

# Development of Palladium-Catalyzed Cycloalkenylation and Its Application to Bioactive Natural Product Synthesis

Masahiro Toyota

Department of Chemistry, Graduate School of Science, Osaka Prefecture University

To solve the drawback (considerable decrease in yield on a large scale) of cycloalkenylation employing stoichiometric amounts of palladium acetate, a novel palladium-catalyzed cycloalkenylation has been developed. Stereoselective total syntheses of several bioactive natural products, such as methyl atis-16-en-19-oate, methyl kaur-16-en-19-oate, methyl trachyloban-19-oate, C<sub>20</sub> gibberellins, serofendic acids, and aphidicolin, have been achieved by means of the above catalytic reaction.

