

OLAWUYI FATWAZ OLOLADE
MECHATRONIC ENGINEERING
19/EN05/052

- ① $\text{CH}_3\text{OCH}_3 \longrightarrow$ Methoxy methane
- ② $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3 \longrightarrow$ Ethoxy ethane
- ③ $(\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2)_2\text{O} \longrightarrow$ Butoxy methane
- ④ $\text{CH}_3\text{CH}_2\text{OCH}_3 \longrightarrow$ Methoxy ethane
- ⑤ $\text{CH}_3\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_3 \longrightarrow$ Ethoxy propane

⑧ Physical state :- At room temperature, ethers are colourless, neutral liquids with pleasant odours. The lower aliphatic ethers are highly flammable gases or volatile liquids.

⑨ Solubility :- Ethers are less soluble in water than are the corresponding alcohols. Lower molecular weight ethers such as methoxy methane and methoxy ethane are fairly soluble in water since the molecule but as the hydrocarbon content of the molecules increases, there is a rapid decline in solubility. They are miscible with most organic solvent.

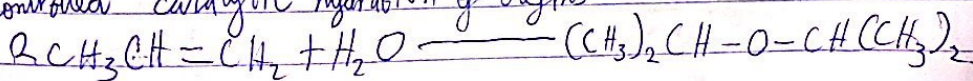
⑩ Density :- Ethers are less soluble in water than

Most Density :- Most of the simple ethers are less dense than water, although the density increases with increasing relative molecular mass and some of the aromatic ethers are in fact denser than water.

⑪ Boiling point :- Low molecular mass ethers have a lower boiling point than the corresponding alcohols but those ethers containing alkyl radicals later than four carbon atoms, the reverse is true.

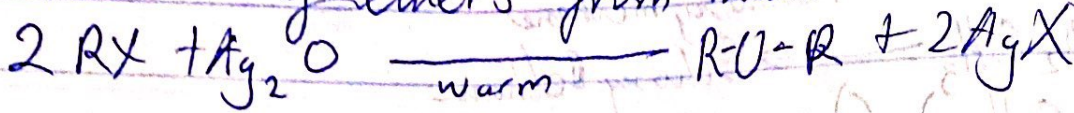
⑫ Reactivity :- Ethers are inert at moderate temperature. Their inertness at moderate temperature leads to their wide use as reaction media.

⑬ Controlled catalytic hydration of olefins :-

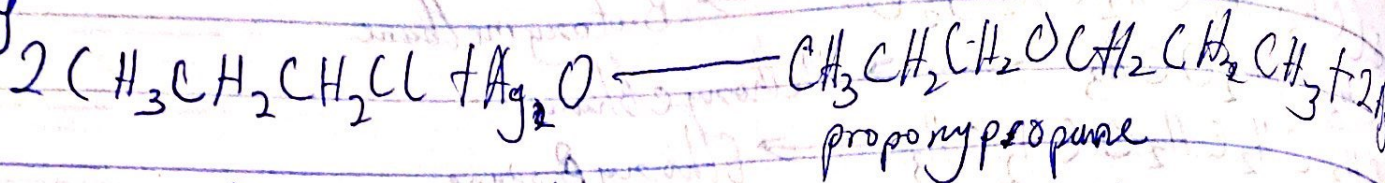


2-Isopropoxypropane

③ Preparation of ethers from haloalkanes and dry silver (D) bromide



e.g



3 Uses of ethylene oxide

sterilizing agent

(a) Ethylene oxide is used as a gaseous ~~sterilizing~~ sterilizing agent

(b) Ethylene oxide is used in the preparation of monomers and emulsifying agent, plastics etc.

(c) Ethylene oxide is used as an intermediate in the hydrolytic manufacture of ethylene glycol