

suggestions on how to effectively create and manage these types of complex partnerships and examines a number of case studies of how some organizations approximating this model have fared in the competitive world of pharmaceutical R&D.

One slight drawback to Cavalla's book is its formal British prose style, which may prove distracting or occasionally confusing to an American reader. Aside from the occasionally jarring turn of phrase, however, this book provides a valuable and balanced overview of both why and how the pharmaceutical industry is changing at the close of this century. It is highly recommended reading for those trying to understand the current state of an industry, undergoing profound changes in both its philosophy and operational methods and for those who might be trying to anticipate where the current state of rapid change might lead in the next 10–20 years.

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JM970756H

S0022-2623(97)00756-5

G Protein Methods and Protocols. Role of G Proteins in Psychiatric and Neurologic Disorders. Edited by Ram K. Mishra, Glen B. Baker, and Alan A. Boulton. Humana Press, Totowa, NJ. 1997. xiv + 433 pp. 16 × 23.5 cm. ISBN 0-89603-490-9. \$99.50.

This is number 31 in the *Neuromethods* series published by Humana Press; the title suggests that the book's focus is on methods used in the study of G proteins, but with very few exceptions, this is not the case. Chapter 1, which provides a detailed and excellent description of an in vitro method for measuring receptor-stimulated GTP analog binding in brain sections, complete with tips on troubleshooting and limitations of the method, is one of the exceptions. Most chapters instead provide a review (with little if any methodologic detail) of their own authors' and/or others' work related to the book's subtitle: the role of G proteins in psychiatric and neurological disorders. Perhaps this is not surprising, given that methods for study of G proteins are not uniquely applicable to brain, as opposed to other organs. In fact, a volume in the *Methods in Enzymology* series published in 1994 by Academic Press (number 237 on *Heterotrimeric G Proteins*, edited by Ravi Iyengar) has already covered methods for study of G proteins in an excellent and comprehensive way. The latter volume remains a standard reference for this material that is not yet out of date.

Each chapter in this book is contributed by different authors who are presumably authorities in their field. A brief preface is meant to provide an overview of G protein-coupled signal transduction, but this is done very superficially. Unfortunately, the same background material (the number and different types of G proteins, how G proteins couple to receptors and effectors) is

redundantly repeated at the start of many chapters, providing little evidence of coordination of contributions by the Editors. The redundancy extends beyond the background material on signal transduction; several chapters review the same areas such as the evidence for a role of G proteins in affective disorders. When contrasting views are offered by different contributors, this type of overlap may be useful, but here this is generally not the case.

Perhaps, the most significant problem with the book's contents reflects an inherent limitation in the field it covers. While the G protein-coupled receptor family includes receptors for neurotransmitters such as dopamine, serotonin, and others that undoubtedly are involved directly or indirectly in the pathophysiology of neurologic and psychiatric disorders, there is very little solid evidence for a role for the G proteins themselves. Undoubtedly for this reason, many of the chapters after briefly touching on G proteins shift focus to one or another G protein-coupled receptor. For devotees of this field, the entire volume may be useful, if only to indicate how much more needs to be done if we are to understand the role of G proteins in neurologic and psychiatric diseases. For others, only a small number of excellent chapters in this book (besides the first, also those by Manji and by Nestler and colleagues) may reward the effort of reading them.

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JM970757+

S0022-2623(97)00757-7

Reductions in Organic Chemistry. Second Edition. ACS Monograph 188. By Milos Hudlicky. American Chemical Society, Washington, D.C. 1996. xxvi + 429 pp. 15.5 × 23.5 cm. ISBN 0-8412-3344-6. \$109.95.

This monograph closely follows the format of the first edition of *Reductions in Organic Chemistry* with a general discussion of reduction methods followed by a more-detailed discussion on the reduction of specific functional groups and includes a section containing experimental procedures. This second edition is greatly expanded and updated, containing over 1500 references and 63 experimental procedures.

The monograph begins with five chapters concerned with a general discussion of reduction methods commonly used in organic synthesis. Topics include Catalytic Hydrogenation, Reductions with Hydrides and Complex Hydrides, Electroreduction and Reductions with Metals, Reductions with Metal Compounds, and Reductions with Nonmetal Compounds.

Chapters 6–19 comprise the major portion of the monograph and discuss the Reduction of Specific Types of Organic Compounds, which is arranged by functional group. The monograph does not include much discussion of reaction mechanism or transition-state theory, which is covered in other sources, but is a practical review of reduction methods and how to put them to use in the laboratory.

Correlation tables are included for most common functional groups; there are 28 in total. These tables are very helpful in quickly selecting the proper reagent for the reduction of a specific type of functional group or compound. Also, a Procedures section lists over 63 experimental procedures for all types of reductions. In addition, references are included at the end of the book, as are the bibliography, author index, and subject index.

This monograph is recommended to anyone searching for a practical overview of reductions of organic func

tional groups and is a requisite addition to all chemistry libraries.

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JM970609J

S0022-2623(97)00609-2