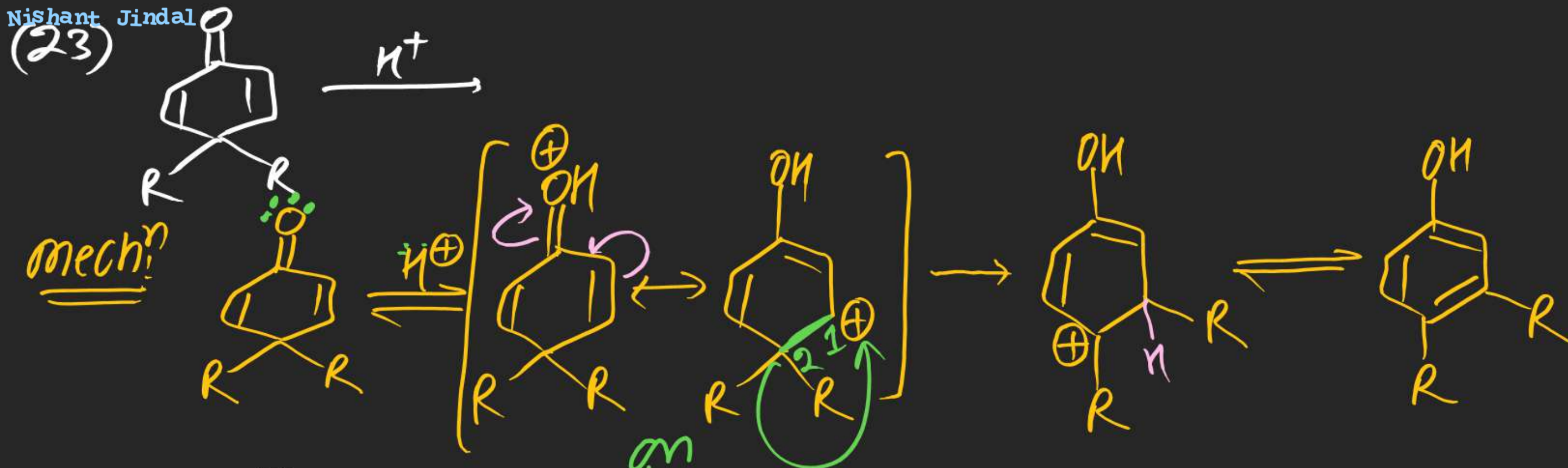
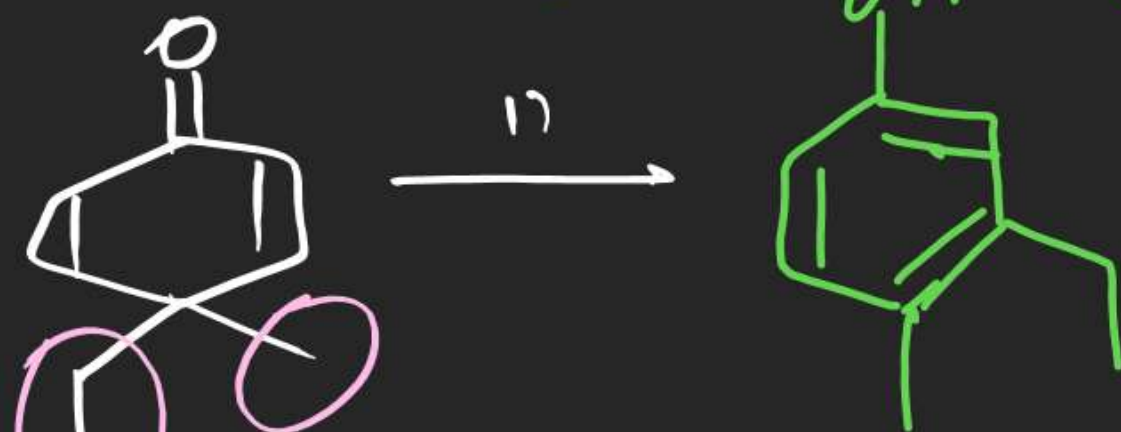


(23)



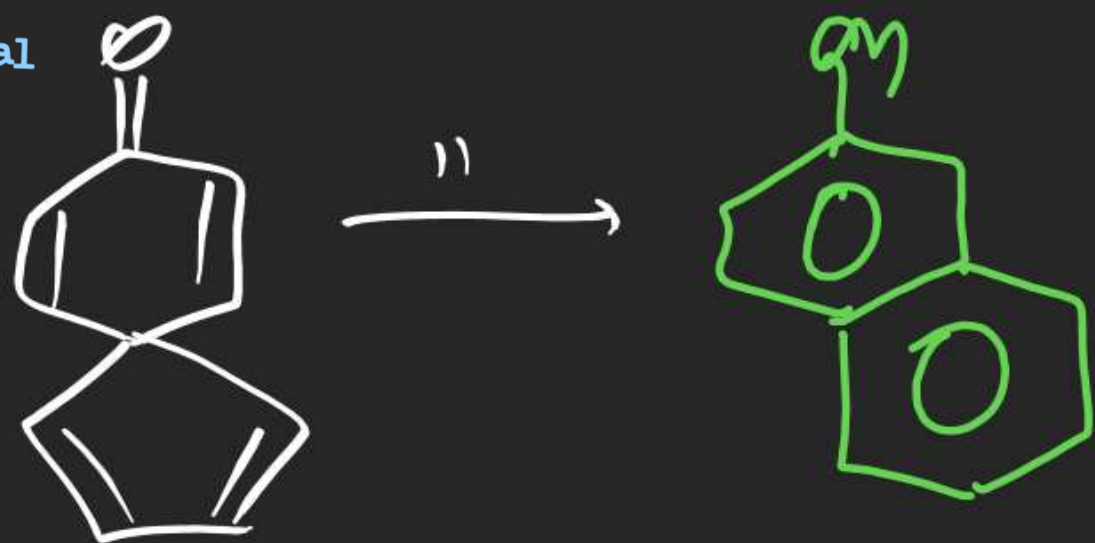
(24)



(25)

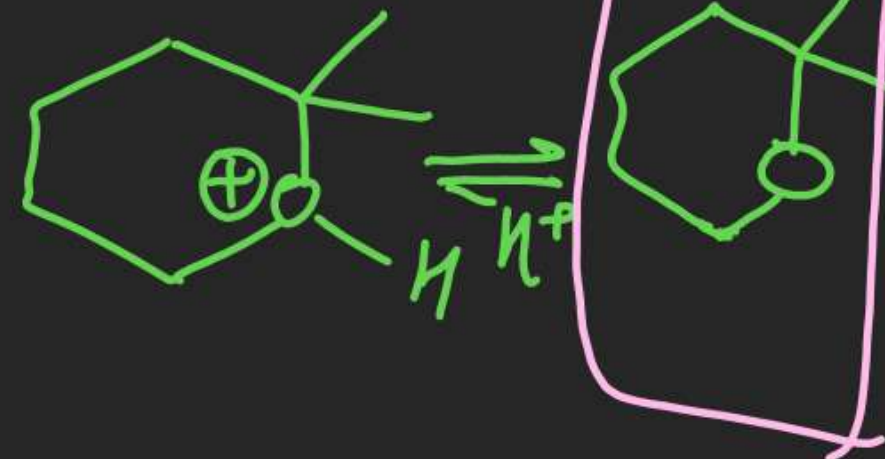
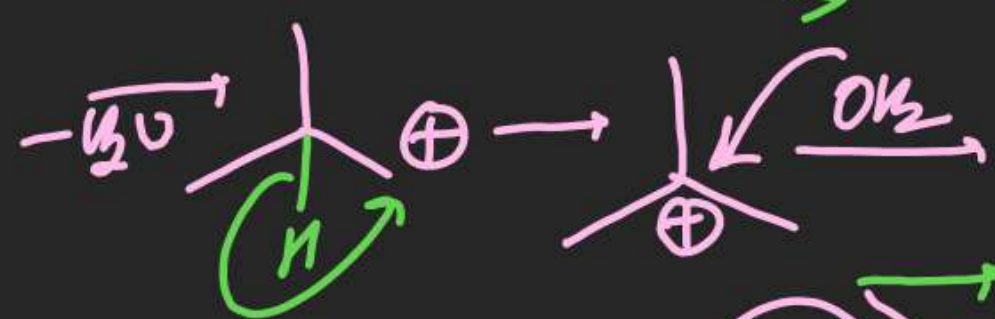
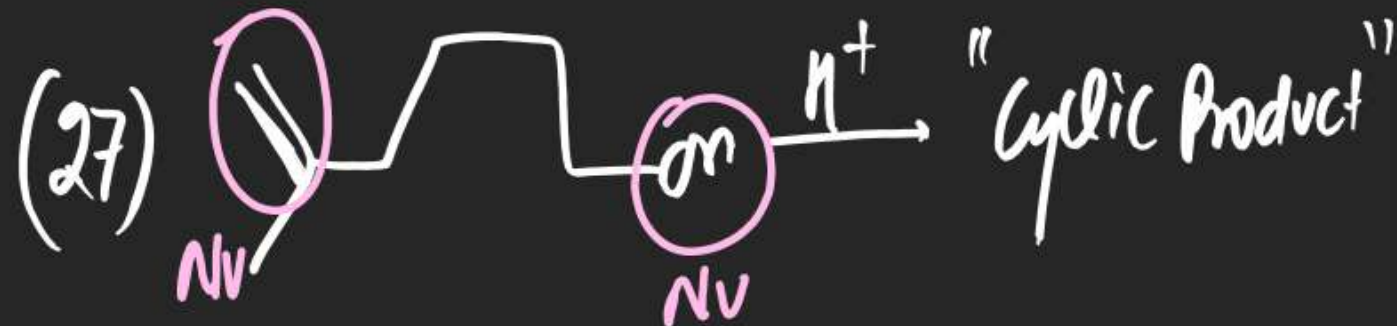
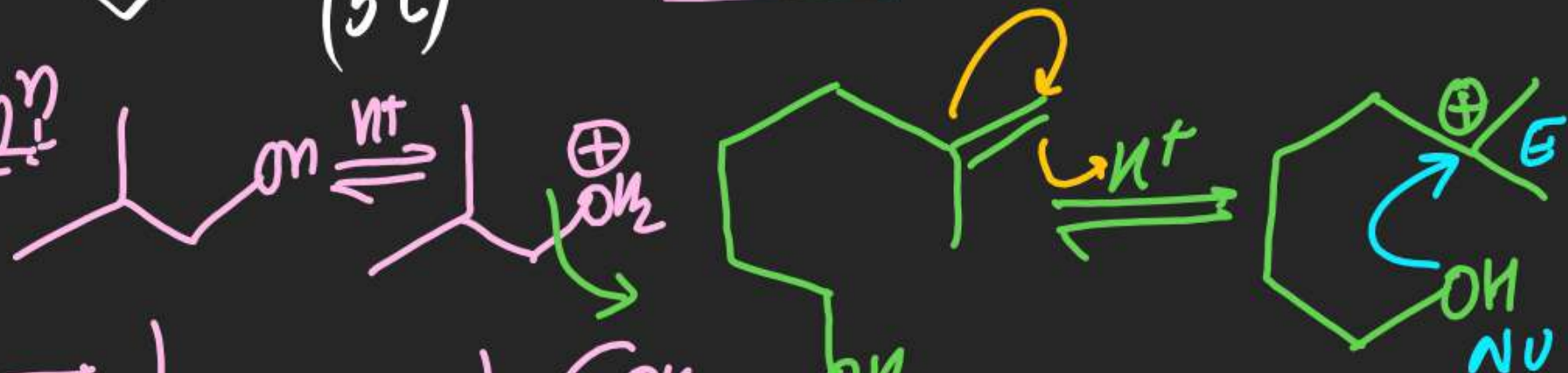


