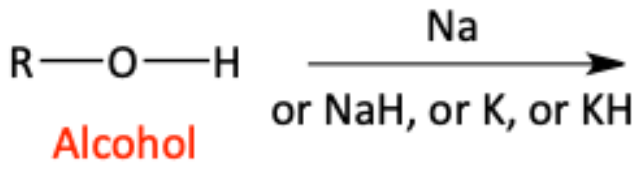
Alcohol Reaction Review: Draw the Products

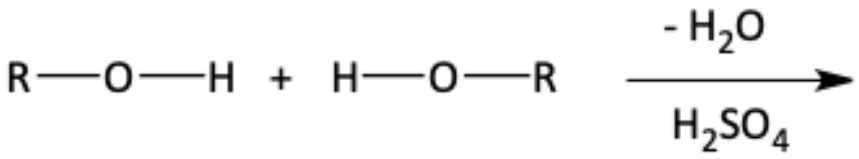
Each reaction shows the starting material and the reagents. Draw the product.

Name: _____ Date: _____

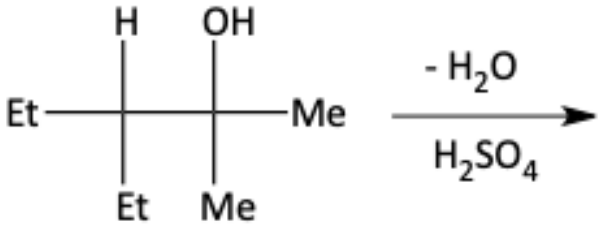
Alkoxide formation



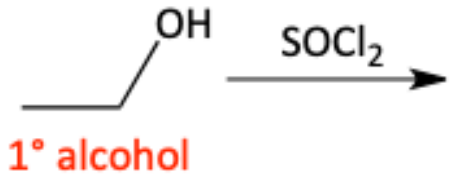
Dehydration to form an ether

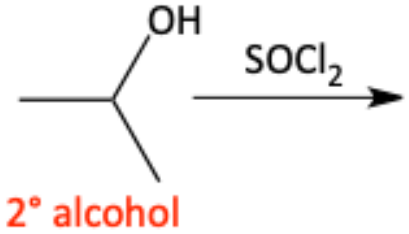


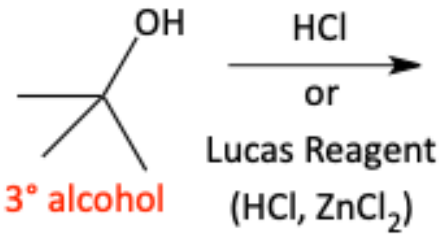
Dehydration to form an alkene

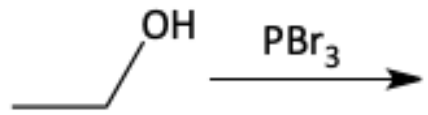


Alcohols to good leaving groups

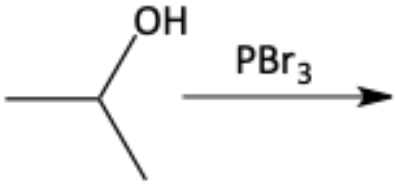




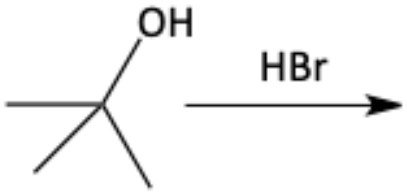




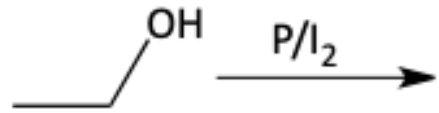
1° alcohol



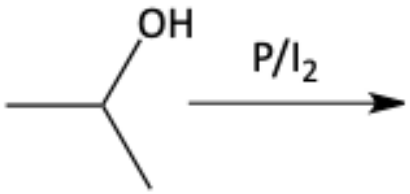
2° alcohol



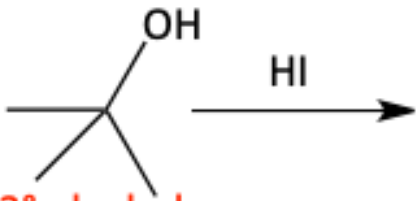
3° alcohol



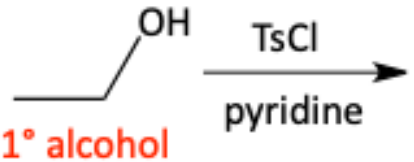
