1) 2-hexenet hydrogen -3-fluorehexane+ 7-fluoride >3-fluorehexane

2) 3-chloropentane + hydroxide_____ 2-pentene + water + chloride

- C-C-C-C-C-+ OH- Wat > CI-+

- C-C-C-+ H20

Mydrogen iodide +

(3) fluorobenzonet iodine -> 1-fluoro-2-iodoben...

Alcohols

Alcohols

- hydrocarbon derivatives containing a hydroxid (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

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

Ex.

1,2-ethanediol

Reactions

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

Ex.

hydrochloric

ethanol + acid
$$\Rightarrow$$
 water+ hydrochloric

HOH

1...

H-C-C-H + HCl \rightarrow H20 +

1 1

H H

 \rightarrow C=C- + HCl

Reactions

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

Ex.

ethene + water
$$\Rightarrow$$
 ethanol OH

C=C + HOH \rightarrow - C - C -

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 wordther.

Homework

Worksheet

Aldehydes and Ketones Worksheet