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Book review

Gmelin Handbook of Inorganic Chemistry. 8th Edition, Rh — Rhodium, Supplement Volume B2. Coordination Compounds with O- and N-Containing Ligands. Gmelin Institut für Anorganische Chemie der Max-Planck-Gesellschaft zur Förderung der Wissenschaften and Springer-Verlag, Berlin/Heidelberg/New York/Tokyo, 1984, xx + 323 pages, DM 1070 (ISBN-3-540-93496-0).

This is the second volume of a trilogy concerned with rhodium complexes of donors containing oxygen or nitrogen. In the preceding volume, B1, complexes of oxo, hydroxo, aquo, nitrato, sulphato, carbonato, and phosphato ligands were considered. The present text has two principal sections, the first dealing with further oxygen-centred ligands, and the second with nitrogen donors. Chapter headings are as follows: 1.1 Carboxylates (82 pages); 1.2 Rhodium β -Diketonates (12 pages); 1.3 Complexes with Miscellaneous Oxygen Donor Ligands (5 pages); 2.1 Monodentate Nitrogen Donors (62 pages); 2.2 Complexes with Saturated Bidentate Nitrogen Donors (33 pages); 2.3 Saturated Polydentate Nitrogen Donors (18 pages); 2.4 Unsaturated Bidentate Nitrogen Donors (15 pages); 2.5 Unsaturated Cyclic Polydentate Nitrogen Donors (14 pages); 2.6 Complexes of 5- and 6-Membered Heterocyclic Monodentate Nitrogen Donors (52 pages); 2.7 Complexes with Miscellaneous Nitrogen Donor Ligands (10 pages); 2.8 Complexes with Nucleotides and Nucleosides (2 pages); and 2.9 Organic Chelates Containing Nitrogen and Oxygen Donor Atoms (19 pages).

The bulk of Section 1 is devoted to the carboxylates, and the dimeric rhodium(II) compounds feature particularly prominently, as do the β -diketonates. The nitrogen donor section starts with nitrosyl complexes and moves into those of the simple ligands NO_2^- , RCN, NH_2^- , and N_2H_4 , and finally a considerable portion is devoted to amines.

Although amides of rhodium are exceedingly rare, only $Rh(NH_2)_3$ is mentioned; $[Rh\{N(SiMe_3)_2\}(PPh_3)_2]$ (J. Chem. Soc., Chem. Commun., (1979) 843) is omitted, although alkylaminerhodium complexes are included, as are triphenylphosphinerhodium nitrosyls.

The volume is written by three experts (W.P. Griffith, J.A. McCleverty, and S.D. Robinson, with W.P. Griffith and K. Swars as editors) and is of the usual high quality. As will be evident from the above description, there is no direct organometallic content. The literature is covered to the end of 1982.