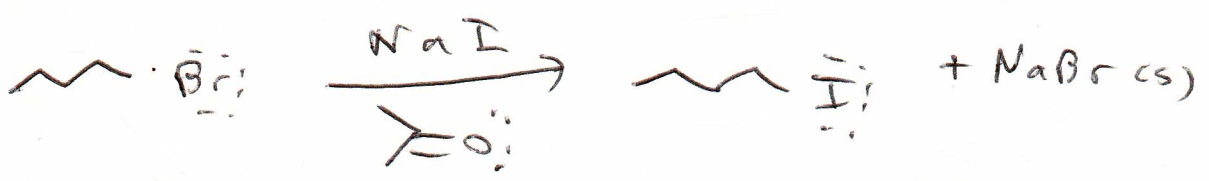


Paraston: TTh 10:30 - 11:30 AM (sect. 03)
MW 11:30 - 12:30 (sect. 01+02)

Finkelstein rxn

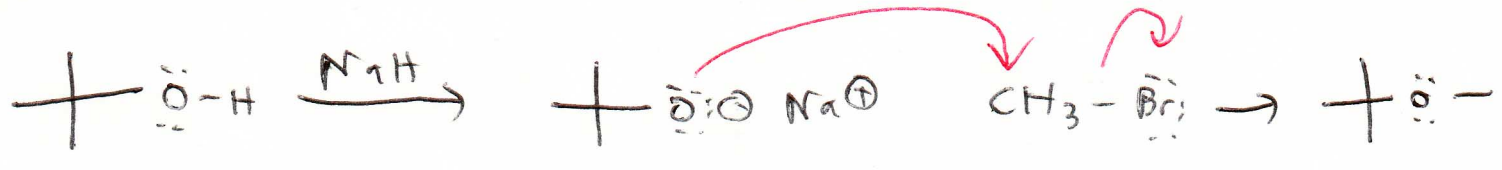
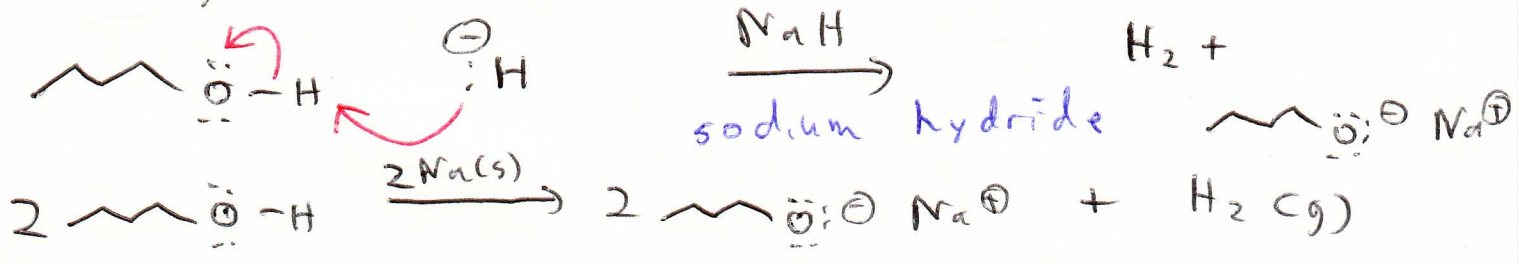


NaI is soluble in acetone, while NaCl and NaBr are not. The products of this rxn are favored due to the continuous removal of NaCl or NaBr from solution by precipitation.

Alkylation

Williamson ether synthesis → S_N2

Alkoxides R-O⁻ "alkyl oxide"
 CH₃O⁻ methoxide C₂H₅O⁻ ethoxide

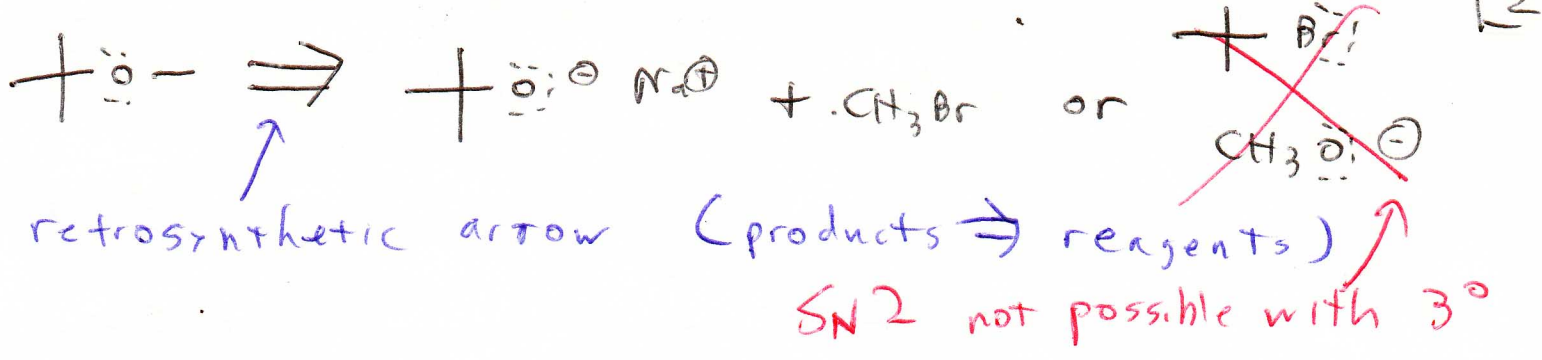


Ether nomenclature:

