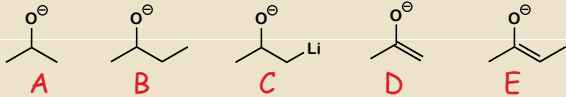
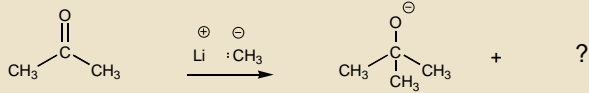


Question 22(c) on CHE 321 Final Exam Fall 07

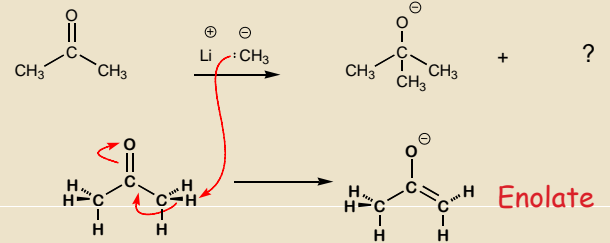
Most missed it

When acetone reacts with methyl lithium two products are formed. One is the expected addition product with the negative charge on the electronegative oxygen atom. Give the structure of the second product which also has the negative charge on the electronegative oxygen atom.



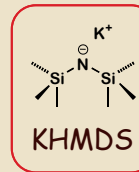
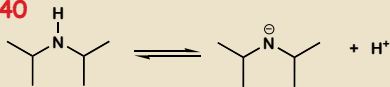
Question 22(c) on CHE 321 Final Exam

When acetone reacts with methyl lithium two products are formed. One is the expected addition product with the negative charge on the electronegative oxygen atom. Give the structure of the second product which also has the negative charge on the electronegative oxygen atom.

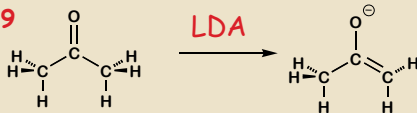


Lithium diisopropylamide (LDA)

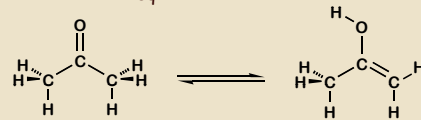
pKa = 40



pKa = 19



Keto $K_{eq} = 1.5 \times 10^{-4}$ Enol

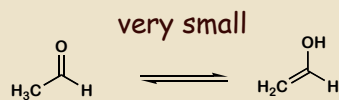
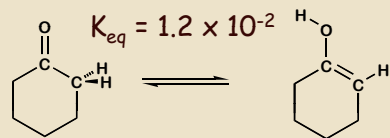
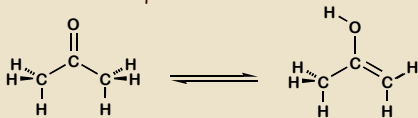


