

to the theoretical level. Each chapter includes a problem section, many of which are drawn directly from the literature. Additionally, a section is devoted to examining the existence of artificial enzymes, RNA enzymes, and catalytic antibodies.

The book is a valuable resource for those approaching enzyme kinetics for the first time as well as for those wishing to renew their acquaintance with the subject.

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**New Perspectives in Drug Design.** Edited by P. M. Dean, G. Jolles, and C. G. Newton. Academic Press Inc., San Diego, CA. 1995. xiv + 321 pp. 15.5 × 23.5 cm. ISBN 0-12-208070-x. \$50.00.

This volume contains 14 chapters dealing with various aspects of drug design. It documents the proceedings of a 3-day meeting sponsored by a grant from the Rhône-Poulenc Rorer Foundation and held at Turnberry, Scotland, in April 1994. The presentations were made by invited leading academic researchers and by company staff. General discussions following the lectures are recorded as well.

The conference really had two major, separate themes as reflected in the chapters. The more traditional medicinal chemistry and drug design lectures include two useful, well-documented discussions of peptidomimetic research, one by Hirschmann *et al.* and one by Laoui and co-workers. An excellent presentation on E-selectin recognition and other carbohydrate-related topics is given by Wong. Bartlett *et al.* present an informative treatment of enzyme inhibitors, and Nicolau and Guy authoritatively consider taxol and taxoids.

The second theme is essentially computational and structural. Chapters in this area include a discussion of protein crystallography by Ringe and Petsko, modeling of the adenosine receptor by IJzerman *et al.*, and two very nice summaries of computer-based drug design, one by Kuntz *et al.* and one by Mason *et al.* Highly mathematical, and therefore less accessible to many medicinal chemists, are chapters on combinatoric studies by Dean *et al.*, free energy calculations by Mark *et al.*, conformational analysis by Leach, and chemometrics by Clementi *et al.*

It goes without saying that any conference in medicinal chemistry which does not involve the general industrial medicinal chemistry community will suffer from an incomplete scope—and this one is no exception. Moreover, as might be expected in the proceedings of a conference, some of the discussions are well documented whereas others are not—the nice discussion of protein crystallography in drug design by Ringe and Petsko, for example, contains only 13 references.

The book has an adequate index, but its appearance is marred by a very heavy, smudged typeface used for the section headings on nearly every page, smudgy reproductions of the structural formulae in a number of chapters, and some blurry color reproductions of slides shown in a separate section of color plates. It

contains some excellent discussions that will be useful to workers in specific areas. But its expense, considering its small size, limited scope, and sometimes brief documentation, makes it more appropriate for acquisition by large regional libraries than by small institutions and individuals.

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JM950843E

**Biochemistry of Cell Membranes. A Compendium of Selected Topics.** Edited by S. Papa and J. M. Tager. Birkhauser Verlag, Basel, Switzerland. 1995. viii + 365 pp. 16 × 24 cm. ISBN 3-7643-5056-3. \$149.00.

This book belongs to the *Molecular and Cell Biology* series. It consists of a series of 10–20-page up-to-date reviews on selected topics in the rapidly developing field of membrane biology. The most significant advances that have been made in recent years in understanding the structure, dynamics, and functions of cell membranes are highlighted in seven main sections, namely, Signal Transduction; Membrane Traffic: Proteins and Lipids; Bioenergetics: Energy Transfer and Membrane Transport; Cellular Ion Homeostasis; Growth Factors and Adhesion Molecules; Structural Analysis of Membrane Proteins; and Membrane and Disease. Each review is thoroughly referenced, and a subject index for the book is included.

This monograph should serve as a foundation for future research on the relationship between the structure of membrane proteins and their function, protein transport through membranes, and regulation of membrane flow in the vacuolar system. These and other topics, such as the transport of ions in relation to bioenergetics, signal transduction, and mitochondrial ATP synthase, will be of interest to many medicinal chemists. Institutional library access is recommended.

**Staff**

JM950842M

**The Golden Helix. Inside Biotech Ventures.** By Arthur Kornberg. University Science Books, Sausalito, CA. 1995. xi + 287 pp. 16 × 24 cm. ISBN 0-935702-32-6. \$28.50.

Advances in genetic engineering and related technologies over the past 25 years have led to a biotechnology industry with vast economic and social potential. At the end of 1993, there were 1272 biotechnology companies with 80 000 employees in the United States. Many of these ventures were pioneered by biologists and biochemists who invented the new technologies in their academic laboratories. One of these was the author, Arthur Kornberg, who was awarded the Nobel Prize in 1959 for his seminal research with enzymes and his laboratory synthesis of DNA. In 1980, he, along with Paul Berg, Charles Yanofsky, and Alejandro Zaffaroni, founded the DNAX Institute of Molecular and Cellular

**Biology.** The company was bought by the Schering-Plough Corp. about 1 year later. The venture proceeded to generate multiple candidates for drug development much faster than expected.

In *The Golden Helix*, the author draws extensively on his own experiences at DNAX and other biotech companies, e.g., ALZA, Genentech, Amgen, Chiron, and Regeneron, to provide an insider's view of the biotechnology industry—past, present, and future. Science is a part of this book, but primary focus is on people—scientists, managers, executives, and administrators. Particular attention is directed toward general issues that affect the conduct of science, particularly liaisons and conflicts between academia and industry.

This is both an educating and fascinating book for all who are interested in science and business; it provides an inspiring and entertaining inside story for those who have witnessed the biotechnology revolution.

**Staff**

JM9508402

**Diazo Chemistry.** By Heinrich Zollinger. VCH Verlagsgesellschaft mbH, Weinheim, Germany. **I. Aromatic and Heteroaromatic Compounds.** 1994. xiii

+ 453 pp. 17.5 × 24.5 cm. ISBN 3-527-29213-6. DM 198.00; **II. Aliphatic, Inorganic and Organometallic Compounds.** 1995. xvi + 522 pp. 17.5 × 24.5 cm. ISBN 3-527-29222-5. DM 174.00. Set ISBN 3-527-29328-0. DM 348.00.

This two-volume set describes the chemistry of diazo compounds which are so versatile and of such importance as both reaction intermediates and reagents in organic synthesis. Volume I is devoted to aromatic and heteroaromatic diazo compounds. Volume II treats aliphatic, inorganic, and organometallic diazo compounds. In these two volumes the renowned author describes the structure, preparation, and reaction of diazo compounds, their applications in organic synthesis, the kinetics and mechanisms of diazotizations, and metal complexes with diazo and diazonium compounds. Both volumes are critical and well referenced and are written in a clear and readable style. References up to the year of publication are included.

Medicinal chemists and others concerned with the synthesis of novel structures will find these two volumes a source of useful, well researched information and ideas. Access via institutional libraries is recommended.

**Staff**

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