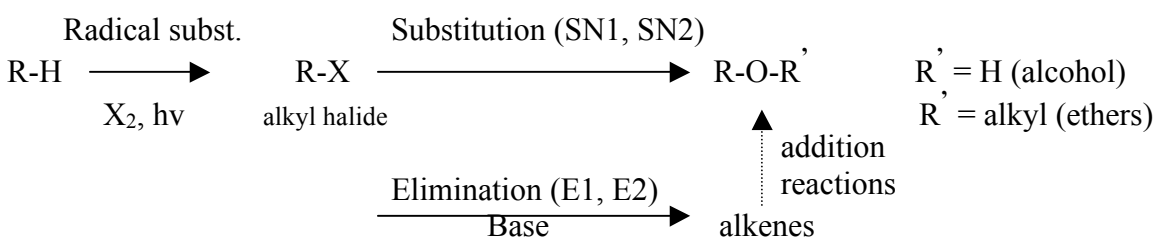
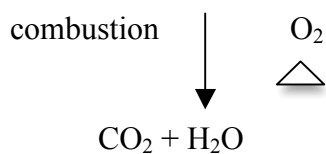
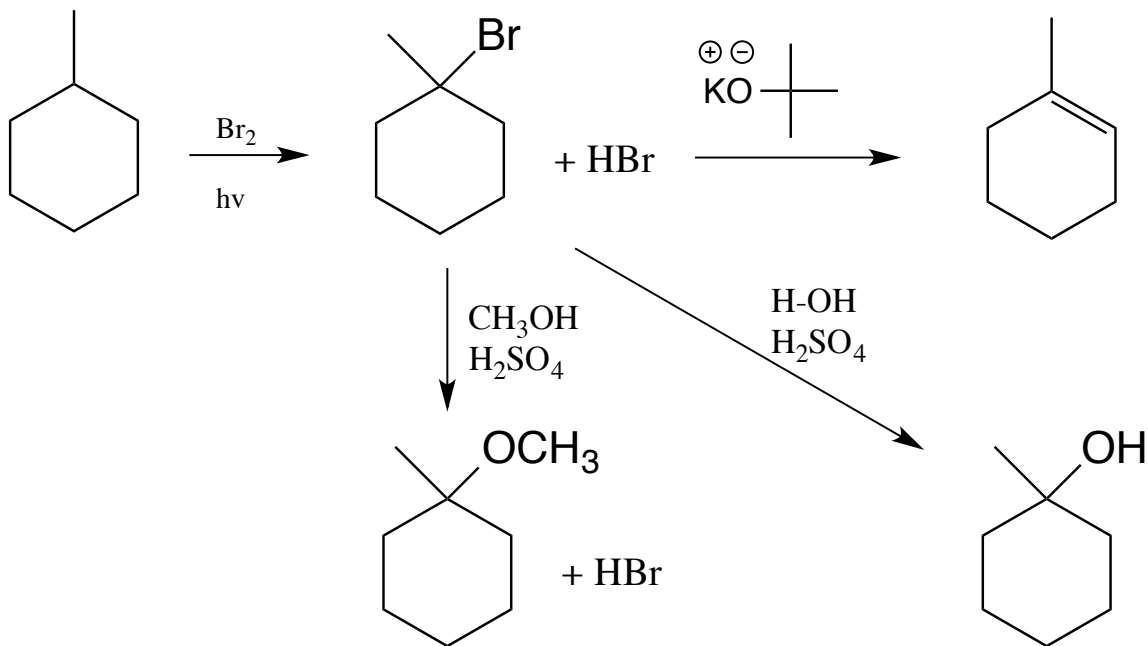


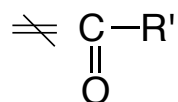
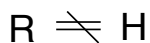
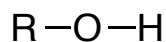
Review:

Petroleum

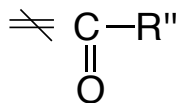
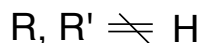
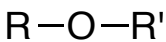
- Alkanes, alkenes, alkynes $\rightarrow$ hydrocarbons (H, C only)**Example: Radical Substitution, Elimination and Nucleophilic Substitution**

Alcohols and Ethers

Alcohol



Ether



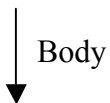
Nomenclature of R-OH

-OH Hydroxy group, hydroxyl
Takes priority over alkenes, alkynes

- 1) Find the longest chain with -OH
- 2) Number from end to give -OH the lowest number
- 3) Drop "e" of alkane, add "ol"

Examples:

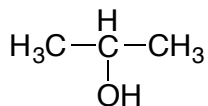
CH_3OH - Methanol (wood alcohol, or methyl alcohol)
- Toxic



formaldehyde

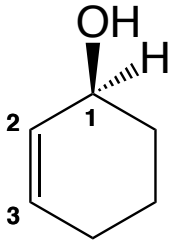
$\text{CH}_3\text{CH}_2\text{OH}$ - Ethanol (grain alcohol or ethyl alcohol)

$\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$ - Propanol (propan-1-ol)



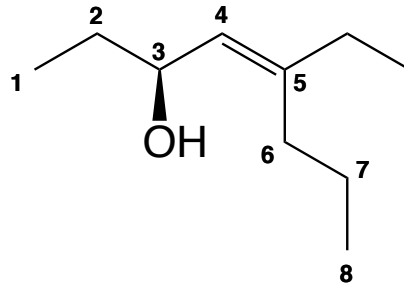
- 2-propanol (propan-2-ol, isopropanol, rubbing alcohol)





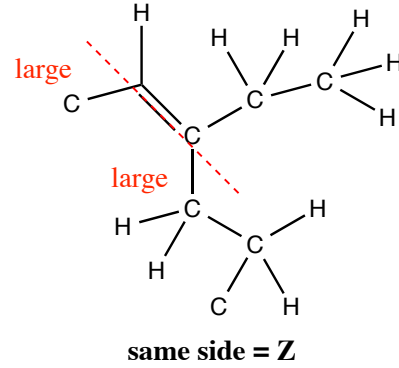
1-ol
cyclohexane
2-e

(S)-2-cyclohexen-1-ol
(S)-cyclohex-2-ene-1-ol



3-ol
octane
4-e

(S)- Z-5-ethyl-oct-4-ene-3-ol



Polyols:

2 OH's → diol
3 OH's → triol
4 OH's → tetraol
etc.