tautomerization

These two compounds are tautomers

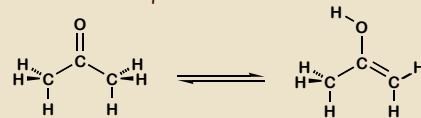


Keto $K_{eq} = 1.5 \times 10^{-4}$ Enol

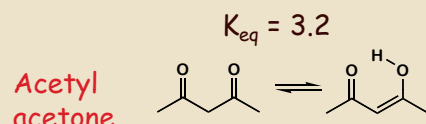


Aldehydes form less enol

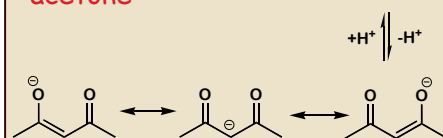
Keto $K_{eq} = 1.5 \times 10^{-4}$ Enol

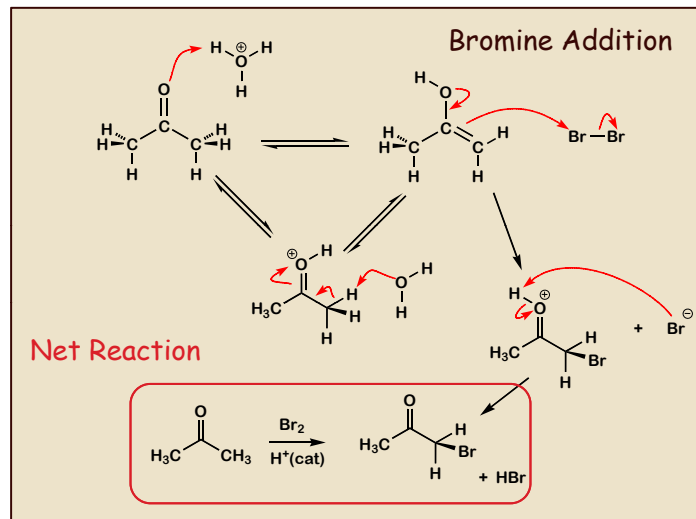
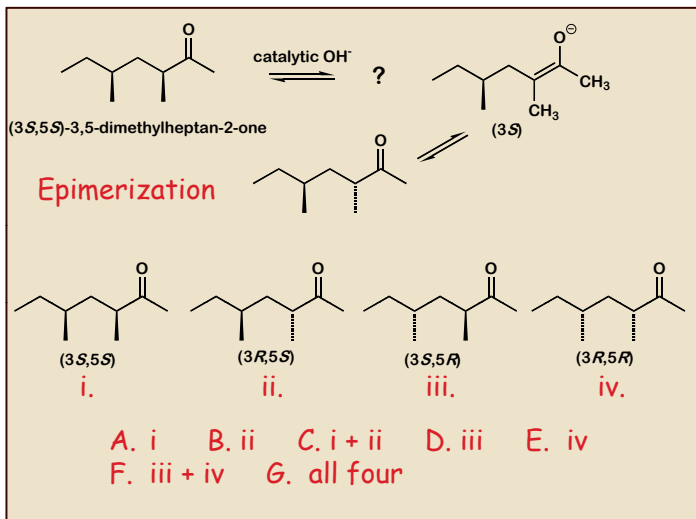
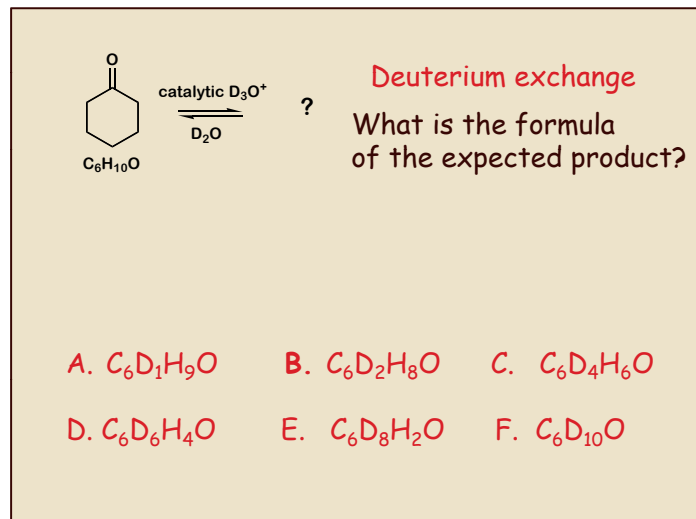
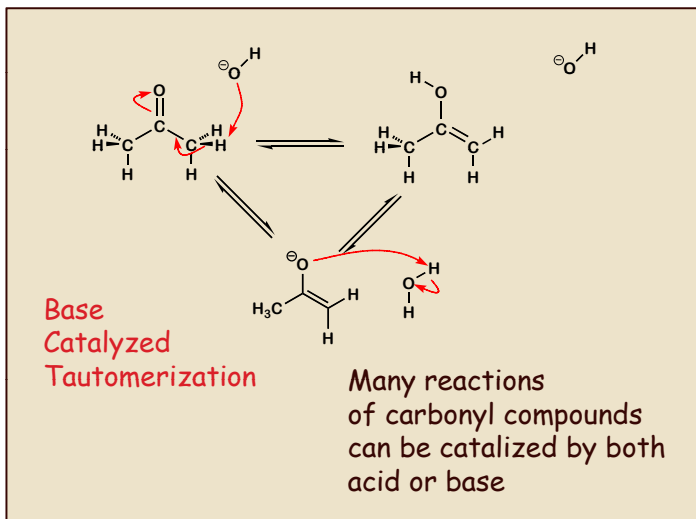
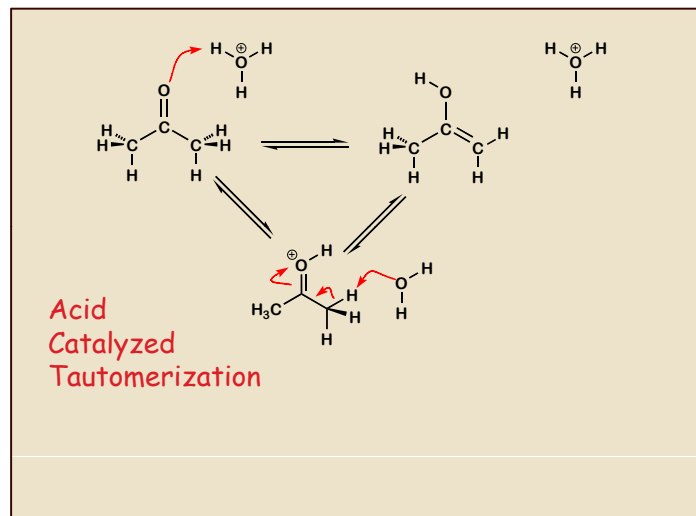
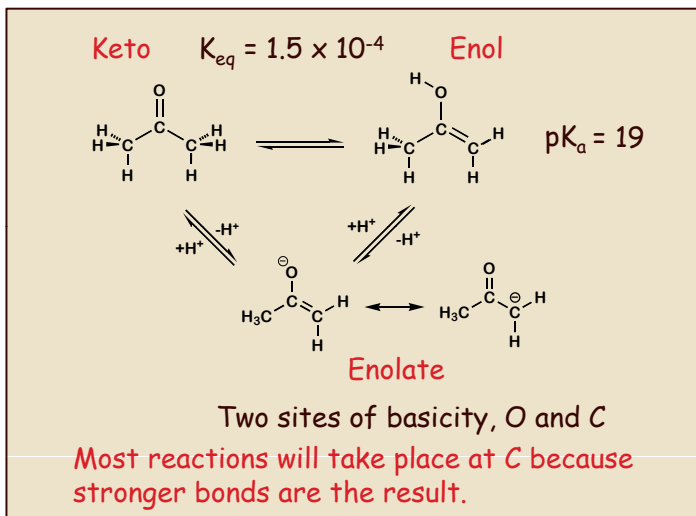


