

Chem 345 – Organic Reactions

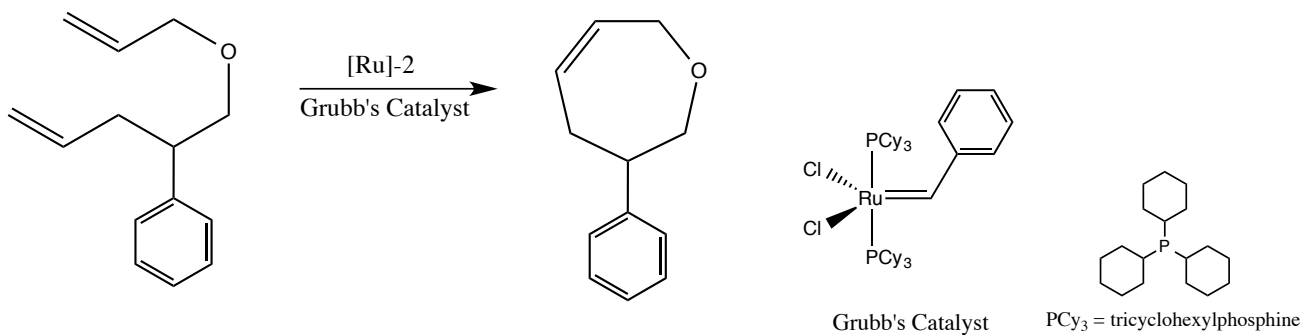
Chapter 18

Prepared by José Laboy, MS

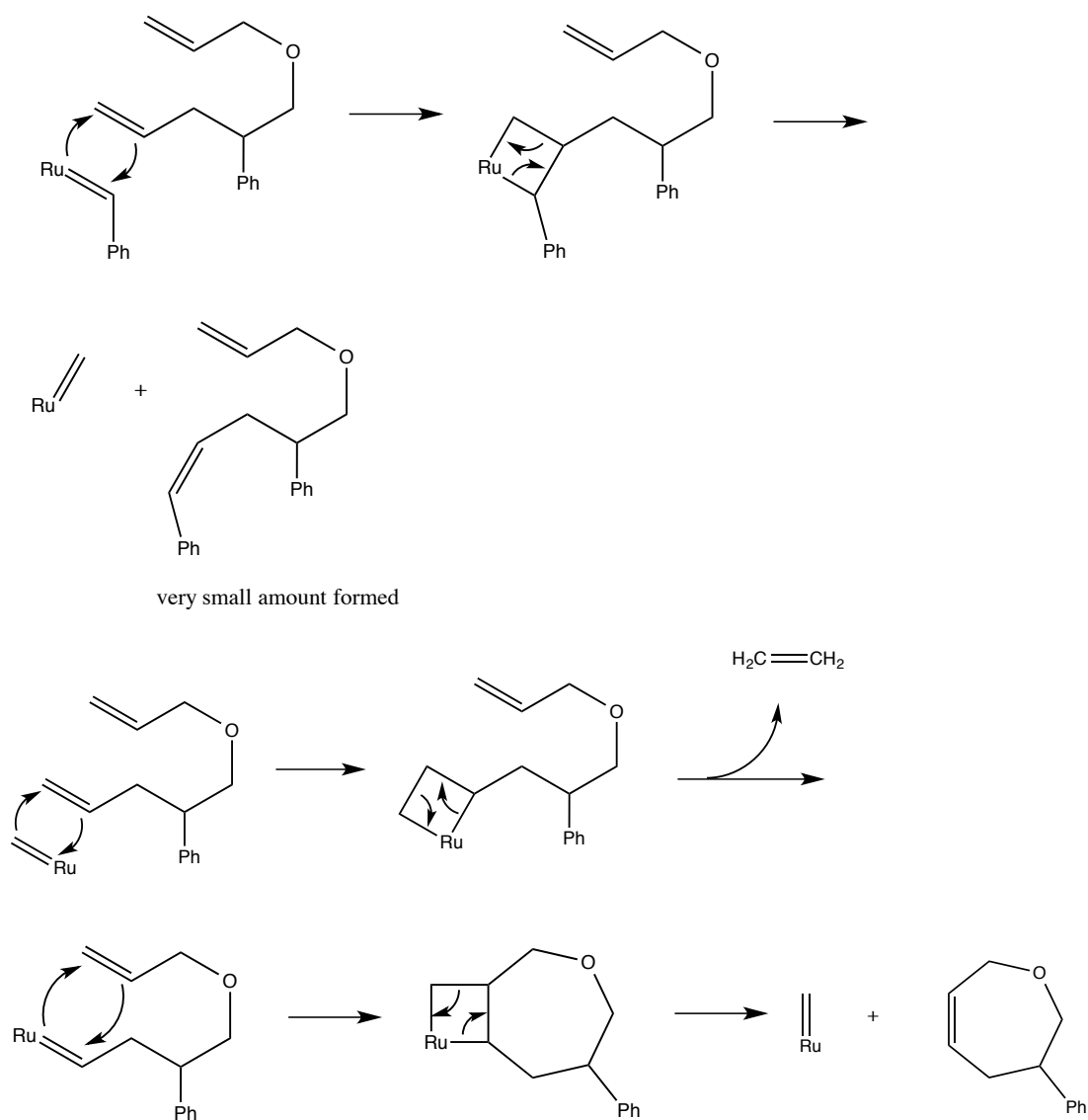
<http://www.chem.wisc.edu/areas/clc> (Resource page)

Olefin Metathesis

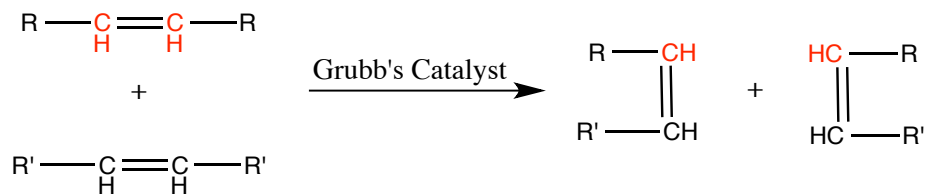
Reaction:



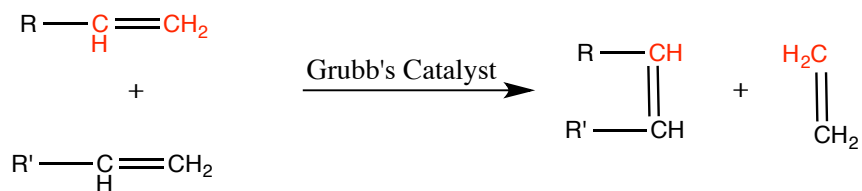
Mechanism:



In this reaction the sp^2 carbon atoms are “swapped”. The general reaction looks like the illustration below.



In the case of terminal alkenes the products are:



To generate the actual catalyst a small amount of the reactant reacts to form a benzyldiene derivative. The catalyst is regenerated after each cycle.