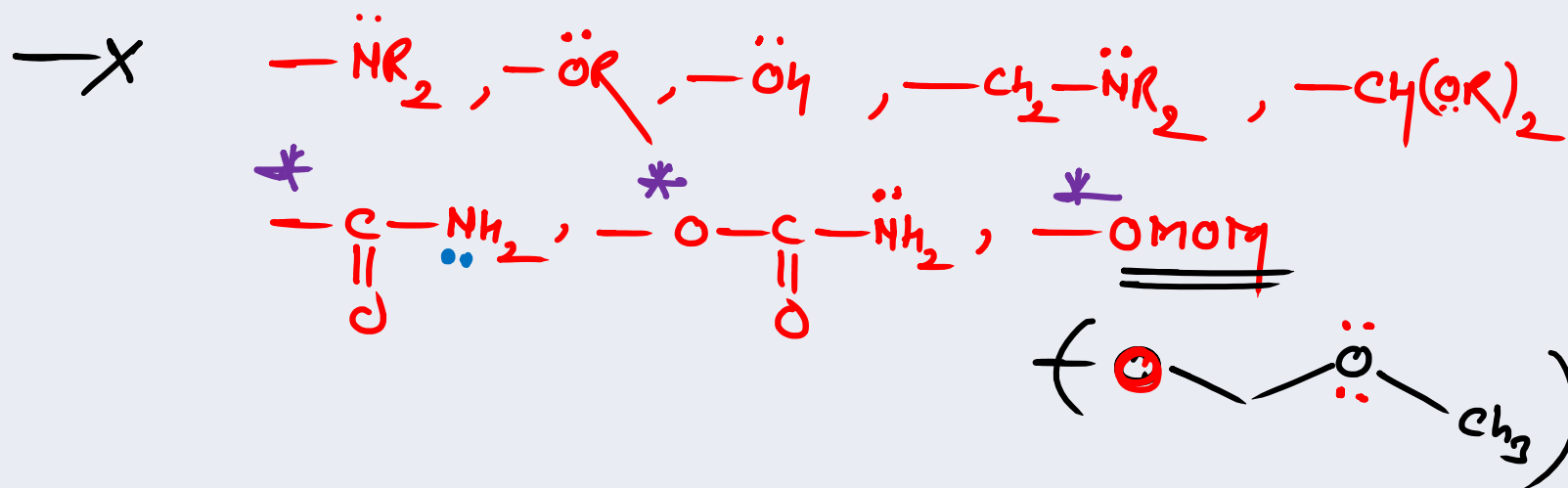
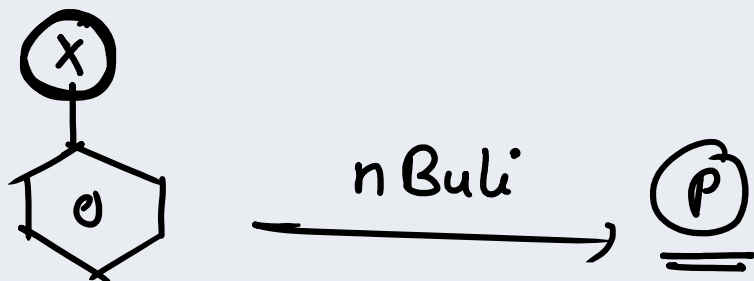
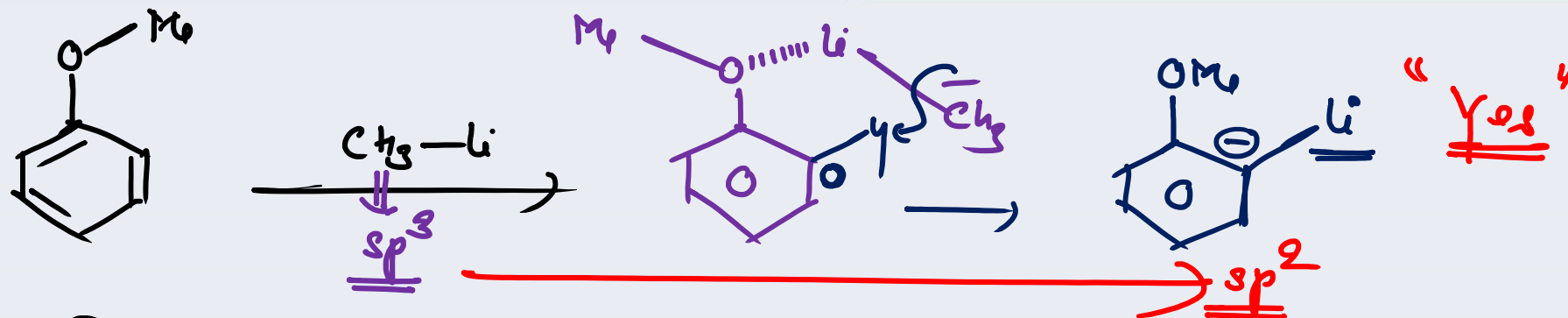
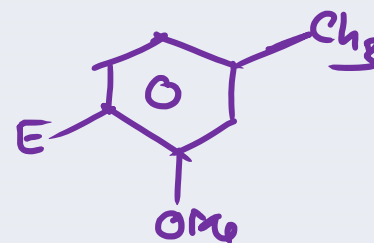
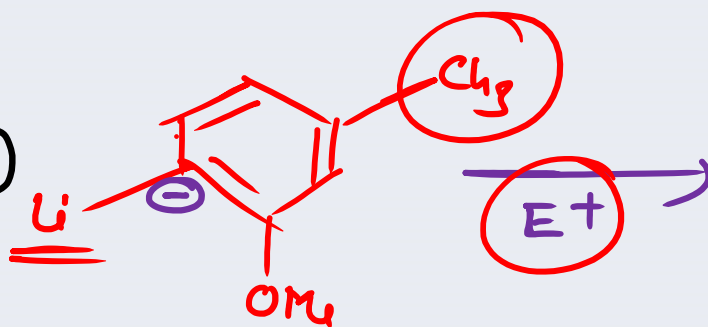
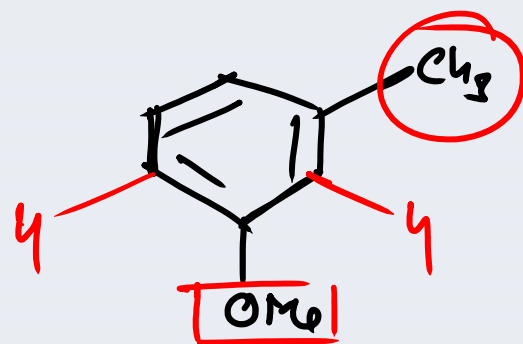
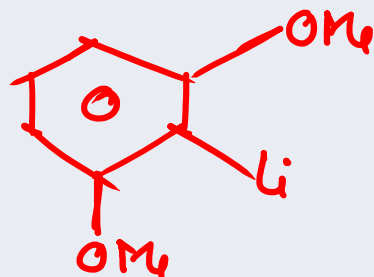
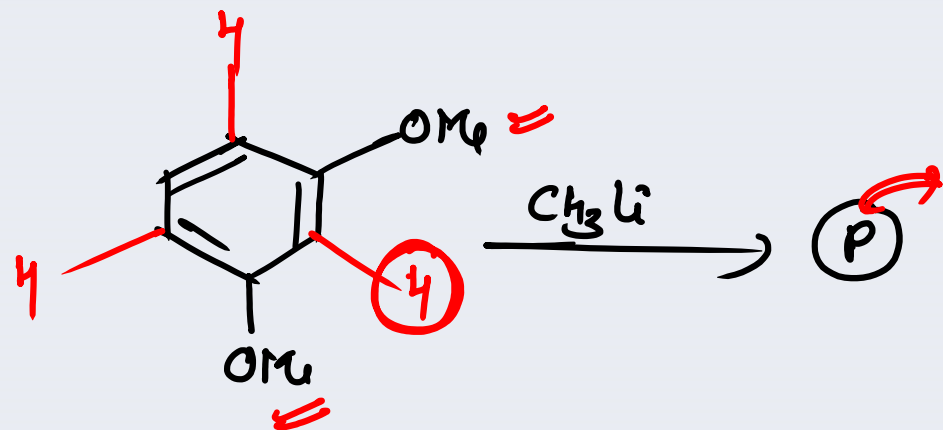
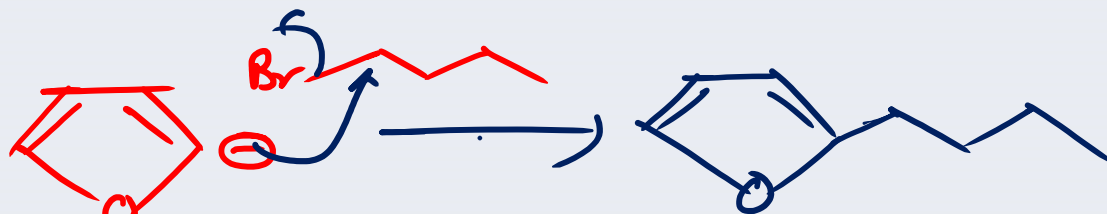
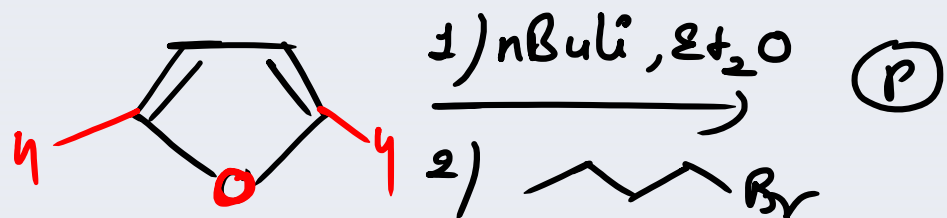
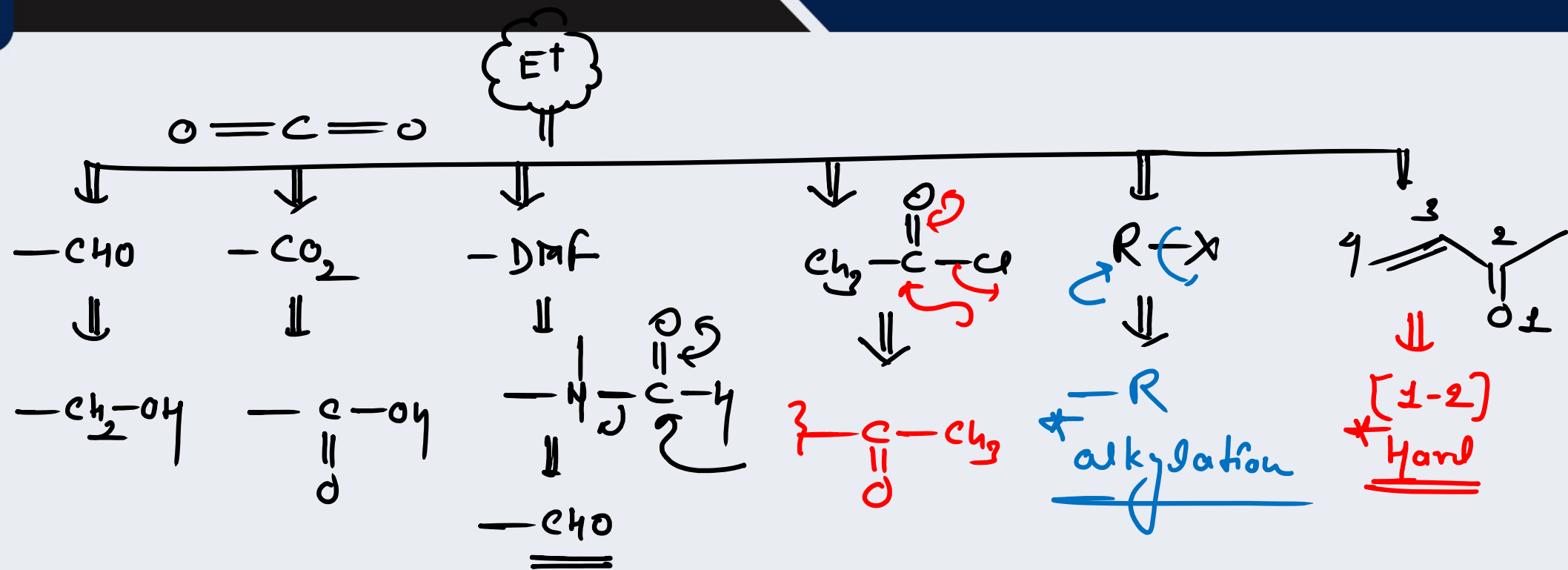




