

Book review

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PROGRESS IN INORGANIC CHEMISTRY, Volume 23, S. J. Lippard, editor, John Wiley & Sons, New York, 1978, 494 pages, \$ 35.95.

The latest addition to this well-established series which has contributed so importantly to the review literature of inorganic chemistry brings five reviews, all of which will be of interest to organometallic chemists.

In the first chapter, R. H. Grubbs reviews once again the olefin metathesis reaction, with emphasis on questions of mechanism. The second chapter brings the first part of a survey of the chemistry and spectroscopy of the *f*-element organometallics by T. J. Marks, who, in recent years, has made many interesting and important contributions to this field. This excellent chapter covers organometallic derivatives of the lanthanide elements Actinide organometallics will be dealt with in a later volume of this series.

P. A. W. Dean in the third chapter reviews in great detail, with many tables of compounds and data, the coordination chemistry of the mercuric halides - in the solid state and in solution. Because of its narrow scope, this is the least generally useful chapter in the book, and this review could at least have covered also the coordination chemistry of the organomercuric halides. In the fourth chapter, D. L. Kepert discusses aspects of the stereochemistry of eight-coordination. This review complements the chapter by Lippard in Volume 8 (1967) of this series and also is a companion work to Kepert's 1977 review on six-coordination in Volume 23. Emphasis is on theoretical aspects.

Finally, in the last chapter, Zubieta and Zuckerman bring us all that is known on structural tin chemistry, with 751 references, in an up-dating and expansion of an earlier 1973 review by Ho and Zuckerman on structural organotin chemistry.

In the present review, both inorganic [Sn(II) and Sn(IV)] and organotin systems are covered. This chapter of 223 pages is the longest of the book and brings a wealth of structural data

and many figures. Noteworthy are the discussions of bonding in tin compounds and of tin radii, and particularly welcome is the comprehensive list of inorganic and organotin structures which have been determined to date.

We recommend this book as worthwhile reading to inorganic and organometallic chemists since it brings us up to date in five very different but interesting areas of inorganic chemistry.

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