

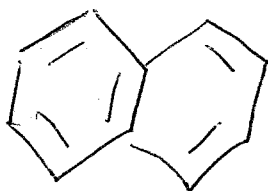
# Problem Session

February 4, 2011

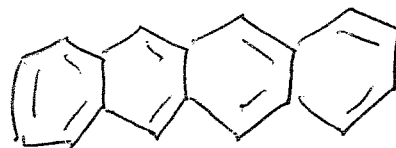
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1. Draw all important resonance forms

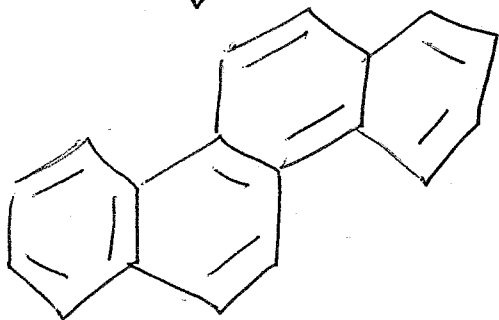
a.



c.

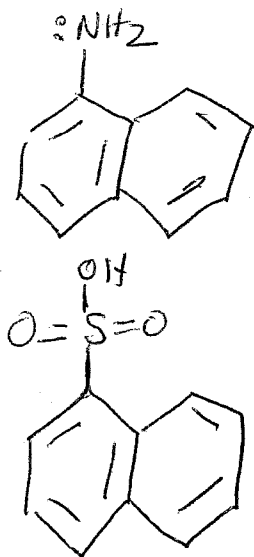


b.

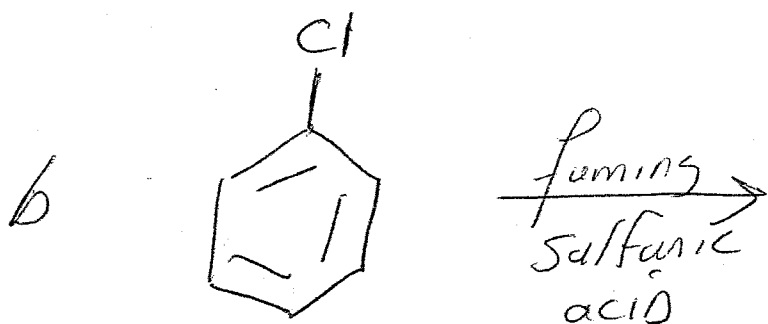
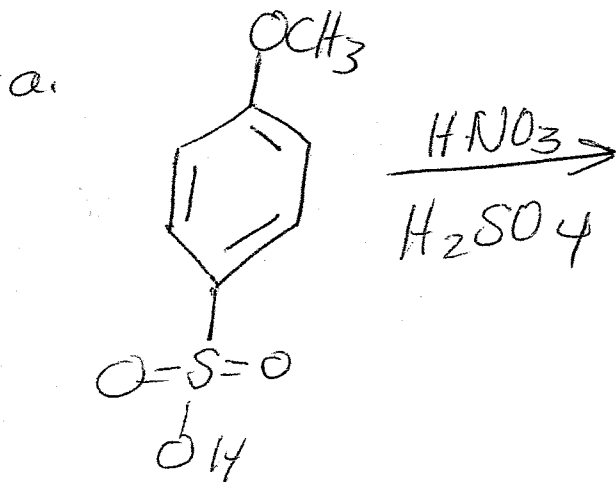


What are bond orders

2. Draw all important resonance forms demonstrating the distribution of lone pairs / + charge



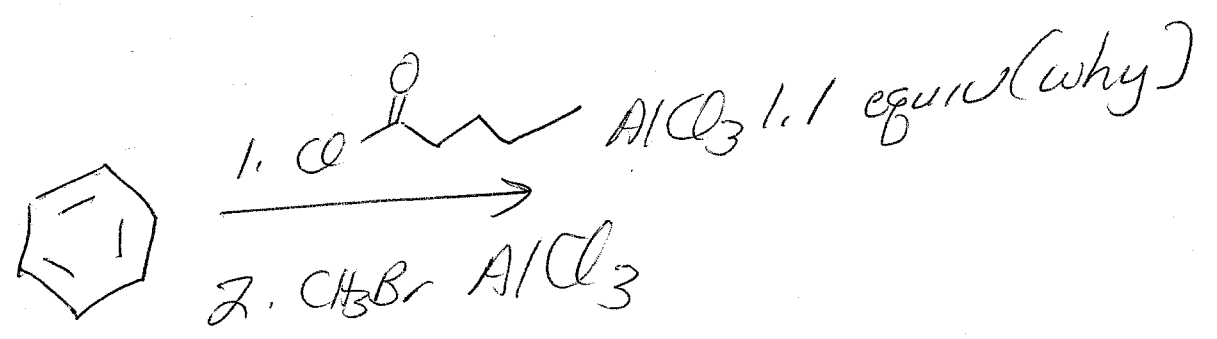
3. Write a complete mechanism for the following reaction. Show ortho, meta and para attack and explain your choice(s) for the major routes.



