

Book Review

Advances in Organometallic Chemistry, Volume 10; ed. by F.G.A. Stone and R. West, Academic Press, New York, 1972, ix + 463 pages.

This work represents the tenth volume in an outstanding review series on organometallic chemistry. The purpose of such a series is to keep both specialists and novices abreast of important advances occurring in the rapidly expanding field of organometallic chemistry. Each volume contains a small number of comprehensive, specialized chapters written by experts. For reasons of utility, variety, and quality, the seven chapters in Volume 10 represent one of the most interesting collections published to date.

The first chapter, "My Way in Organometallic Chemistry", (78 pages) by A.N. Nesmeyanov, is a comprehensive and impressive description of the author's outstanding contributions to organometallic chemistry. "Electronic Effects in Metallocenes and Certain Related Systems," (35 pages) by D.W. Slocum and C.R. Ernst summarizes in detail the experimental information available on the electronic structure of metallocenes (and some closely related π -complexes) principally, but not exclusively, as it relates to chemical reactivity. The third chapter, "Nitrogen Groups in Metal Carbonyl and Related Complexes," (83 pages) by M. Kilner, is an accurate, thorough review of a subject of considerable current interest. T.D. Coyle and J.J. Ritter present a complete discussion of the organometallic chemistry of compounds containing boron-boron bonds in "Organometallic Aspects of Diboron Chemistry," (36 pages). "Infrared Intensities of Metal Carbonyl Stretching Vibrations," (37 pages) by S.F.A. Kettle and I. Paul constitutes a rigorous, well-referenced treatment of this useful physicochemical tool. The sixth chapter is a must for those of us who feel (or who wish to feel) deluged by the chemical literature: "Organo-Transition Metal Chemistry – A Guide to the Literature 1950–1970," (62 pages) by M.I. Bruce. This chapter is an invaluable and awesome compendium of "where-to-find-what" for both specialists and neophytes. The last chapter, by A.Z. Rubezhov and S.P. Gubin, "Ligand Substitution in Transition Metal π -Complexes," (71 pages) successfully ties together a large amount of data (mechanistic and thermodynamic) concerning reactions involving the substitution of polyhapto ligands.

The editors are to be congratulated for assembling another highly-recommended volume in this series, which should appeal to a wide spectrum of chemical investigators.

*Department of Chemistry,
Northwestern University,
Evanston, Illinois 60201 (U.S.A.)*

TOBIN J. MARKS