thousand complexes that have been characterized by X-ray crystallography. The book is much more than a conglomeration of a vast amount of information, however; the authors provide critical commentary throughout and do so with a smooth exposition that effectively conveys their enthusiasm for the subject. A thorough index (14 pages) and the liberal use of illustrations and tables enhance the accessibility of the material.

This is a classic volume that belongs in every chemistry library as well as in the personal collection of anyone doing research involving multiply bonded ligands. Individuals with research groups active in this area may wish to purchase two copies so as to ensure the possession of at least one; mine seems to be on near permanent loan.

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Non-metal Rings, Cages and Clusters. By J. D. Woollins. Wiley, Chichester, England. 1988. 124 pages.

This book concisely brings together basic information about a wide range of inorganic ring compounds. While it is not a comprehensive review, it covers most areas quite adequately and it contains many leading references from the last decade. The author makes a number of isoelectronic and isolobal comparisons that are very helpful for relating seemingly very different compounds. The ring compounds are grouped into three categories, i.e., electron-deficient, electron-precise or classical, and electron-rich. This classification system is explained in the first chapter. For each type of compound within these categories, preparations, selected reactions, general properties, and bonding are discussed. The bonding descriptions are particularly nice in that they go beyond those given in most inorganic textbooks. In general, this book should be helpful to anyone new to the field of non-metal ring chemistry and to those who specialize in one type of ring but wish to know more about related systems. The general topics covered in the chapter on electron-deficient systems are boranes, metallaboranes, zintyl and bismuth cations (groups IV and V), transition-metal clusters, and boron chlorides. The latter two topics are only discussed briefly. In the chapter on electron-precise/classical species, the topics are sulfur and selenium rings, sulfur imides, cyclophosphanes and phosphides, phosphorus–oxygen and phosphorus–sulfur cages and rings, and silicon–silicon, –nitrogen, and –oxygen compounds. The final chapter discusses electron-rich species, which include boron–nitrogen rings, phosphorus–nitrogen rings (phosphazanes and phosphazenes), substituted sulfur–nitrogen and planar sulfur–nitrogen rings, sulfur–nitrogen cages, and polyatomic cations of selenium and tellurium.

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Additions and Corrections

Martine Cazanoue, Noël Lugan, Jean-Jacques Bonnet, and René Mathieu*: Synthesis and Reactivity of $[PPh_4][MRu_3Cp(CO)_{12}]$ Clusters (M = Mo, W). *Organometallics* **1988**, *7*, 2480–2486.

The β value for **1a** is 93.98 (7)° and not 86.02 (1)° (the complementary value). Other values are unchanged.