

berry sauce, or a vinaigrette consisting of 100 mL of lemon juice and 60 mL of oil (sesame oil!).

The verdict: the reader who wishes to go into the subject thoroughly, combining scientific accuracy with plenty of interesting and absorbing information, should buy Harold McGee's *On Food and Cooking—The Science and Lore of the Kitchen*. On the other hand, the reader seeking tasty recipes, precisely described and guaranteed to work, together with the chemistry involved in them, should buy Hervé This's *Révélation Gastronomiques*.

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### Asymmetric Organic Reactions.

Edited by *Tsutomu Katsuki*. Oxford University Press, Oxford 2001. xviii + 244 pp., hardcover £ 75.00.—ISBN 0-19-850201-X

This book is the tenth in the *Practical Approach in Chemistry* series, whose aim is to make important chemical techniques more accessible. As a contributor to another volume in the series, I should say that I consider this a laudable aim. The majority of the titles in the series have concentrated on preparative organic techniques, and this book on the topic of asymmetric oxidation, edited by Tsutomu Katsuki, is a very welcome addition. The list of authors reads like a "Who's Who" of the subject, and the book promised to be a very valuable source of practical tips of a kind that would not usually be included in a full paper. (The only source of more detailed, tested procedures is, of course, *Organic Syntheses*.) The book is divided into five sections dealing with asymmetric oxidation of C–H bonds (13 pp.), asymmetric oxidation of C=C bonds (127 pp.), asymmetric oxidation of C=O bonds (5 pp.), asymmetric oxidation of heteroatoms (28 pp.), and asymmetric oxidations using biocatalysts (45 pp.). The lengths of these sections not only reflect the relative importance of these topics but also indicate the level of

maturity of the procedures that are available.

The style of the chapters is relatively uniform, including a brief overview of each area, followed by a representative selection of experimental procedures, which are generally written in such a way as to allow anyone with a reasonable training in practical organic chemistry to carry them out. One especially useful feature throughout the book is that in most cases procedures for determining *ee* values are also included.

Many of the procedures use commercially available materials. In other cases, however, the key starting materials are only described by reference to the primary literature; I feel that these latter procedures are unlikely to inspire the reader to get into the laboratory. Nevertheless, if you want an authoritative and comprehensive answer to a question such as "how can I best carry out an asymmetric hydroxylation of a disubstituted alkene", you need look no further than this book.

Although the book was published in 2001, you have to search very hard for references after 1997. This presumably reflects the time that it takes to coordinate the preparation of such a book, but it does mean that subjects in which there have been significant recent advances (for example, in asymmetric nucleophilic epoxidation, particularly as reported by the Shibasaki group) are not especially up-to-date. However, given that the book does not aim to be a research monograph, this is not a significant failing.

The inclusion of a substantial chapter on biocatalysts is a good feature in my view, and some transformations that are very interesting from a preparative viewpoint are described. Nevertheless, I feel that many traditionally trained organic chemists would struggle to carry out the transformations, since several unfamiliar techniques are necessary. It would have been useful to provide indications of suitable types of laminar air-flow cabinets, autoclaves, and bench-top fermenters, which appear to be the tools of the trade, with information about where they might be obtained. While most organic chemists will appreciate the precautions that need to be taken handling chemicals, I am not sure that they would know what to do with a

Class 2 pathogen, and a little more guidance would have been welcome.

This book should be in every chemistry library, and I wholeheartedly recommend it.

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**Peroxide Chemistry.** Research Report. Mechanistic and Preparative Aspects of Oxygen Transfers. Edited by *Waldemar Adam*. Wiley-VCH, Weinheim 2000. 664 pp., softcover DM 198.00.—ISBN 3-527-27150-3

This very interesting book summarizes the results of a 6-year (1993–99), and 10 million DM, priority program of the Deutsche Forschungsgemeinschaft (DFG) with the same title. As such it is not a systematic monograph reviewing the field, but rather a compilation of reports on the individual projects involved, covering different aspects of the subject. Being a research report of a national funding institution, it is almost exclusively devoted to the work of German chemists. Yet, because of the excellent level of the German school in this area of chemistry, and the brief comparison with the international context that appears at the beginning of each individual report, it gives a fairly comprehensive and timely picture of what is going on in peroxide chemistry nowadays. As a research report, the book is mainly intended for experts in the wide area of peroxide chemistry, but it can also be of notable interest for organic and organometallic chemists in general.

The book is edited by Waldemar Adam, a worldwide recognized authority in the field, who contributes an interesting preface which includes the history of how the national program was conceived and launched. There is something to learn from this story which goes beyond the actual scientific context. In fact, given the success of the initiative as an investment, as an organizational model, and as scientific outcome, the preface (and the book) could also make interesting and fruitful reading for sci-