

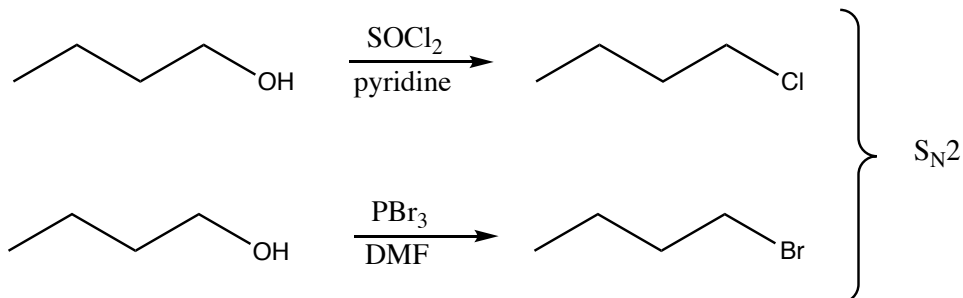
Chem 343 – Organic Reactions

Chapter 10

Prepared by José Laboy, MS

<http://www.chem.wisc.edu/areas/clc> (Resource page)

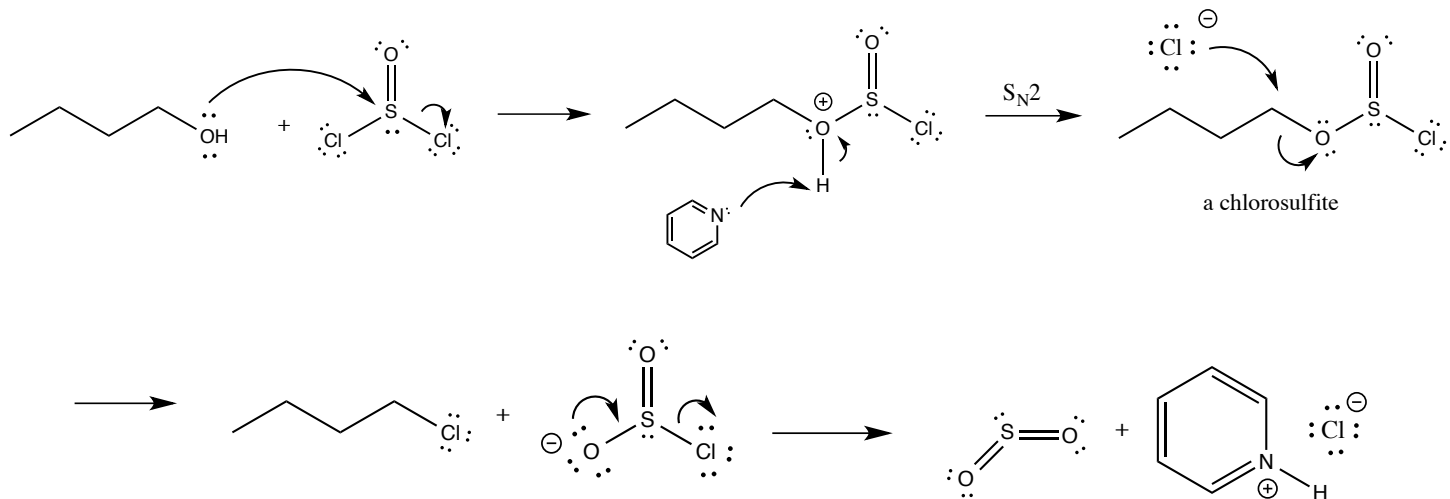
Alkyl Halides from 1° and 2° Alcohols



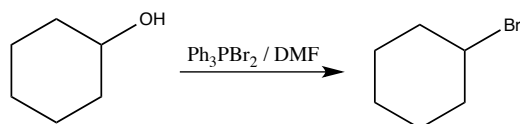
1° and 2° alcohols

Mechanism

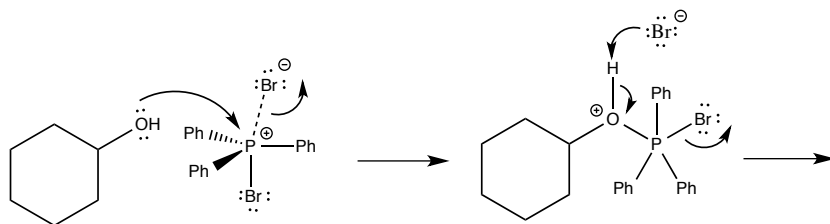
Alcohols and Thionyl Chloride

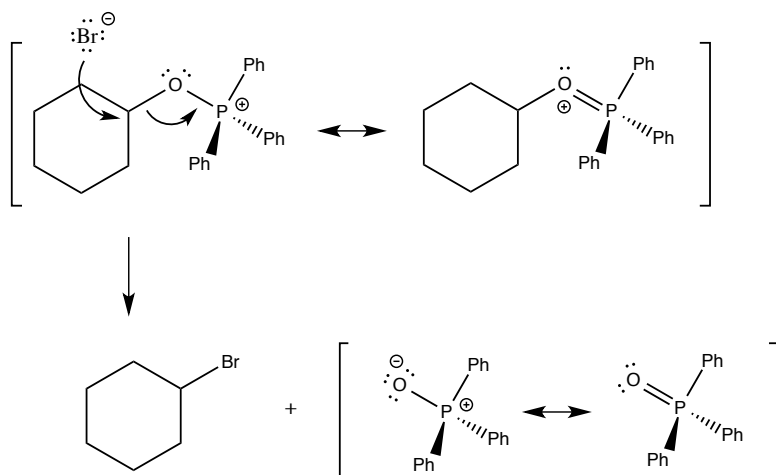


Alcohols and Triphenyl Phosphine Dibromide.

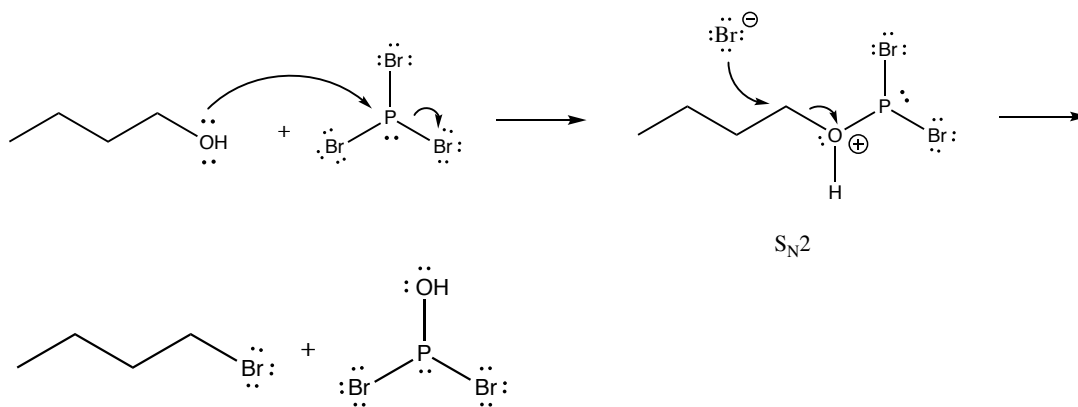


Mechanism





An alternative method of preparing alkyl bromides from alcohols.



If the reagent alcohol is a 2° alcohol there will be inversion of configuration. Tertiary alcohols cannot be converted to alkyl halides by this method.

Care should be taken with 2° alcohols which can produce rearrangement products. To prevent rearrangements the use of sulfonate ester derivatives and a halide ion in a polar aprotic solvent, as an S_N2 reaction, is the best choice.