Chemistry II-AP

Mechanistic Chemistry Notes Outline

1. Substitution Reactions
2. Overview
3. SN2 Reactions
4. SN1 Reactions
5. Alcohols as leaving groups
6. Protonation
7. Tosylation
8. Alkene Chemistry

Review of Alkene Nomenclature

1. Preparation of Alkenes (E2 Mechanisms)
2. Addition of HX and H2O

* Markovnikov’s Rule

1. Anti-Markovnikov addition of HX and H2O
2. Addition of Halogens, Epoxidation, and Oxymercuration
3. Oxidation of Alkenes
4. KMnO4 (cold, dilute)
5. Ozonoylsis
6. Oxidative cleavage (KMnO4 hot and conc.)
7. Miscellaneous Reactions
8. Catalytic Hydrogenation
9. Diels-Alder Reaction
10. Alkyne Chemistry
11. Preparation of Alkynes
12. C-C bonds with NaNH2 and the acetylide ion
13. Catalytic Hydrogenation
14. Full saturation
15. Partial saturation with Lindlar’s catalyst
16. Mechanistic Chemistry Practice