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**Advances in Chitin and Chitosan.** Edited by C.J. Brine, P.A. Sandford & J.P. Zikakis, Elsevier Applied Science, 1992. 684 pp. Price £135.00/US\$210.00. ISBN 1-85166-899-3.

Next to cellulose, chitin is nature's most abundant polymer. Chitosan, the high molecular weight, linear polymer composed of 2-amino-2-deoxy-D-glucose, is now produced commercially on a large scale by deacetylation of by-product shellfish chitin. Chitosan's unique solubility, solution properties, polyelectrolyte (cationic) character, physical attributes and its chemical and biological activity make it an attractive biopolymer for many applications. Many new uses of chitosan are currently being studied that are leading to even wider acceptance of chitosan in an ever increasing breadth of commercial applications.

Although its original and spectacular properties have been recognised for a long time (it was isolated by Biaconnot in 1811), the first review of chitin was presented by Muzzarelli in 1977. Subsequently International Symposiums on Chitin and Chitosan kept the information up to date.

'Advances in Chitin and Chitosan' is based on proceedings of the 5th International Conference on Chitin and Chitosan held in New Jersey in 1991. Predominate research themes focus on biotechnology and genetic engineering aspects of these compounds and related enzyme systems. Uses of chitosan's derivatives in biomedical applications (wound healing, stimulating immune system, drug delivery, reducing serum cholesterol), veterinary, agricultural and nutritional fields, their physical, chemical and biological properties, chemical reactions and derivatives, as well as exploration of new utilities for chitin and chitosan films, fibres, gels and membranes are outlined.

'Advances in Chitin and Chitosan' has been well edited but the quality of typescript is variable, and presents some minor typing errors. The book is particularly useful as an up-to-date guide in this field and can be considered essential reading, not only for those interested in chitin *per se*; but also for those who can see their potential commercial applications. In addition, a

good subject index and index of contributors makes it of more than transient value as a reference volume.

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**Chirality in Industry — The Commercial Manufacture and Applications of Optically Active Compounds.** Edited by A.N. Collins, G.N. Sheldrake and J. Crosby, John Wiley & Sons Ltd., 1992. 432 pp. Price £65.00/\$107.00. ISBN 0471935956.

The production of optically active intermediates and products as pure enantiomers has been investigated extensively in recent years. The main reasons for this are associated with the biological activity presented by only one enantiomer, the different type of activity that enantiomers may exhibit, the increased activity of the optically pure compound compared with the racemate and some legislation considerations. The use of pure enantiomers has applications in different fields, such as medicine, agriculture and the food industry. In the pharmaceutical industry, for example, it is now accepted that in some circumstances the introduction of the pure enantiomer can provide the benefit of needing a smaller dose and possibly an enhancement of therapeutic effects.

'Chirality in Industry — The Commercial Manufacture and Applications of Optically Active Compounds' is a compilation of papers which sets out to provide the reader with developments in the production and applications of pure enantiomers of a practical scale. The text comprises 21 articles collected from different authors and arranged into five main parts. The opening chapter functions as background material for the rest of the text; following chapters include non biological resolution, biological methods, asymmetric synthesis by chemical methods, immobilization techniques and membrane bioreactors, presenting examples of methods applied to obtain the pure enantiomer.

The book is intended for a wide range of students, researchers and technologists in many diverse fields of research and applications. Overall, the book is timely and will be of great value for the specialist and the newcomer in both academic and industrial fields.

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