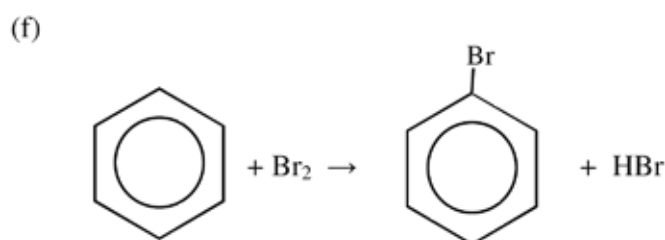
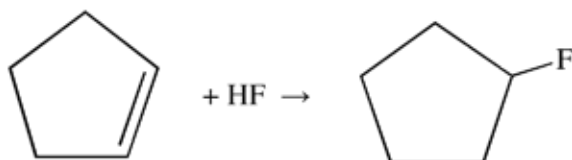


Organic Chemistry

Set 28: Reactions of Hydrocarbons

- $\text{CH}_3\text{CH}_2\text{CH}_3 + 5\text{O}_2 \rightarrow 3\text{CO}_2 + 4\text{H}_2\text{O}$
 - $2\text{CH}_2\text{CH}_2 + 5\text{O}_2 \rightarrow 4\text{CO}_2 + 2\text{H}_2\text{O}$
- $\text{CH}_3\text{CH}_3 + \text{Cl}_2 \rightarrow \text{CH}_3\text{CH}_2\text{Cl} + \text{HCl}$
 - $\text{CH}_3\text{CH}=\text{CH}_2 + \text{Br}_2 \rightarrow \text{CH}_3\text{CHBrCH}_2\text{Br}$
 - $\text{CH}_3\text{CH}=\text{CHCH}_3 + \text{HCl} \rightarrow \text{CH}_3\text{CHClCH}_2\text{CH}_3$
 - $\text{CH}_3\text{CH}_2\text{CH}=\text{CHCH}_3 + \text{H}_2 \xrightarrow[\text{Cat}]{\text{Pt}} \text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$
 -



- $\text{CH}_3\text{CH}=\text{CH}_2 + 2\text{Cl}_2 \rightarrow \text{CH}_3\text{CHClCH}_2\text{Cl}$
- Methane CH_4 , fluorine and chlorine

$$\text{CH}_4 + \text{F}_2 \rightarrow \text{CH}_3\text{F} + \text{HF}$$

$$\text{CH}_3\text{F} + \text{Cl}_2 \rightarrow \text{CH}_2\text{ClF} + \text{HCl}$$
 - ethene CH_2CH_2 and hydrogen chloride

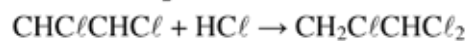
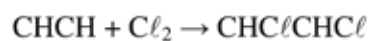
$$\text{CH}_2\text{CH}_2 + \text{HCl} \rightarrow \text{CH}_3\text{CH}_2\text{Cl}$$
 - ethene CH_2CH_2 and chlorine

$$\text{CH}_2\text{CH}_2 + \text{Cl}_2 \rightarrow \text{CH}_2\text{ClCH}_2\text{Cl}$$
 - ethyne CHCH and hydrogen chloride

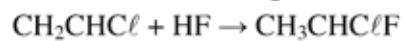
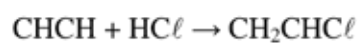
$$\text{CHCH} + \text{HCl} \rightarrow \text{CH}_2\text{CHCl}$$

$$\text{CH}_2\text{CHCl} + \text{HCl} \rightarrow \text{CH}_3\text{CHCl}_2$$

(e) ethyne CHCH, chlorine and hydrogen chloride



(f) ethyne CHCH, hydrogen chloride and hydrogen fluoride



(f) Propyne CH₃CCH, hydrogen bromide and hydrogen chloride