1) Ortho lithiation

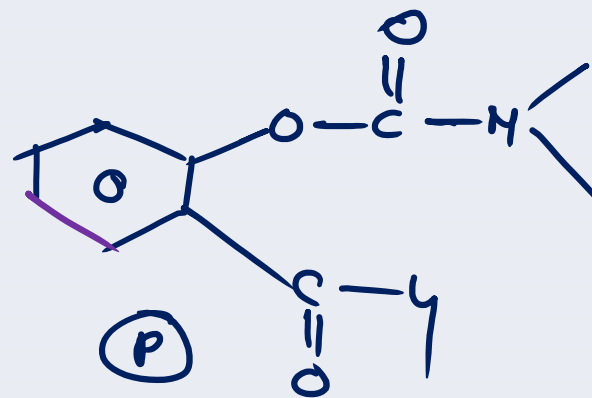
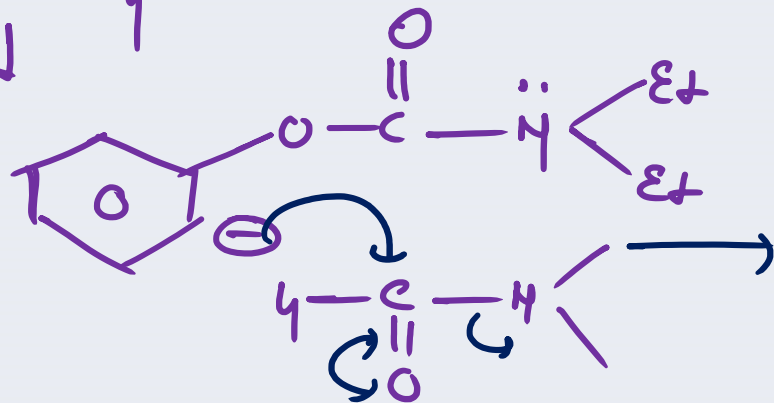
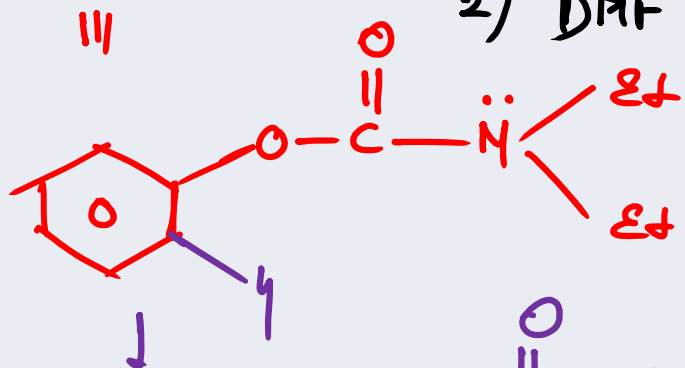
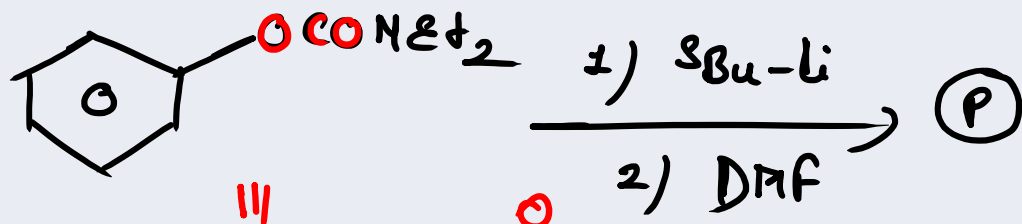


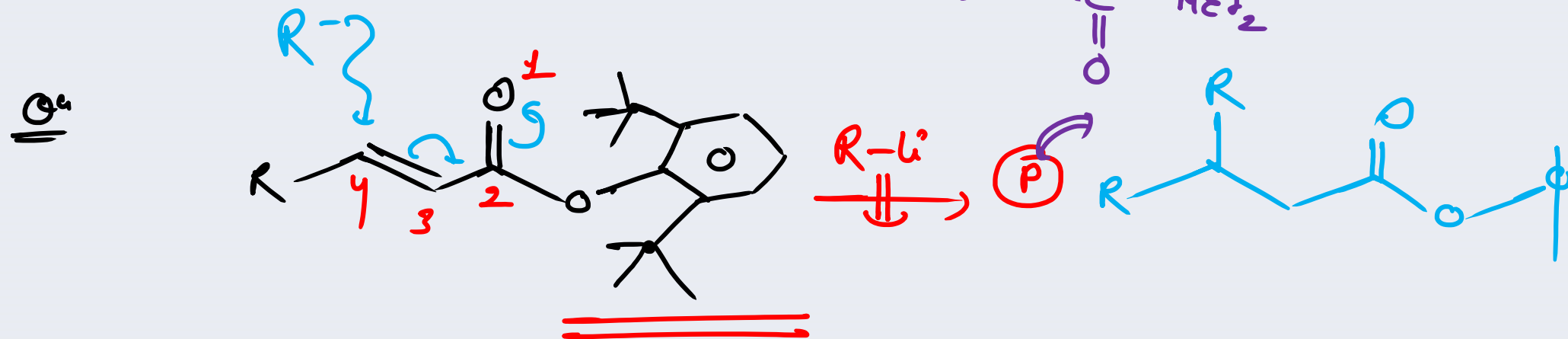
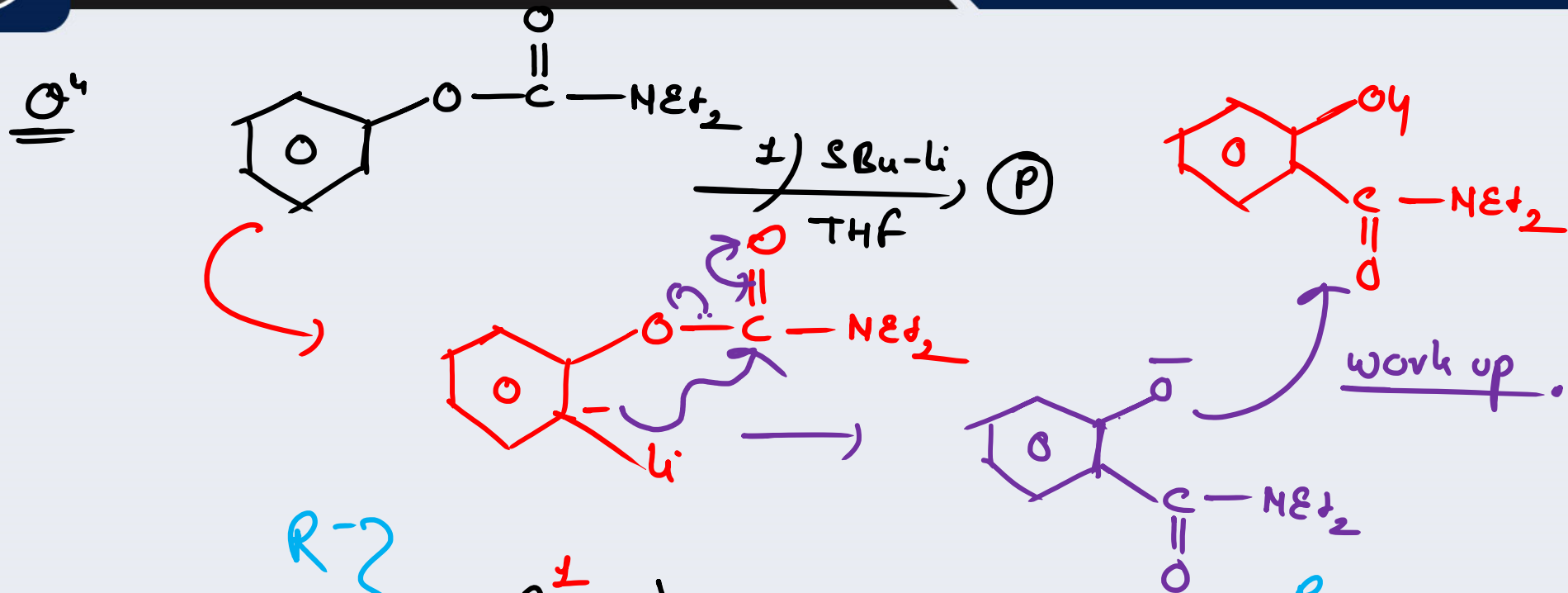


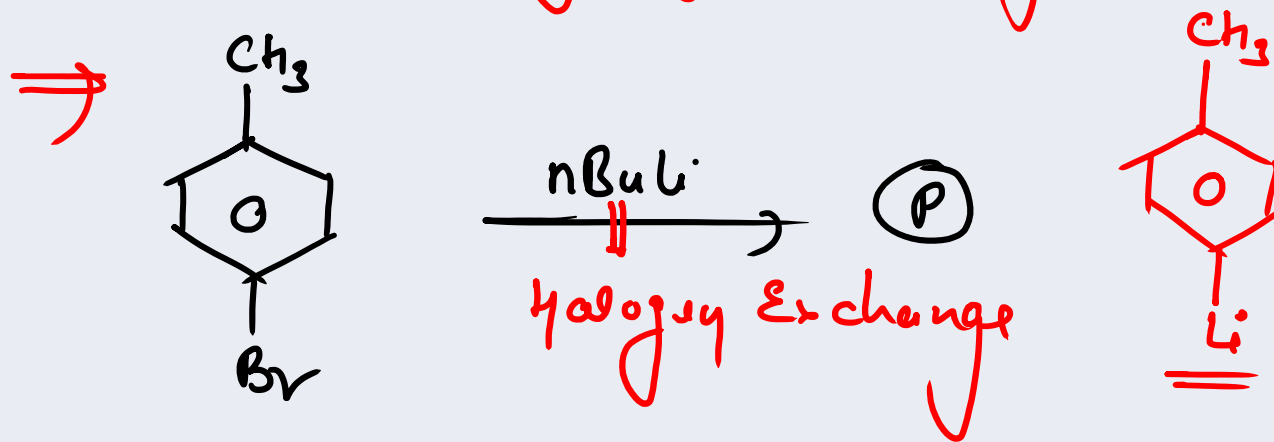
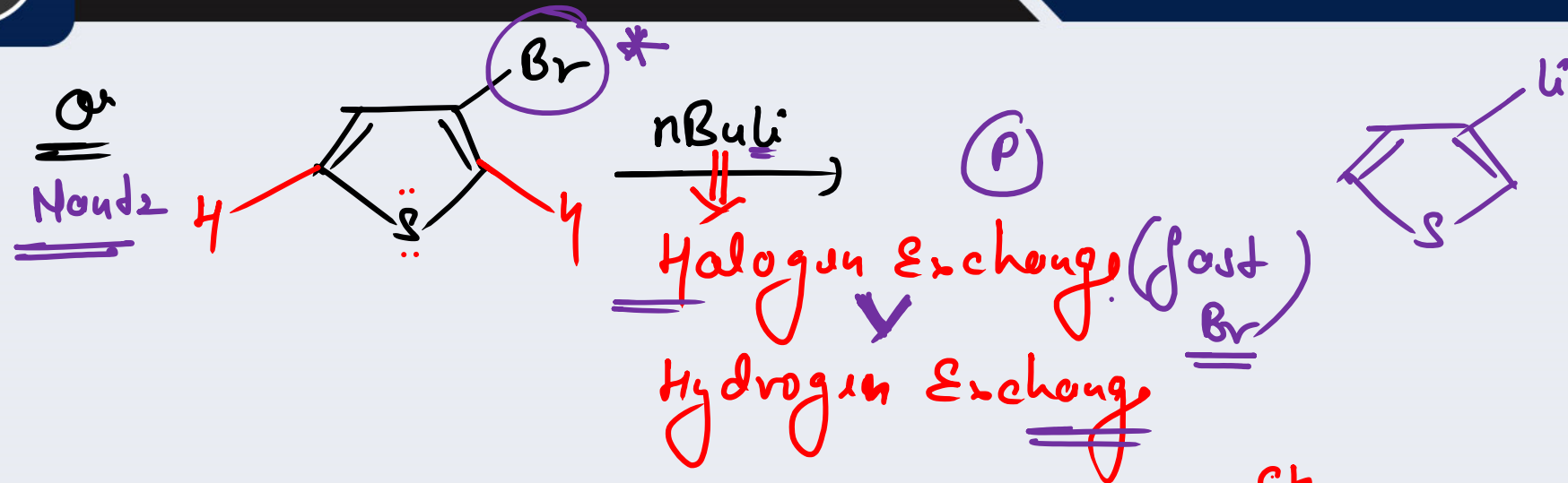




