

Synthesis and Reactions of Alcohols (and Ethers)**1. Substitution**

Sn2 on 1° and 2° Alkyl Halides by OH anion or OR anion

Sn1 on 3° Alkyl Halides by Alcohols or Ethers only with H⁺

2. Addition to Alkenes of HOH or HOR with H⁺ or Halohydrin Rxn (X₂ and HOH or HOR)**3. Oxidations of Alkenes to Diols with KMnO₄ (cold) or OsO₄****4. Epoxidation of Alkenes to Epoxides (oxiranes = 3 membered ring ethers) with peracids****5. Elimination of Alcohols or Ethers to Alkenes with H⁺ E1 (3°) and E2 (1° and 2°)****6. Addition Rxns to Carbonyls (C=O) – NOT COVERED in the course**