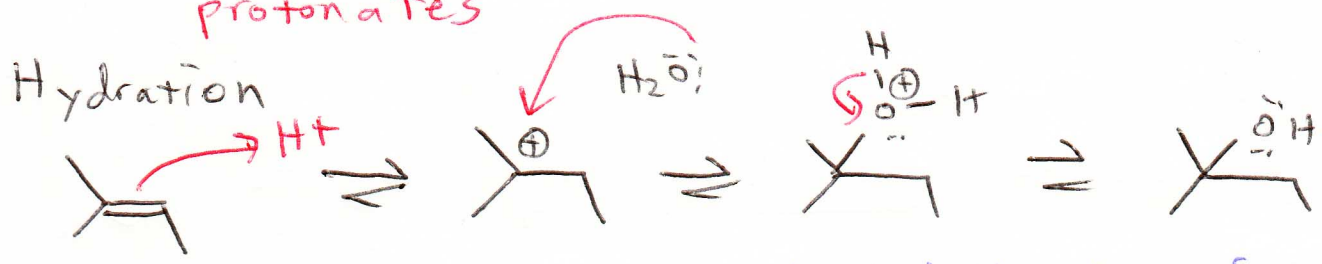
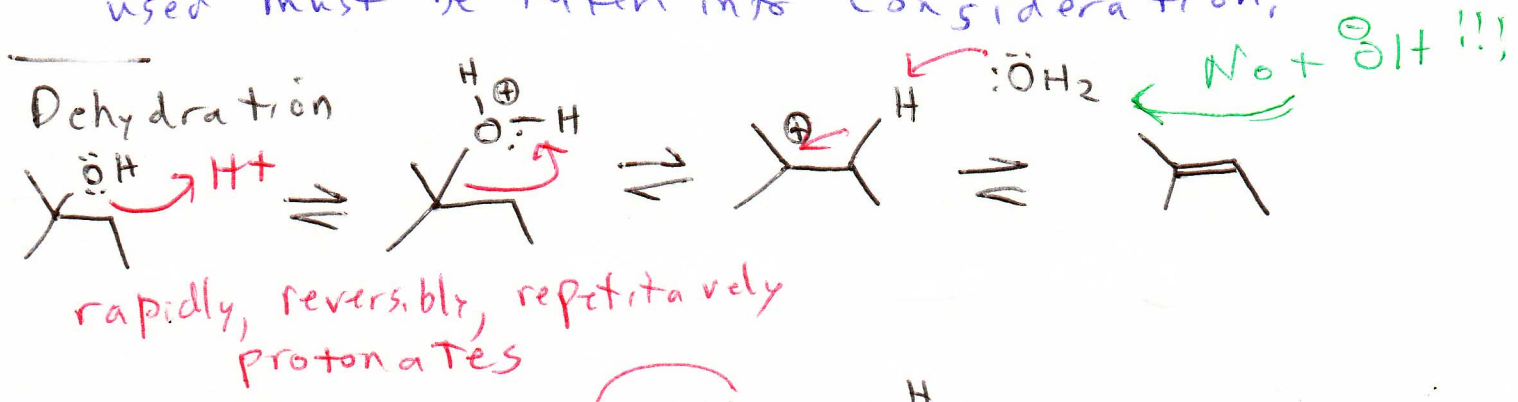
Common: CCOCC diethyl ether
CCOC methyl ethyl ether

Systematic: CCCCOC 1-methoxybutane

Parent chain (longer) Substituent (shorter)



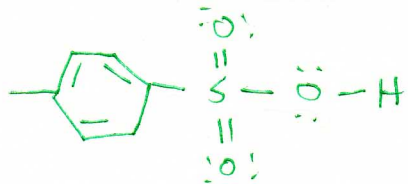
Often, an ether can be produced in more than one way; however, the type of substrate and base used must be taken into consideration.



Hydration of an alkene and dehydration of an alcohol are just reverse rxns of each other. Dehydration is favored at high temperatures and the removal of water as it's formed (Le Chatelier's), hydration is favored by adding water. Both rxns involve an acid catalyst.

(Dean-Stark) $\text{H}_2\text{O} \neq \text{H}^+ \text{OH}^-$

Acid-catalyzed dehydration normally favors the most thermodynamically favored alkene. (more substituents; internal versus terminal; trans vs. cis).



p-toluene sulfonic acid
tosic acid

- cheap, easily handled organic solid
- strong acid
- conjugate is non-reactive

