

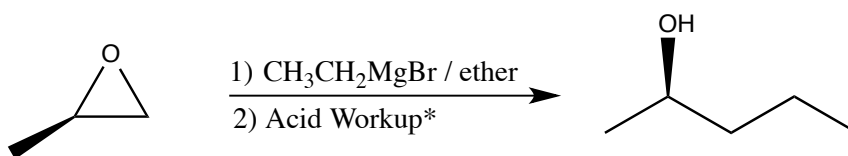
Chem 343 – Organic Reactions

Chapter 11

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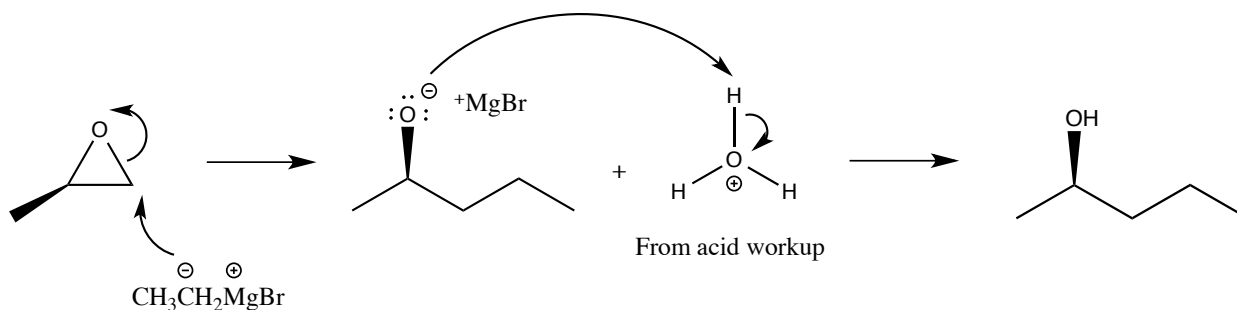
<http://www.chem.wisc.edu/areas/clc> (Resource page)

Synthesis and Reactions of Epoxides #5: Reactions of Epoxides with Organometallics



*This step is required to form the alcohol.

Mechanism



Organometallics such as alkyllithium or Grignard reagents are **strong bases**, which can react with any acidic proton, i.e., $-\text{OH}$, $-\text{NH}_2$, etc. Dialkyl cuprates and cyanocuprates are weak bases. All organometallics are good nucleophiles. They can react with epoxides in an $\text{S}_{\text{N}}2$ mechanism attacking the least hindered side of the epoxide.