

## Additions and Corrections

**An Experimental Estimation of Aromaticity Relative to That of Benzene. The Synthesis and NMR Properties of a Series of Highly Annulated Dimethyldihydropyrenes: Bridged Benzannulenes** [*J. Am. Chem. Soc.* 1995, 117, 1514–1532].

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Page 1531, right column, lines 16–18: the first sentence in this paragraph should read as follows: 3,6-Dipyrid-2-yltetrazine<sup>33</sup> (205 mg, 0.92 mmol) was added to a solution of 1,4-dihydro-1,4-epoxyphenanthrene<sup>48</sup> (160 mg, 0.84 mmol) in chloroform (2 mL) under N<sub>2</sub>, and then the solution was stirred at 40–50 °C for 15 min.

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## Book Reviews

**Organometallics in Synthesis. A Manual.** Edited by M. Schlosser (Université de Lausanne). John Wiley and Sons: Chichester, U.K. 1994. ix + 603 pp. \$100.00. ISBN 0-471-93637-5.

According to the editor, this valuable and not unreasonably-priced book is the outgrowth of three postgraduate workshops in the late 1980s and is meant primarily for newcomers to the field of synthesis using organometallics. The book is composed of eight chapters entitled Organoalkali Reagents (by Manfred Schlosser), Organolithium Compounds—Industrial Applications and Handling (by Franz Totter and Peter Rittmeyer), Titanium in Organic Synthesis (by Manfred T. Reetz), Synthetic Procedures Involving Organocopper Reagents (by Bruce H. Lipshutz), Palladium in Organic Synthesis (by Louis S. Hegedus), Organoboron Chemistry (by Keith Smith), Organoaluminum Compounds (by Hisashi Yamamoto), and Organotin Chemistry (by Hitosi Nozake). There is not a particularly useful or complete subject index (for example, it completely misses “MAD” and “MAT”, and states that a reference to “Diethyl sulfate” is to be found on page 111, when no such reference can be found there) and a formula index ordered by the organic group to be transferred from an organometallic reagent, followed by the name of the reagent. References are generally current up to the early 1990s.

Each of the chapters contains introductory, historical, and background information concerning its topic. However, the value of this text lies not in this material but in the explicit synthetic procedures found throughout or at the end of each chapter (depending upon the chapter author's preference). These instructions are generally quite detailed and are much akin to the tested preparations found in the volumes of the *Organic Syntheses* and *Inorganic Syntheses* series, but grouped here in one volume for their utility and applicability to a variety of synthetic methodologies. (Unfortunately, the term magnetic “follower” in Smith's chapter was initially obscure to me as an American English-speaker; it is apparently British English for what I would have described as a magnetic “stirbar”.) There are also helpful hints, “rules of thumb”, examples of calculations when these are not exactly straightforward, and what to do when (not if) problems arise (as in Reetz's chapter, where he describes how to deal with the problem of TiO<sub>2</sub>-containing emulsions, should they occur during product workup and isolation).

Hazards and handling are generally, but briefly, addressed. Unfortunately, the important topic of waste disposal is not easily to be found, with apparently only a brief reference in Totter and Rittmeyer's chapter.

Even with the caveats mentioned above, the statement from the conclusion of Smith's chapter, although directed by him specifically at the use of organoboron reagents, can be applied to this work as a whole: “[This text] can provide a good starting point to anyone interested in making use of the enormous synthetic potential of [organometallics], especially those experiencing reluctance on account of lack of familiarity with the handling of such reagents.” Modern organic synthesis would be impossible without these organometallic reagents and methodologies, and this manual places some of the most useful of them at the command of all researchers, whether or not the researchers have had previous experience in the use of organometallics in synthesis. I know that my students and I shall make use of many of

the procedures in this manual, and it shall become a well-used and often-consulted book on my office shelf.

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**Organic Syntheses. Volume 72.** Edited by David L. Coffen. Wiley & Sons: New York. 1995. xxxii + 333 pp. \$39.95. ISBN 0-471-30727-0.

This volume begins most appropriately with memorial tributes to Melvin S. Newman and Peter Yates, former members of the Board of Editors of *Organic Syntheses*.

Volume 72 contains 32 preparative procedures which have been checked experimentally and edited by members of the Board of Editors. In the first nine procedures, naturally derived starting materials (e.g., various carbohydrates, a hydroxy ester, an amino acid, and a terpene) and used for the synthesis of chiral, enantiomerically pure intermediates. The next four procedures entail the use of recently developed catalysts, including asymmetric catalysts, for accomplishing various types of important reactions. Useful synthetic intermediates of various structural types are prepared in the next three procedures. These are followed by a series of eight procedures which focus on practical methods of organometallic chemistry involving the use of organocalcium, -lithium, -tellurium, -manganese, -chromium, and -tin reagents. Methods of synthesis of functionalized organofluorine compounds are illustrated in the next group of four procedures, and the volume concludes with syntheses of two organophosphorous and two organosulfur compounds.

Each procedure is followed by copious explanatory notes on apparatus, solvent and reagent sources and preparation, and extensive spectroscopic data for product characterization. Appropriate safety warnings and waste disposal information are also provided. All of the procedures have useful discussion sections with extensive references to the recent primary literature and many of them also provided additional examples of key reactions to allow the reader to assess their scope and generality. Many of the compounds whose preparations are described have intrinsic usefulness. However, in this reviewer's opinion, the strength of this volume and the series as a whole lies in the fact that most of the preparations provide model reactions to illustrate new, general synthetic methodology.

Volume 72 also contains a safety warning on the use of azodicarboxylates, an appendix of CA nomenclature, collective index number and registry number indexes, and a list of 22 unchecked procedures accepted during the period May 2, 1992, through August 1, 1993. Unlike the paperback edition, which is provided gratis to members of organic divisions of societies in France, Japan, the U.S., and the U.K., the hard-bound edition includes cumulative author and subject indexes for Volumes 70–72. Every practicing organic chemist knows the value of *Organic Syntheses*, and Volume 72 certainly carries on the time-honored tradition of this important series.

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