

ORGANIC CHEMISTRY 1 LECTURE GUIDE 2019

BY RHETT C. SMITH

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# Organic Chemistry 1 Lecture Guide 2019

By Rhett C. Smith, Ph.D.

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Companion Books from the Proton Guru:

*Organic Chemistry 1 Reactions and Practice Problems 2019*

by Rhett C. Smith

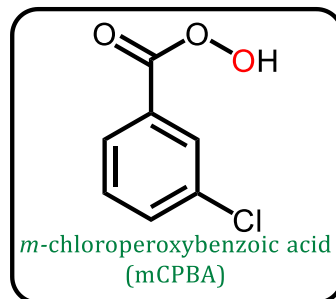
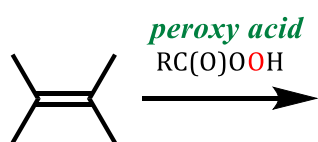
*Organic Chemistry 1 Primer 2019,*

by Rhett C. Smith, Andrew G. Tennyson, and Tania Houjeiry

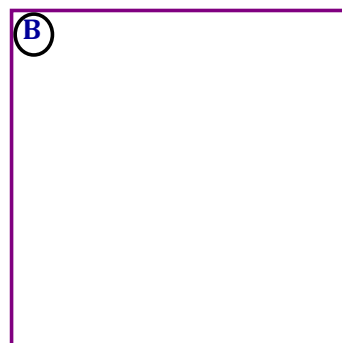
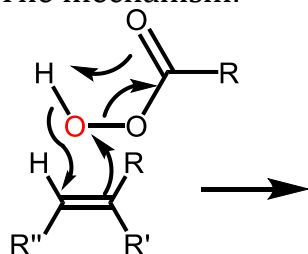
## Lecture Topic III.8: Epoxidation

### A concerted mechanism

**Epoxidation** is another **concerted** reaction that leads to the formation of a three-membered ring from an alkene. This reaction uses a **peroxyacid** ( $\text{RC}(\text{O})\text{OOH}$ ) as the reagent. A common peroxyacid used is mCPBA.



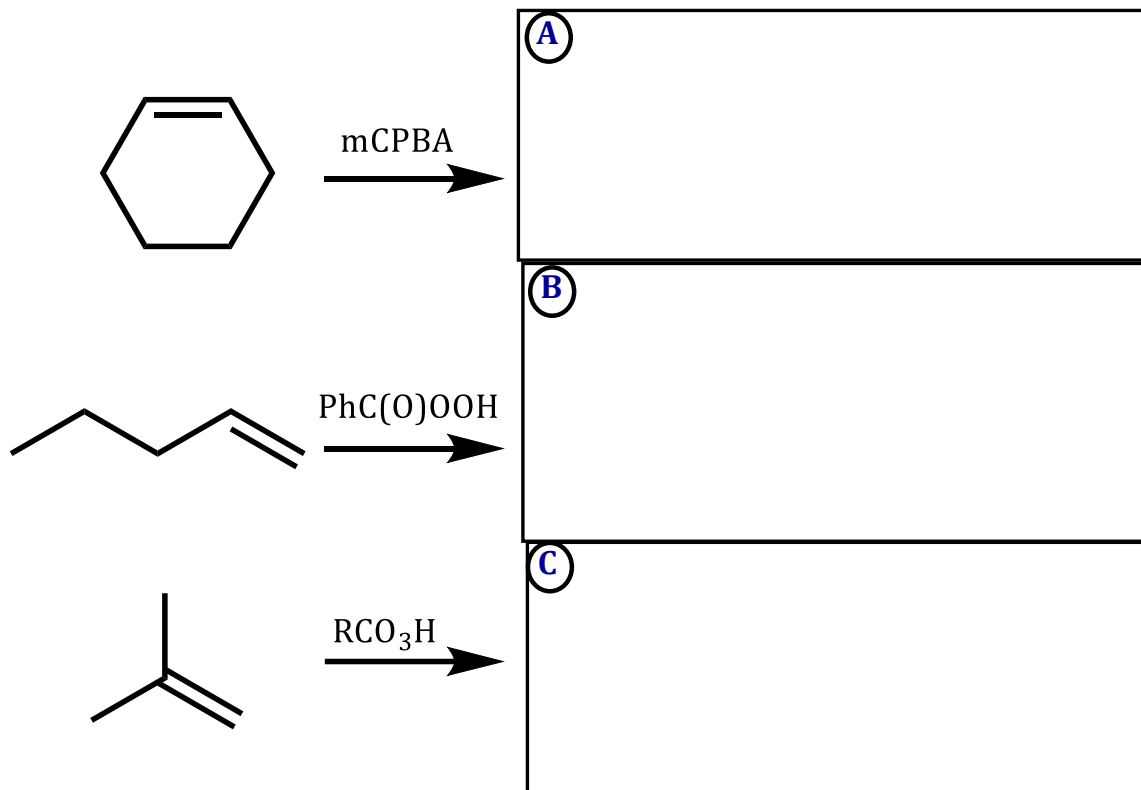
The mechanism:



Notes

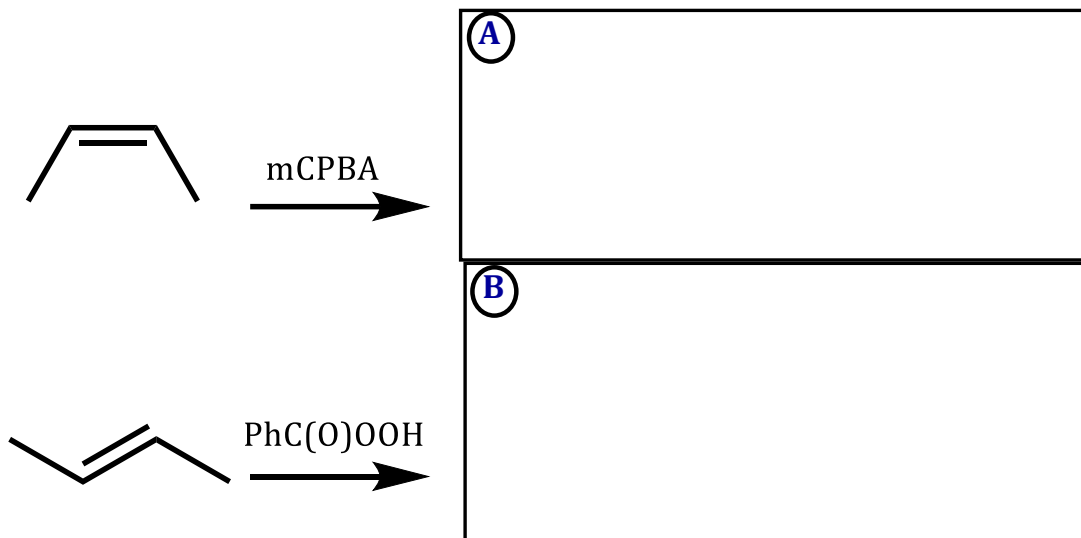
Lecture Topic III.8: Epoxidation  
Stereochemistry

Epoxidation of several alkenes illustrates possible stereochemical outcomes:



Notes

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Notes