

## Book Reviews

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**Transition Metal Intermediates in Organic Synthesis.** By C. W. Bird. Academic Press Inc., 111 Fifth Ave., New York, N. Y. 1967. vii + 280 pp. 14.5 × 22 cm. \$13.00.

Transition metal compounds are proving to be very useful in organic synthesis since many of the reactions they cause cannot be brought about as easily by other means. There has been a need for a book summarizing the field, particularly for use by organic chemists so that they will have a single source of information to aid them in applying the many newly discovered reactions. This book will fill that need.

The author has concisely summarized data from the literature into ten chapters, each dealing with a different type of reaction. The major reactions discussed are oligomerization of acetylenes and olefins, hydrogen migration reactions, olefin oxidations by the platinum metal compounds, the carbonyl insertion reaction, the

hydroformylation reaction, carboxylation and various other carbonylation reactions, decarbonylation and desulfonylation reactions, and homogeneous hydrogenation. The usefulness of the book is increased by the inclusion of many tables giving lists of examples of the reactions discussed.

The main shortcoming of the book is that it tends to be a series of short, concentrated abstracts which are not tied together with sufficient discussion. Mechanistic aspects of the reactions were considered in many instances, but the reader is left with the impression that the mechanisms are much more varied and complicated than they probably actually are.

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