1° alcohol



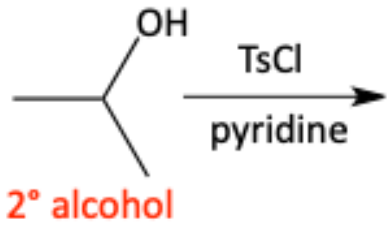
2° alcohol



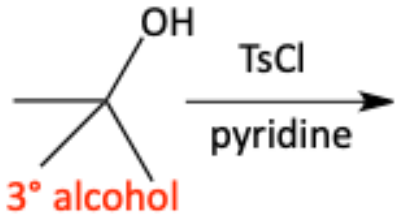
3° alcohol



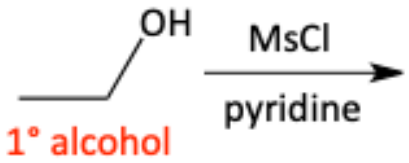
1° alcohol



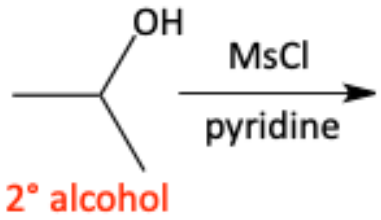
2° alcohol



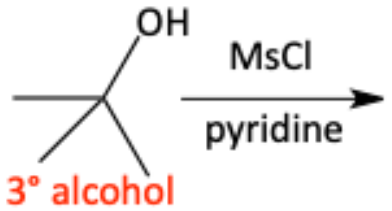
3° alcohol



1° alcohol

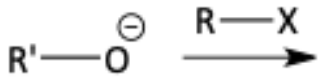


2° alcohol



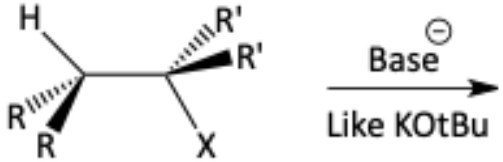
3° alcohol

Williamson Ether Synthesis

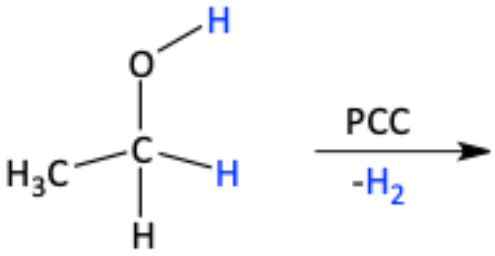


alkoxide

E2 Elimination

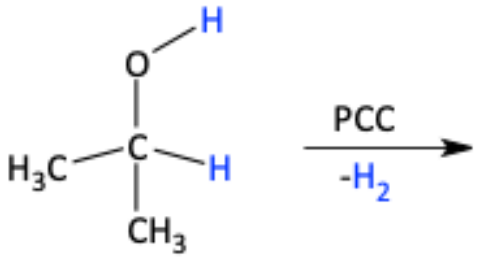


Oxidation of alcohols with weak oxidizer



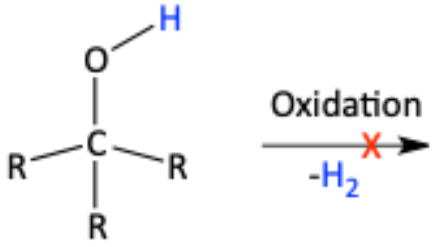
primary alcohol

1 C-O bond



secondary alcohol

1 C-O bond

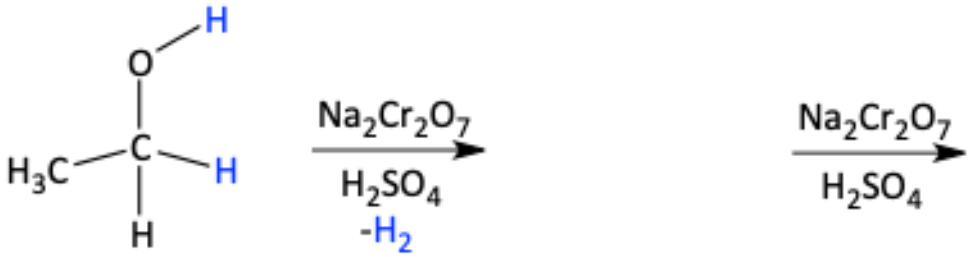


tertiary alcohol

1 C-O bond

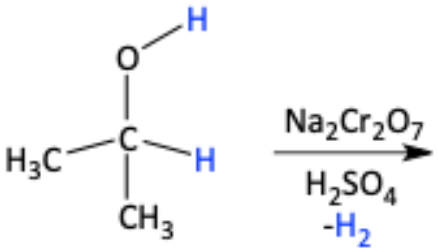
Cannot lose two H atoms. Cannot oxidize.