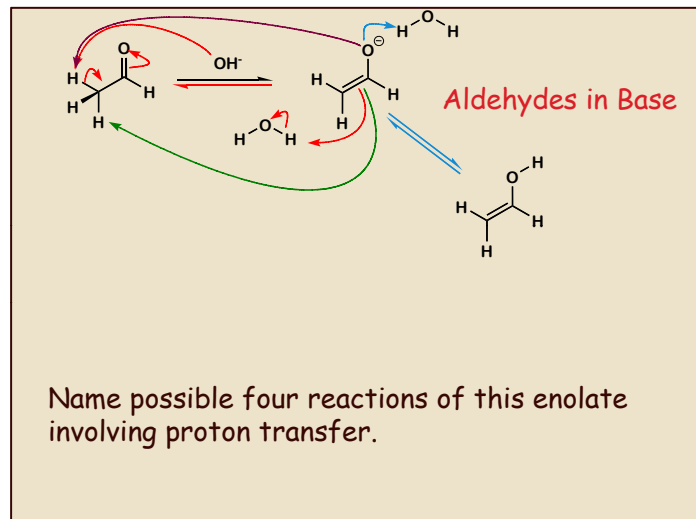
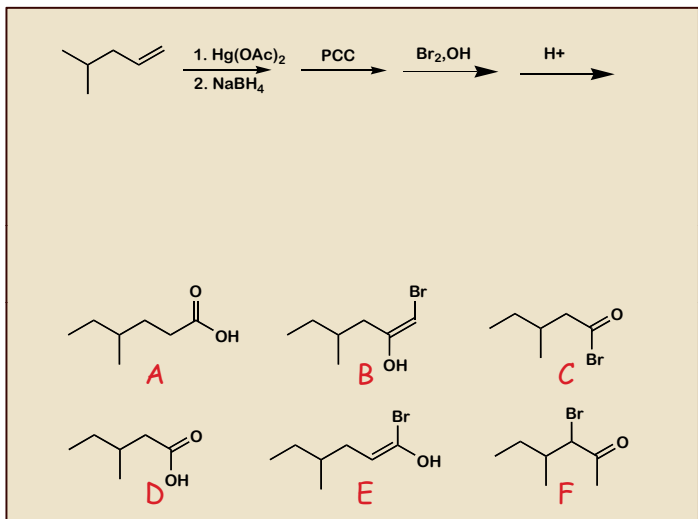
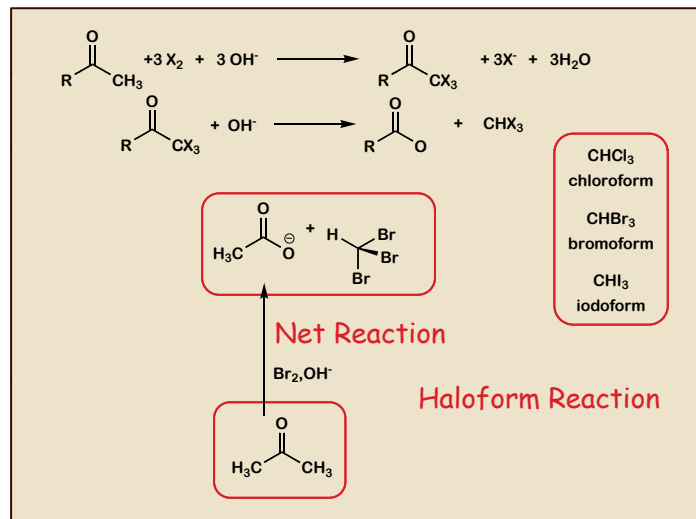
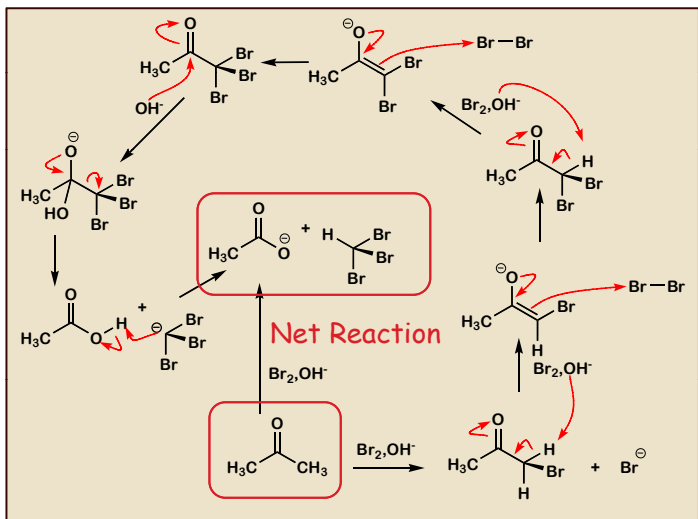
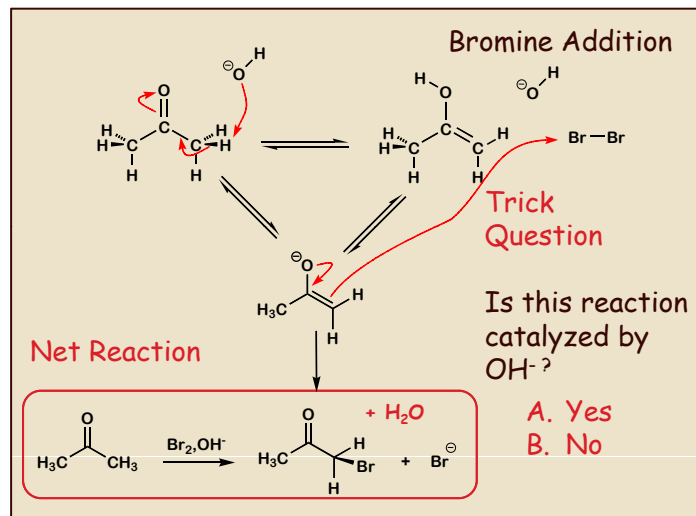
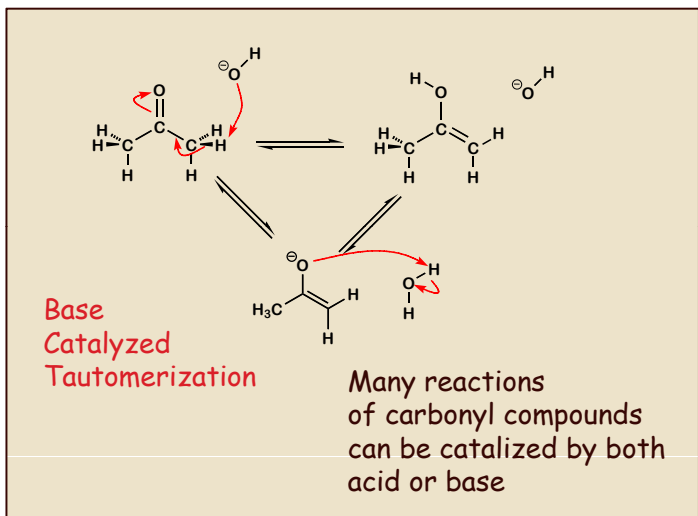
pKa = 19