Q₁
Conversion

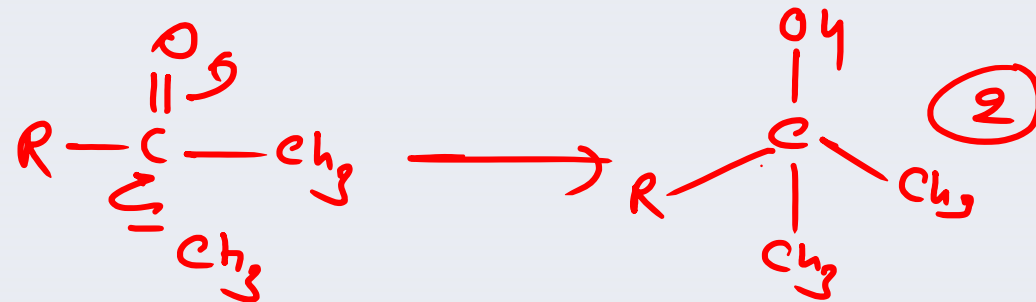
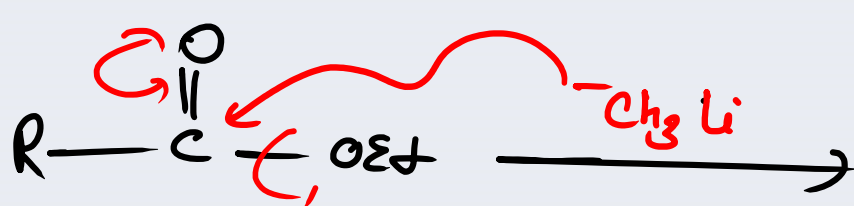
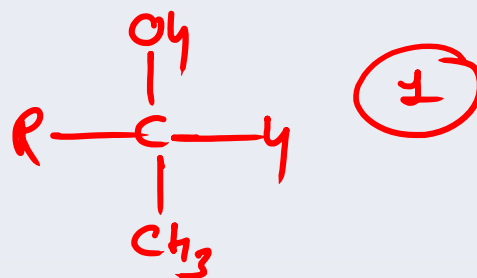
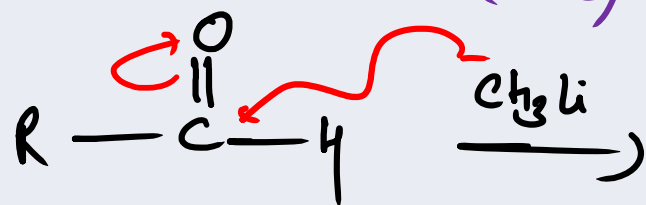
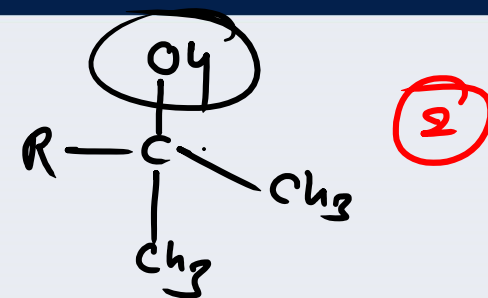
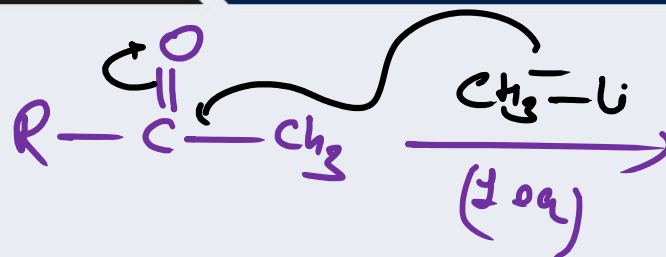
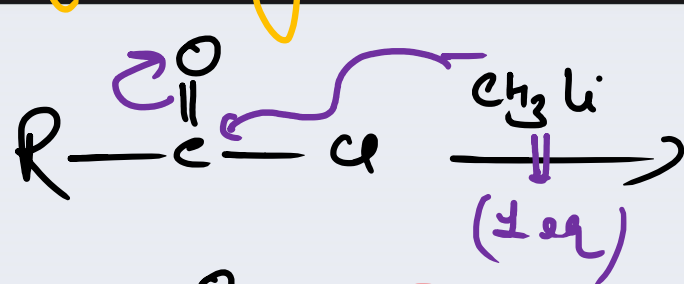


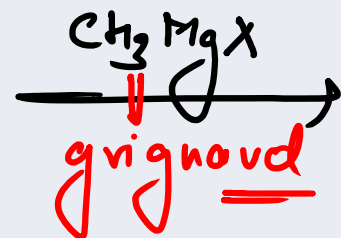
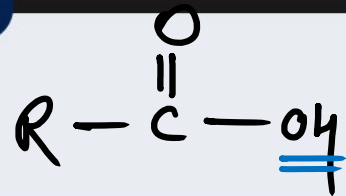






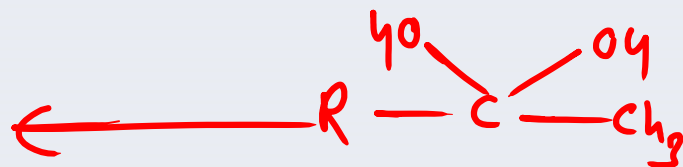
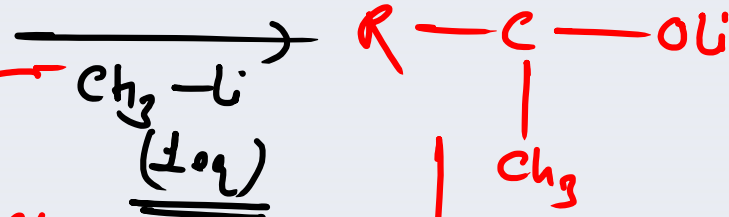
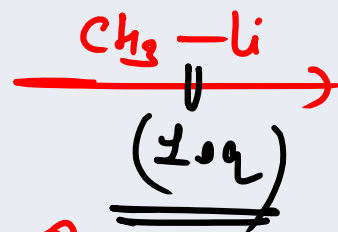
Reactivity with Carbonyls



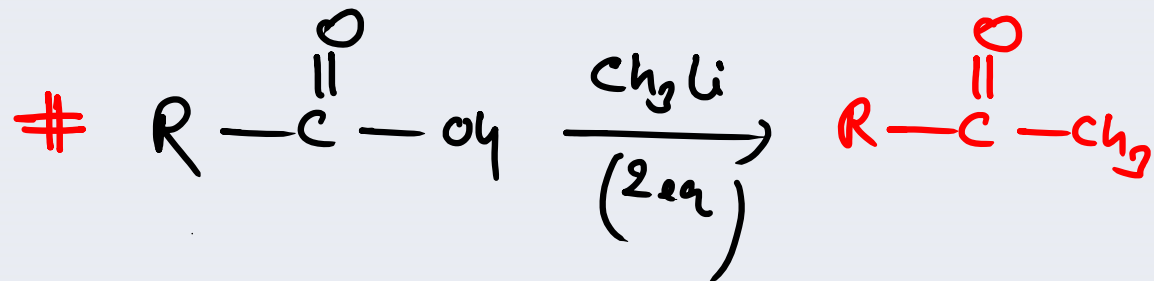


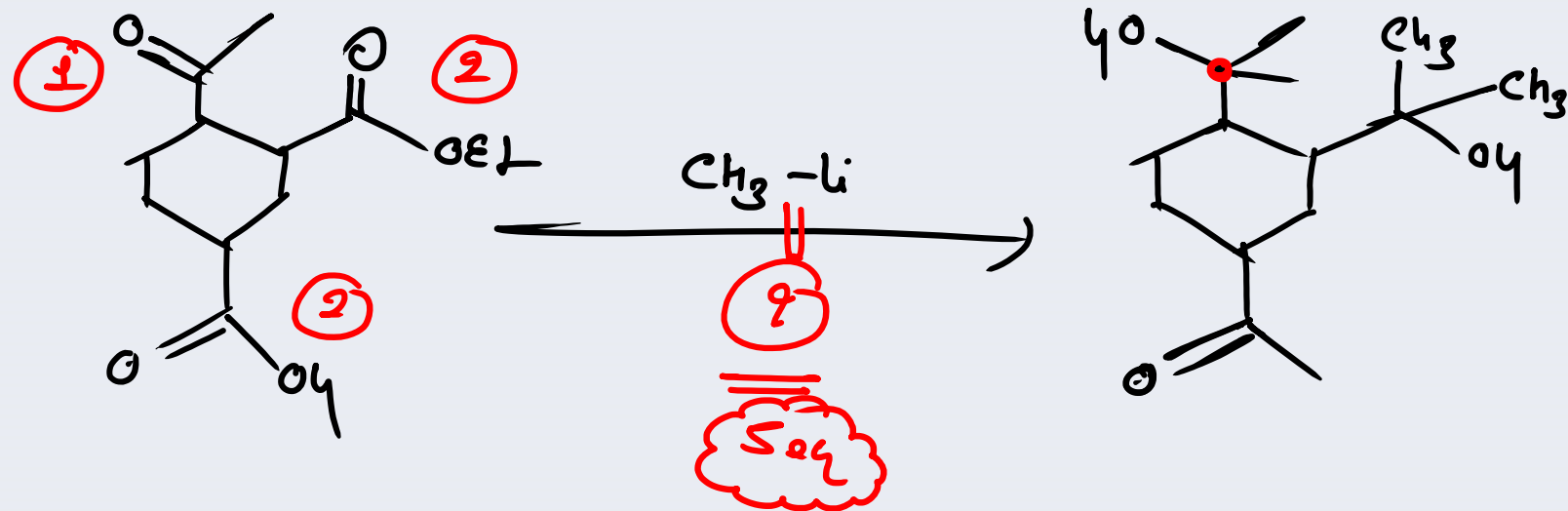
X " No R₂C

2eq *



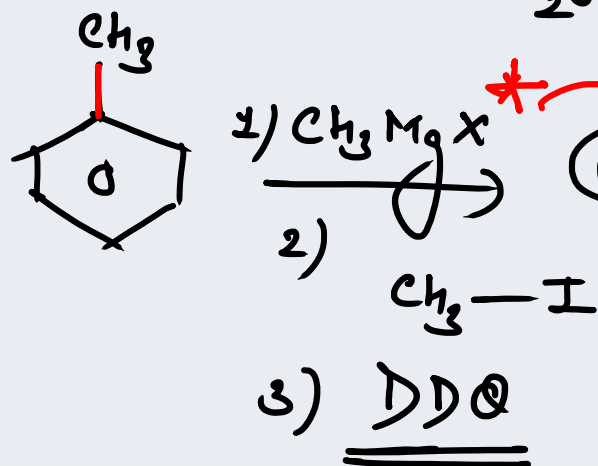
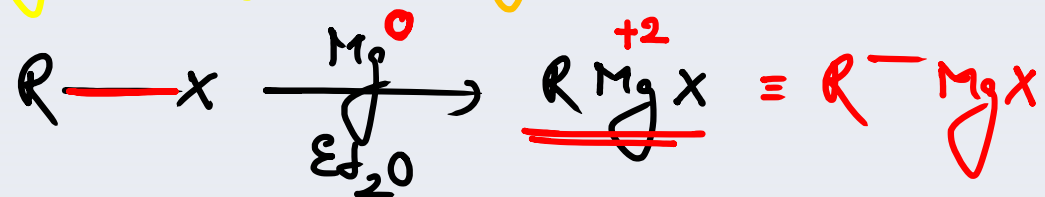
work up



