

mediated processes and given the extensive effort expended on this area will, like many of the other chapters, require updating. Chapter 8: Asymmetric Phase Transfer Reactions by M.J. O'Donnell is a short, well referenced review which illustrates the synthetic potential of chiral quarternary ammonium salts and crown ethers for catalysing a range of asymmetric transformations. Chapter 9: Asymmetric Reactions with Chiral Lewis Acid Catalysts by K. Maruoka and H. Yamamoto reviews the progress made in the development of chiral Lewis acids since 1985 concentrating on aluminium, titanium and boron based catalysts. The book is completed with a very useful appendix which lists numerous chiral ligands. The book is very well presented with only a few errors, for example the header on pages 89–99 is incorrectly labelled Asymmetric Isomerization of Allylamines, rather than Asymmetric Cyclopropanation, and Pauson Khand is misspelt.

A few other minor criticisms are noteworthy; in most chapters the reader is constantly required to refer back to the beginning of the chapter to identify the nature of the catalyst of interest. There are, inevitably, some conspicuous absences, for example, the outstanding oxazaborolidinone reduction extensively developed by Corey, but there are also very few repetitions, although, for example, Mukaiyama's tin-catalysed aldol reaction is mentioned in chapters 7 and 9. It would also have been quite useful if each author had made it clear exactly when the reviews were completed. However, these are relatively minor points and the authors are to be congratulated on a very successful venture, this volume will be essential for libraries and an extremely useful addition to any personal collection.

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This book is one of an ever growing series to emerge from the symposia at the National Meetings of the American Chemical Society. As with previous volumes, the editors, who were also the conveners of this particular symposium, invited each participant to contribute a short chapter based on their conference presentation. As a result, we have an interesting snapshot of the field of photosensitive metal-organic systems taken in August 1991. As with any collection of scientific papers, the quality is variable and the styles of the 21 chapters range from that of a preliminary communication to that of a relatively considered review.

Clearly, each reader will have her or his own preference, but I was particularly interested by the chapters on the photocatalytic behaviour of tungsten, iron and ruthenium carbonyls in porous glass (Xu and Gaffney) and on light-sensitive organometallic compounds in photopolymerization (Roloff). However, I was a little disappointed by the lack of consistency in the nomenclature between one paper and the next; for example, there was considerable confusion over the abbreviation for the organic substrate: 'O' in the first chapter, 'OS' in chapter 19, with variations in between. Perhaps this level of inconsistency is inevitable, but I suspect that such problems could have been dealt with during the sub-editing of the text.

Overall, I feel that this book is a useful contribution to the field, worthy of purchase by libraries, but possibly of only transient interest to the majority of individual readers.

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