

Chem 345 – Organic Reactions

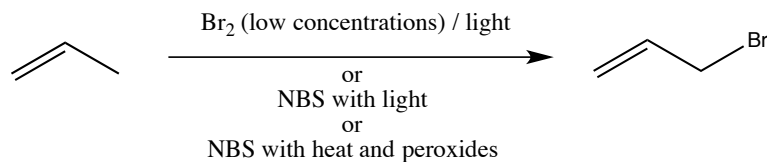
Chapter 17

Prepared by José Laboy, MS

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

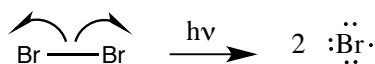
Benzylic and Allylic Reactions #1: Allylic Bromination

Reaction:

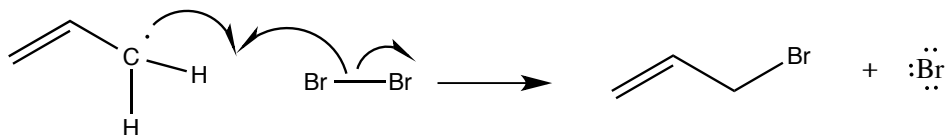
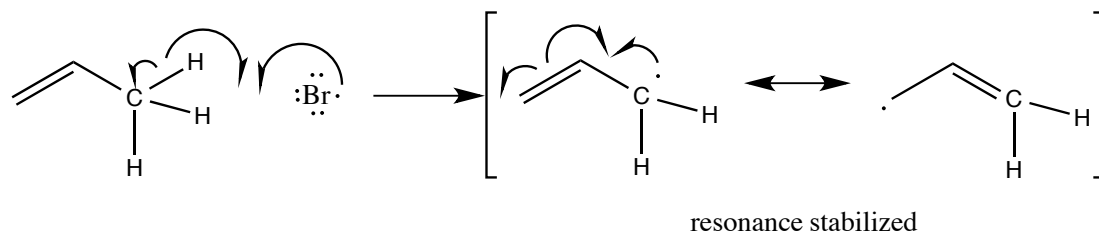


Mechanism:

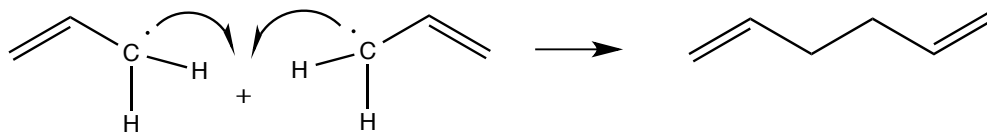
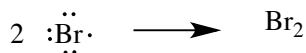
Initiation



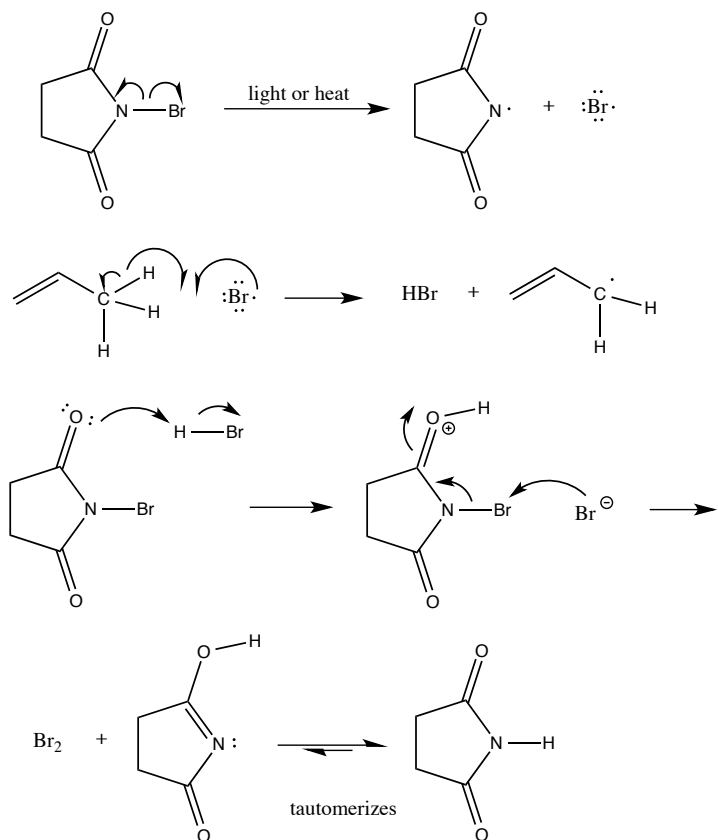
Propagation



Termination



The mechanism is a radical process. It is crucial that the concentration of Br_2 is kept low. Large amounts of Br_2 favor addition to the double bond. The use of N-Bromosuccinimide (NBS) is ideal because it is insoluble in CCl_4 and only small amounts can react at a time. See mechanism below.



Under conditions where peroxides are used along with NBS the mechanism is slightly different.