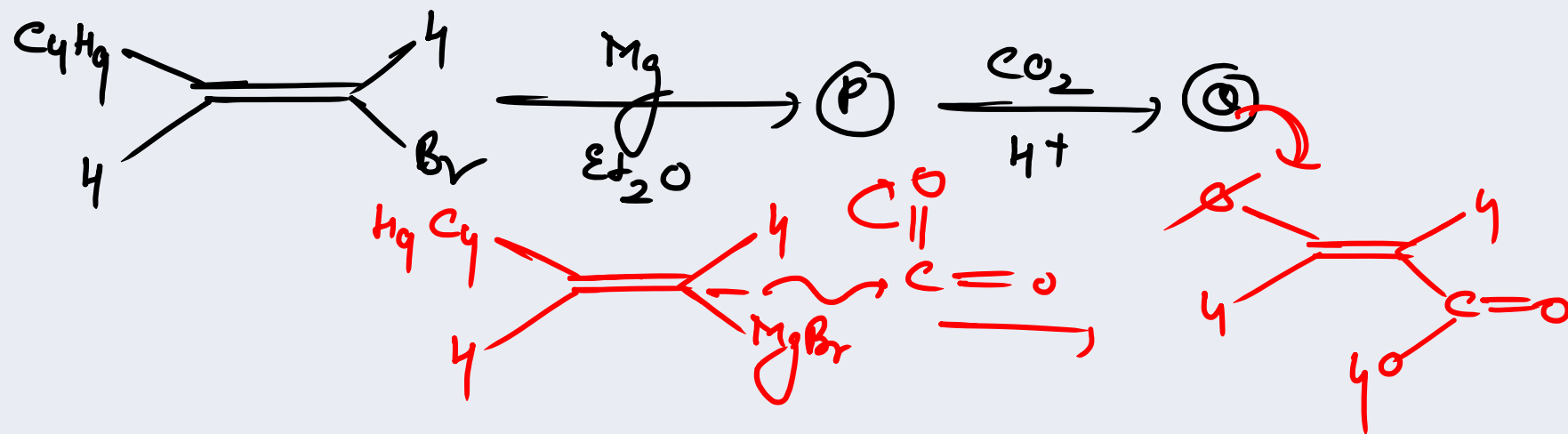
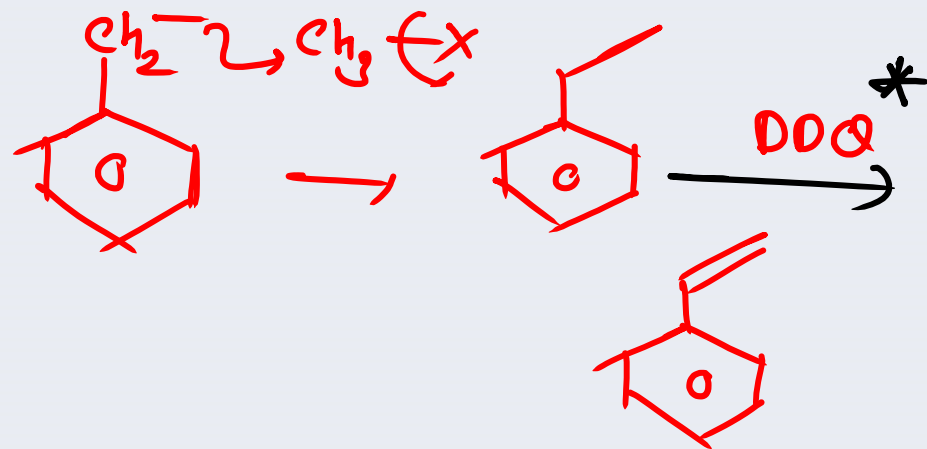


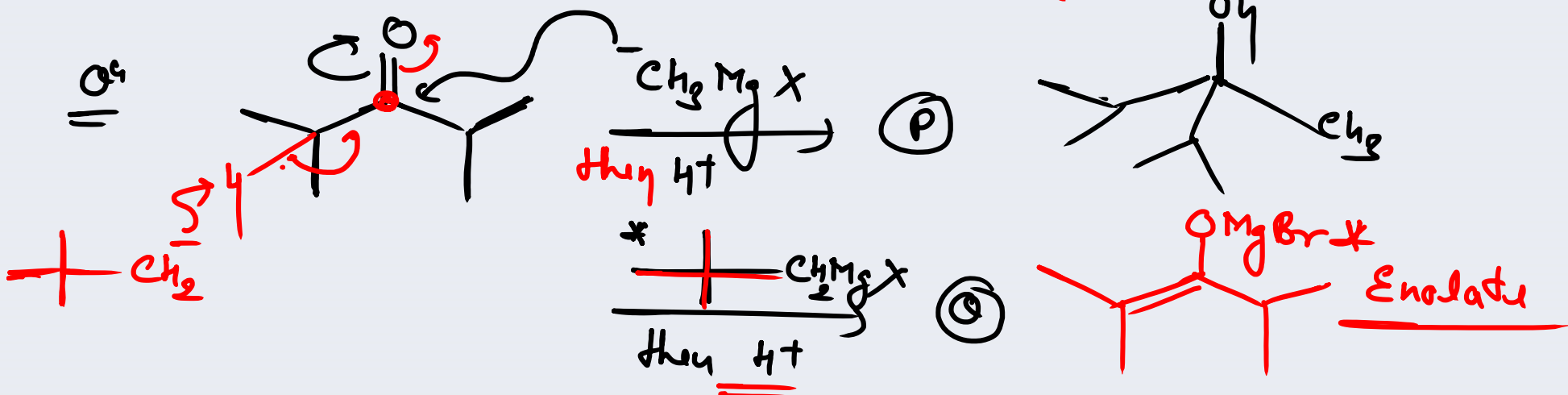
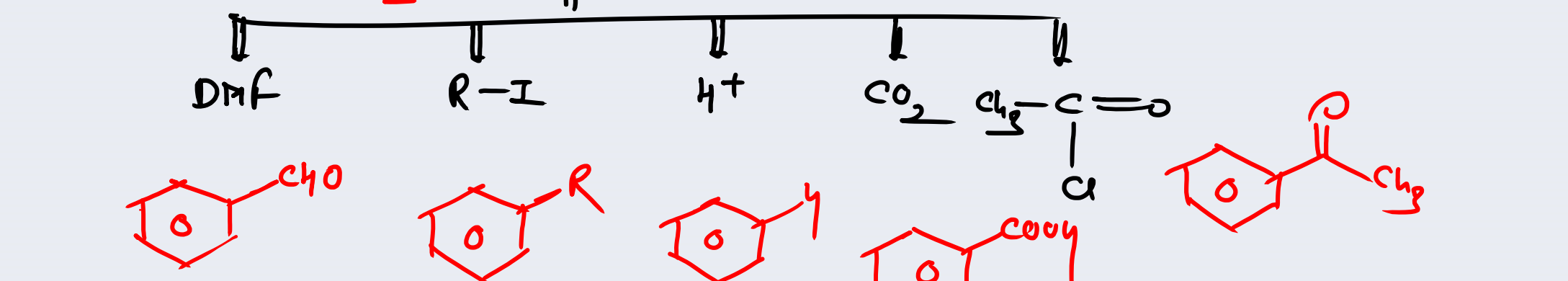
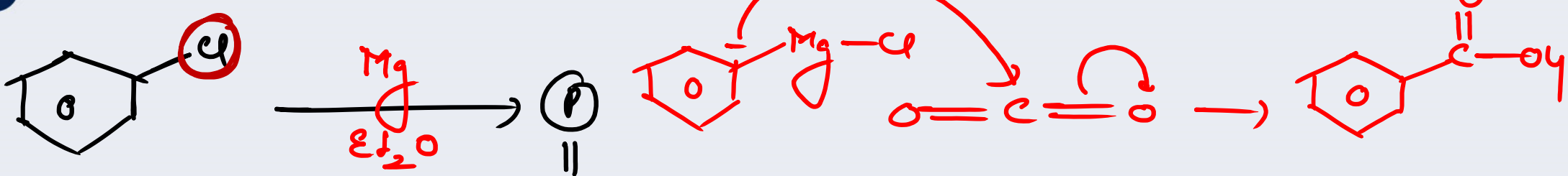


Organo Mg. CH_3MgX (Horn)



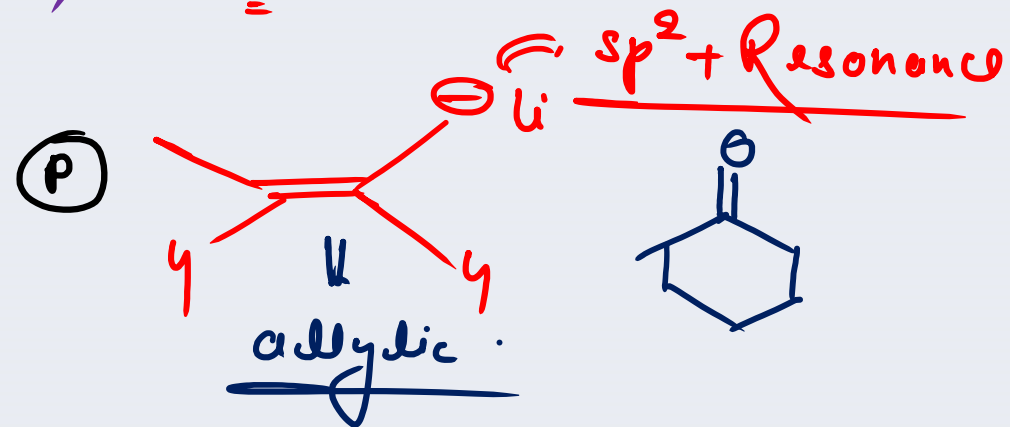
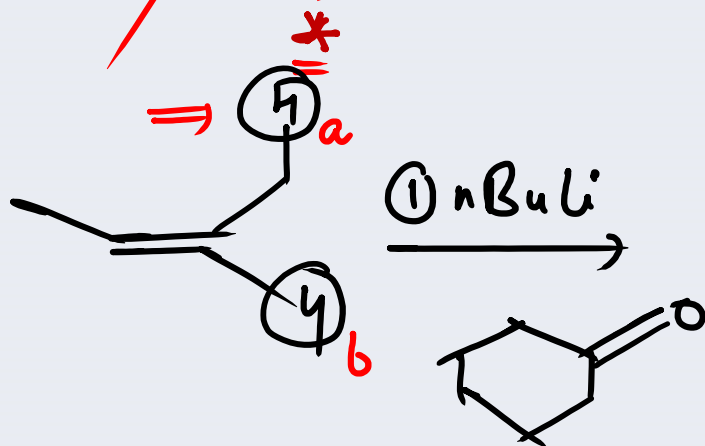
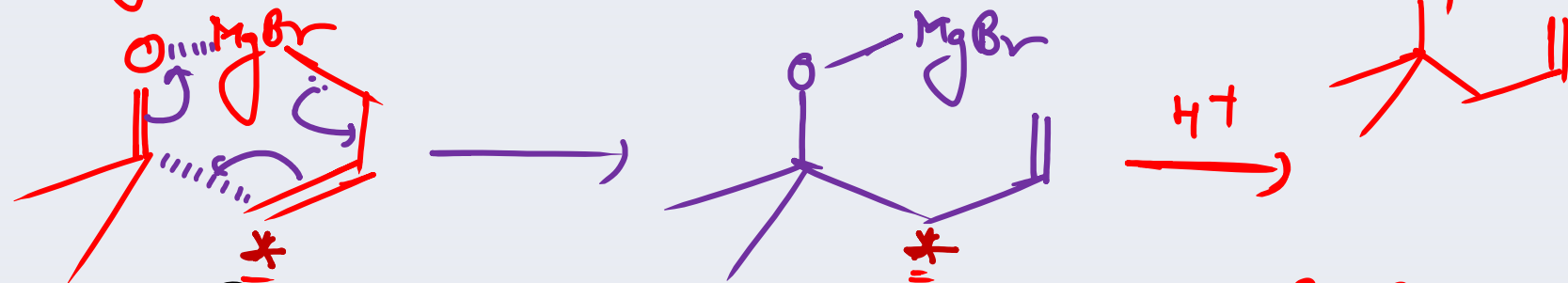
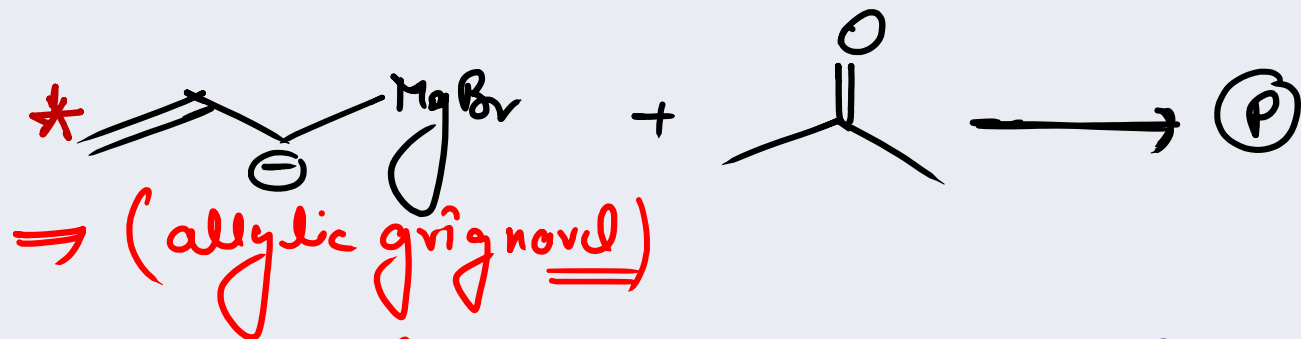
* Hydrogen Exchange

