Organopalladium chemistry has had a profound impact on the way that organic chemists tackle synthetic problems. In recent years thousands of research articles have been published dealing with various aspects of palladium mediated reactions in organic synthesis. This ‘handbook’ does an outstanding service to our community by summarising these in a logical and accessible form. Moreover, both experienced users and novices alike should find the work informative as many of the leading practitioners from around the globe have contributed to this monumental undertaking.


Volume II begins with and extensive review of the Tsuji–Trost reaction and includes other carbon to carbon bond forming processes involving \( \pi \)-allyl- and related palladium complexes (Part V). Recent advances in oxy palladation, aminopalladation and halopalladation are then presented. Part VI draws together a host of transformations involving the carbonylation of an organopalladium intermediate. Related migratory insertion reactions are summarised alongside the reactions and uses of acylpalladium derivatives in synthesis. Part VII brings together many of the functional group inter-conversion reactions mediated by palladium that are not covered in previous sections. Hydrogenation, isomerisation and metallation reactions feature prominently, along with other \( \text{syn-addition} \) reactions involving heteroatoms. Oxidation reactions are collected in Part VIII while rearrangement reactions are covered in Part IX. The discussion concludes with ‘technological developments’ (Part X), in which new avenues for palladium chemistry such as reactions in aqueous media, immobilised catalysts and applications in combinatorial chemistry are highlighted.

As with all multiple author works, the style of each review varies from chapter to chapter. This was never a distraction as a forward to each Part by the editor helped to knit the work together and place each review into a wider context. Likewise, the inclusion of many sections devoted to target oriented synthesis helped with continuity. In the forward, the editor commented that ‘the book is outdated by at least a few years at the time of publication.’ To experts in the field this may be apparent. However, for the vast majority of chemists the handbook will become their first port of call when considering a palladium mediated transformation. The book succeeds in showing how palladium chemistry has developed and matured over the years and, should the planned updates materialise, I expect that it will soon establish itself as the bible of Organopalladium Chemistry. If you have not already done so, I would urge you to flick through its pages. I am sure you will return again and again.

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