(26)

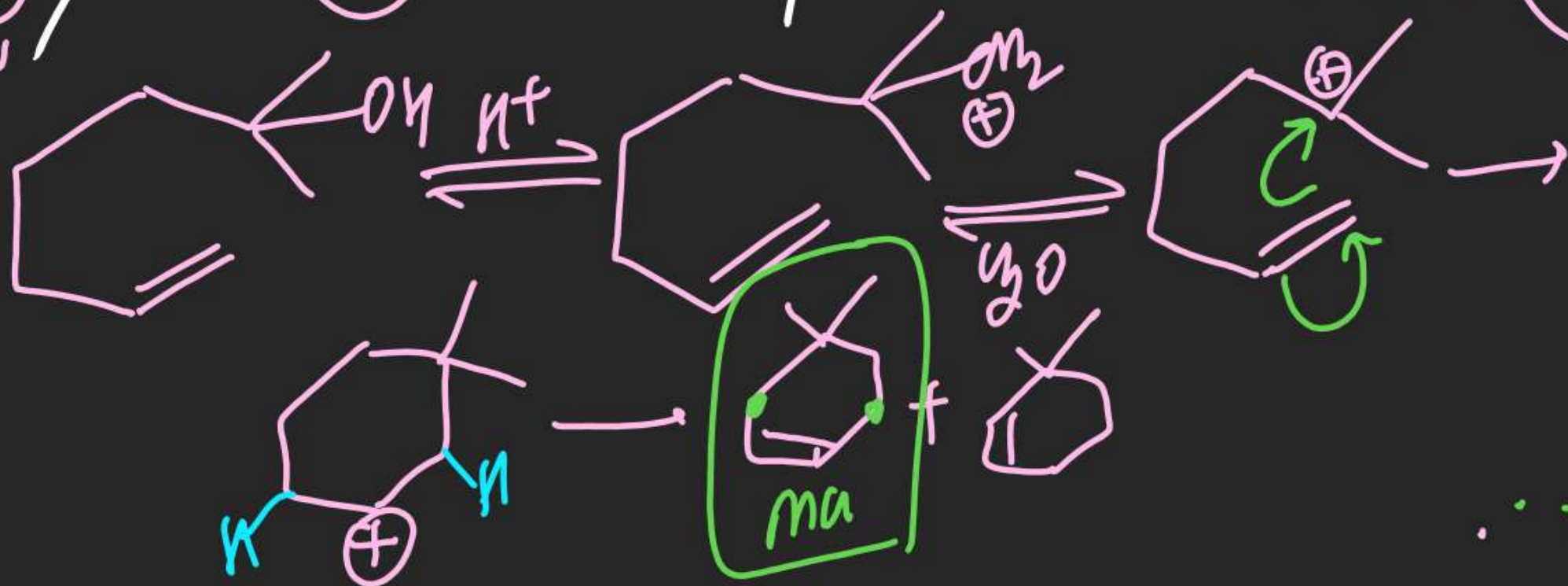


Soln (27)

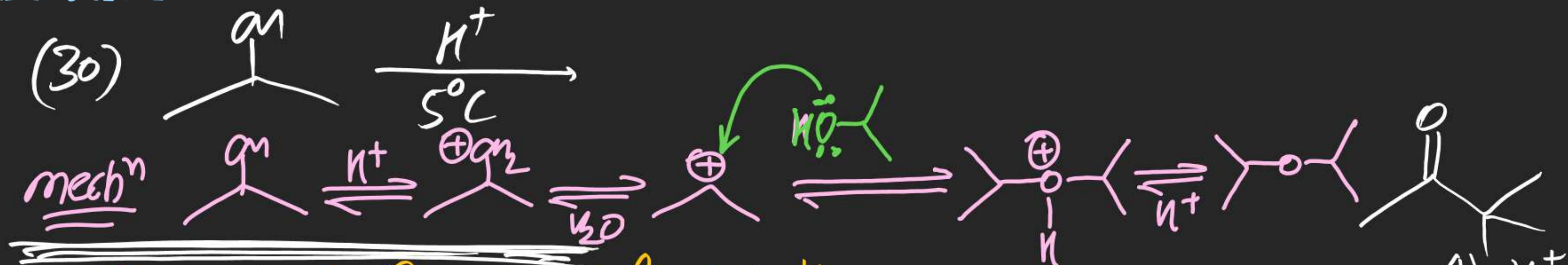
mech?



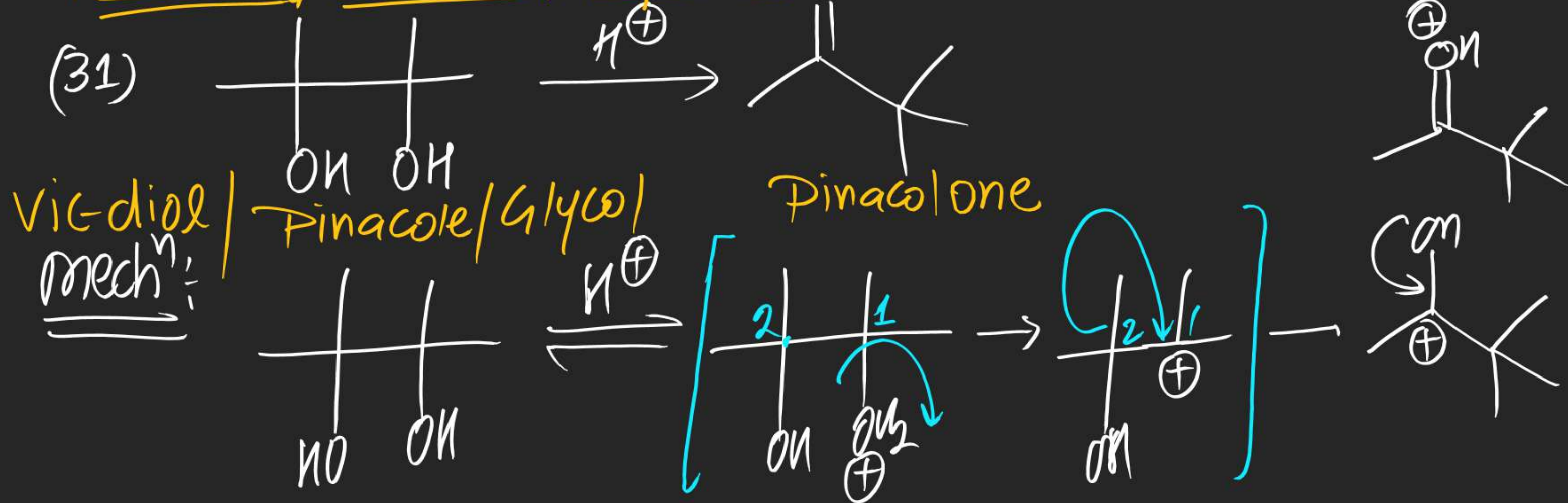
Soln:

