As evidenced by the chapter titles there is "something for everyone" in this volume and the great breadth of the area of organometallic chemistry comes through quite clearly. A nice balance is also struck between relatively mature and emerging areas of investigation although, as Professor Brown notes, such distinctions should be made with great caution. In summary, this is a welcome addition to the chemical literature and should, in spite of its price, find its way to the book shelves of many individuals working in the areas reviewed.

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"MTP International Review of Science. Inorganic Chemistry", H.J. Emeléus (consulting editor). *Series 1.* University Park Press, Baltimore, Maryland, 1972. *Vol. 1, Main Group Elements. Hydrogen and Groups I–IV,* edited by M.F. Lappert, 355 pages; *Vol. 2, Main Group Eelements, Groups V–VI,* edited by C.C. Addison and D.B. Sowerby, 327 pages; *Vol. 3, Main Group Elements. Group VII and Noble Gases,* edited by V. Gutmann, 291 pages; *Vol. 4, Organometallic Compounds of the Main Group Elements,* edited by B.J. Aylett, 412 pages; *Vol. 5, Transition Metals, Part 1,* edited by D.W.A. Sharp, 396 pages; *Vol. 6, Transition Metals, Part 2,* edited by M.J. Mays, 442 pages; *Vol. 7, Lanthanides and Actinides,* edited by K.W. Bagnall, 367 pages; *Vol. 8, Radiochemistry,* edited by A.G. Maddock, 335 pages; *Vol. 9, Reaction Mechanisms in Inorganic Chemistry,* edited by M.L. Tobe, 393 pages; *Vol. 10, Solid State Chemistry,* edited by L.E.J. Roberts, 313 pages; *Index Volume* 200 pages. Each volume $24.50; £10.00.

The MTP International Review of Science represents a mammoth and very ambitious undertaking. It seeks to provide a "comprehensive, systematic, continuously updated reference source covering in a final and definitive manner the entire field of chemistry today", as the publisher's prospectus tells us. Its three main sections (Inorganic Physical and Organic Chemistry) total 33 text volumes in the 1972 Series 1. It is intended to completely rewrite and reissue each volume in consecutively numbered series every two years. We review here the 10 volume series on inorganic chemistry, but must restrict ourselves to the organometallic aspects.

Two of these volumes are devoted entirely to organometallic chemistry: Volume 4, which covers the main group metals, and Volume 6, which deals with organic derivatives of the transition metals. In addition, in other volumes various aspects of organometallic chemistry are reviewed; *e.g.*, the carboranes in Volume 1, metal carbonyls with nitrogen-containing pseudohalide and with sulfur-containing ligands in Volume 2, the organometallic chemistry of the lanthanides and actinides in Volume 7, and much on organometallic reaction mechanisms in Volume 9.

A glance at the chapters in Volumes 4 and 6 shows that the authors are chemists of demonstrated research competence in the fields which they are reviewing. Accordingly, their reviews are authoritatively written and generally present a good overview of the fields they survey. In the initial series the literature of 1969 and 1970 is emphasized, but general coverage extends a few years further back in most chapters. The discussion of main group organometallic chemistry in Volume 4 is organized by element or groups of elements, but the organotransition metal survey is organized by ligand types. In this initial series the authors have had a bit more leeway in their coverage since they could include material reported prior to the period 1969–1970. As a result, a few very nice, well-rounded "state of the art" reports of some areas can be found in these volumes, for instance, Peter West's excellent chapter on organoalkali metal compounds and A.J. Bloodworth's critical and well-written summary of organo-tin and -lead chemistry. The chapters in the Reaction Mechanisms volume lend themselves particularly well to such a treatment and organometallic chemists will find the excellent chapters on stereochemical nonrigidity (E.L. Muetterties), oxidative addition (A.J. Deeming) and nucleophilic displacement at main group elements (R.H.Prince) both interesting and useful. However, in most chapters in Volumes 4 and 6 one is simply presented with the facts in a straight-forward manner.

The authors of the chapters on main group organometallic chemistry appear to have adequate space to develop their surveys. This is not the case in the organotransition metal volume. For instance, the chapter "Carbonyl and Other Carbon Donor Complexes" attempts to treat 433 references in 31 pages of text and the chapter on transition metal complexes containing Group V donor ligands discusses the content of 474 references in 38 pages of text. (By way of comparison, the organo-tin and -lead chapter of 71 pages has only 358 references to cover.)

In any event, one must question the necessity of at least the two organometallic volumes of this biennial MTP Inorganic Chemistry series. An annual survey of the organometallic chemistry field has existed since 1964; since 1972 this has been incorporated into the "Journal of Organometallic Chemistry". Then last year, not only the MTP biennial survey under discussion here, but also still another, rather redundant annual survey, the Chemical Society Specialist Report on Organometallic Chemistry, commenced publication. Since the organometallic literature already is summarized on an *annual* basis by two surveys, it is difficult to perceive what unfulfilled need of the organometallic chemist the present two volumes satisfy. It might make more sense to aim these volumes at the chemist who does not specialize in organometallic chemistry. A more general and a less-detailed and less compressed review than that given in these volumes would be more appropriate then, one which presents the highlights and stresses the importance and utility of organometallic compounds to chemists who are active in research in other areas. Seen as a part of the whole MTP review of chemistry, these volumes are justified, but a change in emphasis of the type indicated might be considered.

For the organometallic chemist, those volumes of the MTP Inorganic Chemistry series not dealing with organometallic chemistry might be more valuable, for the results of inorganic chemistry research, both practical and theoretical, are of great importance

as the broader foundations of organometallic chemistry. The volumes of this series should help the organometallic chemist to keep informed about what has been happening in the various areas of inorganic chemistry.

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