C.



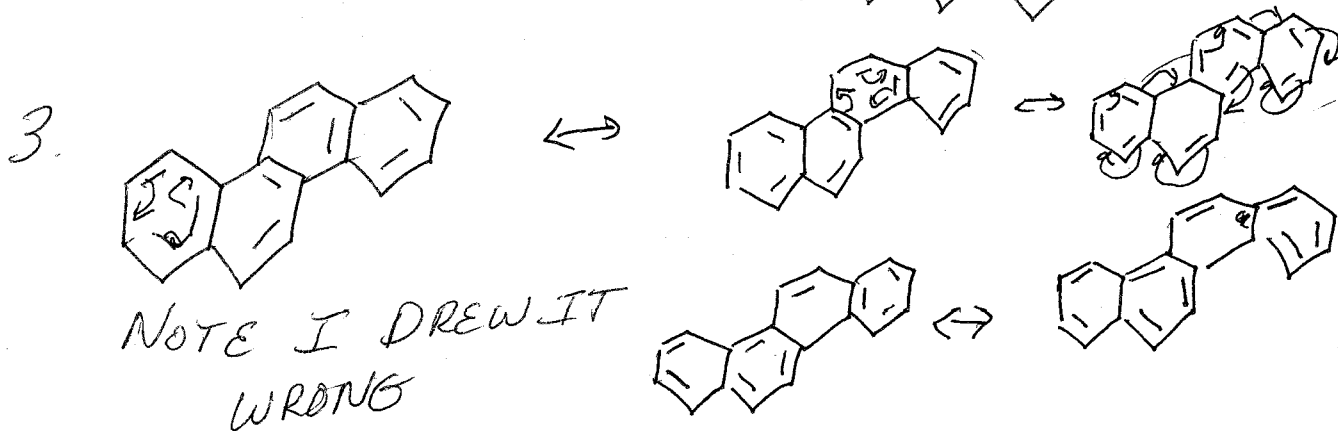
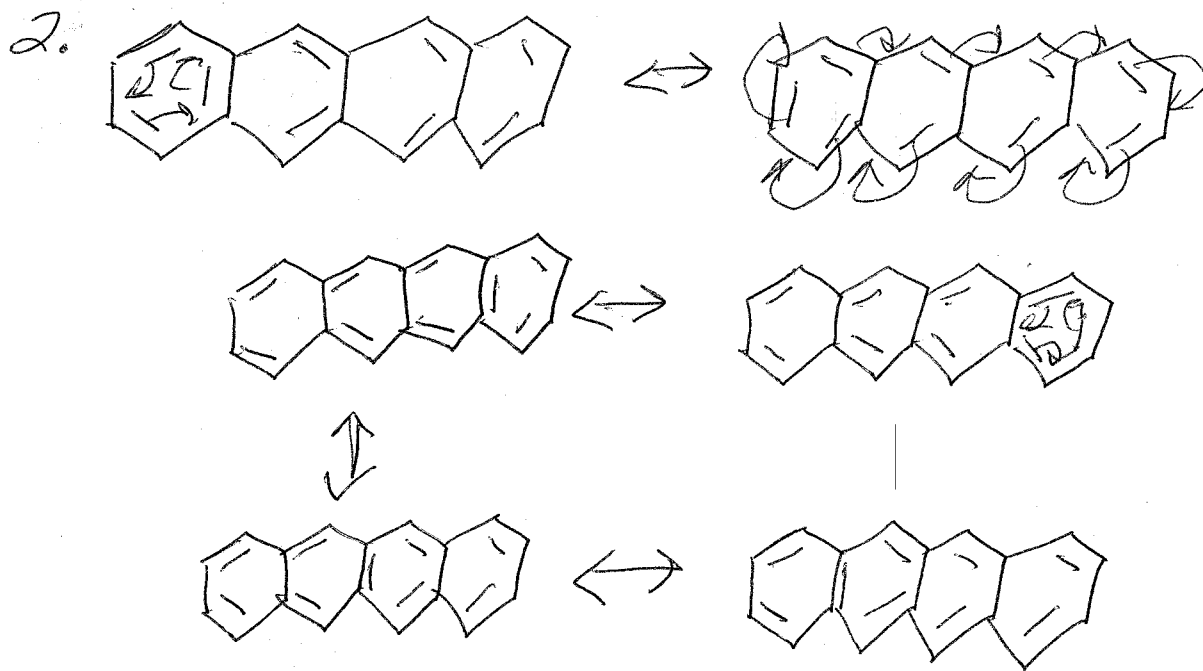
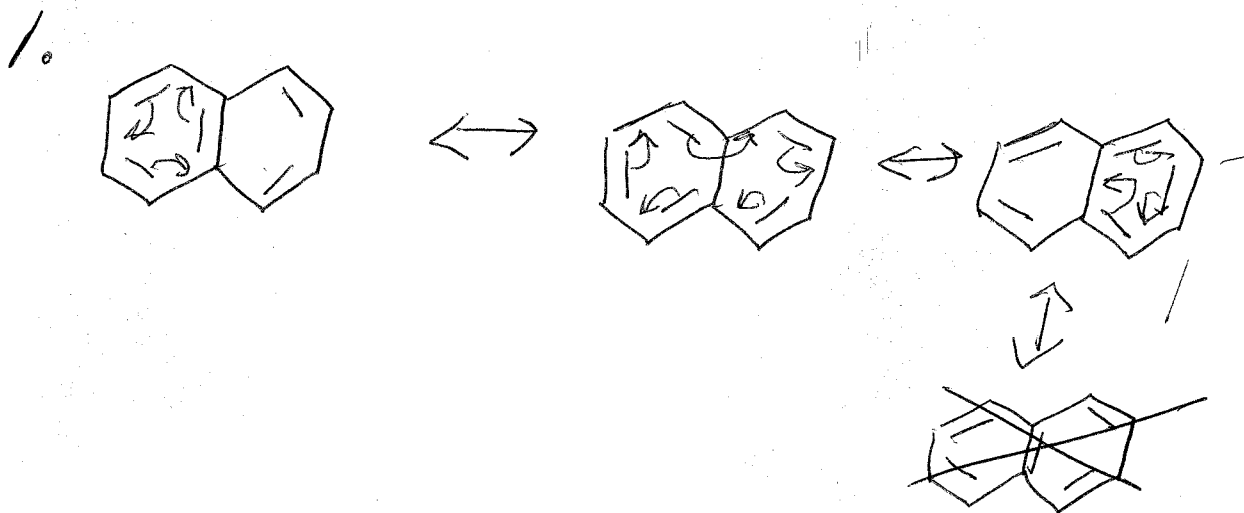
do