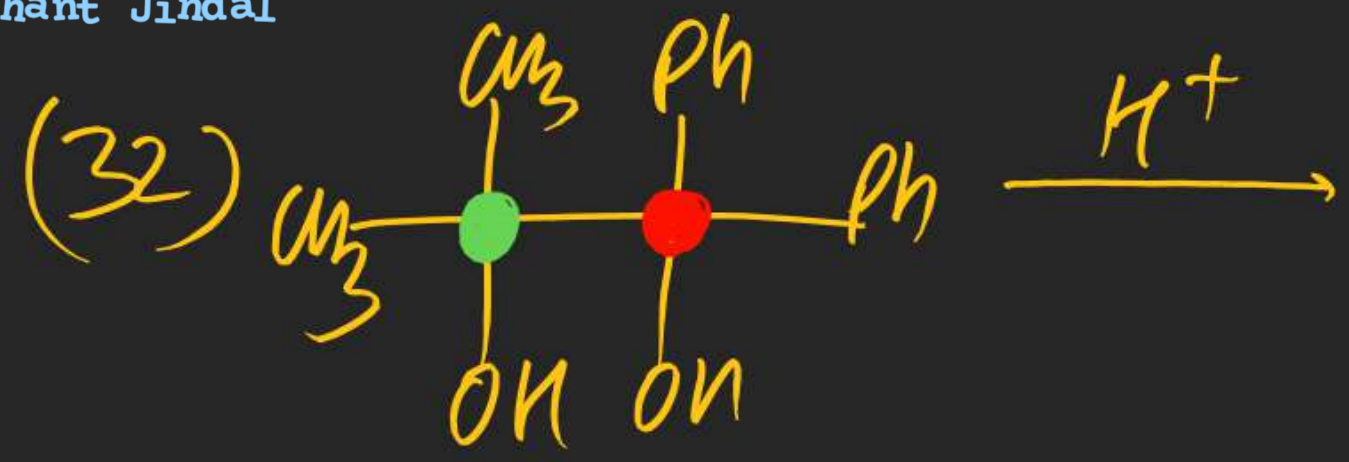




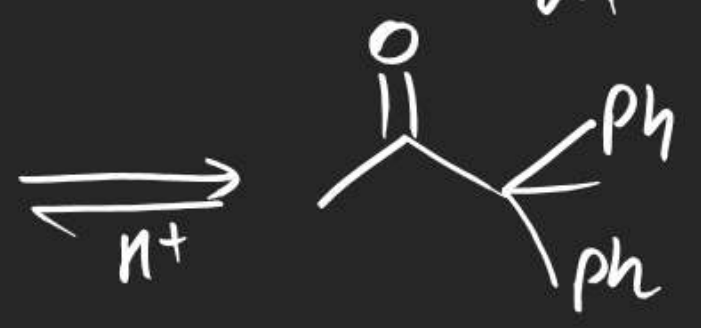
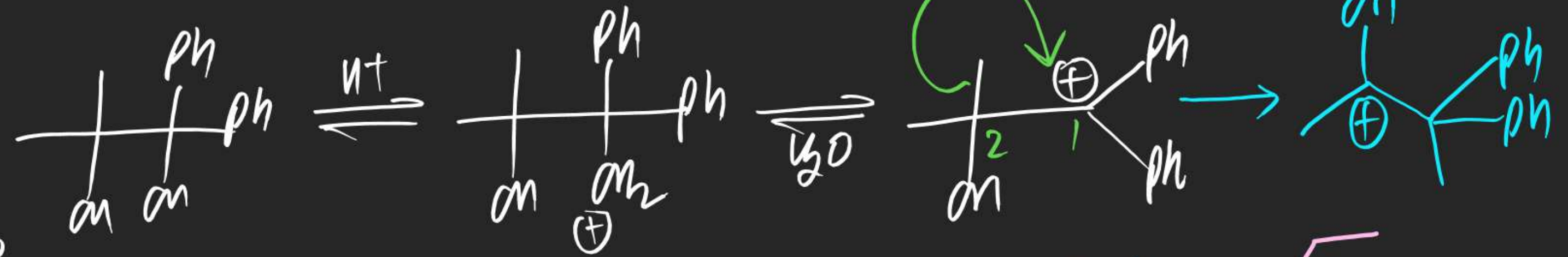


Pinacol to Pinacolone Reversal!