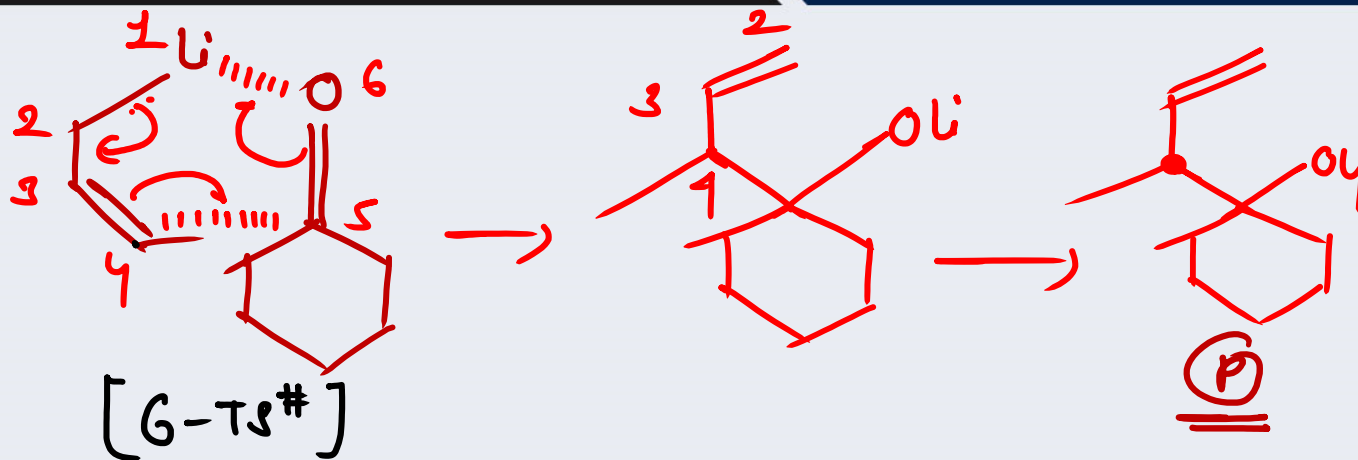






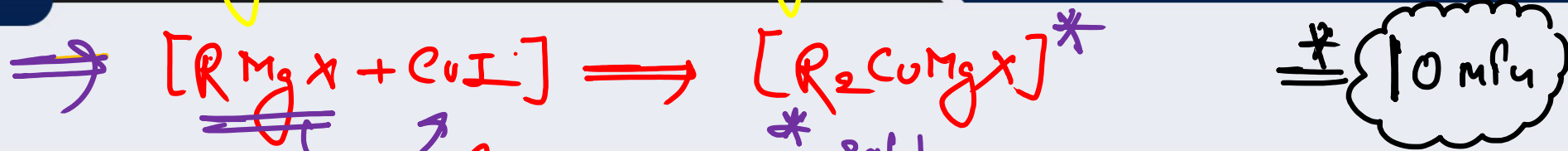
104



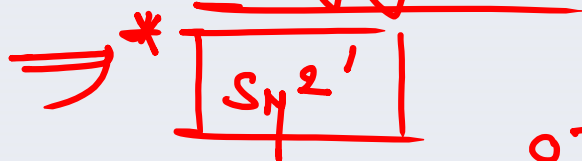
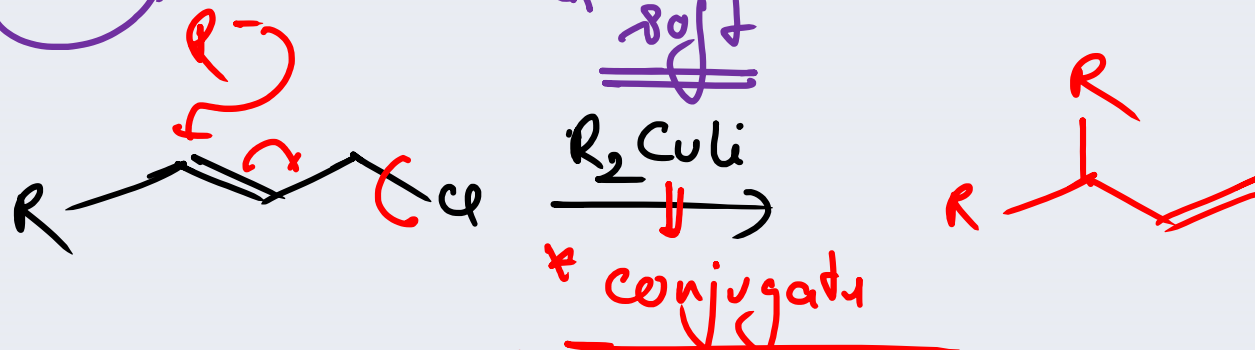




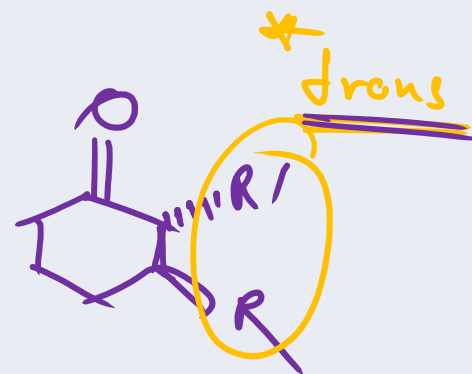
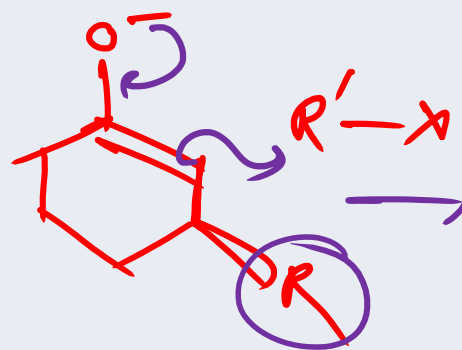
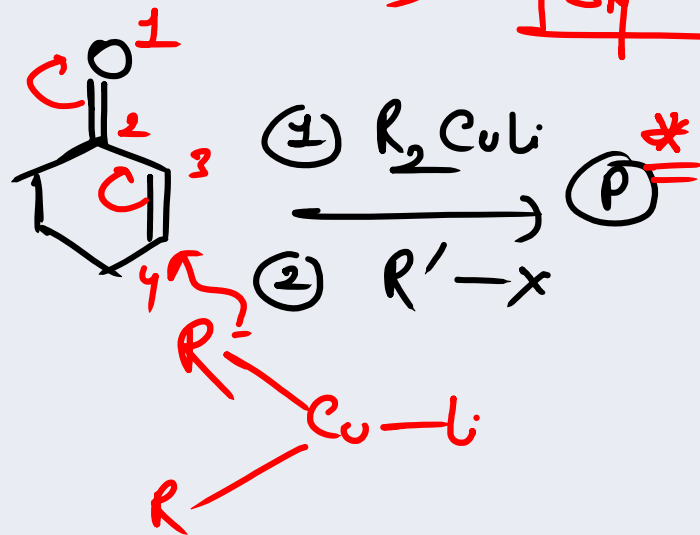
Organo Cu. R_2CuLi (soft)



Q₁



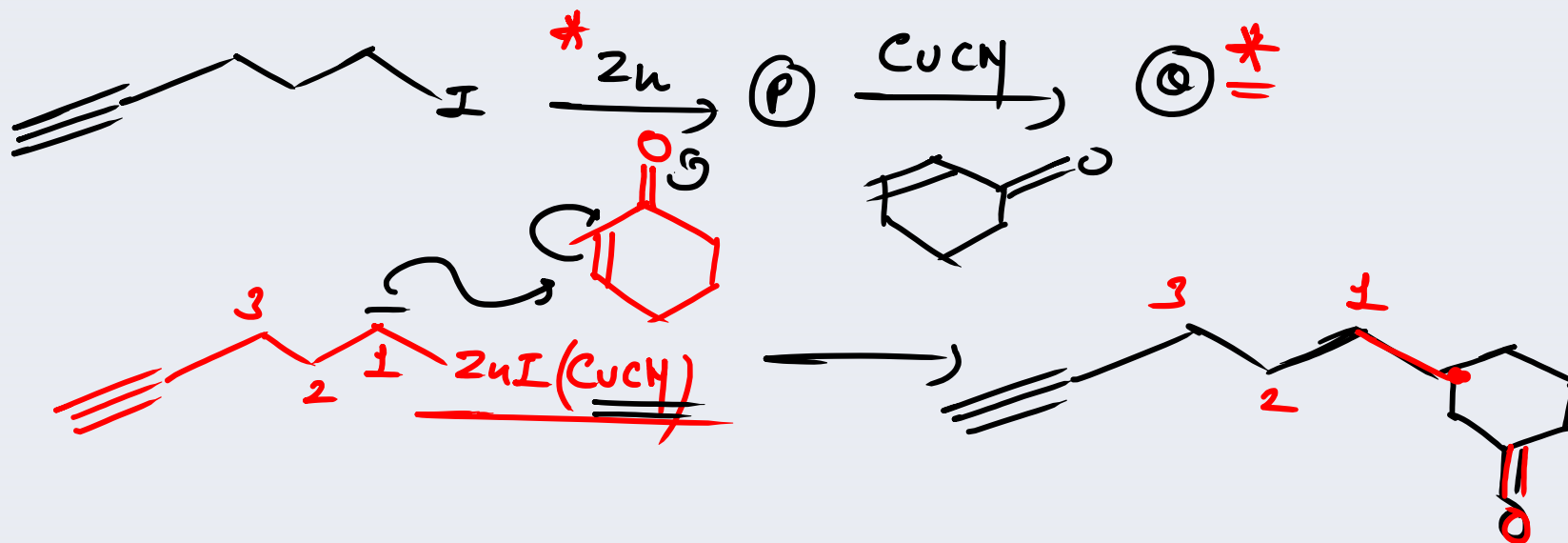
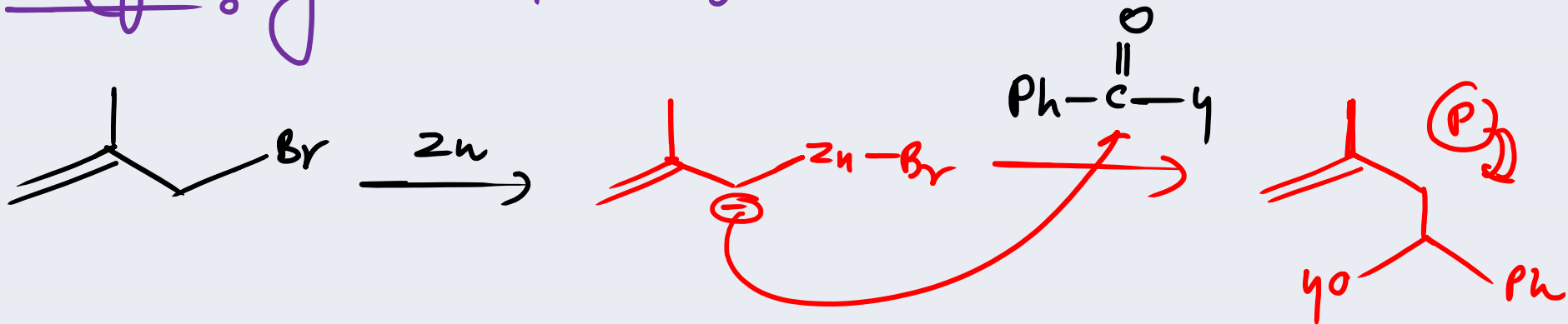
Q₂