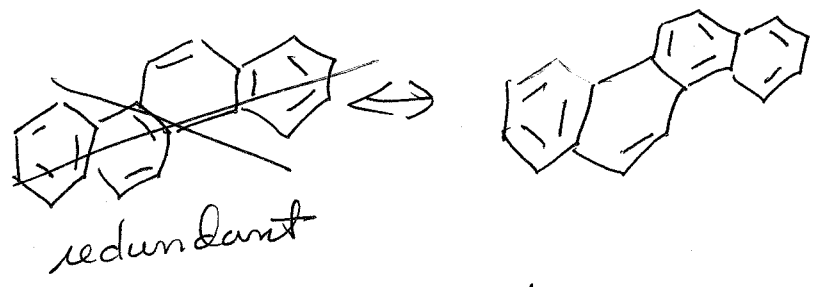


# Answers Problem Session

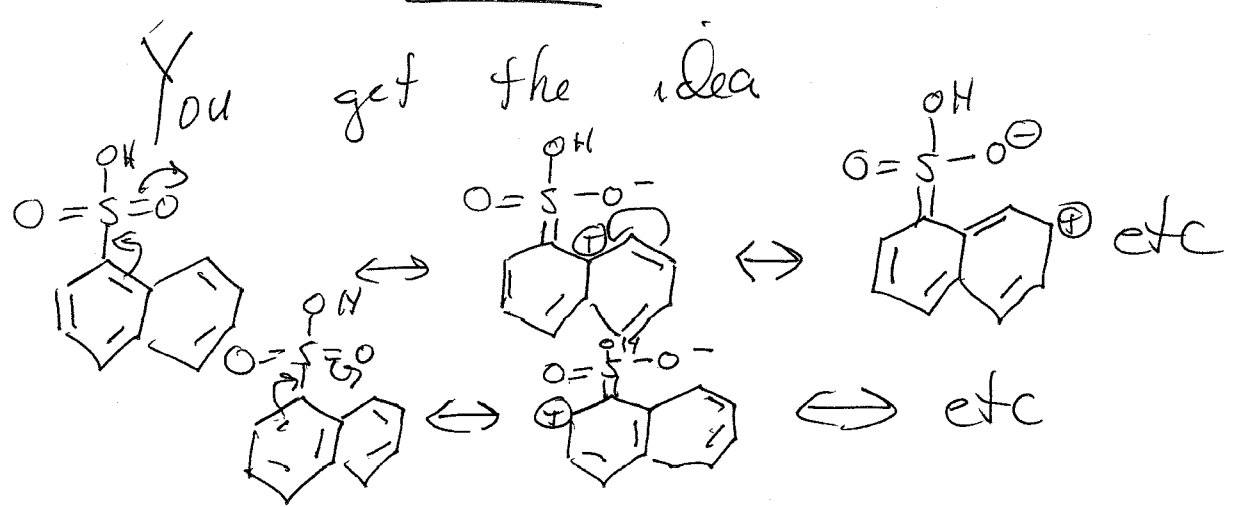
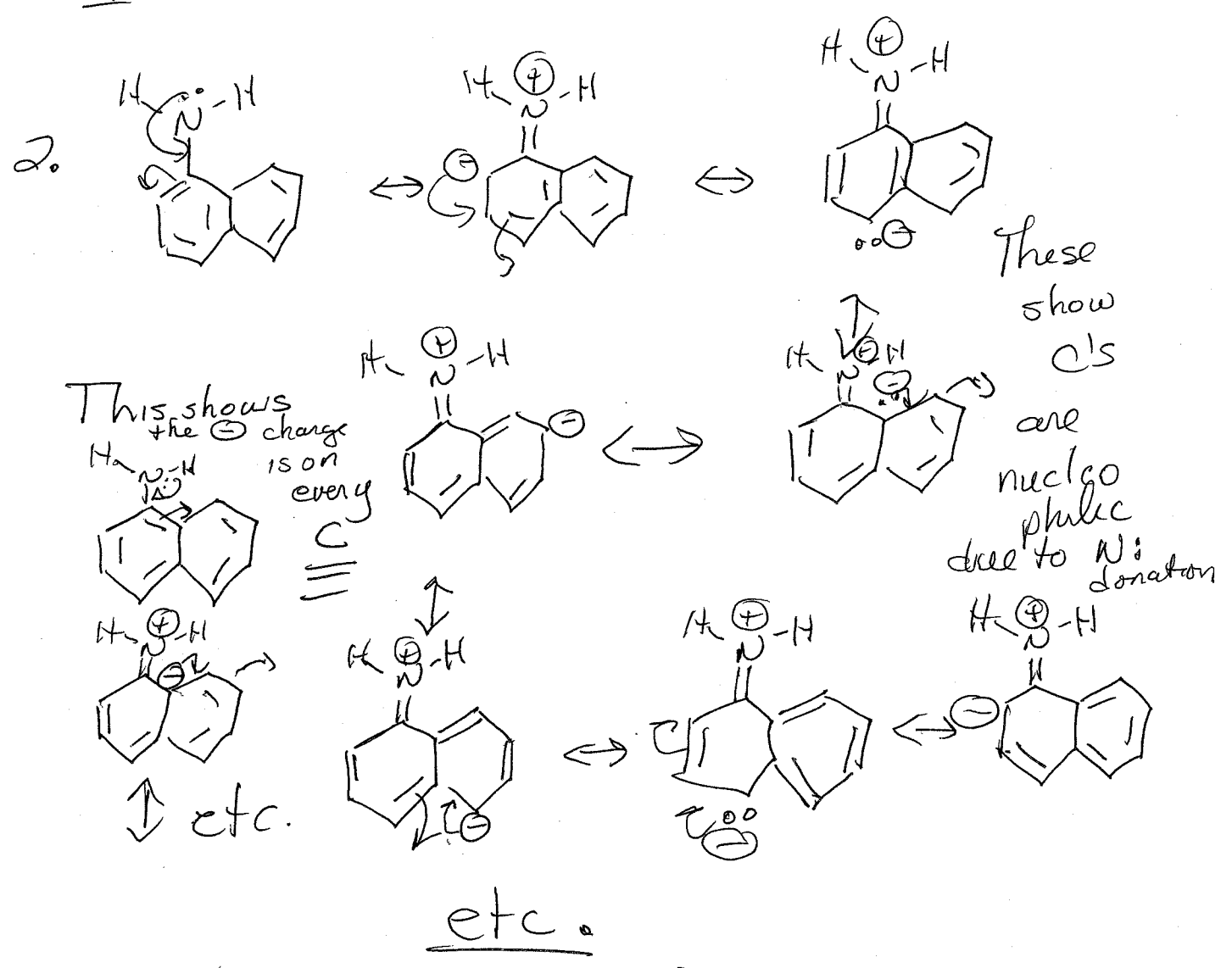
February 4 2011

