

hard to deal with, but a proper analysis of the effect of a hormone should be conducted at physiological concentrations of hormone to avoid the risk of uncovering a phenomenon which may exist but be of little relevance to real life.

In summary, this book will be interesting to specialists and probably merits a place in libraries, but, especially at £25.00, it is unlikely to figure high on the list of individual's priorities.

J. S. KNOWLAND

Liposomes

MARC J. OSTRO (Editor)

Marcel Dekker, New York and Basel, 1983, pp. 397, Sw.Fr. 157.00

Liposomes are spherules formed when phospholipids are allowed to swell in aqueous media. They consist of concentric closed lipid bilayers alternating with aqueous compartments, within which water-soluble substances can be entrapped. Since the first observation and description of liposomes by Alec Bangham and his colleagues in 1965, these vesicles have been employed in virtually every aspect of biology. For example, they have been used as model membranes, as carriers of drugs and macromolecules, as immunological adjuvants and as fusogenic agents in cell hybridization. Thus liposomes have become an extremely important research tool, and it is important to make many basic scientists aware of liposome technology, their properties and applications in various aspects of biological and medical research. I think the new book *Liposomes* serves this purpose very well.

Liposomes contains a collection of review articles by

prominent experts, and covers virtually every aspect of liposomology such as the preparation of liposomes, liposome-cell, liposome-drug and liposome-protein interactions, and their application in biology, immunology and medicine. In the introduction Alec Bangham has given an excellent informative and amusing personal account of the history of the development of liposome technology in Cambridge. Each chapter highlights recent advances in liposome technology and has extensive reference and data lists. The important feature of each chapter is that it is critically reviewed and there are numerous useful hints and suggestions for further development and application of liposome technology in research. However, the book lacks information on the commercial development of liposome technology. The Editor himself and some of the contributors are engaged in this, and the contribution of their experience on this aspect of liposomes would have been valuable to scientists in pharmaceutical laboratories. Otherwise *Liposomes* is a very informative book and will prove useful reading for scientists engaged in various disciplines of the biological sciences.

H. M. PATEL

Concise Encyclopedia of Biochemistry

T. SCOTT and M. BREWER

Walter de Gruyter, Berlin and New York, 1983, pp. 518, \$29.90

This is a fully revised and updated English-language version of the *Brockhaus ABC Biochemie*, first published in German. The authors have succeeded in condensing all the essential elements of biochemistry into a single volume. As a consequence no subject is dealt with at length, but there is generally considerable useful and intelligible information given under each listing.

The encyclopaedia is concerned mainly with the basics of biochemistry, dealing with various aspects of carbohydrate, lipid, nucleic acid and protein chemistry. The application of biochemistry in clinical chemistry, pharmacology and toxicology are only dealt with in brief. Some space is given to biochemical techniques, especially the various electrophoresis and chromatographic techniques, although techniques such as immunological assays and high-performance liquid chromatography have been omitted.

Vital statistics (molecular weight, subunit structure, pI

and function of all the common enzymes are given, and the kinetics of enzyme reactions is dealt with adequately. Information (e.g. molecular weight, melting point, boiling point) is given for common naturally occurring organic compounds (e.g. acetic acid, ethanol), but no mention of compounds used mainly as organic solvents (e.g. acetone, ether, benzene) is made.

On the whole I have found the encyclopaedia to be fairly comprehensive, my major reservation is that far too few references are cited. I have found myself reaching for the book on several occasions and have found at least some information each time. However, it is still necessary to go back to traditional indices for references to additional information. In such a rapidly expanding area of science it is inevitable that certain topics will rapidly become out-of-date. However, there is sufficient factual information on established subjects to make the edition useful for some years. Both student and researcher may find the book useful as a quick source of reference; it is a handy size and not over-priced.

R. J. EDWARDS

The Application of Laser Light Scattering to the Study of Biological Motion

J. C. EARNSHAW and M. W. STEER (Editors)

Plenum Press, New York, 1983, pp. 705, \$89.50

This very solid volume contains the proceedings of a two-week NATO-supported conference held in Italy in June 1982. At least four similar 'NATO Advanced Science

Institutes' have been held since 1974 in which laser light scattering was involved and which inspired books by the same publisher. The reviewer also knows of two further light-scattering conferences, held in Milan (1979) and Cambridge (1981), in which broadly the same field was covered and which gave rise to books. The present volume is

Quasi-elastic scattered light with Doppler broadened spectral line width has been used to study the transport properties and internal dynamics of biological macromolecules in solution.¹ Usually, the spectrum or correlation function of the scattered light from macromolecules contains contributions both from intramolecular motion and translational diffusion. © 2000 Optical Society of America. PDF Article. References. You do not have subscription access to this journal. Citation lists with outbound citation links are available to subscribers only. You may subscribe either as an OSA member, or a When laser energy is delivered to tissue four specific interactions can occur: reflection, scattering, transmission or absorption. The extent of the interaction depends on the wavelength of the laser, fluency, and tissue types. Reflection. Medical argon ion lasers are of power as high as 15 W. The beam is easily delivered to the site through optical fibers which can be coupled to operating microscope or hand pieces or to a variety of endoscopes.

Scott, Thomas A.; Mercer, E. Ian. An up-to-date, comprehensive yet compact source of biochemical and molecular biological data containing more than 4,500 entries and over 1,000 figures, formulas and tables. The ideal reference book for the researcher, teacher and student. In the third edition existing entries have been revised and where necessary, entirely re-written. Many new entries on Molecular and Cell Biology have been included. Advances in our knowledge of metabolic pathways have not been ignored. Concise Encyclopedia of Applied Linguistics (Concise Encyclopedias of Language and Linguistics). This volume formalizes, organizes and analyzes the relation of knowledge about language to decision-making in practice. It synthesizes research in psycholinguistics, educational linguistics and sociolinguistics, freely crossing subject fields to establish innovative and expert responses to some of the key debates in the field. . download: Concise Encyclopedia of Applied Linguistics.