Organo Zn

Reformatsky Simmons Smith



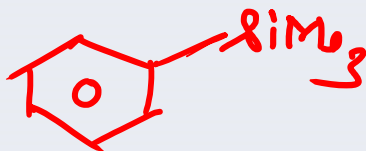


Organo Si

Alkyl silane



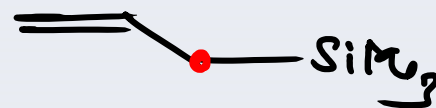
Aryl silane



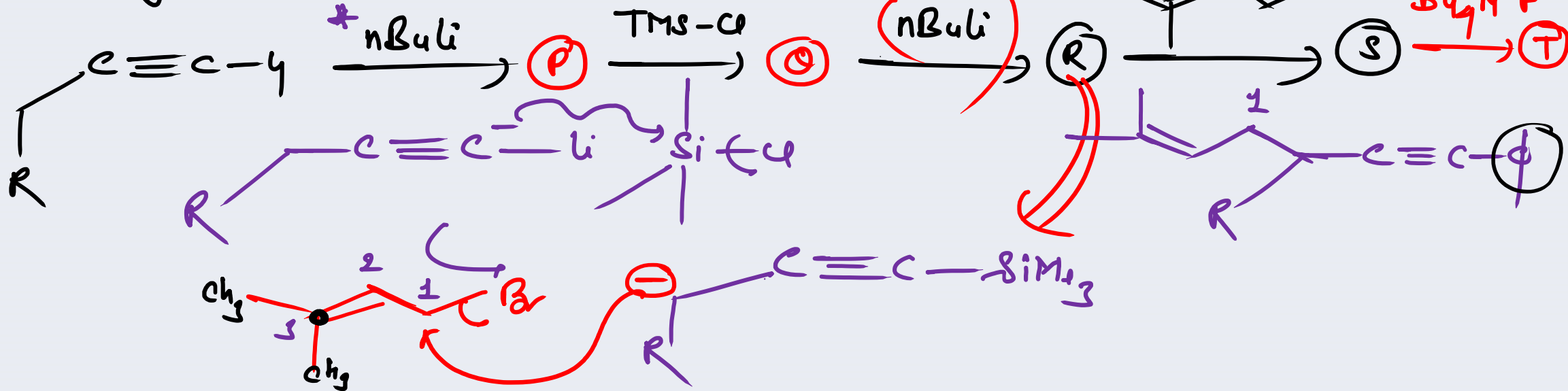
Vinyl silane

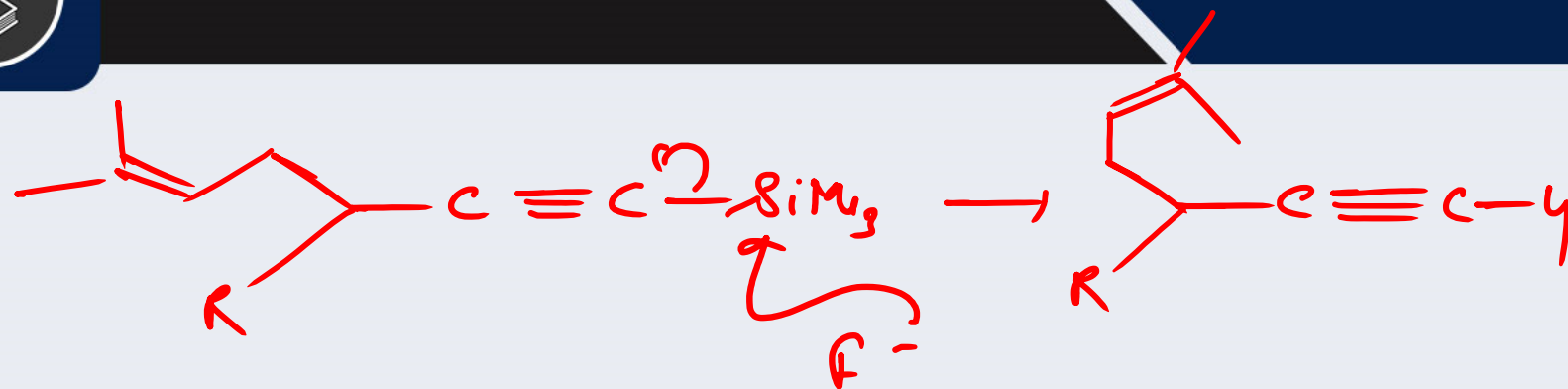


Allyl silane

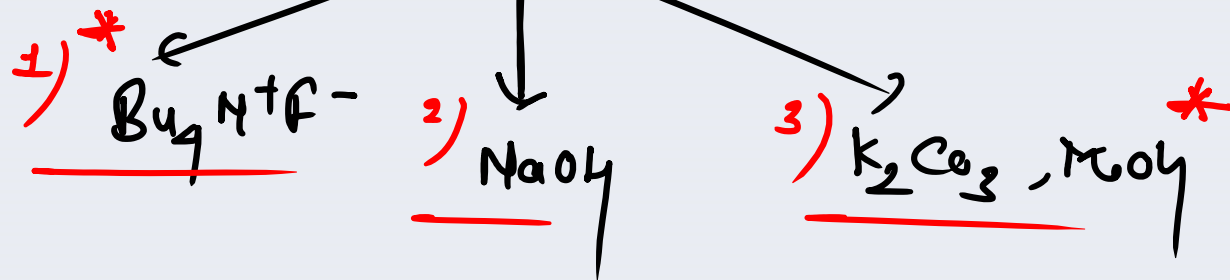


① Alkyl silane



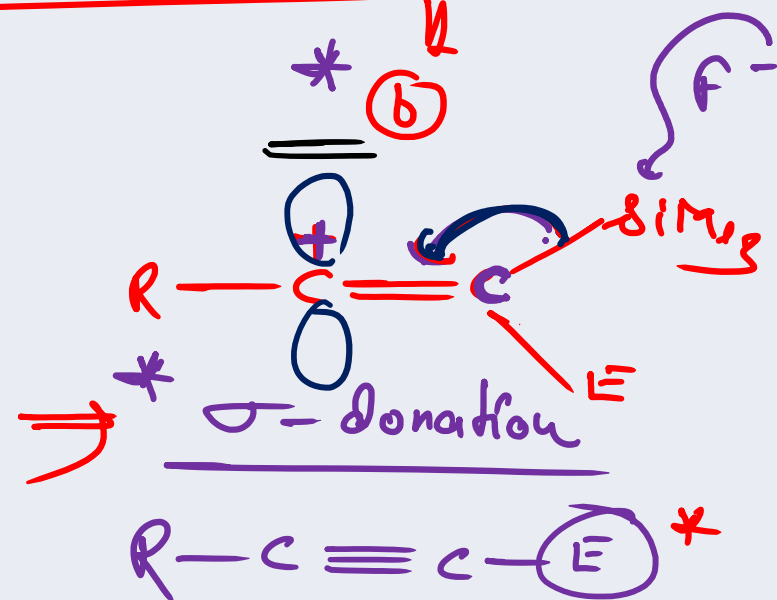
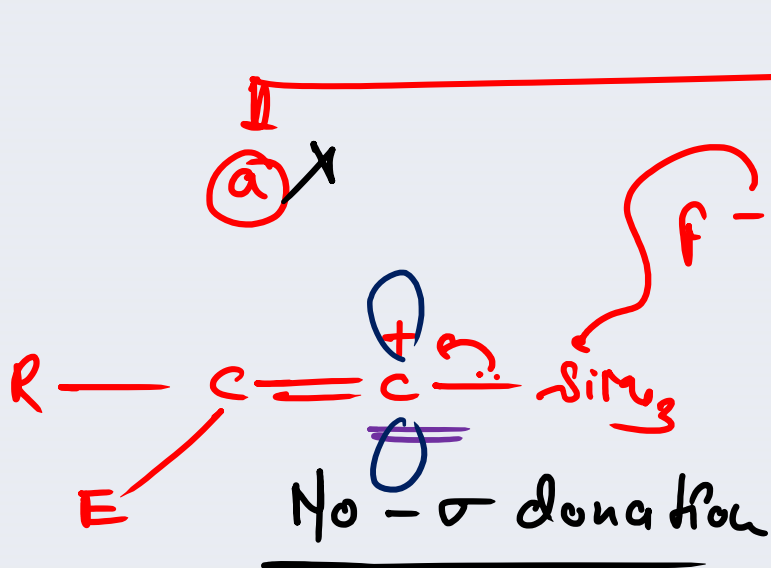
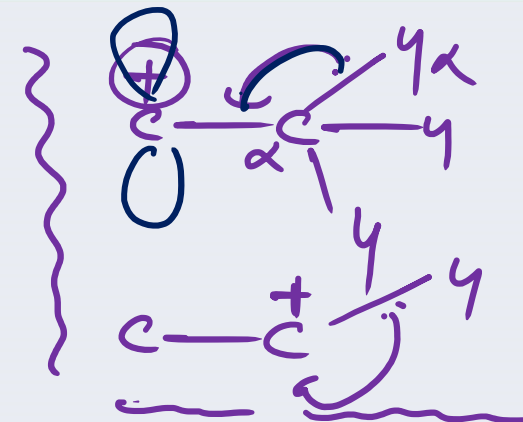
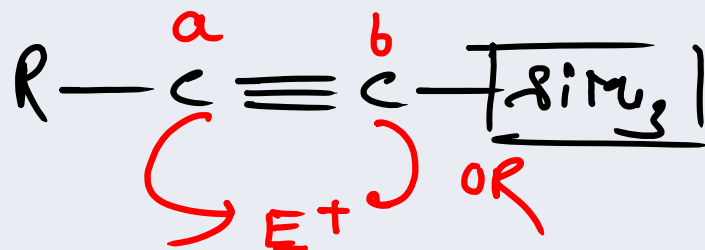
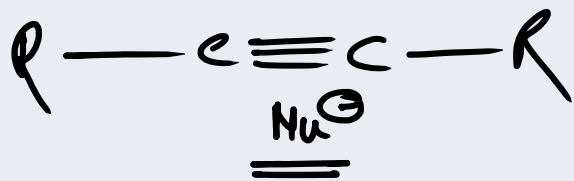


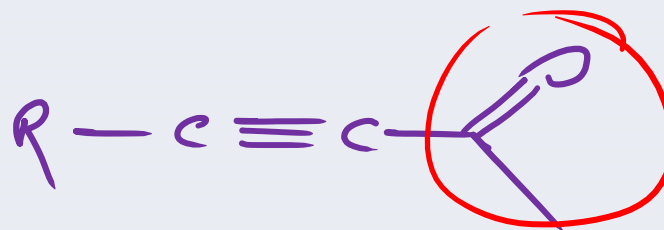
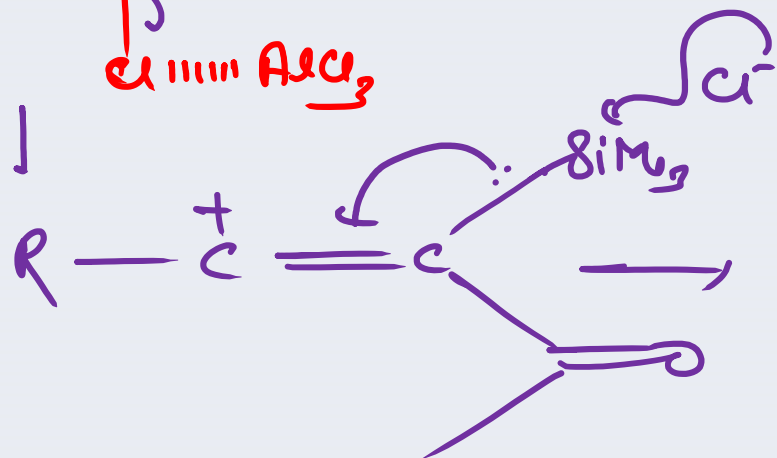
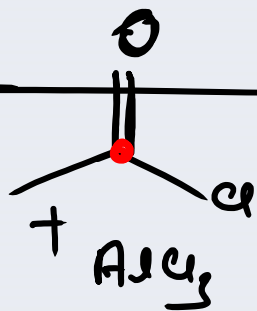
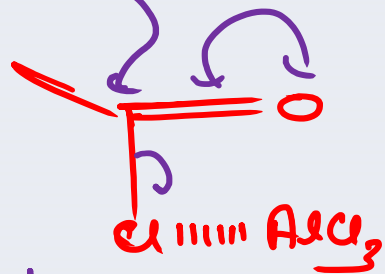
$\Rightarrow$ SiMe_3 deprotection





