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Book review

Transition Metal Carbene Complexes; by K.H. Dötz, H. Fischer, P. Hofmann, F.R. Kreissl, U. Schubert and K. Weiss, Verlag Chemie, Weinheim, 1983, DM 120, ISBN 3-527-26090-0 (Weinheim), ISBN 0-89573-073-1 (Florida), 264 pages.

This book was a pleasure to read for several reasons. The most important reason is that it is dedicated to Professor E.O. Fischer, the founder of metal carbene chemistry, Nobel Laureate, and renowned organometallic chemist. Amongst other reasons is that it is written by some of his more recent co-workers, who bring a personal flavour to the writing, as well as the thorough and methodical approach to the topic which one would expect from chemists of the Fischer school. As might be expected, the authors concentrate mainly upon the work emanating from the Munich group, but within the scope of the text this is not a particularly serious problem and important work from other laboratories is given due attention.

The chapters are written by separate authors and are essentially self-contained Starting with a thorough account of the Synthesis of Carbene Complexes (A. Fischer), we pass through a rather cryptic account of Spectroscopic Properties (Fischer and Kreissl), an elegant presentation of Solid State Structures (Schubert), detailed discussion of Electronic Structure (Hofmann) to the Reactions of Carbene Complexes. The later chapters describe Selected Reactions, such as the important conversion to carbyne complexes (Kreissl), a detailed description of Carbene Complexes in Organic Synthesis (Dötz), discussion of these complexes as Intermediates in Catalytic Reactions (Weiss) and finally a short chapter on Mechanistic Aspects (Fischer).

As can be seen, the coverage of the field is comprehensive, and this well-presented book is a reading "must" for all with an interest in Organometallic Chemistry.

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