will be of particular interest to biochemists, molecular biologists, X-ray crystallographers and industrialists.

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***Functional Foods, the Consumer, the Products, and the Evidence*; M.J. Sadler, M. Saltmarsh (Eds.); The Royal Society of Chemistry, 1998, 215 pages, ISBN 0-85404-792-1**

Recently, government committees, the media, as well as the general public, have all showed interest and concern to diet and health. Consequently, the food industry have concentrated and researched, to develop products with positive nutritional benefits, to equilibrate with society's concerns. Food and diet are significantly fundamental to today's lifestyle and should be considered seriously.

Functional foods: the consumer, the products and the evidence, is the latest publication from The Royal Society of Chemistry. This scientifically sound publication provides a comprehensive, up to date and authoritative understanding of such areas as; evidence for the benefit of dietary fibre, fermented daily products and fish oils, approaches to assessing the adequacy of scientific evidence, consumer health concerns, and the current regulatory position.

The text is aimed at a wide market; ranging from degree through to research level. It would also be found useful to those interested in nutrition and food development in general, as a reference text.

The text, where relevant, is aided by well presented diagrams, orthodox tables and references. The tables and diagrams within the text under review are presented in such a manner that they are easy to follow and therefore aid the understanding of the subject in hand.

Overall this book is well presented, a good length (having 215 pages), thorough and a very readable text. Over all it can be classed as a fine publication.

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***Environmental Chemistry*, 3rd ed.; P. O'Neill (Ed.); Blackie academic and Professional Publications, London, 1998, IBSN 0 7514 04837 (£15.99)**

As knowledge of the earth's chemical environment has increased, there is still ever-increasing concern on the role of chemical elements in the synthesis and decomposition of natural materials, including the changes specifically brought about by human activities. Hence, capabilities of these activities to cause major disturbances of the natural environment. A prime example of these disruptions is the declination in stratospheric ozone concentrations. It is therefore important to understand the operation of such natural systems, and how human activities can modify these systems.

Environmental Chemistry is the latest edition from Blackie academic and Professional Publications, which gives a comprehensive, up-to-date (including new information, for example, on Uranium and nuclear energy), and authoritative understanding of certain fields of environmental chemistry, such as, the problems of nuclear waste; landfill chemistry; oil production; ozone depletion and the greenhouse effect, and hence, attempts to explain why a specific change occurs and why a particular pathway has been followed.

Presented with relevant and precise information, the book provides a brief introduction to environmental chemistry in a four part format which allows the grouping together of related environmental topics and the introduction of theoretical concepts.

Aiding the literature are useful references to key sources, as well as edifying tables, diagrams, equations, graphs and a clearly layed-out glossary. Each of these illustrations is well presented; relevant as well as scientifically accurate.

As this well-produced literature assumes only an elementary knowledge of chemistry, it is therefore focused for students studying environmental science at degree level.

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***Concise Encyclopedia of Polymer Science and Engineering*; J.I. Kroschwitz (Ed.); John Wiley & Sons, Chichester, 1998, 1341 pages, ISBN 0-471-31856-6 £63.95**

There is a vast amount of information available on a

formidable array of topics covering all aspects of polymer science and engineering. This includes the materials (both natural and synthetic) and their properties, synthesis and reactions, analysis and characterisation. Polymer engineering, processing, uses and economics are of fundamental importance in the world today. To cover all of these subjects comprehensively requires a compendium of numerous volumes: indeed, this is the role of the 19-volume, world-renowned 2nd Edition of the *Encyclopedia of Polymer Science and Engineering*.

The *Concise Encyclopedia of Polymer Science and Engineering* is a distillation of the many-volume original landmark publication by professional science writers, reviewed and updated by the original authors and their colleagues. The compact desk version contains all of the subjects in the original work: key data, tables and facts are crafted into a complete and self-contained encyclopedia. Links to the 19-volume edition ensure ready access to bibliographic citations and a much wider coverage of any subject via carefully selected references and hundreds of tables, charts and figures.

The quality of this book undoubtedly reflects the five years' development by writers, authors and editorial staff. It is highly recommended as an indispensable ready reference for students, scientists, technologists and engineers: in short, for anyone seeking to answer questions on any aspects of polymer science and engineering.

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***Environmental Chemical Analysis*; B.B. Kebbekus, S. Mitra; Blackie Academic & Professionals, Glasgow, 1998, 330 pages, ISBN 0-7514-0456-X £24.99**

As knowledge of the Earth's chemical environment has increased, there is still ever-increasing concern on the role of chemical elements in the synthesis and decomposition of natural materials, including the changes specifically brought about by human activities. This has led to significant responsibilities to study the effects of pollutants and to regulate and reduce their discharge.

This scientifically sound publication aims to provide a brief introduction to Environmental Chemistry. The book concentrates on the basic principles of sampling as well as sample preparation, and on the chemical principles underlying contemporary analytical techniques, hence offering the reader a thorough grounding in the increasing discipline of Environmental Chemistry.

The literature begins by covering the important topics of sampling, sample preparation, basic statistics, and the operating principles and descriptions of major techniques, for example, spectroscopy. In the later chapters, the major environmental matrices, air, water, soils, and solids are explored in more detail.

Aiding the literature are useful references to key sources, as well as edifying tables, diagrams, graphs and useful study questions. Each of these illustrations are well-presented, relevant, as well as scientifically accurate.

As this well produced literature assumes only an elementary knowledge of Chemistry, it is focused at students in all disciplines of Environmental Science and Engineering.

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***Modern Derivatization for Separation Sciences*; T. Toyo'oka; John Wiley and Sons, Chichester, 1999, xiv + 298 pages, ISBN 0-471-98364-0, £80.00**

Biologically active compounds, used for medicines, agrochemicals, food additives, biogenic amines and flavors, are fairly difficult to determine with accuracy and precision, due to the fact that they are usually present in minute amounts. The choice of a suitable method that provides good reproducibility is essential to obtain correct results. Derivatization is the essential technique in separation sciences using thin-layer chromatography (TLC), liquid chromatography (LC) and capillary electrophoresis (CE), as well as gas chromatography (GC). The development of various types of detection instruments such as UV–VIS, fluorescence (FL), chemiluminescence and electrochemical has allowed the development of various reagents to increase separability, selectivity and sensitivity using high-performance liquid chromatography (HPLC).

Modern Derivatization for Separation Sciences concentrates on recent advances in chemical derivatization for the separation sciences mainly by GC, LC and CE. Emphasis has been placed on practical use of detecting and separating compounds, and the characteristics of the various approaches are critically discussed. Choice, handling and applications of suitable reagents for reactive functional groups are described in detail.