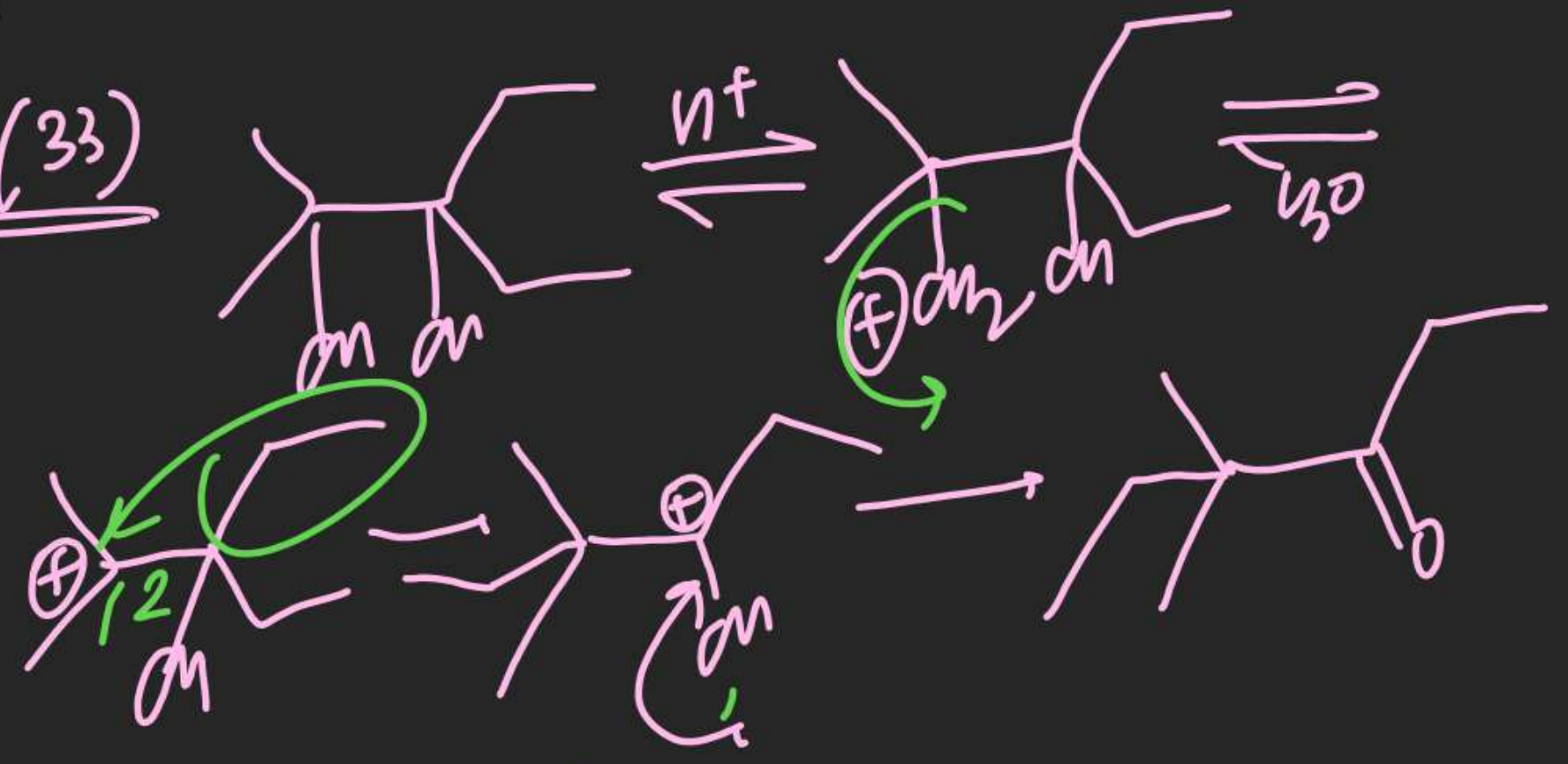




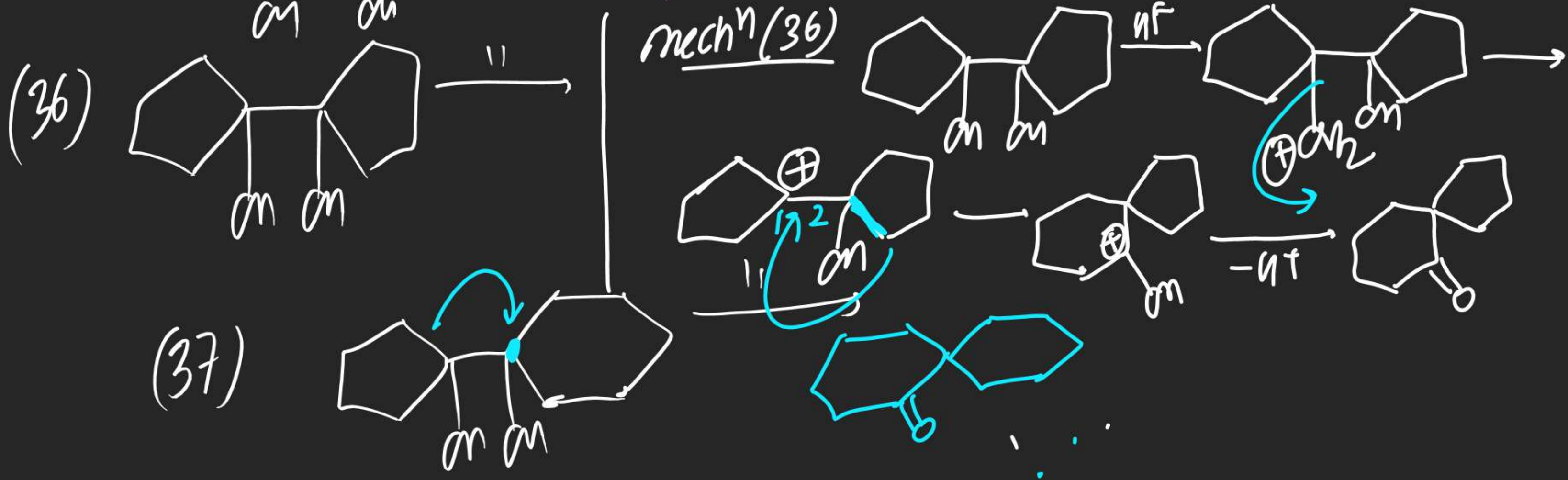
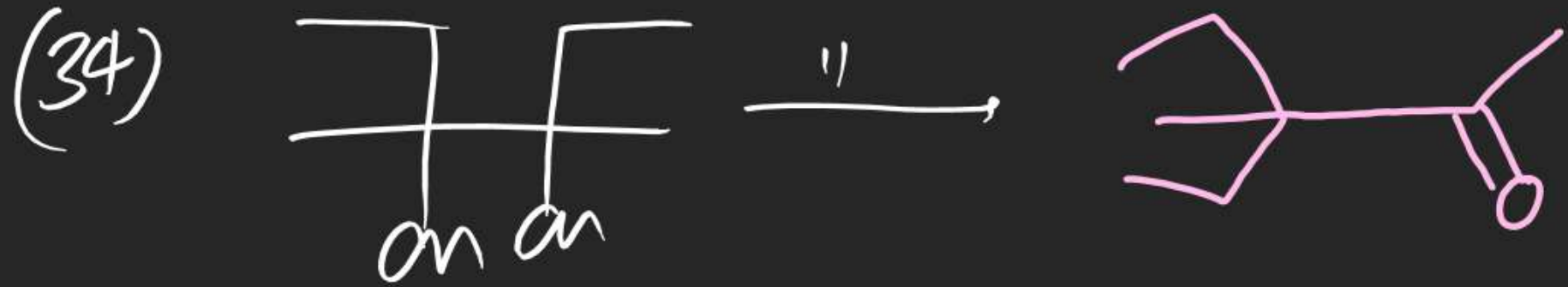
mech<sup>n</sup>

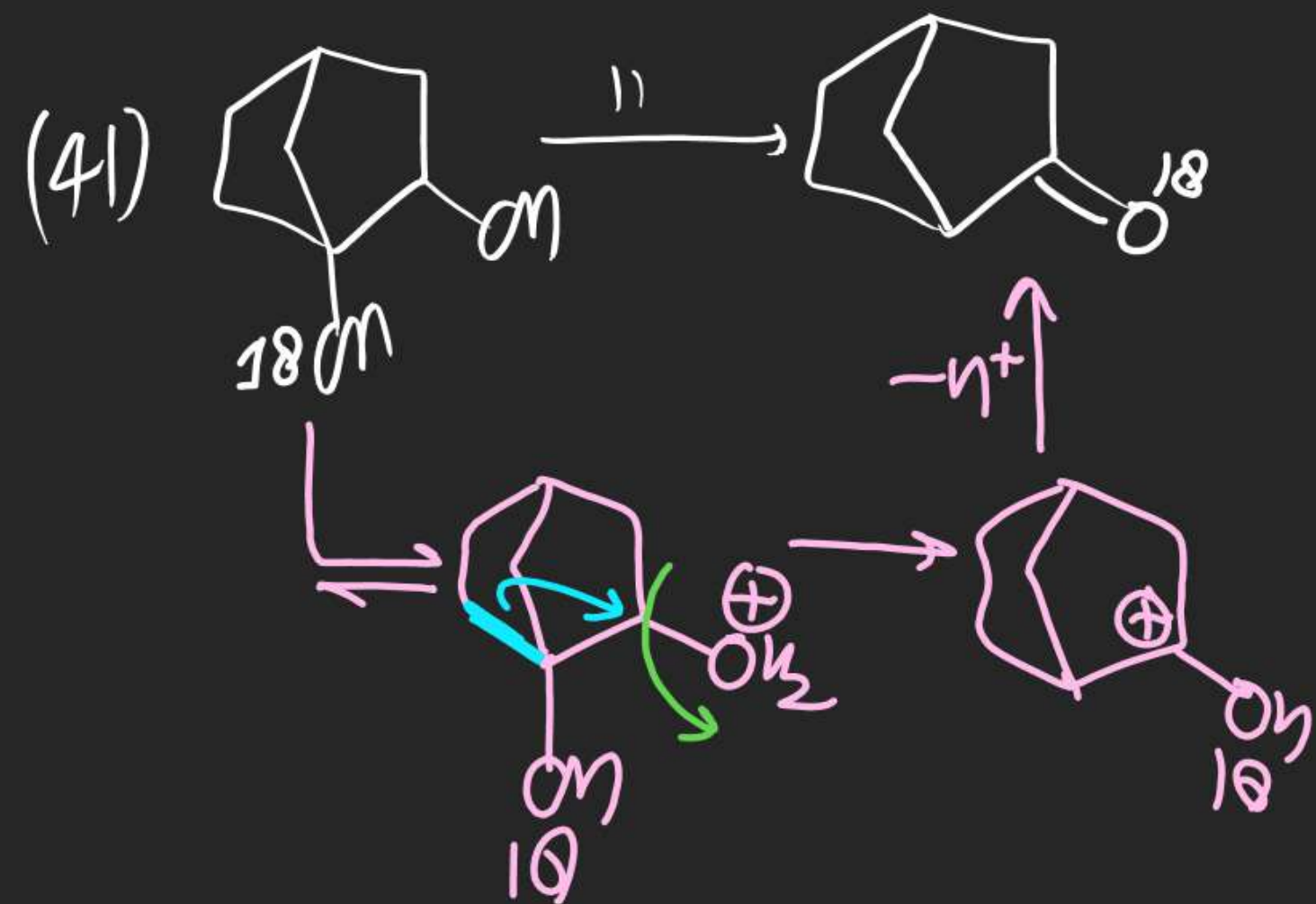
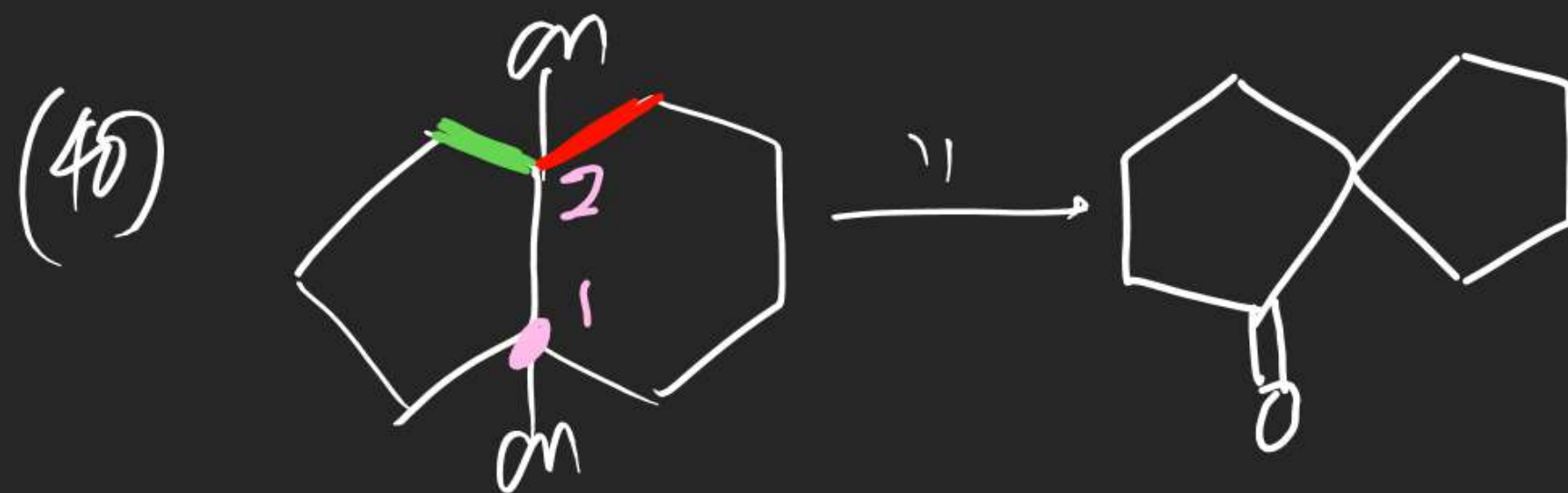
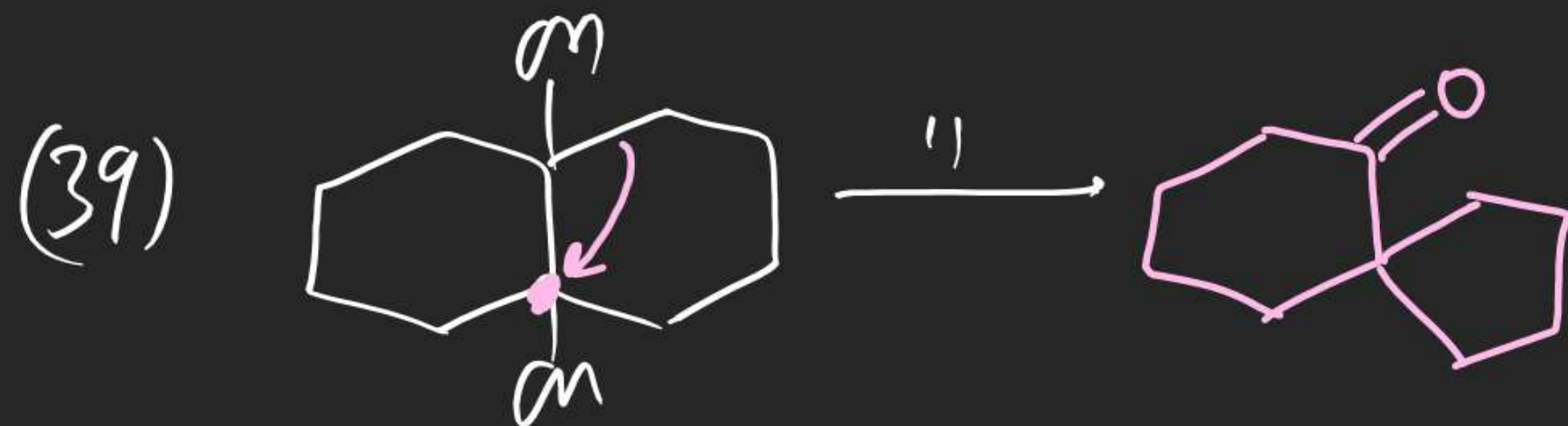
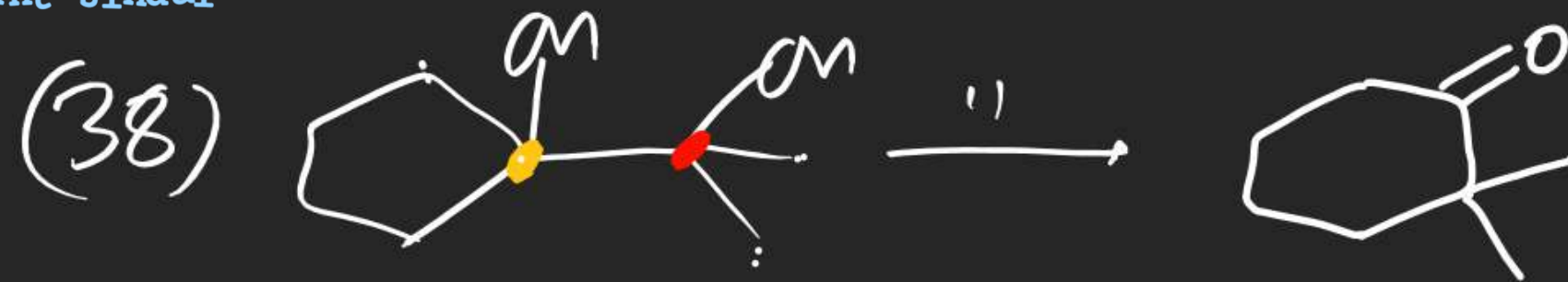


