researcher currently using or seriously contemplating the use of capillary electrophoresis.

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The Combinatorial Index. By Barry A. Bunin. Academic Press, New York, NY. 1998. xvii + 322 pp. 18 × 26 cm. ISBN 0-12-141340-3. $79.95.

Surely virtually everyone now knows that combinatorial chemistry is a rapidly growing multidisciplinary field in medicinal chemistry. The present rate of publication of research articles exceeds two papers daily, and the literature is widely scattered. Consequently it is becoming difficult for all but the most dedicated to keep abreast of current findings in an organized way. This book is a welcome aid to this process. It is an easy to use collection of reliable literature methods for all phases of medicinal chemical laboratory transformations using combinatorial techniques and places a particular emphasis on resin-based methods and the preparation of small, druglike libraries.

The book is divided into chapters describing particular laboratory transformations and procedures starting with a general background chapter and going on in turn to chapters dealing with linker technologies, specific reactions for preparing libraries, analytical methods, and solution/mixed solid-phase−solution reactions. This is followed by a series of appendixes keyed back into the preceding chapters covering a summary of functional group transformations, classification of heterocyclization reactions, unnatural biopolymers, oligosaccharides, a list of abbreviations, and then useful author and subject indexes. Each reaction covered is described in sufficient detail that a reasonably experienced chemist could perform the reaction described or use the description as the basis for developing an analogous reaction. Each reaction is also commented upon bringing out specific points of interest and ranges of utility, and each reaction or process is referenced at the point of discussion.

On the whole; this book is a very useful and practical "cook book" that many chemists will keep close at hand and refer to often. It is clearly organized and well-written and is comparatively inexpensive. Despite the magnitude of the task, it is hoped that Bunin will be able to follow through on his desire to keep the book up to date with supplements on or off the net.

All chemists who work in this key area will want to have a copy near at hand and will wear it out through constant resort. It is not, however, the sort of book that chemists will read from cover to cover. Those medicinal chemists who are not actively engaged as yet in combinatorial work will find it an excellent way to learn about it.

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Practical Application of Computer-Aided Drug Design. Edited by Paul S. Charifson. Marcel Dekker, Inc., New York, NY. 1997. x + 52 pp. 16 × 23.5 cm. ISBN 0-8247-9885-6. $150.00.

Practical Application of Computer-Aided Drug Design is an impressive compilation of chapters covering not only computational drug discovery techniques but also related fields in structural biology and biophysical chemistry. The authors of the various chapters have had considerable experience in their respective areas and many times provide lucid explanations of respective approaches to drug discovery. In general, the text is well-referenced and should be a valuable resource for interested researchers and students. Recent Successes and Limitations in Computer-Aided Drug Design, the topic of the first chapter; authored by Paul S. Charifson and Irwin D. Kuntz, provides a key take home message that the more "simplistic methods" have been the most successful. The fundamental concepts and techniques emphasized include molecular graphics applications, the calculation of interacting energies, molecular docking, QSAR, and pharmacophore modeling. The authors conclude that the simplistic method provides a multidisciplinary "buy-in" early in the design process and allows rapid evaluation of ideas studies permitting early incorporation of synthesis and bioavailability considerations. Clearly stated is the author's bias that structure-based approaches possess the greatest overall potential.

The second chapter on Recent Techniques and Applications in Pharmacophore Mapping by Mark G. Bures highlights in some detail recent pharmacophore mapping techniques. There are 88 references that range from very specific examples such as the work on sigma 1 pharmacophores by Richard Glennon to the more general approaches using superposition methods (DISCO) developed by Yvonne Martin and colleagues at Abbott.

The Generation and use of 3D Databases for Drug Discovery is reviewed by Renée L. DesJarlais. The chapter provides general information on the sources of 3D structures and on how to assess the quality of structure data bases as well as a review of different search methods and specific applications including pharmacophore searching (auxin transport and protein kinase C inhibitors), caveat (cyclosporine analogues and major histocompatability complex peptides), and DOCK (HIV-1 protease, thymidylate synthetase,influenza hemagglutnin, and inhibitors of parasitic proteases). The chapter, although of interest and well-presented, covers a smaller segment of the literature than the other chapters with only 20 references.