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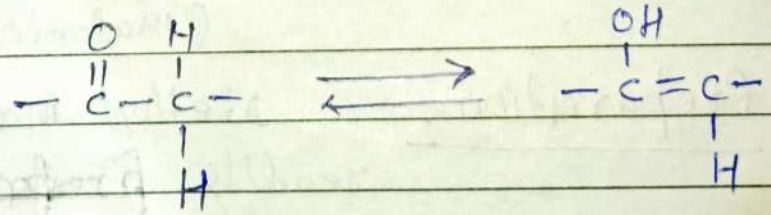
Ketoenol - Tautomerism :-

Tautomerism is a special case of isomerism in which the isomers remain present in the equilibrium mixture because of their interconvertible nature. The substances, which are isomeric under one condition can become tautomeric under different condition. Thus tautomerism is dynamic isomerism.

The most common type of tautomerism is keto-enol tautomerism. A carbonyl compound with an acidic α-hydrogen may exist in two tautomeric forms — (i) a keto tautomer and (ii) an enol tautomer.

The keto tautomer of a carbonyl compound has the expected carbonyl structure. The enol tautomer, which is an unsaturated alcohol is formed by transfer of an acidic hydrogen from α-carbon to carbonyl oxygen.



Keto form enol form

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Because hydrogen of α-carbon is in different positions, it is labile. The two tautomeric forms are not resonance forms as the structures are not hypothetical rather they actually exist in the equilibrium.