

accurate conversion of scientific units to their SI equivalent. The new edition, which has been significantly expanded, revised and updated, provides accurate metric equivalents and conversion factors for more of 10,000 scientific units with detailed descriptions of over 2000.

Beginning with a brief history of the metric system, including the organisation and a complete description of SI units (Chapter 2), the book goes on to describe alternative modern systems still in use (e.g. UK imperial, US, centimetre–gram–second, foot–pound–second) as well as ancient and obsolete systems (Chapter 3). Chapter 4 is an exhaustive set of conversion tables. Units, in alphabetical order, are fully described as name, symbol, physical quantity, dimension, conversion factor, notes and definitions. Fundamental mathematical and physical constants are also provided (Chapter 5). Appendices contain a list of national and international standardisation organisations, French–English lexicon for units and physical quantities, Greek alphabet and Roman numerals, large numbers rules, numerical representation of date and time, acceleration due to gravity at any latitude and elevation, international temperature scales, and old and alchemical symbols. A detailed bibliography completes the book.

This pocket-sized and user-friendly guide covers the full gamut of science, technology, medicine and economics, dealing with British, US, conventional metric, historic and SI units. It will therefore be useful for researchers, scientists, engineers and technologists, economists, doctors, pharmacists, and patent lawyers, as well as for teachers and students.

M.G. Garaita  
J.F. Kennedy

*Chembiotech Laboratories, The University of Birmingham  
Research Park, Vincent Drive,  
Birmingham B15 2SQ, UK*

0144-8617/01/\$ - see front matter © 2001 Elsevier Science Ltd. All rights reserved.

PII: S0144-8617(00)00233-2

### **Breakfast Cereals and How They are Made; 2nd ed.**

R.B. Fast, E.F. Caldwell (Eds.); American Association of Cereal Chemist, Inc., St. Paul, Minnesota, 2000, 562 pages, ISBN 1-891-12715-2, Euro 103.41

Breakfast cereals not only fit today's lifestyles but also provide a myriad of choices for meeting today's recommendations to increase the whole-grain, complex carbohydrate, and fibre components of the diet for people of all ages and medical conditions, all income levels, and all levels of cooking skill. A comprehensive view of the subject was first put together in the original edition of *Breakfast Cereals and How They are Made* in 1990. However, many new exciting

developments in breakfast cereals have arisen in the intervening years. Nutritional knowledge has increased, computer control has advanced substantially, and environmental management has become a critical part of the manufacturing picture.

The second edition of *Breakfast Cereals and How They are Made* has been significantly updated and revised. Information on contemporary topics such as new developments in equipment and technology, the expansion of computer control within the industry, advances in nutritional knowledge, and environmental issues in breakfast cereal manufacturing have been included. SI units of measurements are used throughout the book as well as those common in North America. The book first introduces the principal cereal grains, and then an overview of the techniques used in turning them into ready-to-eat products. Ready-to-cook cereals are highlighted in another chapter. The major unit operations of most processes by which ready-to-eat breakfast cereals are produced and equipment used in these processing steps are reviewed over the next five chapters. The remaining chapters cover packing, fortification, preservation, nutrition, quality assurance, computer control, and environmental management. An enlarged list of manufacturers of processing and packing equipment and an expanded and updated list of additional references complete the book.

The in-depth information presented in *Breakfast Cereals and How They are Made, 2nd ed.* will be invaluable for professionals in all branches of the cereal industry.

J.F. Kennedy  
M.G. Garaita

*Birmingham Carbohydrate & Protein Technology Group,  
Chembiotech Laboratories, The University of Birmingham,  
Research Park,  
Birmingham B15 2SQ, UK*

0144-8617/01/\$ - see front matter © 2001 Elsevier Science Ltd. All rights reserved.

PII: S0144-8617(00)00234-4

### **The Molecular and Supramolecular Chemistry of Carbohydrates. Chemical Introduction to the Glycosciences**

S. David; Oxford Science Publications, Oxford, 1998, vii + 320 pages, ISBN 0-19-850047-5, £55.00

The increased appreciation of the roles of carbohydrates in the biological and pharmaceutical sciences has resulted in a revival of interest in carbohydrate chemistry. The involvement of oligosaccharides in many recognition phenomena, the growing demand for chiral synthesis, and the role of conformation in carbohydrate

interactions have greatly stimulated this interest. This new understanding has forced the study of carbohydrates to the forefront of modern chemical research and a body of knowledge has been built from what is now called the glycosciences.

*The Molecular and Supramolecular Chemistry of Carbohydrates. A Chemical Introduction to the Glycosciences* reflects the ambience of the major carbohydrate chemistry laboratories and the atmosphere at the meetings and symposiums specialising in this field. The opening chapters deal with monosaccharides: configuration, conformation, nomenclature, derivatisation, and modification of monosaccharides, with examples of their utilisation in total synthesis. The book then turns to oligosaccharides (configuration, analysis, chemical transformations and synthesis), glycoconjugates, the essentials of enzymic synthesis, and the sialic acids, which are at the forefront of carbohydrate research. Recognition reactions, including blood group phenomena, interactions involving sialic acids, the active

site of heparin, tumour markers, and selectins complete the book.

*The Molecular and Supramolecular Chemistry of Carbohydrates. A Chemical Introduction to the Glycosciences*, supported by extensive tables, figures, diagrams, and a survey of the recent literature, will be invaluable to a broad range of scientists in both academic and industrial laboratories.

J.F. Kennedy

M.G. Garaita

*Chembiotech Laboratories, The University of Birmingham  
Research Park, Vincent Drive,  
Birmingham B15 2SQ, UK*

0144-8617/01/\$ - see front matter © 2001 Elsevier Science Ltd. All rights reserved.

PII: S0144-8617(00)00235-6