1/8





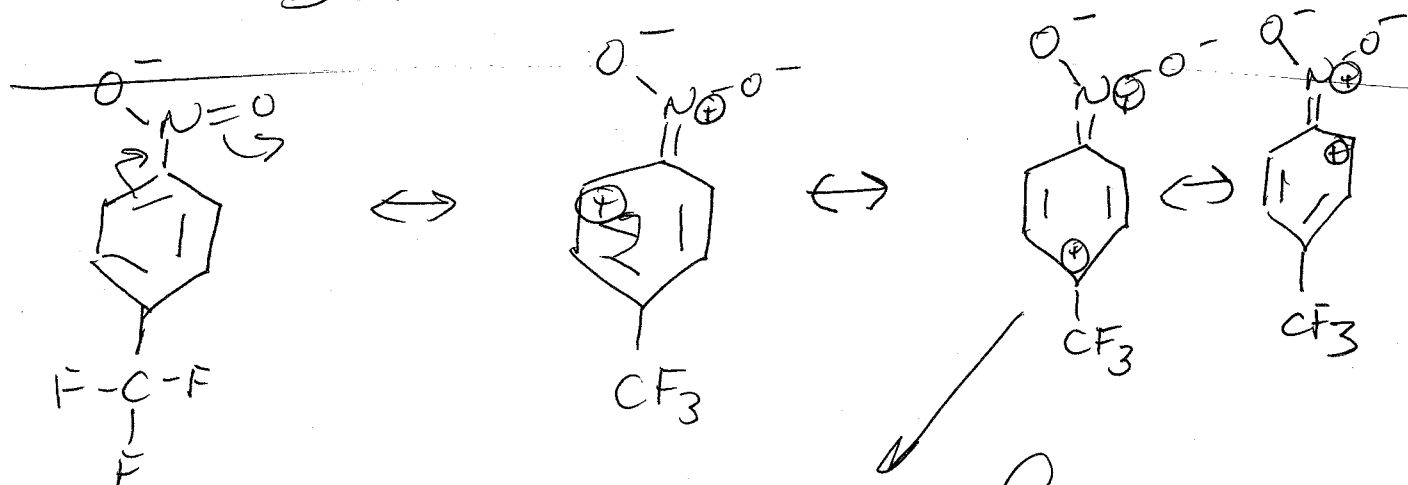
I think this is it



You get the idea  
 this shows all sites bearing  
 + charge

It shows how EWG renders  
 C5 electrophilic

