

The Readers Digest?

Pharmacokinetics and Metabolism in Drug Design. Vol. 13. By *Dennis A. Smith, Han van de Waterbeemd* and *Don K. Walker*. Wiley-VCH, Weinheim 2001. 149 pp., hardcover € 85.00.—ISBN 3-527-30197-6

This textbook deals with an application of pharmacokinetics in a new area, that of drug design.

Whereas pharmacokinetics has, since the 1950s, become increasingly important in its clinical applications, it previously had little influence on the very early stages in the development of new drugs. However, with the recognition that pharmacokinetic problems are the reason in over 40% of all cases where the development of a drug is stopped, the attitude towards this aspect has changed radically. All pharmaceutical companies now use their knowledge of pharmacokinetics to help choose suitable candidates at a very early stage of research, and even to modify them so as to improve their pharmacokinetic properties without sacrificing their pharmacological effectiveness (part of the drug design process).

To discuss these modern applications in detail, the authors must first establish some basic principles. They meet that need very successfully, by carefully selecting the most important fundamental publications from the vast literature on

pharmacokinetics and presenting the information in a didactically instructive form. Occasionally, however, the quality and clarity of the figures leaves something to be desired. The book gives a well-balanced presentation of all the important fundamentals of pharmacokinetics, supported by examples (although some of these are not very up-to-date). Some of the chapters also contain useful rules of thumb which the reader can easily memorize for later use. Each chapter begins with a glossary of abbreviations to help the reader, and ends with a bibliography listing at least all the most important publications for more in-depth study.

Another notable feature of the book is the authors' critical evaluation of new technologies, which probably results from their considerable experience in the field. They examine the usefulness of each new approach and sometimes call it into question, a skeptical attitude which many other textbooks could do well to copy. In each chapter one finds that in addition to the essential facts the authors also describe their personal experiences, which can be very helpful for readers who are just beginning work in pharmacokinetics.

A minor criticism of the book is that although it fully meets one's expectations with regard to the first part of the title ("Pharmacokinetics and Metabolism"), the treatment of the second aspect ("Drug Design") is much briefer and in some sections not so well written. Sometimes one feels that it would be useful to have a separate chapter devoted to listing, under keyword headings, possible approaches to drug design to address specific types of problems, thus avoiding the need to search laboriously through the other chapters for the required information.

To summarize, this book, which is suitably concise but nevertheless reasonably comprehensive, can be recommended for scientists and students who wish to

learn more about pharmacokinetics. There is certainly a need for such a book, especially as this subject has for many years been rather neglected in university departments. The book should contribute to a recognition of the advantages of applying pharmacokinetics studies at a very early stage in research and development on new drugs.

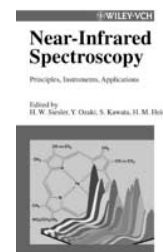
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Near-Infrared Spectroscopy. Principles, Instruments, Applications. Edited by *H. W. Siesler, Y. Ozaki, S. Kawata* and *H. M. Heise*. Wiley-VCH, Weinheim 2002. 348 pp., hardcover € 119.00.—ISBN 3-527-30149-6

During the past few years the applications of near-infrared spectroscopy (NIR) have extended over an ever wider variety of topics, from industrial process analysis to quality control, and even including investigations related to the flavor of foodstuffs. The editors of *Near-Infrared Spectroscopy* have set out to address this growing circle of users. The book consists essentially of two parts, the first devoted to basic principles and the second to applications.

The first part begins with a concise account of the principles of molecular physics that are important for the subject, then introduces the optical principles of the components of an NIR spectrometer and explains the essential steps of sample preparation. The method of 2D correlation spectroscopy is intro-



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