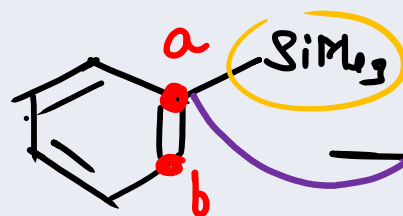
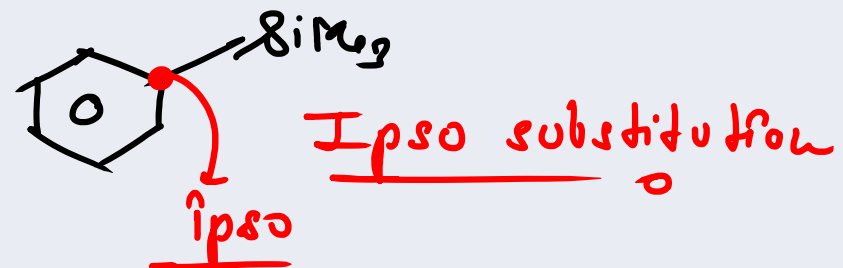
Reactions





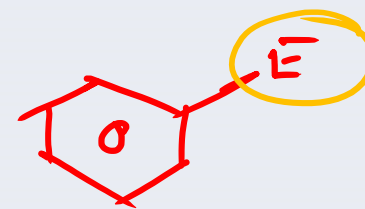
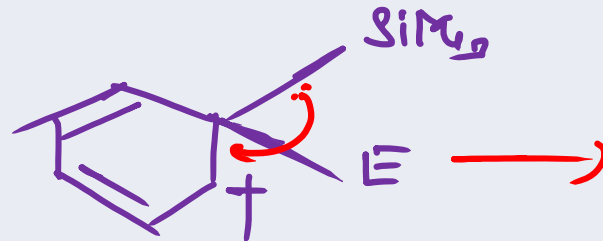


2) Aryl silane



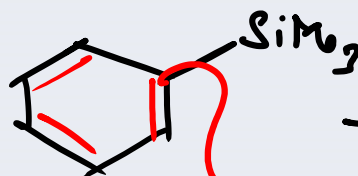
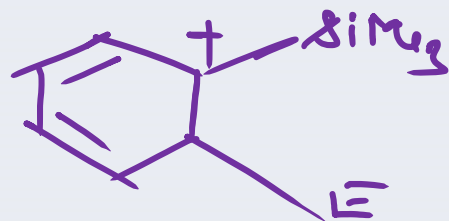
E^+

(a)



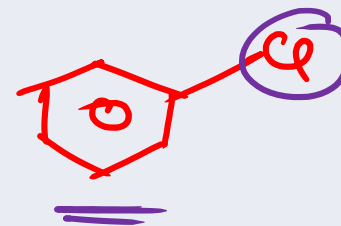
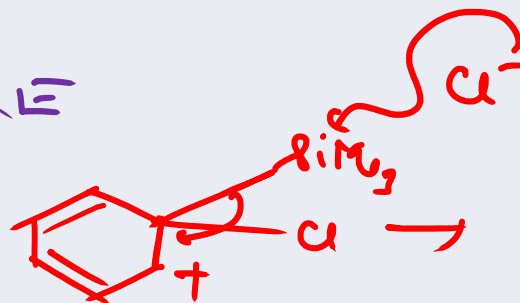
ipso-subst.

(b)



Cl_2

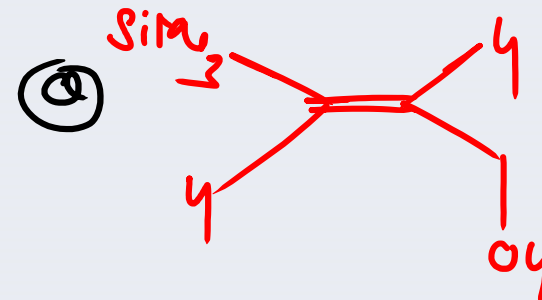
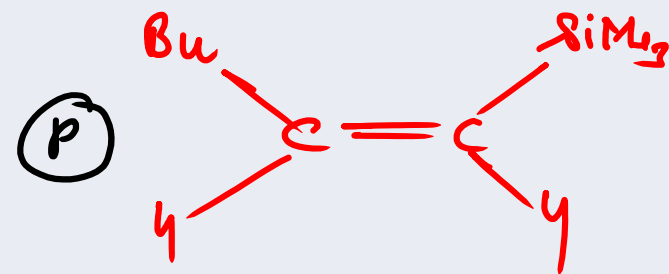
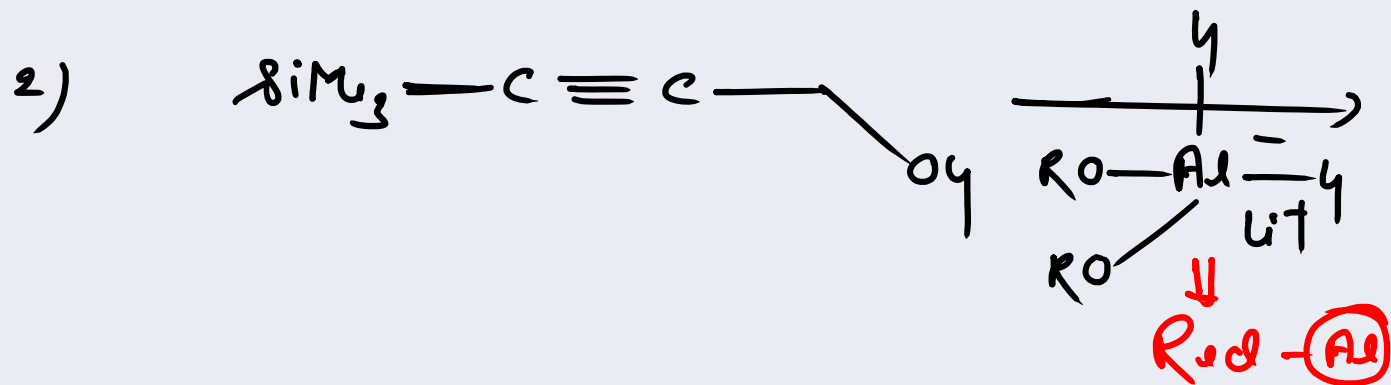
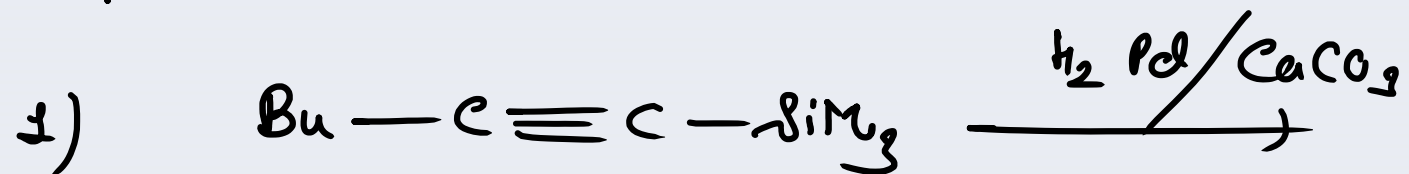
(c)





