

Pyridine

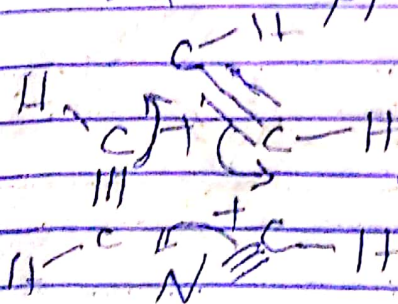
Pyridine is a six membered aromatic ring. It has one nitrogen atom and five carbon atoms. One lone pair of electrons is on nitrogen atom which is not delocalised in aromatic ring. Due to lone pair of electron, it is basic in nature. It is highly useful chemical substance and used in various synthesis as a basic solvent.



Pyridine.

Preparation of Pyridine — when acetylene

(1) and hydrogen cyanide gas is passed through red hot copper tube, pyridine is formed.

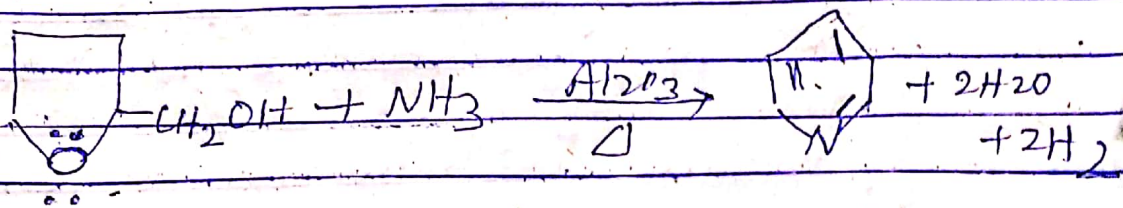


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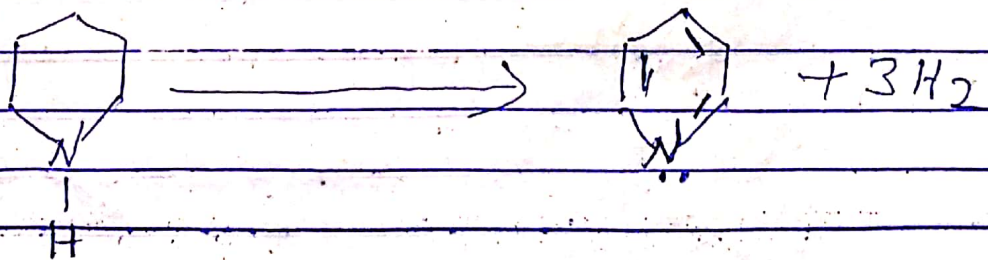


Pyridine

(2) When ammonia is heated with tetrahydrofuran in presence of aluminium oxide catalyst at 500°C , Pyridine is formed. It is commercial method of preparation of Pyridine.



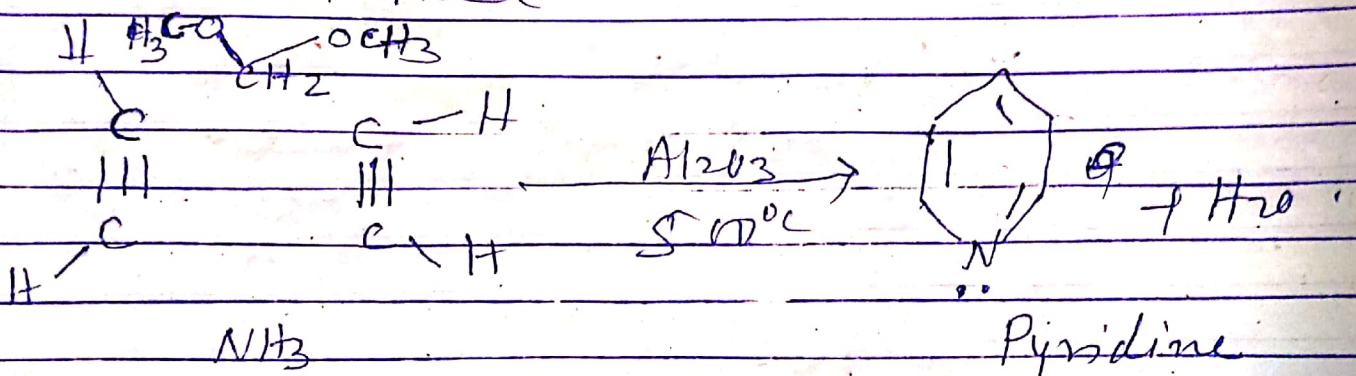
(3) Due to dehydrogenation of piperidine with concentrated sulphuric acid at high temperature at 260°C ; Pyridine is obtained.



Piperidine

④ Acetylene reacts with ammonia and formaldehyde dimethyl acetal in presence of aluminium oxide, pyridine

is obtained.



It is also a commercial method.

⑤ When pyrrole is reacted with dichloromethane in presence of sodium ethoxide, pyridine is obtained.

