

problems will be quite useful to the neophyte, but will be of limited utility to the experienced. One quarter of the book, an excessive allocation of space, is devoted to this purpose.

This book will be invaluable to the experimentalist and should supplant Bellamy, Corbridge, and Rao as a primary practical infrared reference for organophosphorus chemists.

*Graduate School and Department of Chemistry
University of Akron
Akron, Ohio 44325 (U.S.A.)*

CLAIBOURNE E. GRIFFIN

Advances in Inorganic Chemistry and Radiochemistry, Vol. 16; edited by H. J. Emeléus and A. G. Sharpe, Academic Press, New York/London, 1974, vi + 375 pages, \$ 24.50.

The latest volume of this well-established series includes six reviews covering a broad range of inorganic chemistry and some areas of organometallic chemistry.

Of particular interest to organometallic chemists, and especially to those active in organoboron chemistry, will be the long (96 pages, 683 references) chapter on the reaction chemistry of diborane by L. H. Long. The emphasis in boron hydride chemistry these days is on the higher boron hydrides and the carboranes, but this review, which summarizes the rich and varied chemistry of the simplest boron hydride, is useful and welcome.

Bis(trifluoromethyl)amino derivatives of metals have a close connection to organometallic chemistry although metal-to-carbon bonds are not involved. H. G. Ang and Y. C. Syn survey the unusual chemistry of this class of compounds and of other wholly organic $(CF_3)_2N$ compounds in the initial chapter (64 pages, 131 references) of this book.

The subject of photoelectron spectroscopy has been covered in books and in reviews in journals and hard-cover series. Nevertheless, the review in this book by R. L. DeKock and D. R. Lloyd provides a good overview of what vacuum ultraviolet photoelectron spectroscopy can do for the inorganic chemist. Only a few organometallic compounds are mentioned.

The remaining three reviews on fluorinated peroxides (R. A. DeMarco and J. M. Shreeve), fluorosulfuric acid, its salts and derivatives (A. W. Jache) and lower sulfur fluorides (F. Seel) are aimed at specialists outside the area of organometallic chemistry and require no further comment.

*Department of Chemistry
Massachusetts Institute of Technology
Cambridge, Massachusetts 02139 (U.S.A.)*

DIETMAR SEYFERTH