

Specialist Periodical Reports. Organometallic Chemistry, Volume 11. E.W. Abel and F.G.A. Stone, senior reporters. The Royal Society of Chemistry, 1983, xviii + 549 pages, £ 77.

The volume under review belongs to a series well known to readers of this journal. The present volume covers the literature for the year 1981, except that the chapter on "Organometallic Compounds in Biological Chemistry" also covers 1980 and is written by a new contributor, B. Ridge. Chapters 3 and 12 now have new authors, otherwise the format is unchanged, although the volume has increased in size (Volume 10 comprised 464 pages).

The detailed contents are as follows (in parentheses are shown the authors, the number of pages, and the number of references, respectively). Chapter 1. Group 1: The Alkali and Coinage Metals (J.L. Wardell, 12 pages, 65 refs.); Chapter 2. Group II: The Alkaline Earths and Zinc and its Congeners (J.L. Wardell, 12 pages, 73 refs.); Chapter 3. Group III: Boron (J.H. Morris, 32 pages, 367 refs.); Chapter 4. The Carbaboranes, including their Metal Complexes (J.B. Leach, 23 pages, 111 refs.); Chapter 5. Group III: Aluminium, Gallium, Indium, and Thallium (P.G. Harrison, 28 pages, 78 refs.); Chapter 6. Group IV: The Silicon Group (D.A. Armitage, 45 pages, 319 refs.); Chapter 7. Group V: Arsenic, Antimony, and Bismuth (J.L. Wardell, 7 pages, 40 refs.); Chapter 8. Metal Carbonyls (J.A. Connor, 14 pages, 136 refs.); Chapter 9. Organometallic Compounds containing Metal-Metal Bonds (B.T. Heaton, 34 pages, 418 refs.); Chapter 10. Substitution Reactions of Metal and Organometal Carbonyls with Groups V and VI Ligands (D.A. Edwards, 20 pages, 127 refs.); Chapter 11. Sigma-Bonded Organometallic Compounds of Transition Elements of Group IIIA to VIIA (D.J. Cardin, R.J. Norton, 24 pages, 116 refs.); Chapter 12. Complexes containing Metal-Carbon σ -Bonds of the Groups Iron, Cobalt, and Nickel (A.K. Smith, 29 pages, 288 refs.); Chapter 13. Metal-Hydrocarbon π -Complexes (J.A.S. Howell, 38 pages, 305 refs.); Chapter 14. π -Cyclopentadienyl, π -Arene, and Related Complexes (W.E. Watts, 28 pages, 329 refs.); Chapter 15. Homogeneous Catalysis by Transition-metal Complexes (C. White, 34 pages, 250 refs.); Chapter 16. Organometallic Compounds in Biological Chemistry (B. Ridge, 24 pages, 163 refs.); Chapter 17. Diffraction Studies of Organometallic Compounds (I.W. Nowell, 91 pages, 793 refs.). It should be kept in mind that in each chapter there is a concluding section termed "Bibliography", which lists a number of papers with their titles which are not discussed in the text. The book concludes with an Author (47 pages), but not a Subject Index.

The merits, and perhaps limitations, of this series, imposed by the inevitable brevity of the discussion of any individual paper, are well known; however, its value is immense. The production is of the usual high standard, and only relatively minor errors have been detected.