

in *Computer Aided Drug Design* by Lisa M. Balbes et al., in one way brings us back to carbohydrates. It describes the important targeted pharmacophore method and the several algorithms for this now being investigated by the pharmaceutical industry. Methods are discussed for finding the optimal arrangement of functional groups within a protein binding site. These are then computationally arranged on a skeleton molecule of the correct dimensions picked from 3D-structural libraries. Although not mentioned in this chapter, the latter search often aligns on oligosaccharides as the optimal skeleton molecule.

In common with previous volumes in this series, those reviewed here have an appendix, *Compendium of Software for Molecular Modeling* by Donald B. Boyd. This gives a very useful overview of available molecular modelling packages and will prove useful for potential purchasers. However, these are similar in each volume and it would be more useful for there to be additional information on which algorithms are available within the packages discussed for the particular applications in each review. But these are minor points. Overall the series is to be recommended.

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*$\beta$ -Glucosidases Biochemistry and Molecular Biology*, Asim Esen (Ed.), ACS Symposium Series 533, American Chemical Society, Washington, D.C., 259 pp, ISBN 0-8412-2697-0

This book is an attempt to bring together the current state of knowledge regarding  $\beta$ -glucosidases. These ubiquitous enzymes are finding increasing medical and commercial importance, and are being shown to be key enzymes in a variety of biochemical processes. Sixteen chapters cover a wide spectrum of interests from catalysis and specificity through to the genetics and the medical relevance of the enzyme. I would consider this book to be an essential reference work for workers in the field of  $\beta$ -glucosidase research. For those, such as myself, on the fringes of this field the book contains the inevitable mixture of good, bad, relevant, and irrelevant articles. The sections on catalytic mechanisms describe some rather elegant chemistry and are excellent, the chapter by Trimbur and colleagues especially so. Later chapters focus on genetics, enzymology, and the medical aspects of  $\beta$ -glucosidases and its relevance to Gaucher's disease. Five chapters are dedicated to the study of cyanogenic  $\beta$ -glucosidases. In short, this book is indis-

pensible reading for workers in this field and a valuable reference work for those with more tangential interests.

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*Capillary Zone Electrophoresis*, F. Foret, L. Krivankova and P. Bocek, Electrophoresis Library, B.J. Radola (Ed.), VCH Verlagsgesellschaft, Weinheim, 1993, 346 pages and subject index, £93.00, ISBN 3-527-30019-8

This book is an important first contribution to the series entitled “Electrophoresis Library”. The stated aims of the book include achieving an understanding of the theory, instrumentation, and application possibilities of capillary zone electrophoresis. These aims have largely been met within ten chapters which are assembled in a clear, logical manner.

A very brief one page introductory chapter explains the *raison d'être* for writing the book and clarifies the book's scope. A useful brief history of some three pages reminds us that the present intense activity in capillary electrophoresis arose from the camp of chromatographers and gently leads the reader to very comprehensive third and fourth chapters, covering fundamental concepts and theoretical principles. For newcomers to the field and for teaching purposes, these chapters should be immensely useful.

The various techniques of capillary electrophoresis including zone electrophoresis, isotachopheresis, isoelectric focussing, micellar electrokinetic chromatography, and the use of sieving media, are described in chapter five; these descriptions are concise, yet complete and well referenced. The above is a good introduction to chapter six on the practice of capillary electrophoresis, which covers the concept of theoretical plates, the role of electroosmosis in zone dispersion, wall sorption, and the minimization of dispersion; practical details of various gel preparations for capillary gel electrophoresis are also given in this section, along with methods for, and consequences of, capillary wall modification.

Chapter seven gives full descriptions of available capillary electrophoresis equipment and the various detection methods available; in the case of the latter, critical analysis of the limitations of the various detectors and detection methods is given. The latter includes direct and indirect UV/visible and fluorescence detectors, electrochemical methods, and mass spectrometry.

A particularly useful chapter is the final one dealing with applications. Capillary electrophoretic methods for small ions are covered in full detail and includes inorganic and organic materials. The second part of this chapter involves a detailed