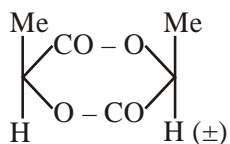


ROADMAP PROBLEM : 11 SOLUTION

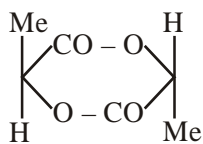
- A $\text{CH}_3 - \text{CH}_2 - \text{COOH}$
- B $\text{CH}_3 - \underset{\text{Br}}{\text{CH}} - \text{COOH}$ HVZ reaction
- C $\text{CH}_3 - \underset{\text{NH}_2}{\text{CH}} - \text{COOH}$ Alanine
- D $\text{CH}_3 - \text{CH}_2 - \text{NH}_2$ Schmidt degradation
- E $\text{Ph} - \text{SO}_2 - \text{NH} - \text{Et}$
- F $\text{CH}_3 - \text{CH}_2 - \text{OH}$ Diazotisation
- G $\text{CH}_3 - \text{CH}_2 - \text{COOEt}$ Esterification
- H $\text{CH}_3 - \text{CH}_2 - \overset{\text{O}}{\parallel} \text{C} - \underset{\text{CH}_3}{\text{CH}} - \text{COOEt}$ Claisen condensation
- I $\text{CH}_3 - \text{CH}_2 - \overset{\text{O}}{\parallel} \text{C} - \text{CH}_2 - \text{CH}_3$
- J $\text{CH}_3 - \text{CH}_2 - \overset{\text{O}}{\parallel} \text{C} - \text{Cl}$
- K $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{COOH}$ Arndt Eistert reaction
- L $\text{CH}_3 - \text{CH}_2 - \text{Br}$ Hunsdiecker reaction
- M $\text{CH}_3 - \text{CH} = \text{O}$
- N $\text{CH}_3 - \underset{\text{OH}}{\text{CH}} - \text{CN}$ Cyanohydrin formation
- O $\text{CH}_3 - \underset{\text{OH}}{\text{CH}} - \text{COOH}$ Lactic acid
- P $\text{CH}_3 - \overset{\text{O}}{\parallel} \text{C} - \text{COOH}$ Pyruvic acid

Q_1, Q_2 and Q_3 is a mixture of three lactides.

Here it is heating effect of α -hydroxy acid is applied.



Q_1 / Q_2
optically active



Q_3 meso
due to COS

- R CHI_3
- S $\begin{array}{c} \text{COOH} \\ | \\ \text{COOH} \end{array}$ oxalic acid
- Formation of R and S is Iodoform reaction
- T HCOOH (Heating effect on oxalic acid)
- U $\text{HC} \equiv \text{CH}$
- V $\text{H}_2\text{C} = \text{CH} - \text{COOH}$ Acrylic acid
- W $\text{H}_2\text{C} = \text{CH} - \text{COOMe}$ methyl acrylate
 This on polymerisation gives polymethyl acrylate (PMA) substance used to make acrylic glasses.
- X $\text{CH}_3 - \text{CH}_2 - \overset{\text{O}}{\parallel}{\text{C}} - \text{NH} - \text{CH}_2 - \text{CH}_3$ Schmidt reaction
- Y $\text{CH}_3 - \text{CH}_2 - \text{NC}$ Carbylamine reaction
- Z $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$ Kolbe's electrolysis.