Question: give chemical equation of Condensation of methanal and ethanal in the presence of ammonia

Answer:

Way 1

H H

$$H - C = O + CH_2 - CHO$$
 $0H$
 $0H$

Formaldehyde and acetaldehyde combine to form trihydroxy aldehyde (Claisen-Schmidt reaction) which reacts with alkali to give pentaerythritol (Cannizaro reaction):

Way 2

CH₃CHO + CH₂O + NH₃
$$\frac{\text{zeolite}}{350 \text{ oC}}$$
 + $\frac{\text{CH}_2}{\text{N}}$

In industry pyridine and β -picoline (3-methylpyridine) are generally coproduced by condensing formaldehyde, acetaldehyde and ammonia. Also small amounts of α - and γ -picoline and of higher alkylated pyridines are formed.

Answer provided by www.AssignmentExpert.com