

Book Review

Comprehensive Handbook on Hydrosilylation

B. Marciniec (ed.), Pergamon, Oxford, 1992, xi + 754 pages. £150. ISBN 0-80-040272-0

This well-conceived and well-constructed book is made up of two parts. The first part (215 pages) consists of six chapters describing various aspects of hydrosilylation, with titles as follows: Introduction; Catalytic aspects of hydrosilylation; The reactivity in hydrosilylation of particular types of organic compounds with multiple bonds; The effect of substituents on silicon on the reactivity of the Si-H bond in hydrosilylation; The hydrosilylation of unsaturated organosilicon compounds; The application of hydrosilylation processes. (The last chapter deals with silanes as coupling agents, reduction of organic compounds by hydrosilylation, and modification of polymers via hydrosilylation.)

The second part (474 pages) consists of tables setting out information on the substrates reaction conditions (catalysis, temperature, time), products, and yields for a very large number of hydrosilylation reactions reported in more than 2100 papers or patents published in 1965–1990. There is a vast wealth of precise information, and the book will be invaluable to all those engaged in research on hydrosilylation or inter-

ested in its use for specific purposes. The editor and the other contributing authors (J. Guliński, W. Urbaniak, and Z.W. Kornetka) deserve congratulations on the quality of the work and the thanks of the many readers who will benefit from its availability.

If I have one criticism it is of the decision to exclude details from pre-1965 publications, although some reasonably comprehensive earlier reviews are available. To offset that minor complaint I should mention that a supplement dealing with information from post-1990 publication has already appeared, in the form of a Short Review by Drs. Marciniec and Guliński in the *Journal of Organometallic Chemistry*, Volume 446, pages 15–23. It is to be hoped that further supplements will appear at appropriate intervals.

The book represents excellent value and is strongly recommended. Appropriately it is dedicated (on the occasion of his 70th birthday) to Dr. John L. Speier, who in 1957 introduced the use of hexachloroplatinic acid as a catalyst for hydrosilylation, and so initiated the use of transition metal derivatives for homogeneous catalysis of the reaction.

Colin Eaborn

*School of Chemistry and Molecular Sciences
University of Sussex
Brighton BN1 9QJ
UK*