mech<sup>n</sup> (33)





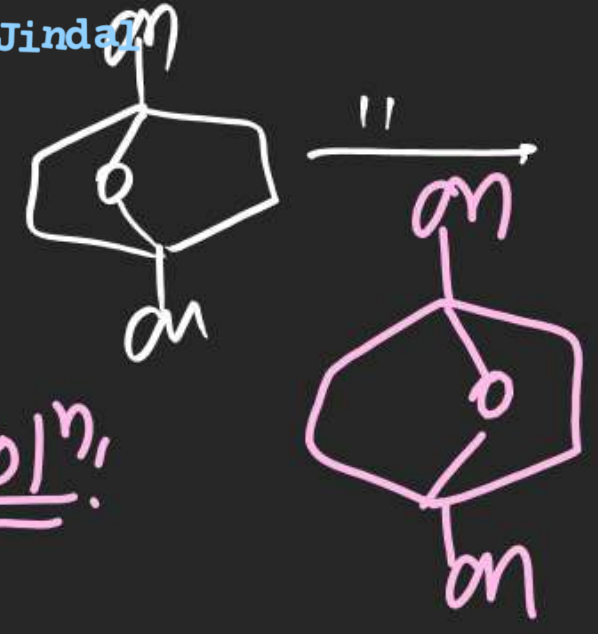




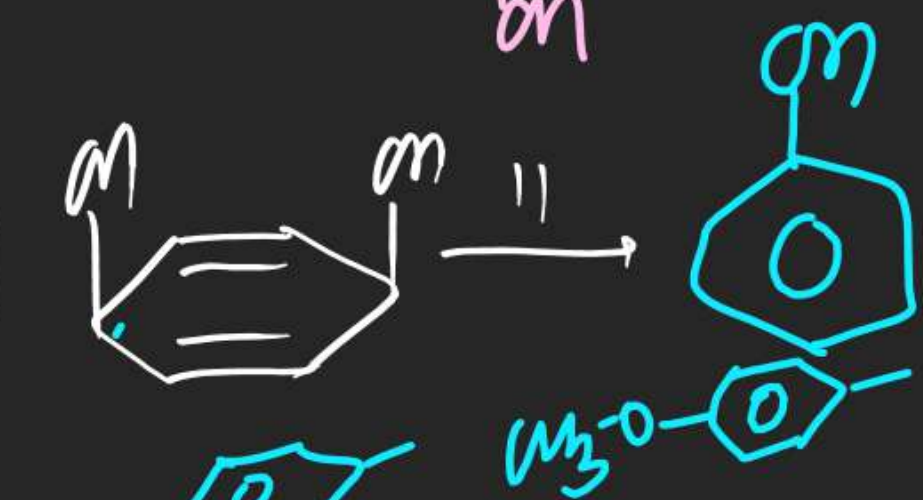


(42)

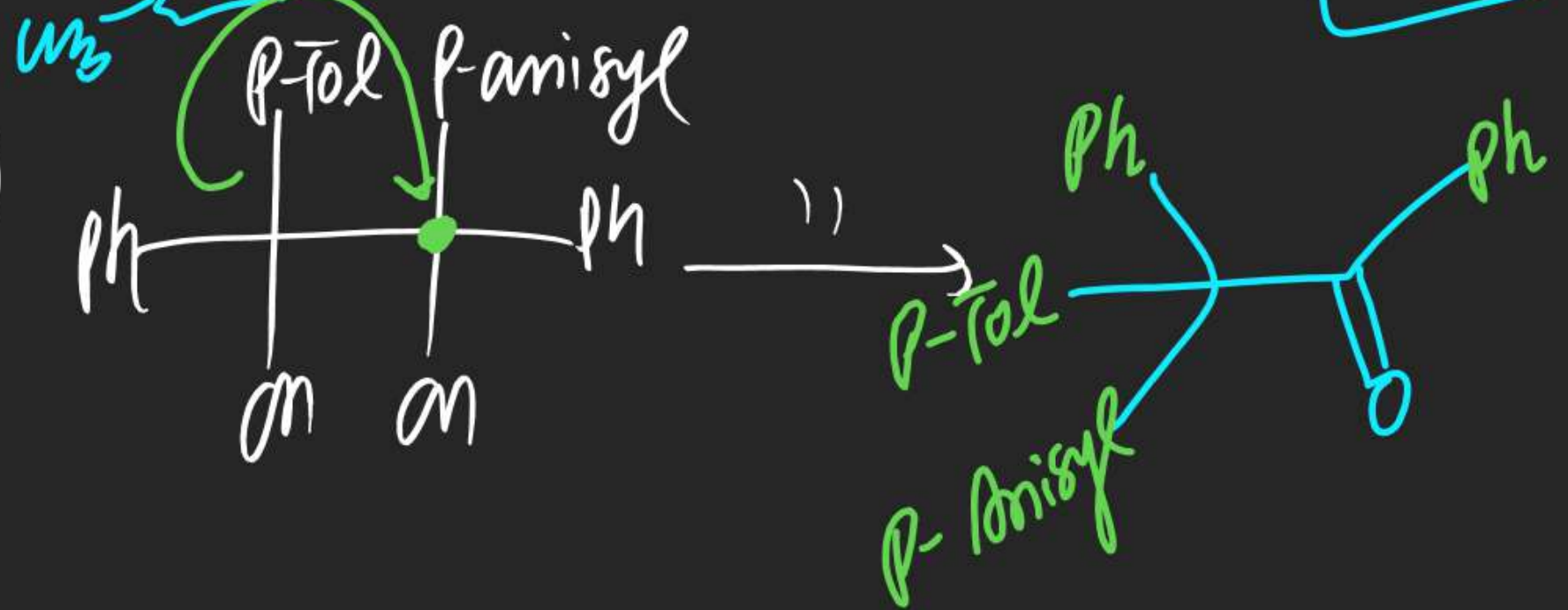
Soln:



(43)



(44)



Semi Pinacolane Rearrangement:

(45)



(46)



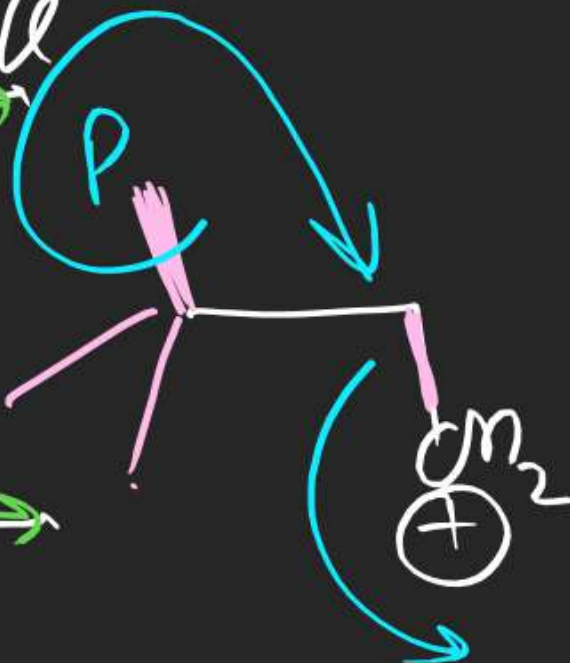
(47)