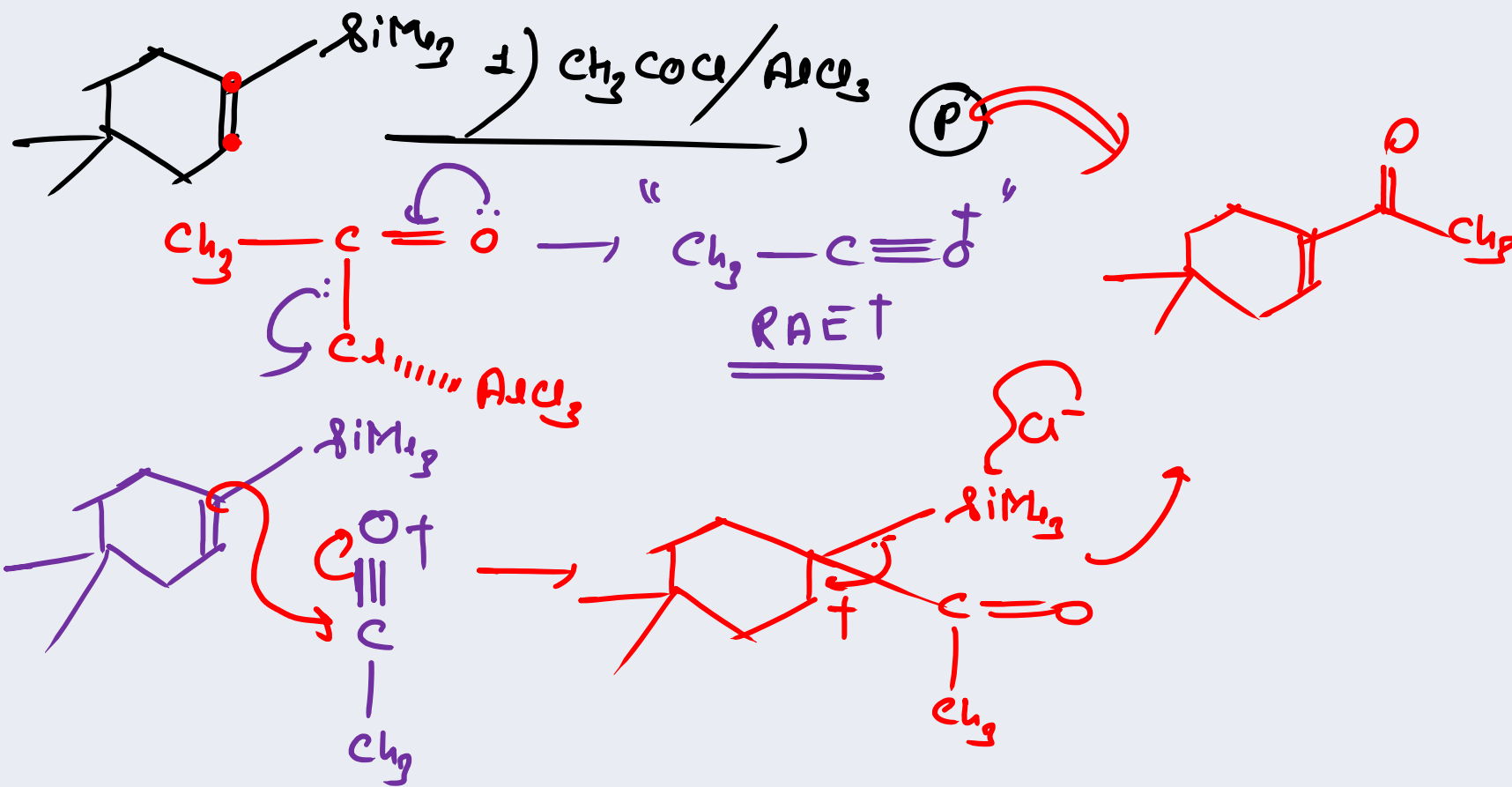
III Vinyl silane

Preparation



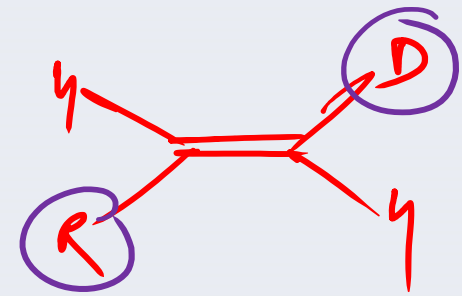
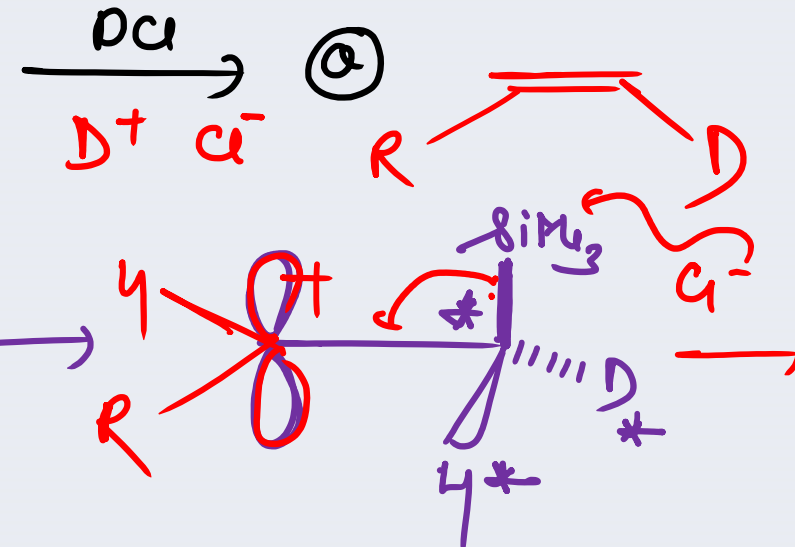
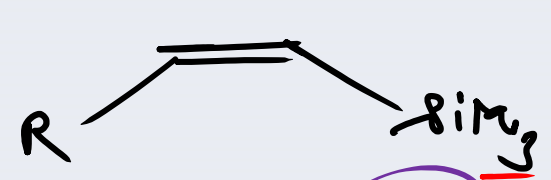
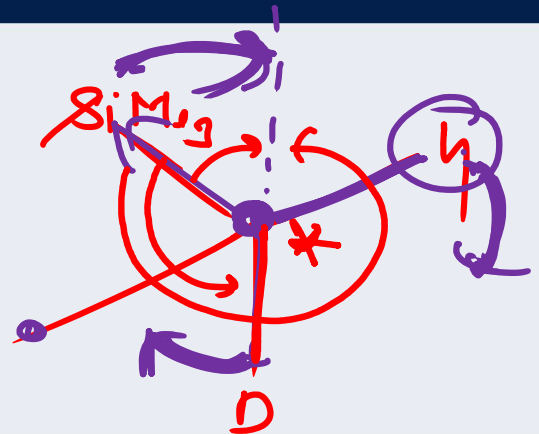
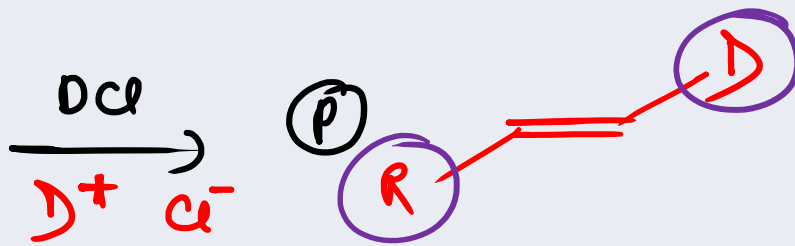
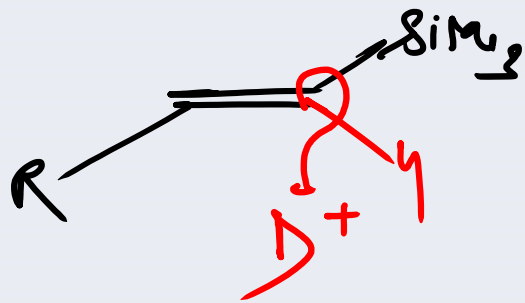


Reactions

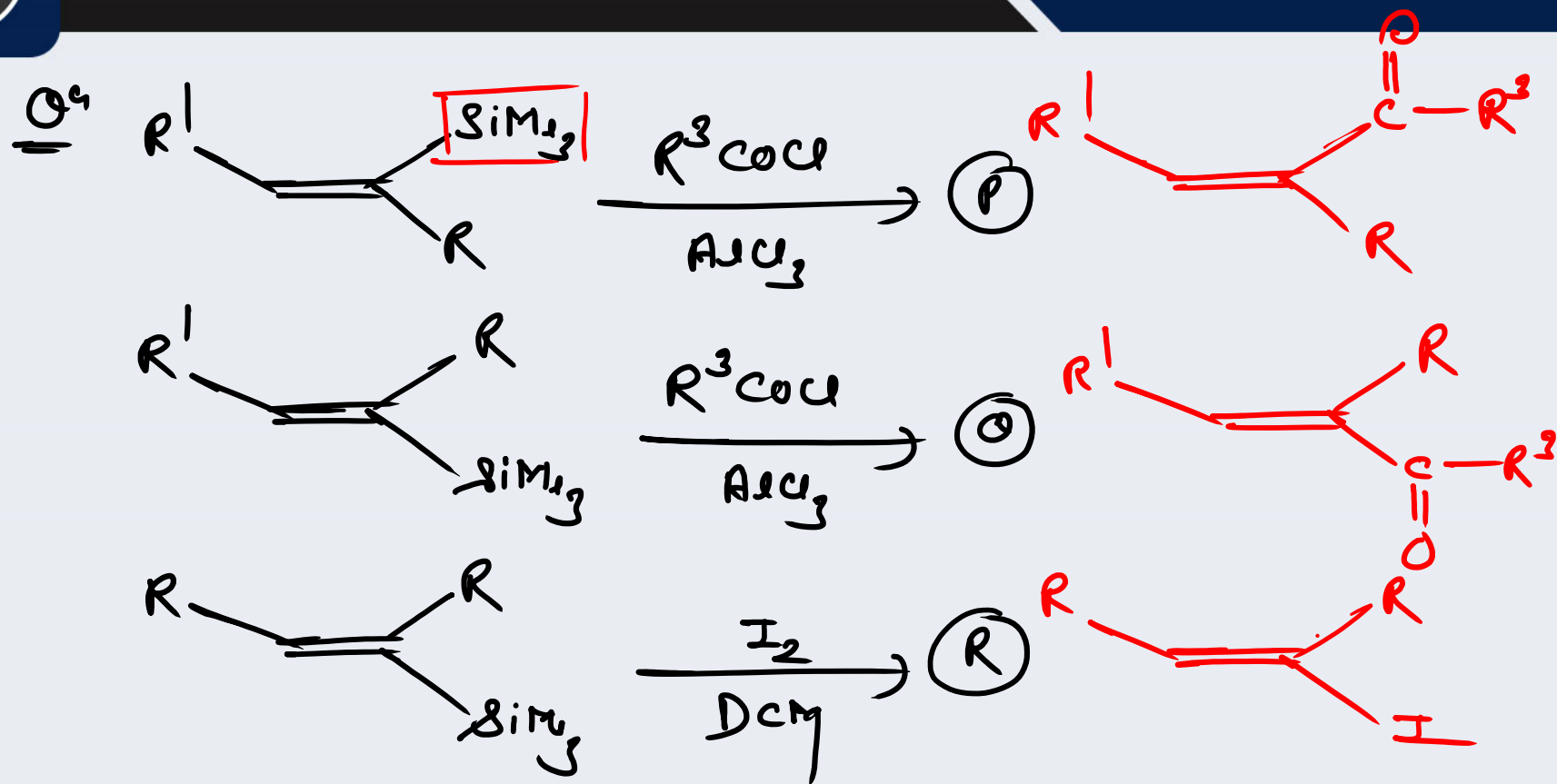




Q^*

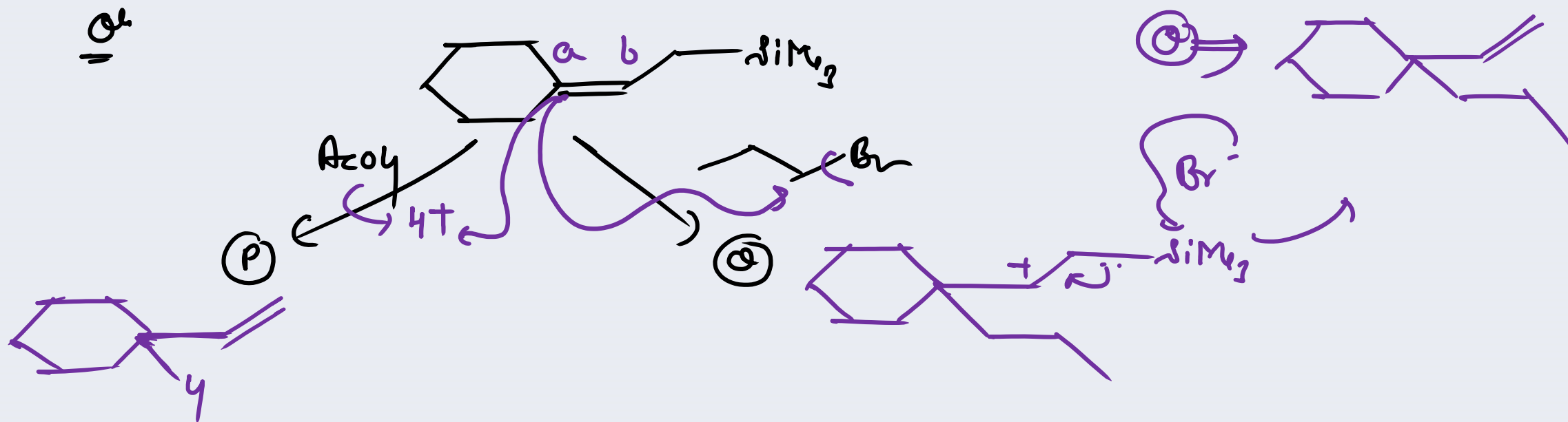
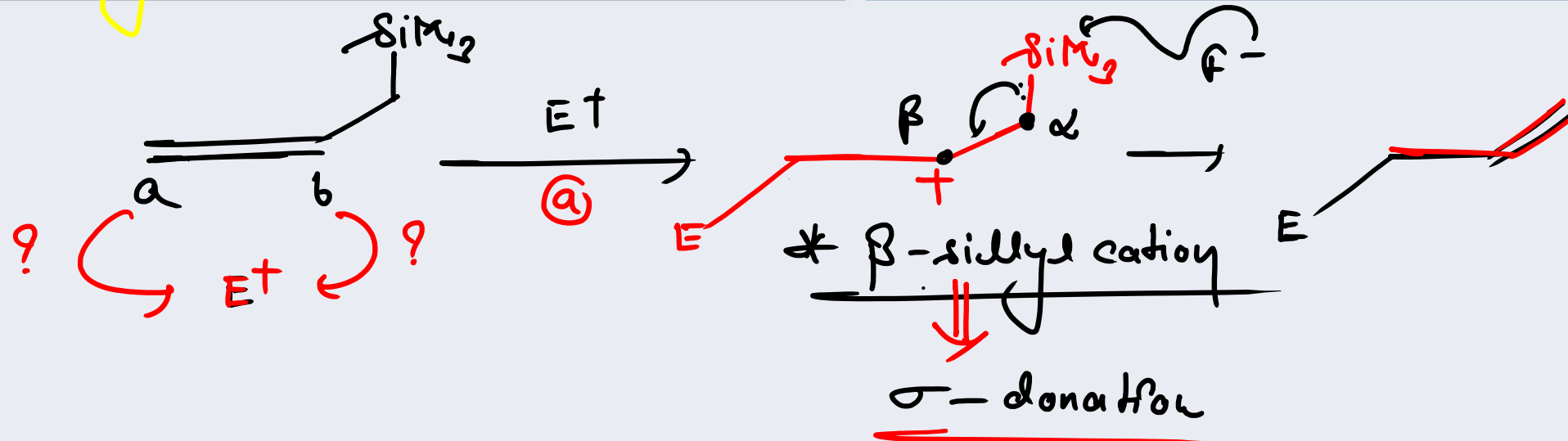


$\rightarrow$ mechⁿ how^o =





Allyl silone.





Q

How?

