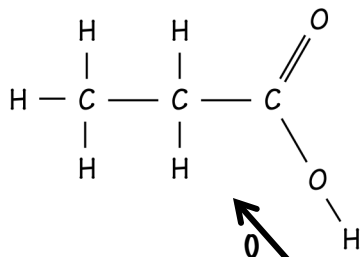


CARBOXYLIC ACID



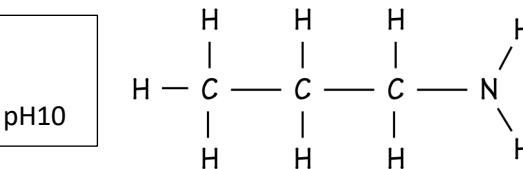
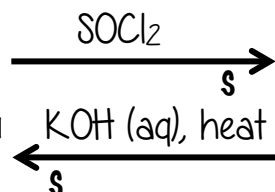
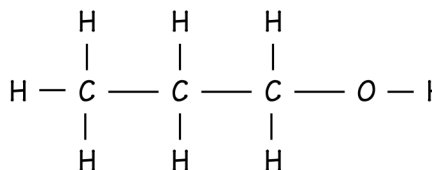
UI – orange
Litmus – red
Weak acid \approx pH4

$\text{H}^+/\text{MnO}_4^-$ (aq), heat OR
 $\text{H}^+/\text{Cr}_2\text{O}_7^{2-}$ (aq), heat

TYPES OF REACTION

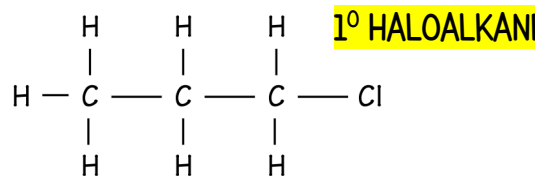
- O** : oxidation
- E** : elimination C-C becomes C=C
- S** : substitution C-C remains C-C
- A** : addition C=C becomes C-C

1° ALCOHOL



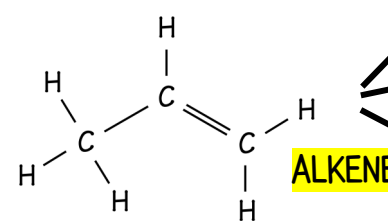
AMINE

NH_3 (alc), heat



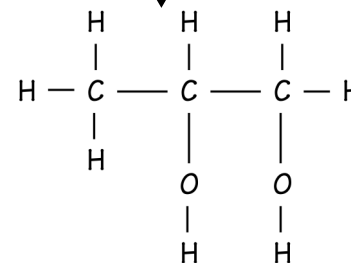
1° HALOALKANE

$\xrightarrow{\text{KOH(alc), heat}}$ **E**

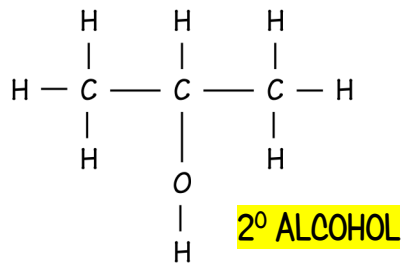
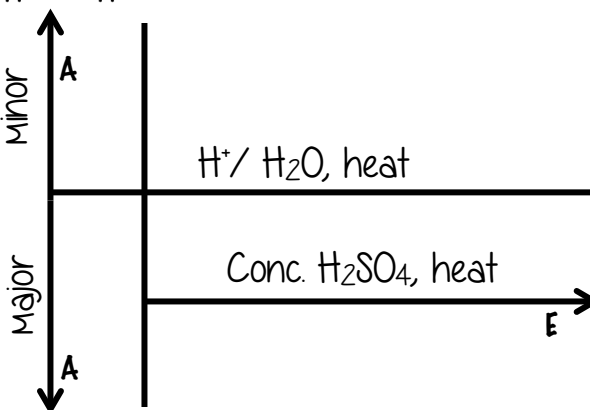


ALKENE

$\xrightarrow{\text{H}^+/\text{MnO}_4^- \text{ (aq)}}$ **O**



DIOL



2° ALCOHOL

And many other addition reaction e.g. with Br₂, HBr etc as well as with more propene (polymerisation)