

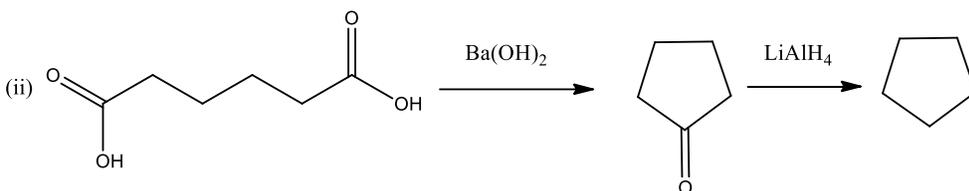
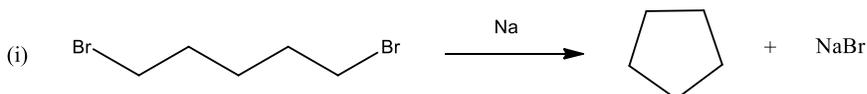
Answer on Question #52195 – Chemistry – Organic Chemistry

Question:

a) How can cyclopentane be prepared from the following? i) 1, 5 – dibromopentane ii) hexanedioic acid. b) Alkanes with odd number of carbon atoms have lower melting point than those with an even number. Explain. c) Complete the following reactions: i) $\text{CH}_3\text{CH}_2\text{Br} + \text{CH}_3\text{CH}_2\text{Br} \dots\dots\dots$ ii) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{COOH} + \text{C}_5\text{H}_5\text{N}$

Answer:

(a)



(b) Even numbered carbon chains being symmetrical pack closer to each other in the solid phase which results in the stronger intermolecular interactions. The odd numbered carbon chains are unsymmetrical which leads to the weaker intermolecular interactions conditioned by the weak compaction resulting in the higher melting point.

(c)

