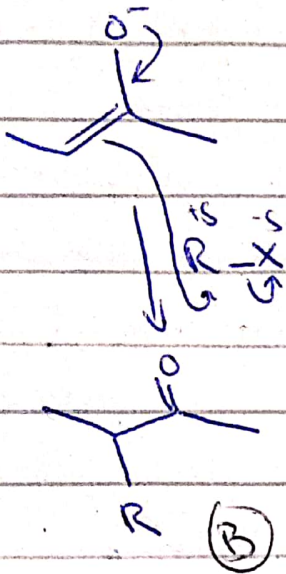
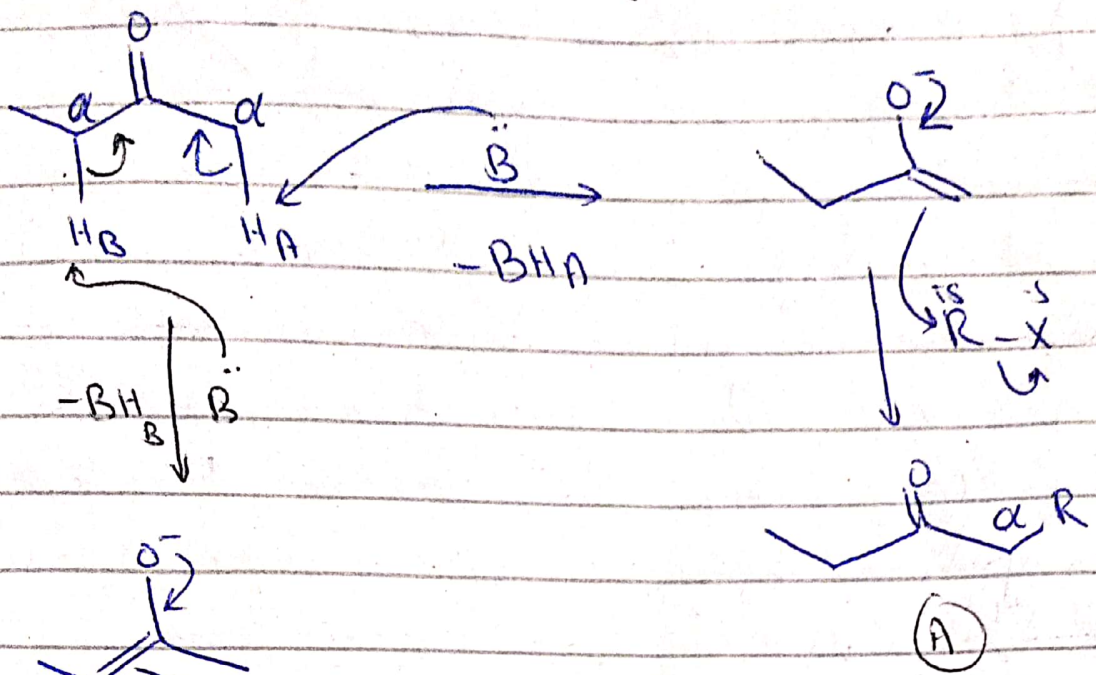


if unsymmetrical carbonyles (ketones)

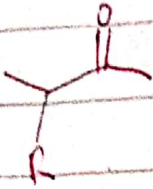


So reaction out which one of proton is abstracted? that reaction condition favours that give one product exclusively -
 There is reason of region selectivity -

-
 H_B removal \rightarrow stability
 H_A removal \rightarrow less hindered and easily available proton.
 But in H_B stability of product increase by increasing R group.
 But H_B is more hindered so its availability less than H_A .

A is reversible by giving proton (H^+)
 in B chances of reversibility is less.

(B)



Thermodynamically controlled
(stability dependent)

Strong Base.

medium strength Base.

e.g. (Et_3N) triethylamine

Small size Base require

that can abstract H β

e.g. NaH , KH
hydrides

every that factor which favored reversibility favored

Thermodynamic stable product give more reaction time

(e.g. after entering Base allowed (it to stand overnight)

to attain stability.

Then quenched with $(R-X)$

high temperature (room temperature)

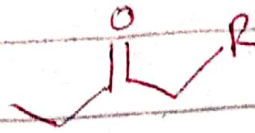
Normal condition

$(25-40^\circ C)$

evp

Solvent.

A



Kinetically controlled

easy available

(Rate dependent)

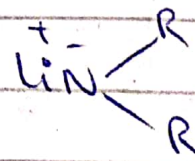
for this strong Base

reverse (not reversible)

larger size Base give

that prefer to remove H α

So large & strong Base used



then give electrophile

$(R-X)$ immediately to

give product so that

it not reverse.

less reaction time given.

low temperature $(-78^\circ C)$

(so that reaction does not have any energy to undergoes reversible)

every-thel phenomena that move towards the
reversibility favoured thermodynamic.

every thal phenomena that move towards fast
reaction favoured kinetic

counterion

Thermodynamically

Soft counter ion of Base

K

large size, less tightly
hold

Kinetically

hard counter ion of Base

Mg, Li

small size, tightly hold
so avoid reversibility

Size

Cs > K > Na > Li