Oxidation of alcohols with strong oxidizer



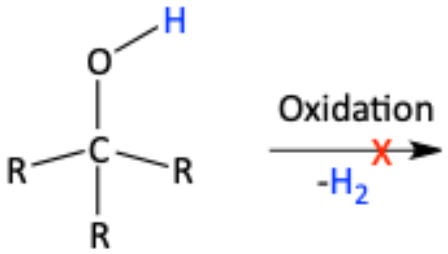
primary alcohol

1 C-O bond



secondary alcohol

1 C-O bond

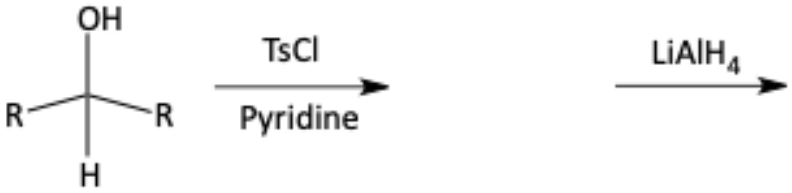


tertiary alcohol

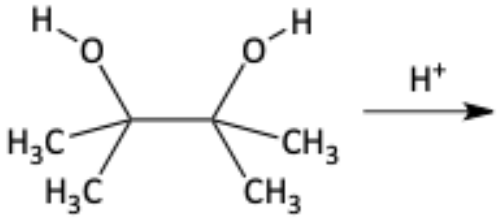
1 C-O bond

Cannot lose two H atoms. Cannot oxidize.

Reduction of Alcohols

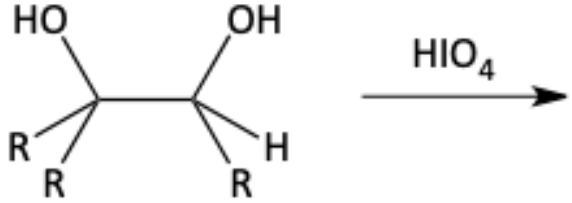


Pinacol Rearrangement

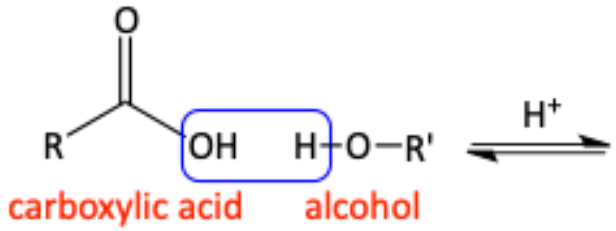


pinacol

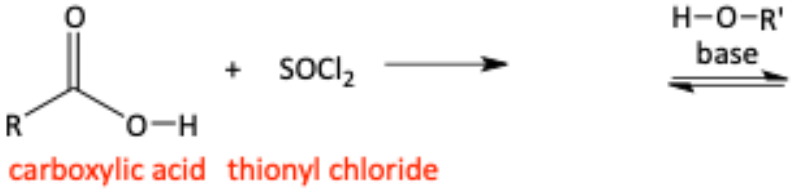
Periodic acid cleavage of diol



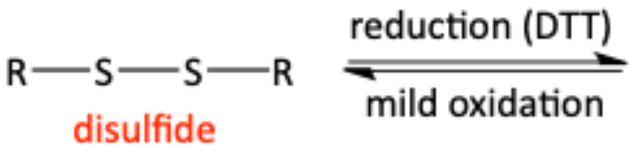
Fischer Esterification – carboxylic acid to ester

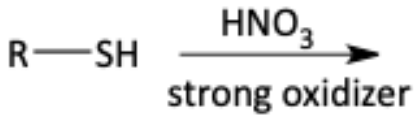


Carboxylic acid to acid chloride to ester



Thiol reactions





thiol