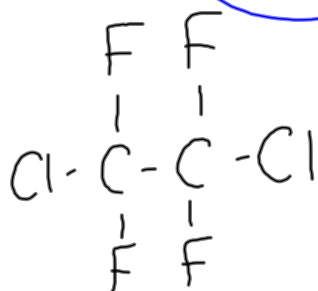
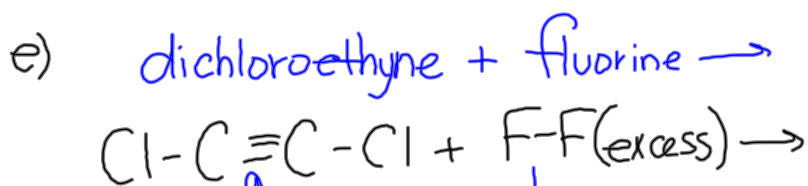
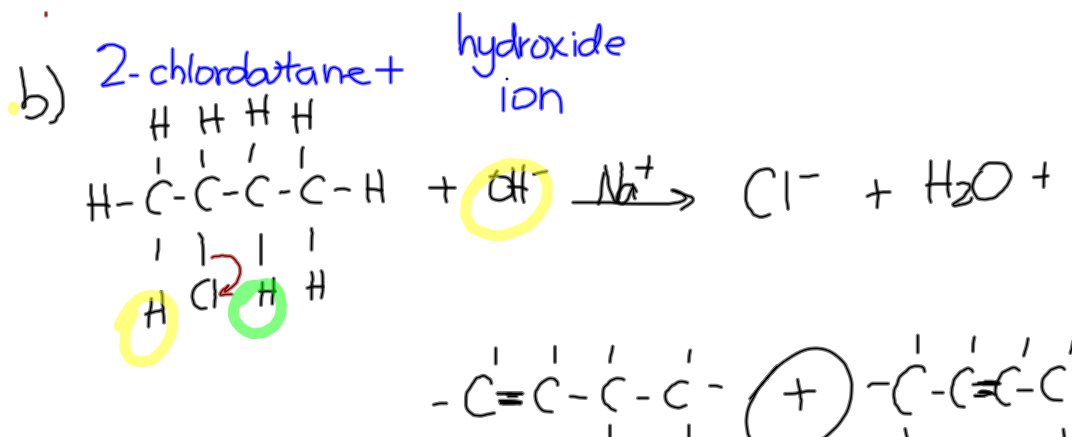
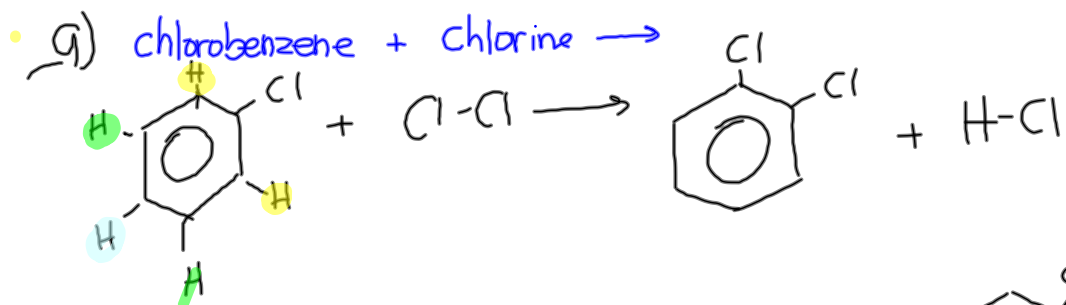


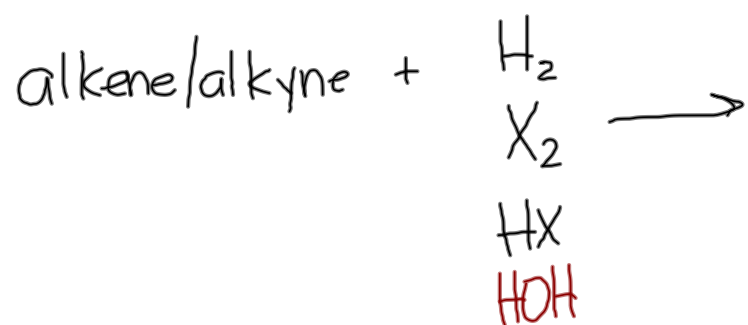
Organic Halide Worksheet



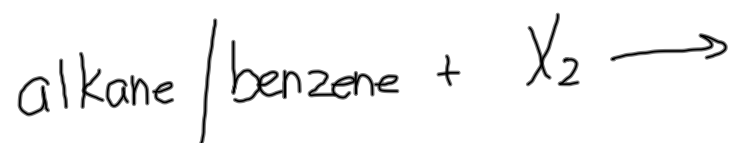
1,2-dichloro-1,1,2,2-tetrafluoroethane



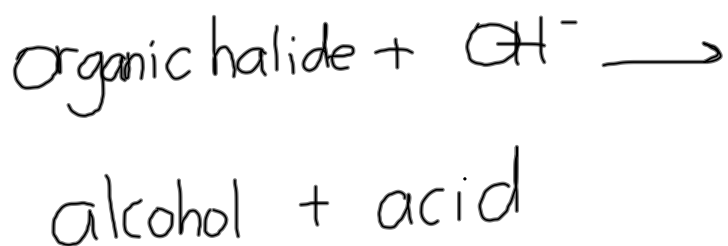
ADDITION (break pi bonds)



