
This textbook is a major update on the highly rated first edition. It is almost double the size of its predecessor, illustrated by the inclusion of several new chapters. The book now covers the use of zinc, zirconium, iron and chromium organometallics in addition to extended coverage of those included in the first edition: organoalkali metals, tin, boron, aluminium, copper, titanium and palladium. Notwithstanding the addition of the new chapters, the increase in coverage of the existing material is notable, evidenced by the inclusion of many references from the middle to late 1990’s and in some cases into 2000. The layout is similar to the first edition, retaining the review of the subject area interspersed with detailed experimental procedures. Indeed, the new edition appears to have even more procedures documented, allowing chemists new to a particular area to easily gain an overview of a specific experimental procedure. It is here that the book is best utilised: as an introduction to the practical side of area of organometallics, rather than a comprehensive review of each of the metals covered. Having said that, all the chapter authors are highly respected practitioners in their fields, and the coverage of material is excellent. In each case, the primary aim is always the use of the metal for organic synthesis. Structural and mechanistic elements are mentioned, but the production of organic molecules is primary. This allows anyone not particularly familiar with the subject matter to easily follow the text and decide on the most suitable course of action for the chemistry they themselves want to achieve. For example, copper and zirconium chemistries are both highly useful for the preparation of specifically functionalised molecules, but the reagents can be difficult to handle. The experimental procedures are laid out to produce a detailed approach to the preparation and use of the reagents. In addition, advice is often given on equipment, and practical advice is offered at key stages. By the admission of the editor, the increase in volume is substantial, and the size of the text is limited by not wanting to appear too large and overbearing. In this respect, it has succeeded, and perhaps only a handful of other metals may be suitable for inclusion in a third (or additional) volume.

The book is highly recommended for libraries and the office shelves of organometallic chemists. In addition, anyone who plans on using the chemistry covered would do well to browse the relevant chapter for background or detailed information on the area in question. Perhaps it is most useful for postgraduate students starting out in a particular area and need hints and tips on how to approach the chemistry.

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