

# Preface to the Third Edition

This volume completes the third edition of *Advanced Dairy Chemistry*, a series which commenced as *Developments in Dairy Chemistry* in 1982. This book provides an update of many of the topics covered in the second edition of *Advanced Dairy Chemistry* Volume 3, published in 1997, and complements Volumes 1 and 2 of the third edition (*Proteins*, 2003 and *Lipids*, 2006), making the *Advanced Dairy Chemistry* series the most comprehensive treatise on the topic.

Six (Chapters 1–4, 6, 7) of the 15 chapters in this volume are devoted to various aspects of lactose, including its chemical properties, solid and solution states, its significance in various dairy products, production and utilisation, syndromes associated with lactose malabsorption and its reaction chemistry. In recent years, galactooligosaccharides produced from lactose by the transferase activity of  $\beta$ -galactosidase have become important due to their prebiotic activity and Chapter 5 is devoted to this topic. The indigenous oligosaccharides in the milk of various species are discussed in Chapter 8.

The chemistry and technological aspects of milk salts and water are discussed in Chapters 9 and 11, respectively. The nutritional and health aspects of lactose, minerals and vitamins are assessed in Chapters 6, 8, 10, 12 and 13. Flavours and off-flavours in dairy products and the physico-chemical properties of milk are reviewed in Chapters 14 and 15, respectively.

Like its predecessors, this volume is intended for lecturers, senior students and research personnel working in the field of dairy chemistry and technology. Each chapter is written by an expert and is thoroughly referenced to facilitate further study of specific points.

We would like to express our sincere appreciation to the 35 authors from nine countries who contributed to this volume for sharing so willingly their knowledge of dairy chemistry, which made our task as editors a pleasure.

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Advanced Dairy Chemistry

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