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## Microwave-Assisted Synthesis of Ruthenium Hydride Complex and Its Application to Homogeneous Hydrogenation of Alkenes

Ki Hyeok Kwon, Dok Chan Kim, Do Weon Lee\*

Department of Chemical Engineering, University of Seoul

Ruthenium-hydride complex,  $(PCy_3)_2(CO)(Cl)RuH$  (**1**), was prepared by reaction of  $RuCl_3$  with 1,5-cyclooctadiene (COD) and excess tricyclohexylphosphine ( $PCy_3$ ) under microwave irradiation in good yield in a dramatically reduced reaction time. Homogeneous hydrogenation of terminal and cyclic alkenes catalyzed by this ruthenium-hydride complex has been investigated under microwave irradiation. The increased turnover rates were observed and the time required for the reaction was very short compared to the conventional method.

