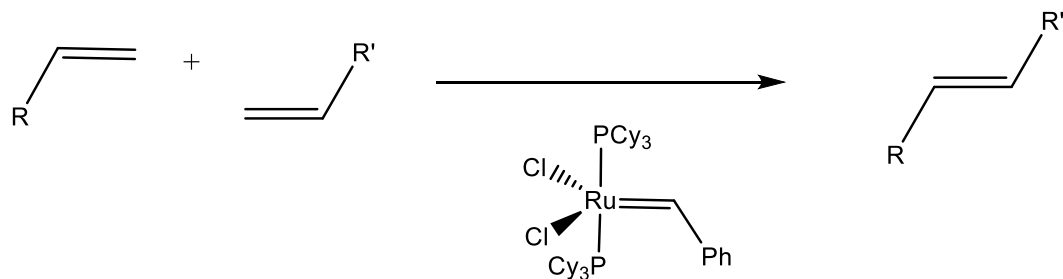
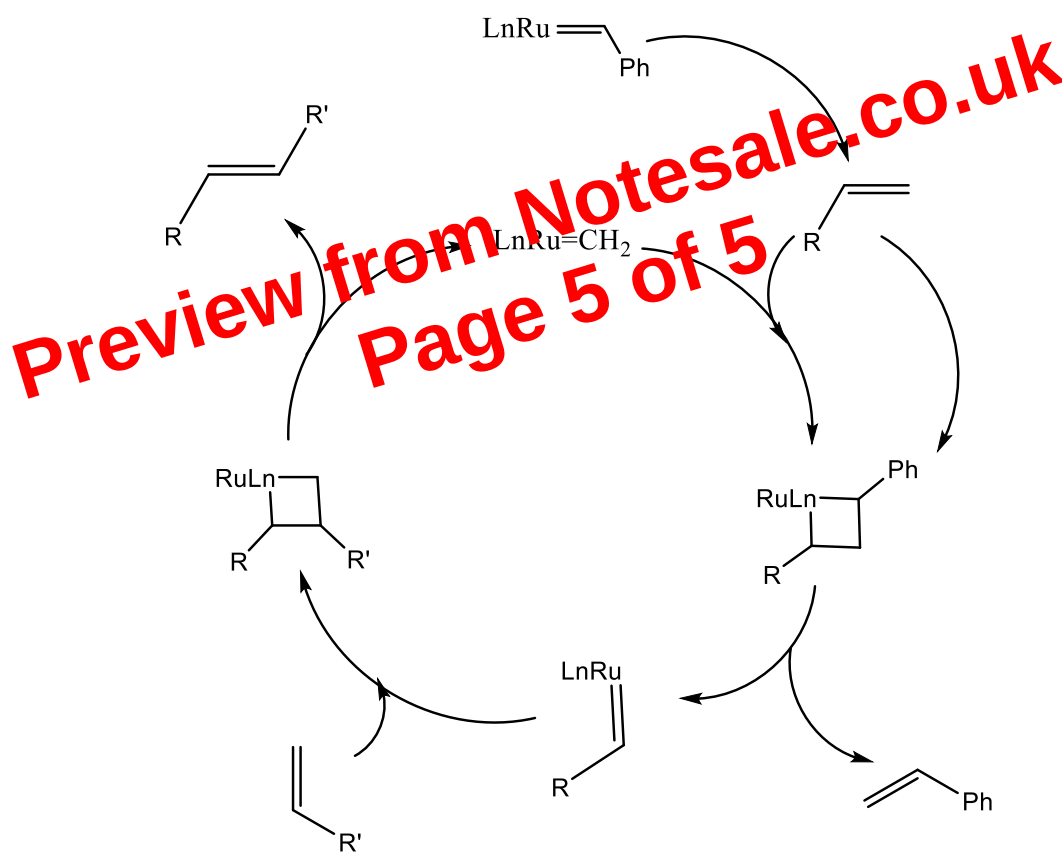


Alkene (Olefin) metathesis: allows for the exchange of substituents between different alkenes. This is possible as the M-C bond is not fully double in character and can be played with. It occurs through the concerted interaction of one molecule with another.



General alkene metathesis

The full mechanism of alkene metathesis is commonly illustrated as a catalytic cycle as shown below:



There are some problems with cross metathesis of alkenes. Ring-closing metathesis (RCM) solves many of these. Essentially, RCM is used to form C-C bonds via ring-closing.