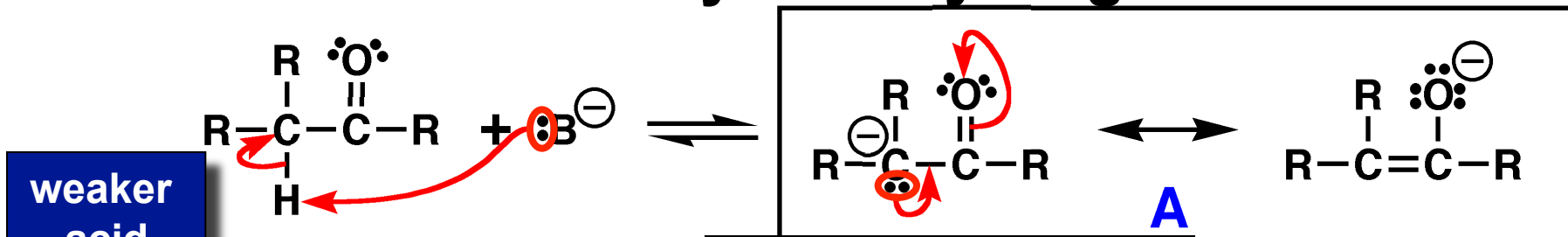
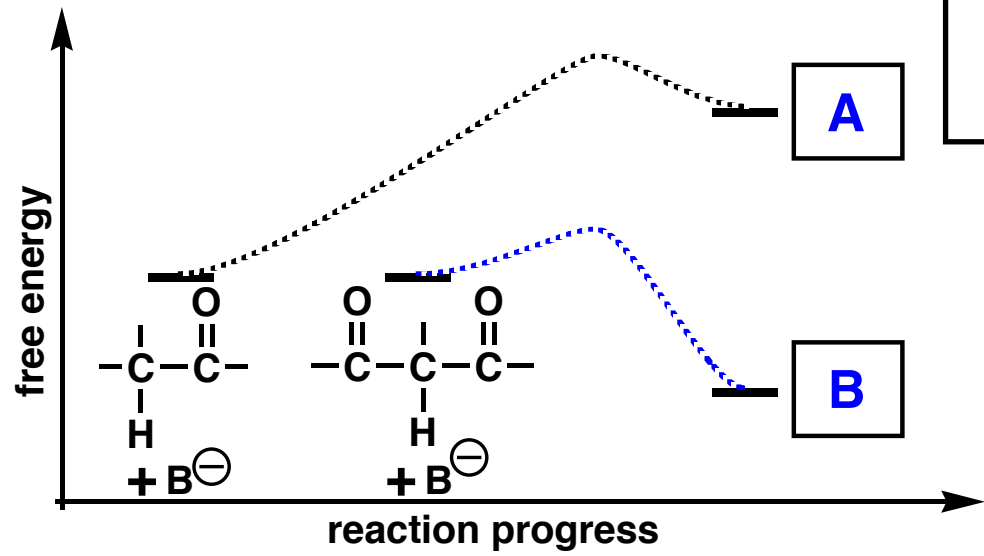
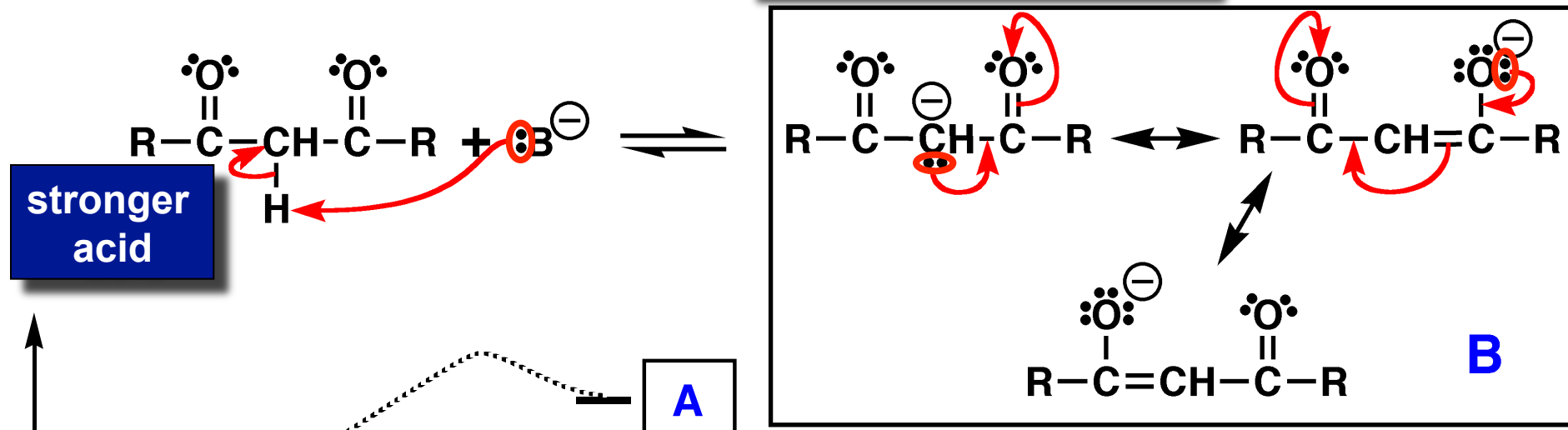


# On the Acidity of $\alpha$ -Hydrogen



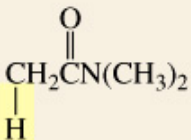
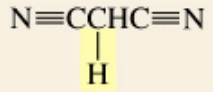
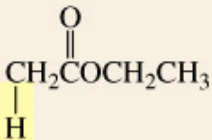
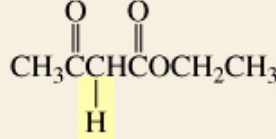
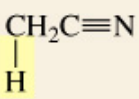
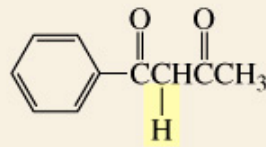
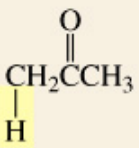
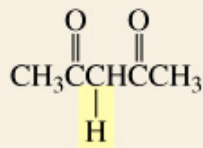
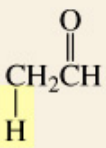
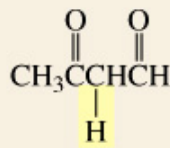
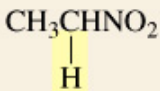
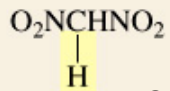
Negative charge better delocalized in B than A



$\text{C}_\alpha$ -H acidity correlates to the stability of the conjugate base. The more stable the conjugate base, the stronger the acid.



# pKa Values of Some Carbon Acids

	pK <sub>a</sub>		pK <sub>a</sub>
	30		11.8
	25		10.7
	25		9.4
	20		8.9
	17		5.9
	8.6		3.6

From Paula Y. Bruice *Organic Chemistry* 4<sup>th</sup> Ed.

Conjugate addition

How conjugation changes the reactivity of carbonyl groups

Electrophilic addition to alkenes

Enolisation

Diels-Alder reactions

Direct conjugate addition with enols

Nucleophilic substitution

Conjugate addition of enolates

Elimination

Robinson annelation

Electrophilic aromatic

Dimedone synthesis

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