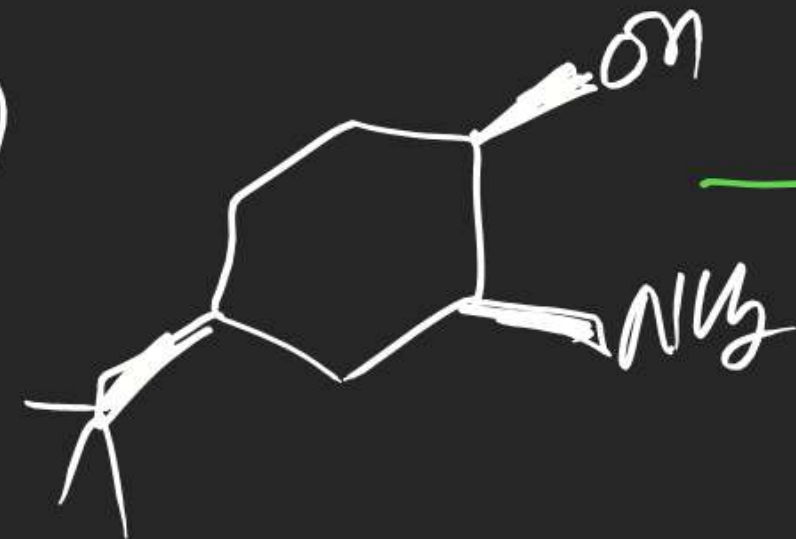
(48)



$\text{KNO}_2/\text{HCl}$



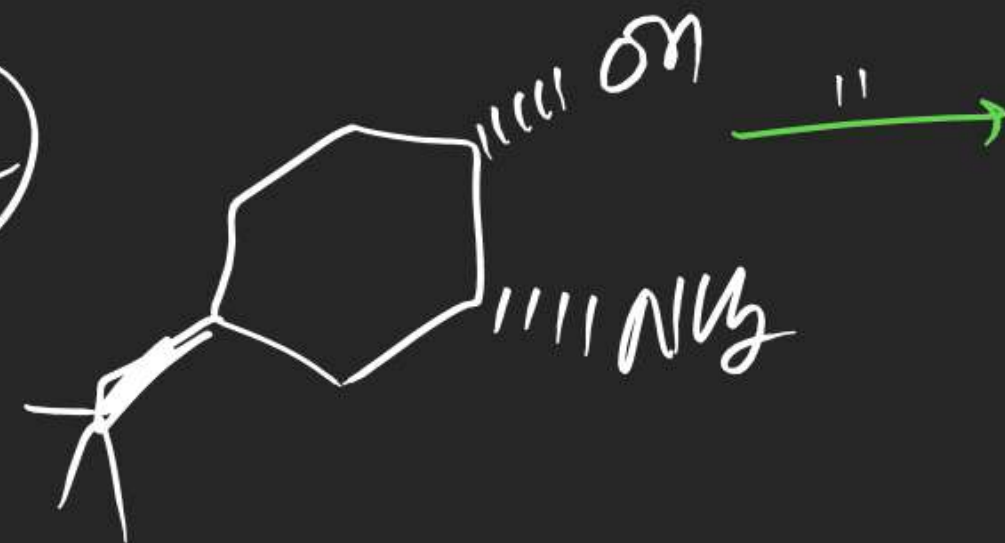
(51)



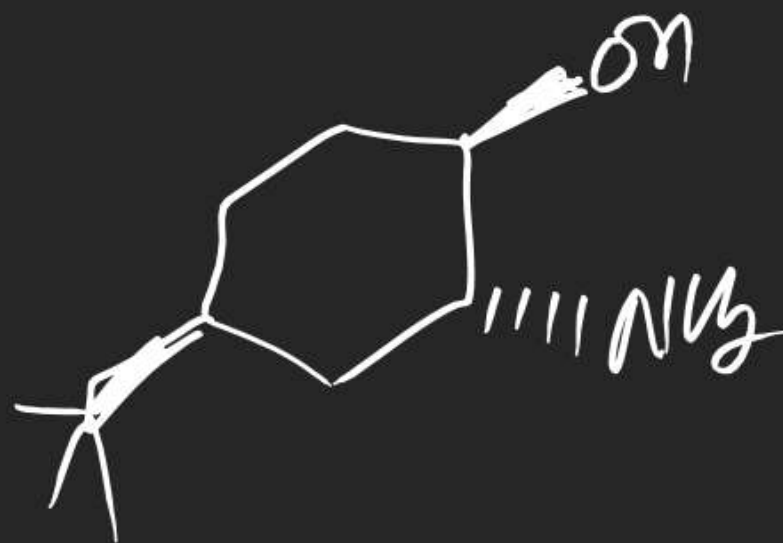
(49)



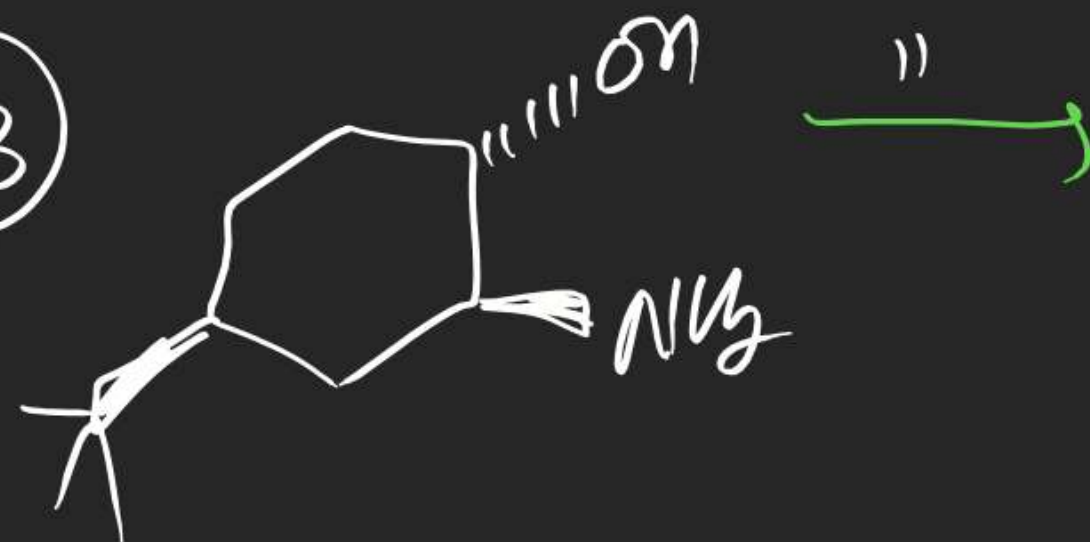
(52)



(50)



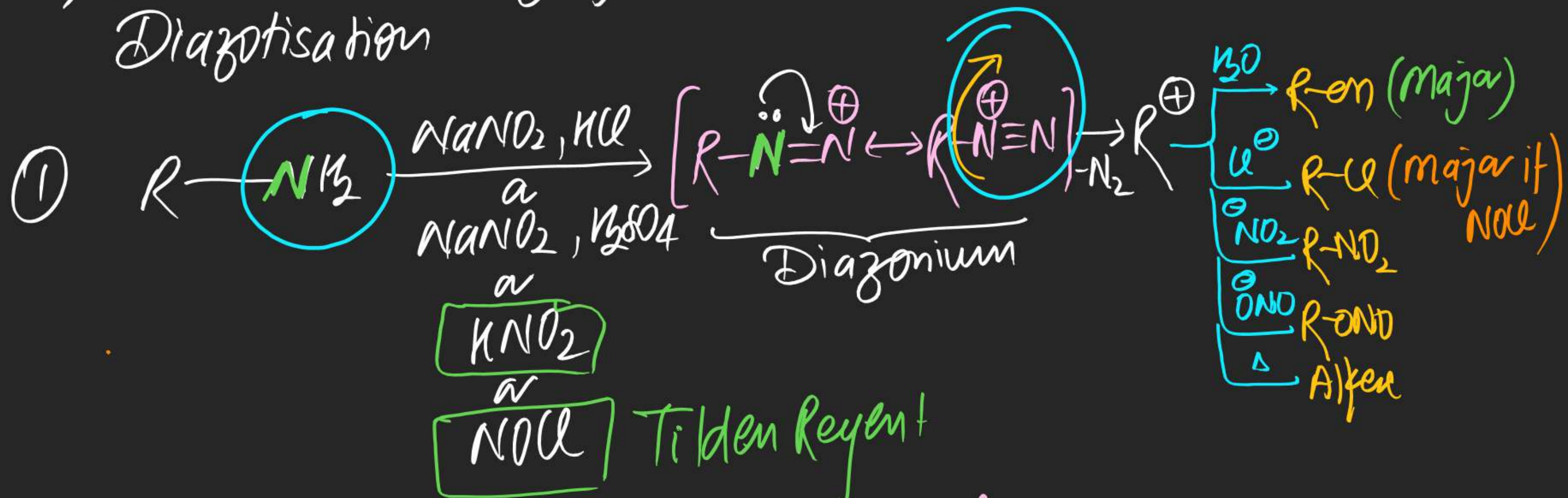
(53)





