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Alberto Ciferri, editor. Supramolecular Polymers, Second Edition, CRC Press, Boca Raton, FL, USA, 2005 xiii + 761 pp., \$139.95/£79.99, ISBN: 0-8247-2331-7.

Our understanding of Supramolecular polymers continues as a direct result of scientific advances in chemistry and molecular science. In recent years, the development of this field has been fast, as more and more researchers and industries become interested in this field. *Supramolecular Polymers* is the second edition, written 5 years after the first one. This edition describes properties and proposed applications of synthetic supramolecular polymers of both the self-assembled and engineered types. It also describes the assembly processes and the structure–function correlation in natural and self-assembling materials, and the development which have occurred in the past 5 years.

The structure of this book has two parts. Part 1 is a focus on the theory and structure, while part 2 covers the properties and functions. Each chapter is contributed by the experts in this field. In the first part, it gives the introduction of supramolecular interaction and dynamic association–dissociation processes. It describes the synthesis of complex structure, chemical design principles, degree of polymerization and shape of various assemblies. In the second part, it focuses on variety properties, functions and applications of self-assembling supramolecular polymers. Its connection with the potential utilization, such as nanostructures with dynamic–combinatorial–adaptive self-healing features, opto-electronic devices, supramolecular amphiphiles, hydrogels, organic and inorganic nanostructures molecular biosensors, molecular imprinting, molecular engineers and templates for superlattices with prescribed symmetry. Covalently bonded polymers exhibiting novel supramolecular effects, polymers with mechanically interlocked units, dendrimers and monolayers are also described in this book. New chapters have been added in this edition to describe the new applications in over 5 years. It is a comprehensive book suitable dealing with a complex subject.

J.F. Kennedy*
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Marcel Roberfroid, Inulin-Type Fructans: Functional Food Ingredients, CRC Press, USA (xxviii + 359 pp., £74.99, ISBN 0-8493-0059-2)

Functional food has been introduced as a new concept in 20th century, because of the dramatic developments in the science of nutrition. As inulin-type fructans are unique natural food ingredients that are present in a variety of edible plants, they are already found in wide variety of applicants both in human food and animal feed. Indeed inulin-type fructans plays an important role in healthy diet, and have a direct influence in medical care.

Inulin-Type Fructans: Functional Food Ingredients provides a scholarly and comprehensive review of inulin and inulin-like substances as functional foods, especial in their capacity as “colonic food”. And the current interest in nutritional health and well-being makes this right time to write this book.

There are two parts in this book. The first part is introductory. It gives the background information on the concept and the strategy of development of functional food. It also illustrates the gastrointestinal system for readers. In the second part, the book describes the origin, chemistry, biochemistry and technological properties of inulin.

The first chapter of the second part gives the background information of fructans and inulin. The next three chapters focus on the digestive functions of inulin-type fructans. It presents data on their behavior as resistant carbohydrates. The following chapter describe the how inulin and oligofructose act as low-calorie carbohydrates. The next four chapters describe the inulin-type fructans in the metabolism. They concentrate on the relationship of inulin and oligofructose to lipid metabolism, carcinogenesis, mineral absorption, and the immune system. Data on the related physical and biochemistry methodology are also given for the purpose of illustration. Chapter 12 discusses potential applications - the stimulation of the body defenses and modulation of cancer risk. In the final chapter concludes the book with applications and development of the inulin-type fructans in food industries and medical care in the future.

A worthwhile but of course very subject-specialized book, which should appeal to readers from a variety of disciplines including health upkeep, dieting, carbohydrate technology, food chemistry, and plant materials.

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