

## Book reviews

**Dictionary of Nutraceuticals and Functional Foods, N.A.M. Eskin, S. Tamir. CRC Press, Boca Raton, USA (2006). viii + 507 pp., £44.99, ISBN: 0-8493-1572-7**

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Health professionals are recognising the major role that nutraceuticals play in health enhancement. As a direct result of this, there is a dramatic increase in research aimed at identifying new functional foods and nutraceuticals. This dictionary is part of the *Functional Foods and Nutraceuticals Series* and provides the reader with useful information on the nature of the 'bioactives' present in functional foods and their reported efficacy in cell cultures, animal studies and, in some case, human clinical trials.

*Dictionary of Nutraceuticals and Functional Foods* provides science-based information on over 470 nutraceutical and functional foods products and compounds. Each entry lists the most current information on the product or compound and its role in the promotion of health or the prevention of disease, as well as peer-reviewed literature references. In addition, this thorough reference contains numerous chemical structures, figures, reaction schemes, and tables, to facilitate recognition and understanding. Entries of particular interest to carbohydrate scientists include: acacia gum, amaranth, arabinoxylan, barley, buckwheat, chitin and chitosan, chondroitin sulphate, curdlan, mushroom polysaccharides (from *Ganoderma*), fructooligosaccharides, glucosamine sulphate, guar gum, honey, inulin, Jerusalem artichoke, lactulose, lectins, oats, oligofructose, palatinose (isomaltose), pectin, pinto beans, polydextrose, quinoa, resistant starch, rice starch, rye, sea cucumbers (fucan sulphates), whole grains, xanthan gum, and xylooligosaccharides.

Concise and accessible, this dictionary is a convenient single source reference that defines the most commonly used terms in the field of nutraceuticals and functional foods, and is highly recommended to food and pharmaceutical researchers.

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**Organic Chemistry Principles and Industrial Practice, Mark M. Green, Harold A. Wittcoff. Wiley-VCH, Weinheim, Germany (2003). xx + 321 pp., £29-95, ISBN: 3-527-30289-1**

There are a multitude of industrial products produced using the principles of organic chemistry, especially in the petroleum industry, which accounts for 95% of the 800 million tonnes of chemical products currently produced annually in the world. However, many such principles are taught to students without any reference to their commercial and practical importance. Organic chemistry can therefore appear to be somewhat irrelevant, since most students cannot relate such principles and practices with their actual industrial application. This volume was written to be used in conjunction with classical organic chemistry texts, and provide a source of accessible information that brings together such principles and industrial practices, thus enhancing the readers overall appreciation of organic chemistry.

The volume is composed of 10 concise chapters, which are written as tales of discovery, so that the reader may often be presented with facts whose basis, or mechanism, may only be revealed later. The first chapter provides meaning, structures and examples of petroleum, and how to convert it into useful materials. This is followed by more detailed information on petroleum products, such as polyethylene and polypropylene, the role of electrophilic aromatic substitution, synthesis of commercially important plastics (epoxy resins, polyurethanes, etc.), cross-linking, and glycerol. Information about the industrial synthesis of methyl methacrylate, nylon, natural rubber and rubber tires, elastomers, glue, dynamite, spandex and other products of ethylene and propylene, acetylene production, polycarbonate synthesis, etc.,