# (#) Diazotisation:

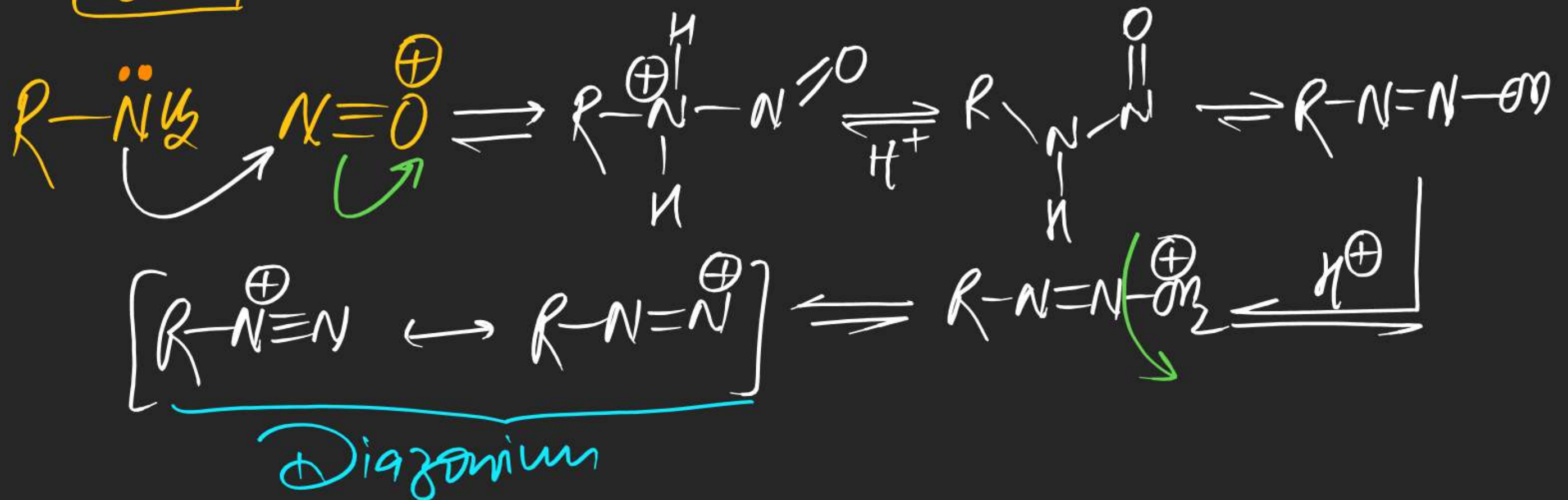
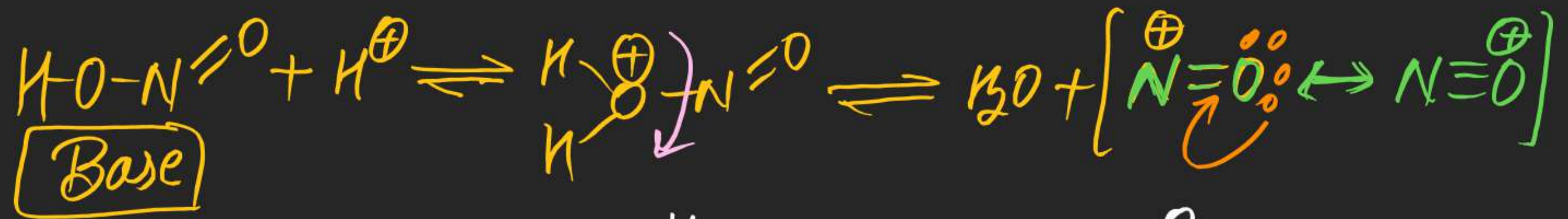
⇒ Formation of diazo group from primary amine is known as Diazotisation



mech<sup>n</sup>:







Note:

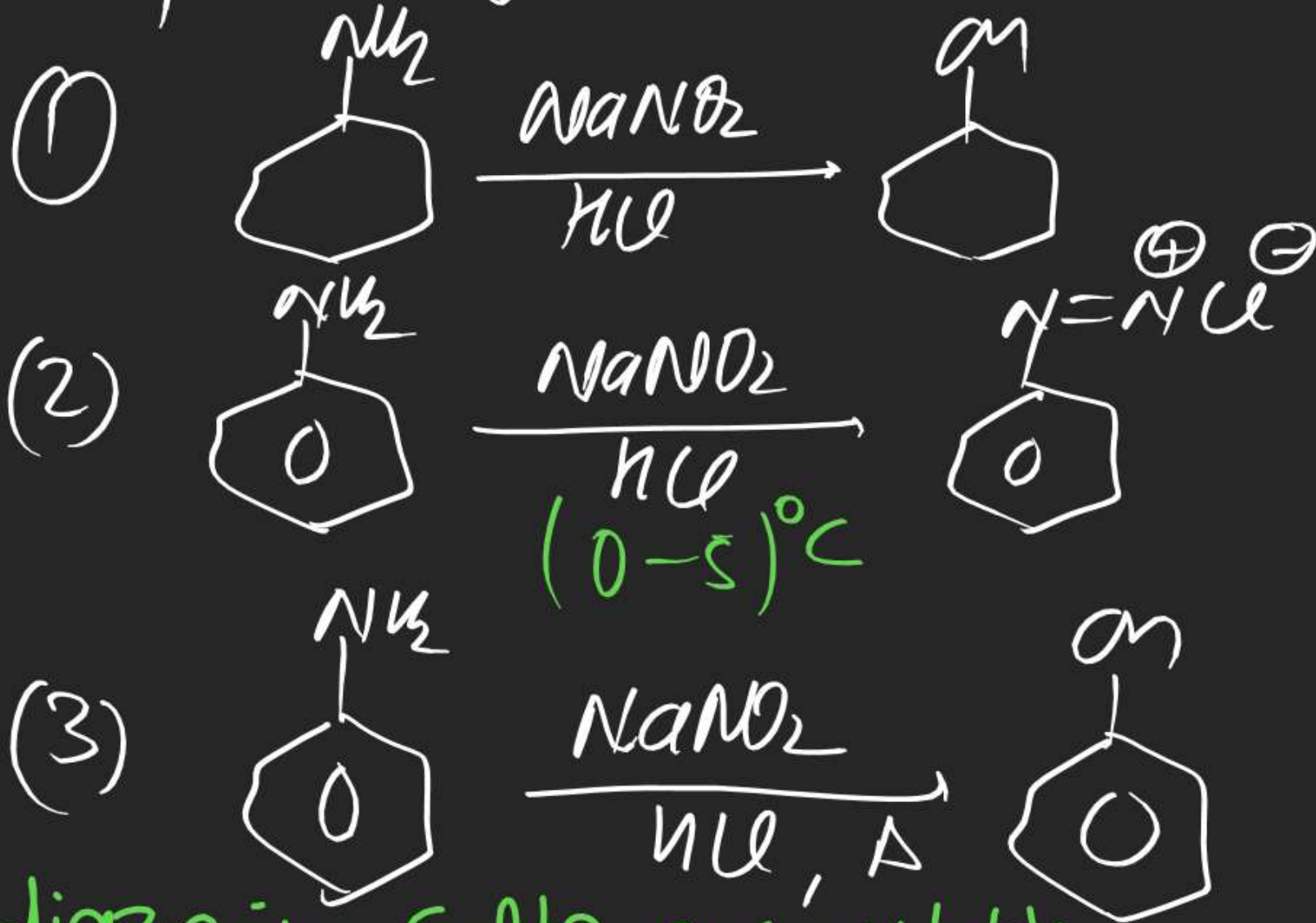
- (i)  $\text{HNO}_2$  behaves like Base
- (ii)  $\text{H}^+$  is Actual attacking Reagent
- (iii) In case of aliphatic primary amine, alcohol is obtained as a product



(iv) Diazotisation is characteristic rxn for primary amine.

