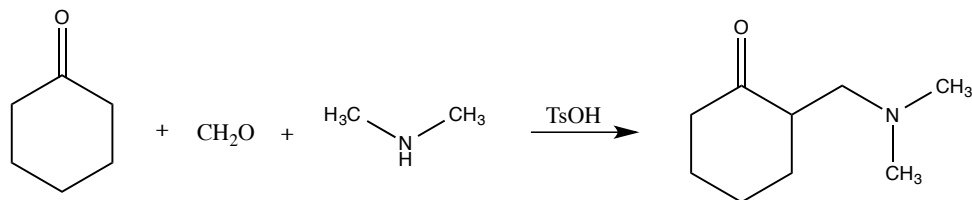


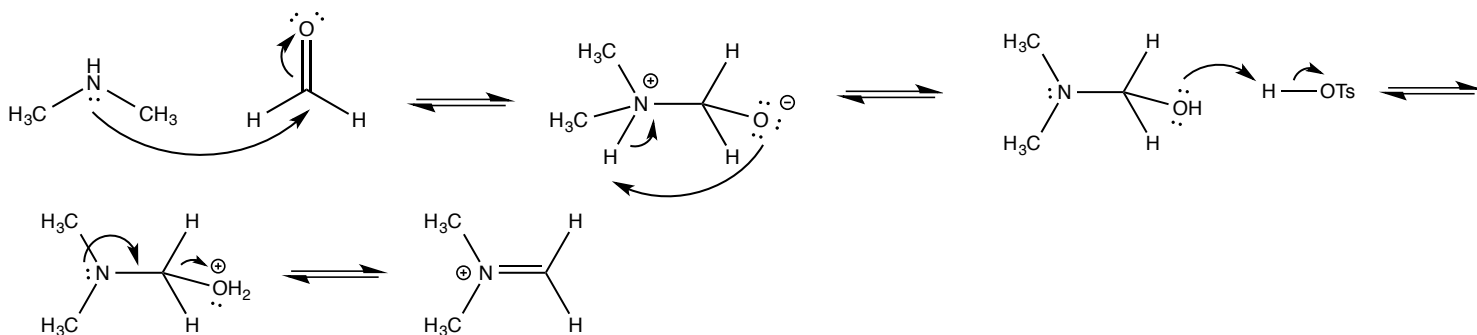
The Mannich Reaction

Reaction:

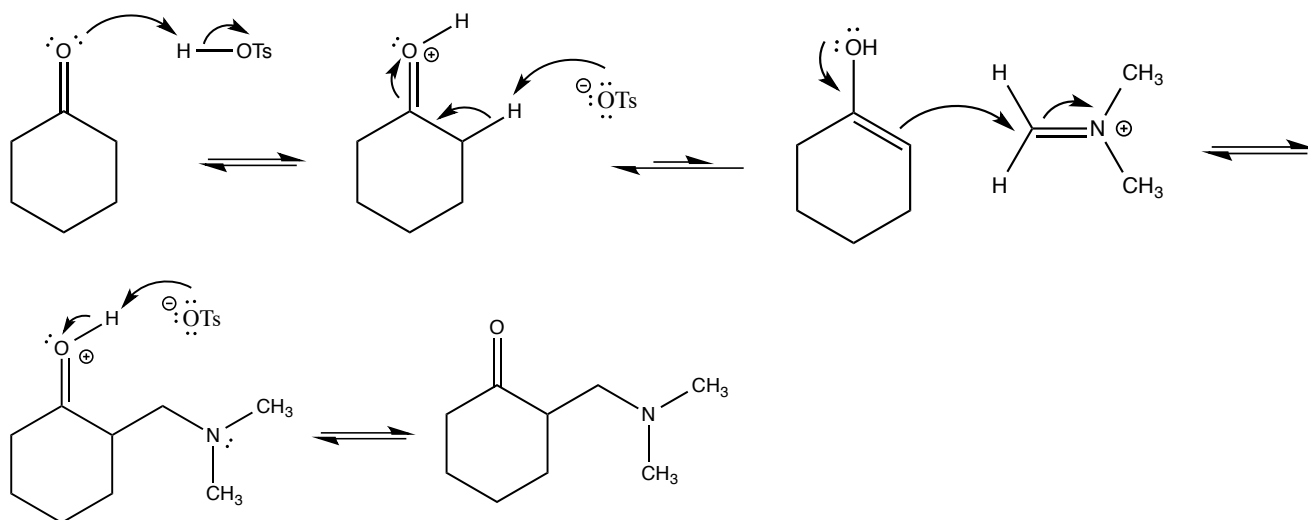


Mechanism:

I. Formation of the Iminium cation.



II. Enol (or enolate) reacting with the iminium cation.



The Mannich reaction requires the use of a non-enolizable reactive aldehyde a 1° or 2° ammine and an enolizable carbonyl compound. Tertiary amines do not react in this reaction because they cannot form iminium ions.