramels, saccharide esters, fatty acid esters, and polyesters, the fourth chapter on sucrose, the sixth chapter on honey sugars, and chapter 21 on glucose.

The relationship between carbohydrates and the functional properties of foods is discussed in three chapters on sweetening properties, control of texture, and the roles of flavour and aroma, respectively. Chapters are also devoted to the role of saccharides in health and nutritional problems, methods of analysis, and the source and use of natural and synthetic sweeteners. Finally, sources, properties and

applications of starch, cyclodextrins, carbohydrates of animal tissues, pectic polysaccharides, fructans, chitosan, plant and algal gums, and mucilages are reviewed in detail in subsequent separate chapters.

This comprehensive volume is an excellent source of detailed information, covering a large range of examples, issues and prospects regarding food saccharide technology. It is therefore highly recommended to students and researchers with interests in this constantly expanding area.

Francois Meullenet

John F. Kennedy*

Chembiotech Laboratories,

Institute of Research and Development,

University of Birmingham Research Park,

Birmingham B15 24, UK

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*Corresponding author. Tel.: +44-121-414-7029; fax: +44-121-414-7030.
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