SUBSTITUTION



ELIMINATION



Alcohols

Alcohols

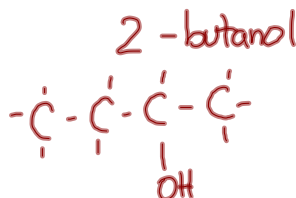
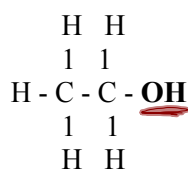
- hydrocarbon derivatives containing a hydroxide (OH) functional group



Naming

When naming alcohols, the -e is dropped from the name of the simple alkane, and it is replaced by an **-ol**.

Ex. ethanol

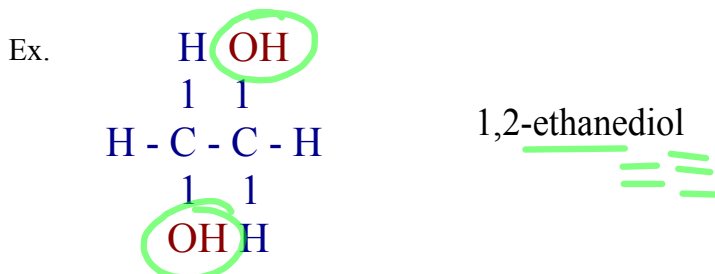


Methanol

⇒ known as 'wood alcohol'

⇒ used as a fuel...very toxic!

When there are multiple hydroxyl ($-\text{OH}$) groups, the alkane name is given, with the suffix indicating the number of $-\text{OH}$ groups.

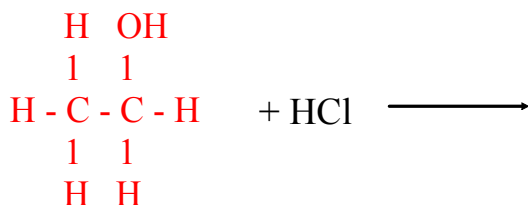


Reactions

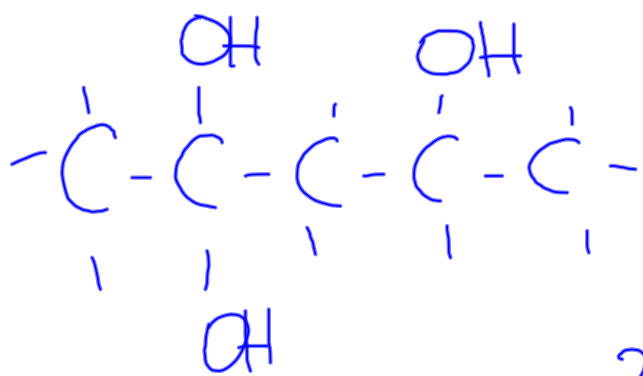
Alcohols undergo **elimination** reactions, eliminating the hydroxyl group and a hydrogen atom.

Ex.

