DESCRIPTION

In this comprehensive book, one of the leading experts, Shun-Ichi Murahashi, presents all the important facets of modern synthetic chemistry using Ruthenium, ranging from hydrogenation to metathesis. In 14 contributions, written by an international authorship, readers will find all the information they need about this fascinating and extraordinary chemistry. The result is a high quality information source and a indispensable reading for everyone working in organometallic chemistry.

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Introduction (S.-I. Murahashi)

Hydrogenation and Transfer Hydrogenation (M. Kitamura and R. Noyori)

Oxidations (S.-I. Murahashi and N. Komiya)

Carbon-Carbon Bond Formations via Ruthenacycle Intermediates (K. Itoh)

Carbon-Carbon Bond Formation via π-Allylruthenium Intermediates (T. Mitsudo)

Olefin Metathesis (R. H. Grubbs)

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Isomerization of Organic Substrates Catalyzed by Ruthenium Complexes (H. Suzuki)

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Bond Cleavage Reactions (S. Komiya)

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**ABOUT THE AUTHOR**

Shun-Ichi Murahashi (born 1937) received his PhD from Osaka University (Japan) under Ichiro Moritani, before spending two years as a postdoctoral fellow in Ronald Breslow's group at Columbia University, New York. He joined the faculty of Osaka University upon his MS and was appointed full professor in 1979. He is now an Emeritus Professor of the university, having taken up a chair at the Okayama University of Science in 2001.

Professor Murahashi holds an honorary doctorate from the University of Rennes (France) and is the recipient of numerous scientific awards, including the Award of the Chemical Society of Japan, the Humboldt Research Award, and the Minakata-Avogadro Award.

His current research is focused on organometallic chemistry directed towards organic synthesis, biomimetic catalytic oxidation, ruthenium and palladium chemistry, and non-salt green processes.

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