

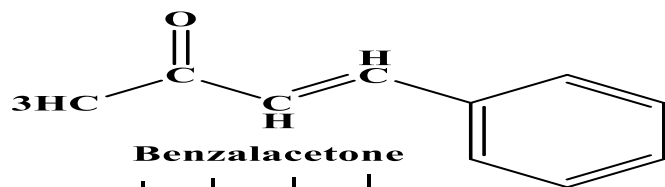
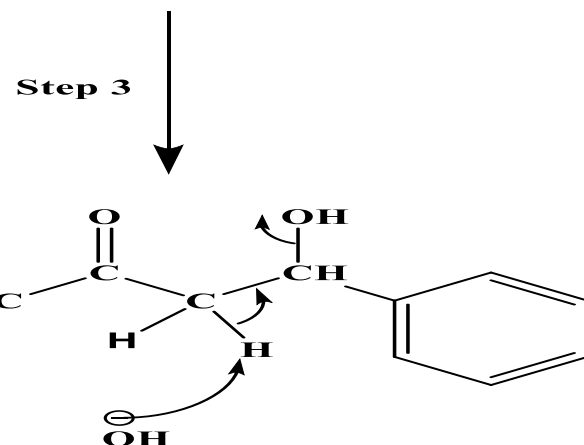
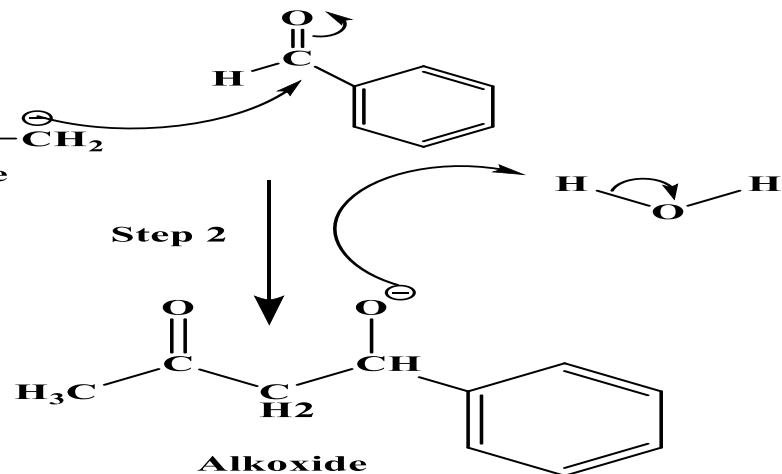
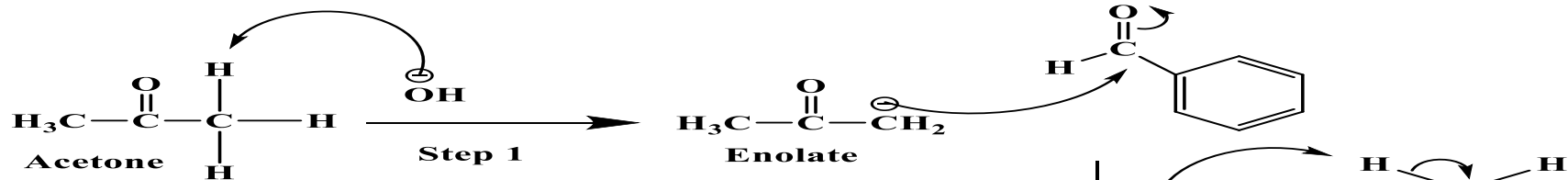
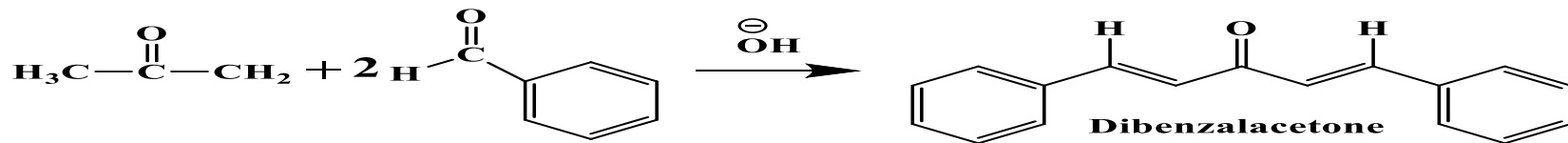
ALDOL CONDENSATION

DIBENZALACETONE

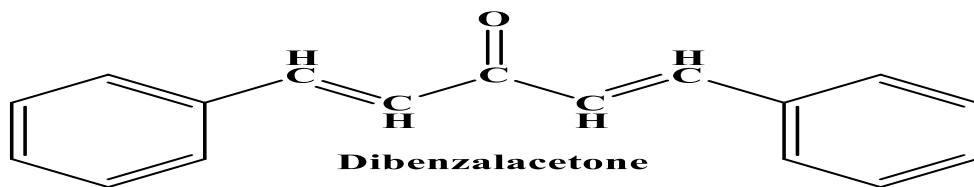
- An **aldol condensation** is a condensation reaction in organic chemistry in which an enol or an enolate ion reacts with a carbonyl compound to form a β -hydroxyaldehyde or β -hydroxyketone (an aldol reaction), followed by dehydration to give a conjugated enone.
- **Dibenzylideneacetone** or **dibenzalacetone**, often abbreviated **dba**, is an organic compound with the formula $C_{17}H_{14}O$. It is a pale-yellow solid insoluble in water, but soluble in ethanol. Dibenzylideneacetone is used as a component in sunscreens and as a ligand in organometallic chemistry.
- It was first prepared in 1881 by the German chemist Rainer Ludwig Claisen (1851–1930) and the Swiss chemist Charles-Claude-Alexandre Claparède (14 April 1858 – 1 November 1913).

The *trans,trans* isomer can be prepared in high yield and purity by condensation of benzaldehyde and acetone with sodium hydroxide in a water/ethanol medium followed by recrystallization

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Repeat step (1-4)



PROCEDURE

- A . measure (0.7 ml) of acetone in an conical flask •
(A).
- B.measure (5ml) of (3M) NaOH in measuring •
graduated cylinder (B).
- C.add (B) to (A). •
- D. measure (2.1 ml) benzaldehyde plus (5 ml) ethanol •
in conical flask (C).
- E. add (C) to the mixture of (A+B) and shaking for (10- •
15 min.)
- F. filteration , then washing with water. •
- H. re-crystallization. •