ethanol + acid ⇒



•



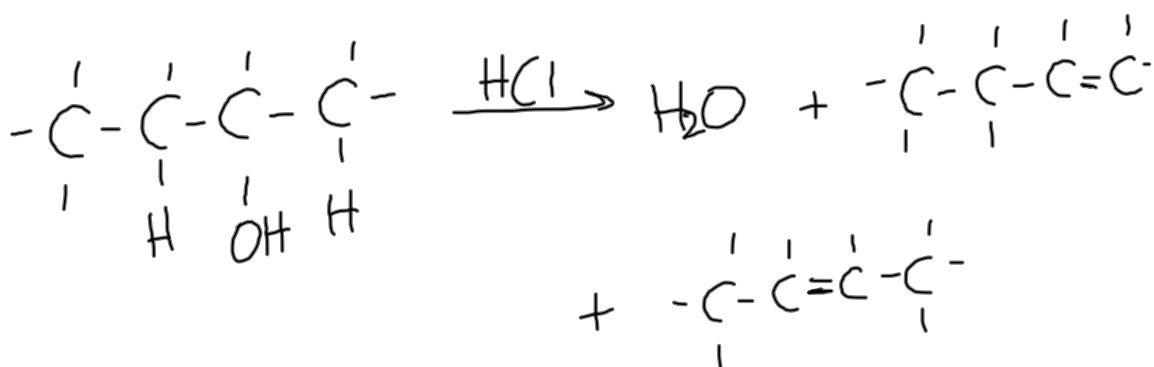
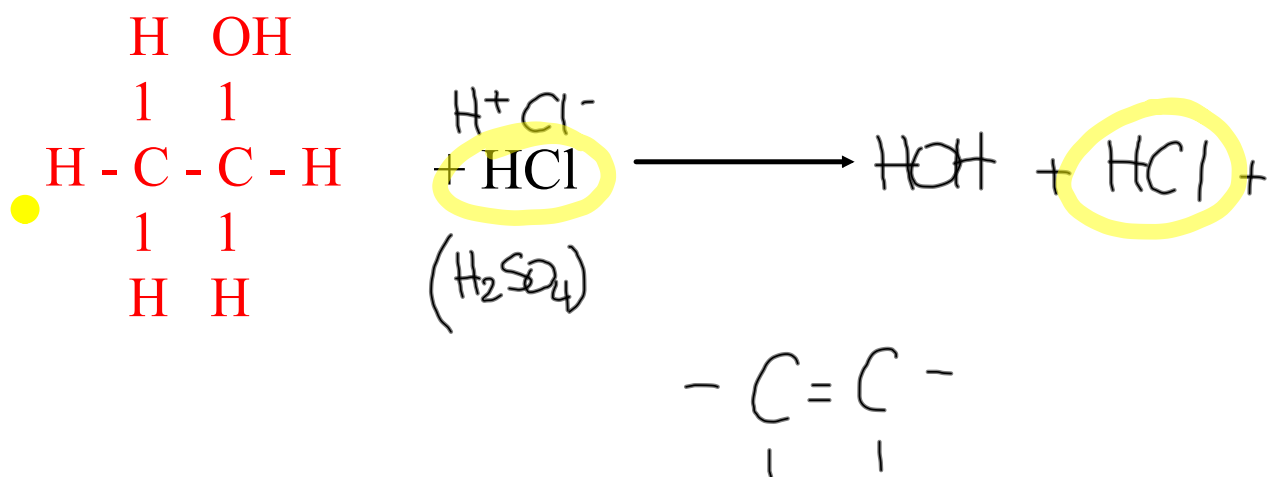
2,2-pentenediol

Reactions

Alcohols undergo **elimination** reactions, eliminating the hydroxyl group and a hydrogen atom.

Ex.

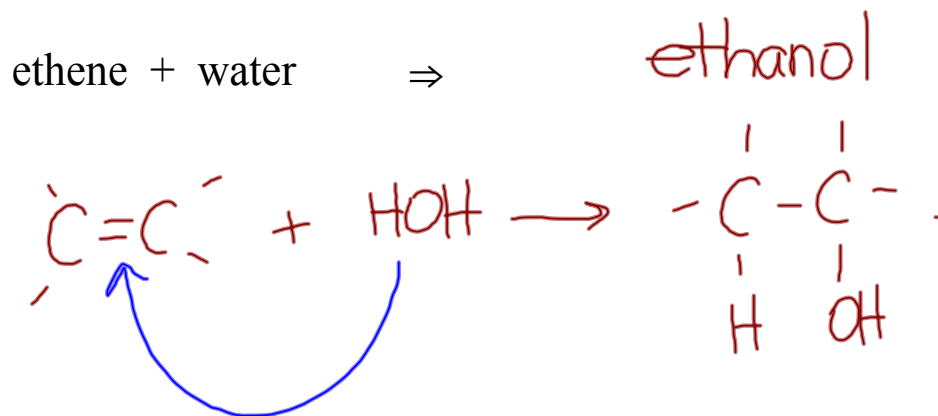
ethanol + acid \Rightarrow water + acid + ethene
(HCl)



Reactions

- Alcohols can be prepared through **addition (hydration)** reactions, adding water to an alkene

Ex.



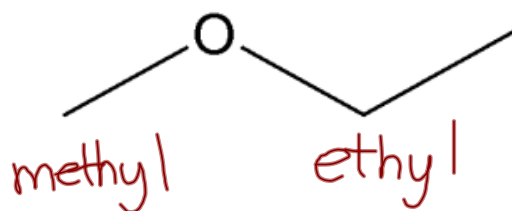
Ethers

Ethers are organic molecules in which an oxygen is bonded to two carbon groups.



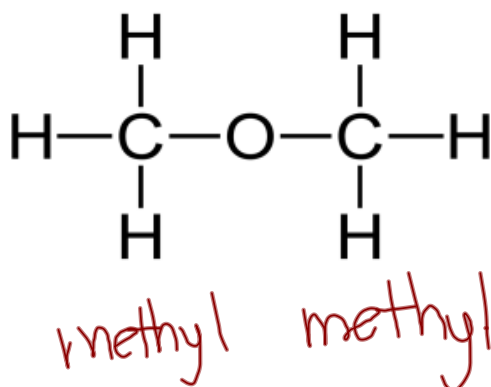
The alkyl groups attached to the oxygen atom are named in alphabetical order and are followed by the word *ether*.

Ex.



ethylmethyl ether

Ex.



dimethyl ether

Homework

Worksheet