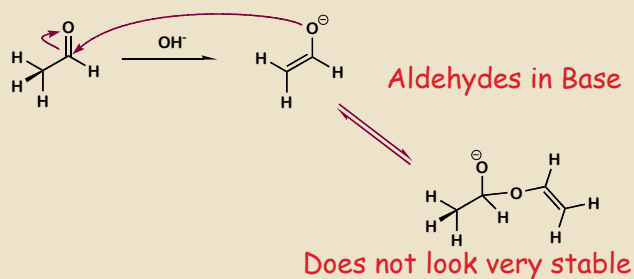


pKa = 9



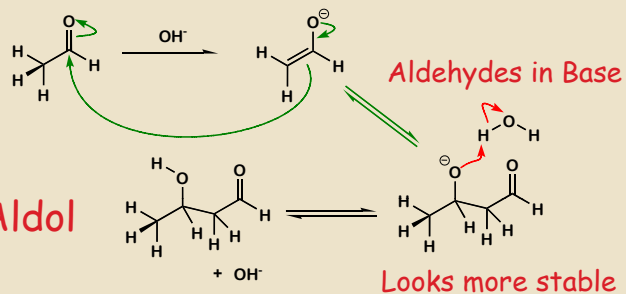






Name possible two more possible reactions of this enolate

What are the acid sites in the aldehyde?



Name possible two more possible reactions of this enolate

What are the acid sites in the aldehyde?