~~M. 8. 10~~

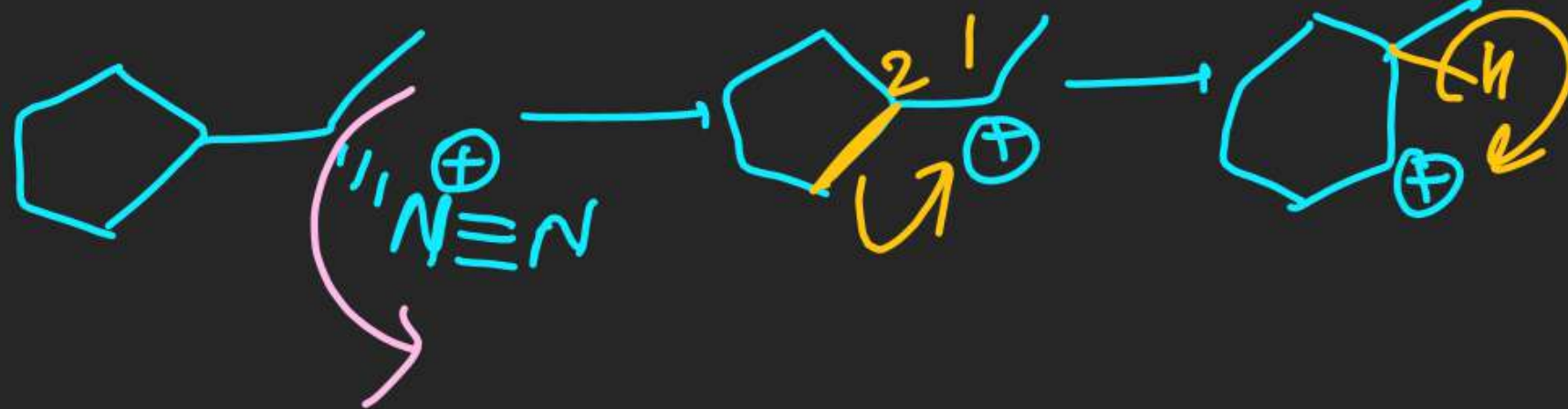
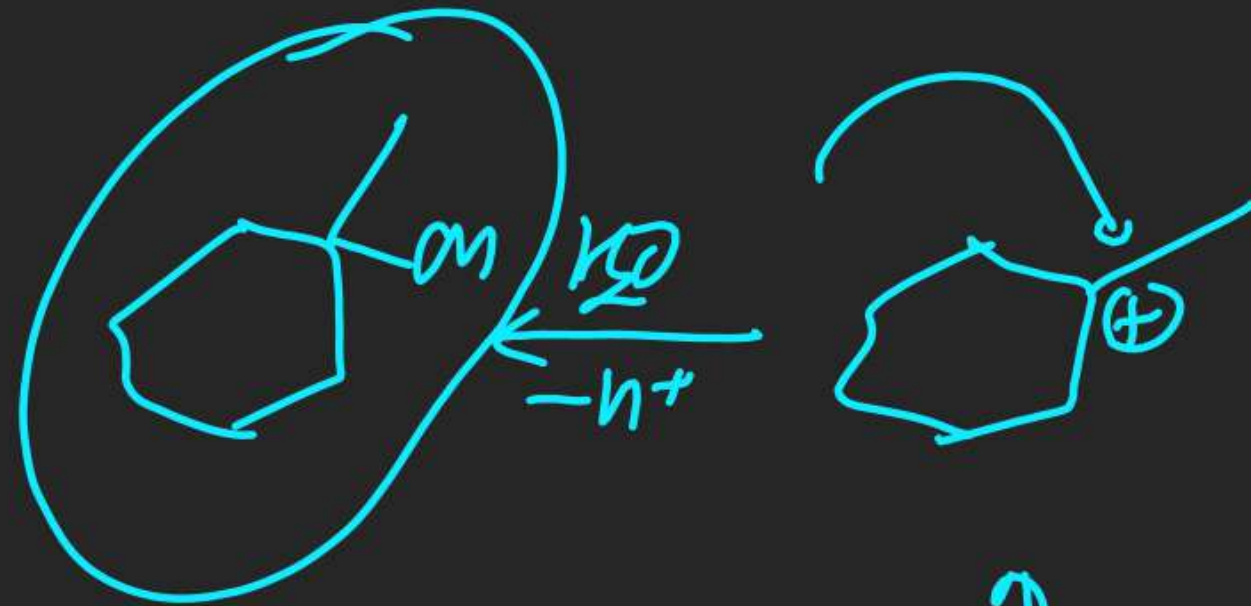
Alkyl primary amine gives stable diazonium salt b/w  $(0-5)^{\circ}\text{C}$



(vi) Alkyl diazonium salts are unstable

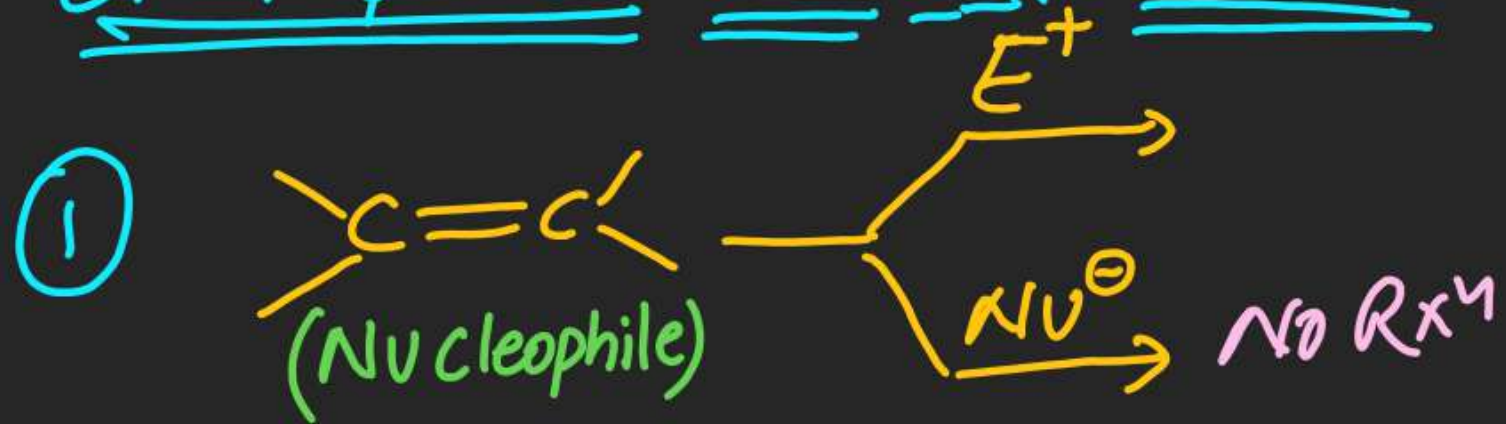


Soln:

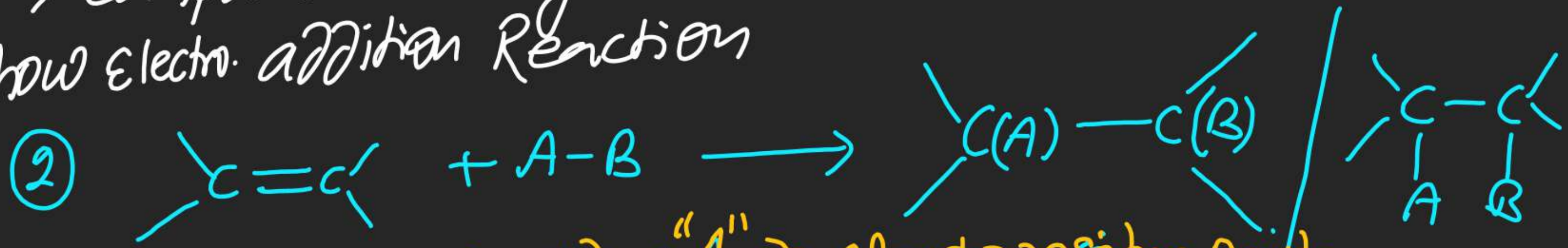




# (#) Electrophilic addition reaction!



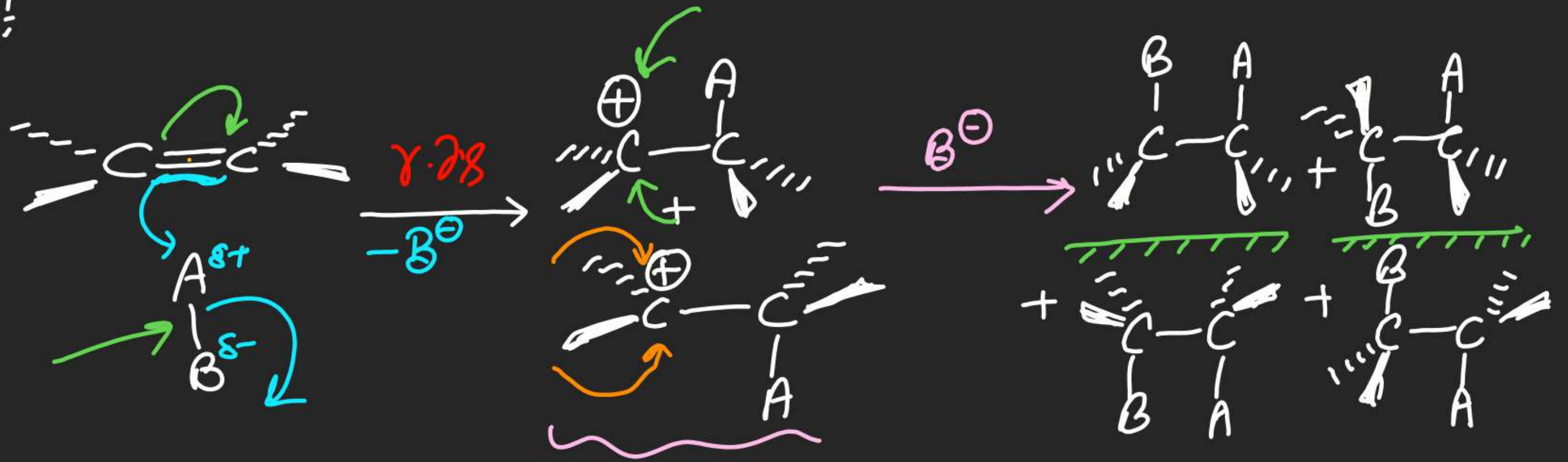
$\Rightarrow$  Compound containing  $\pi$  bond b/w carbon & carbon only  
Show electro. addition reaction



let us consider "A" is electropositive part  
& "B" is electronegative part.

Case (i): When A doesn't contains lone pair





Note (i) Electrophilic add<sup>n</sup>  $E$   
 (ii) Formation of Carbocation is  $r.d.s$   
 (iii) Rate of Electrophilic add<sup>n</sup>  $\propto$  Nucleophilicity of alkene  
 $\propto$  Stability of Carbocation  
 $\propto$   $\frac{1}{\text{Stability of Alkene}}$



- (iv) Carbocation intermediate
- (v) Rearrangement possible
- (vi) Exothermic Rxn
- (vii) Both syn & anti addn products are obtained
- (viii) Possible A-B:-