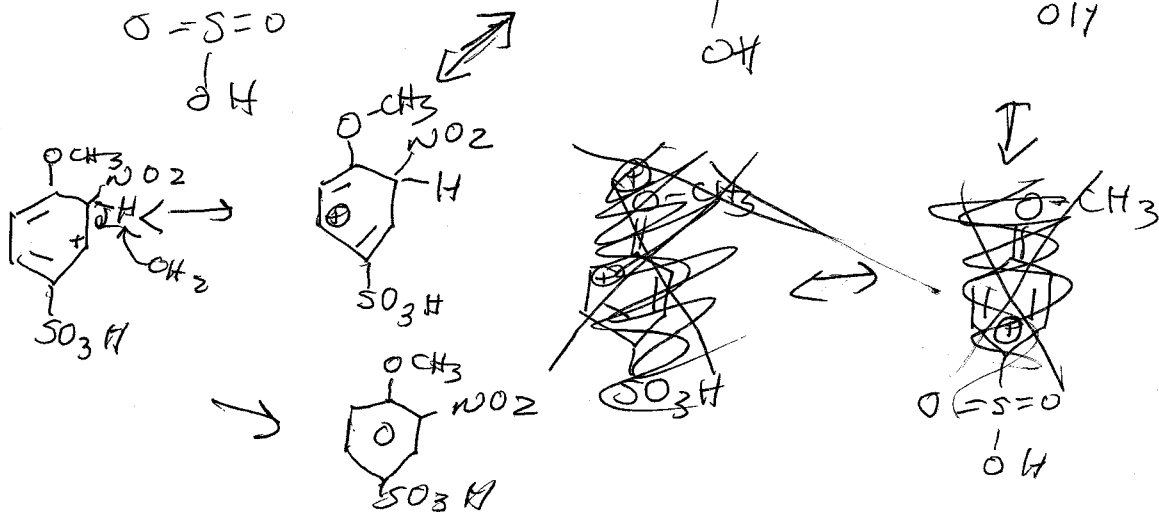
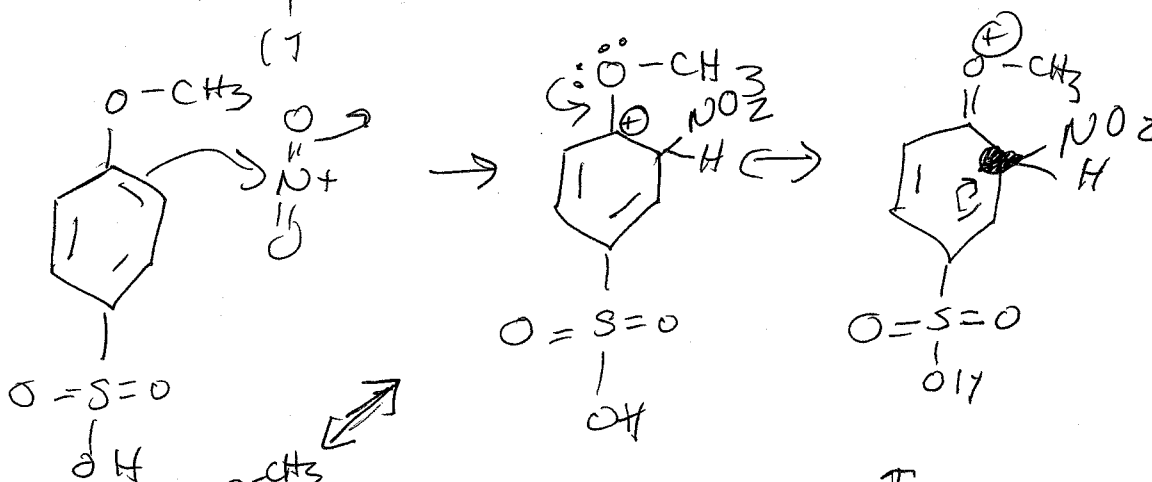
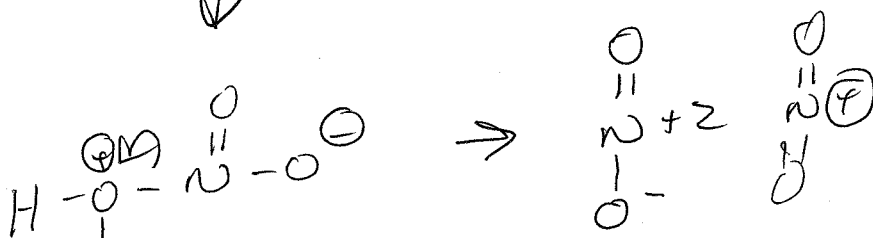
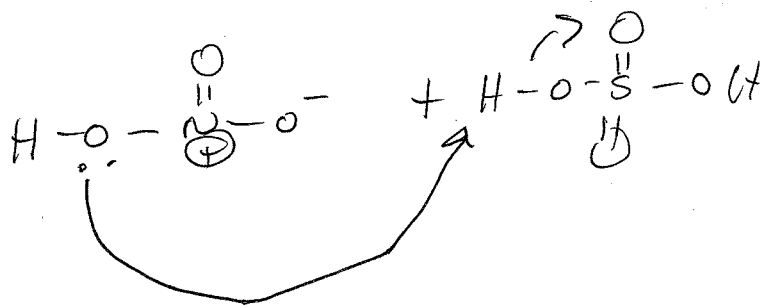
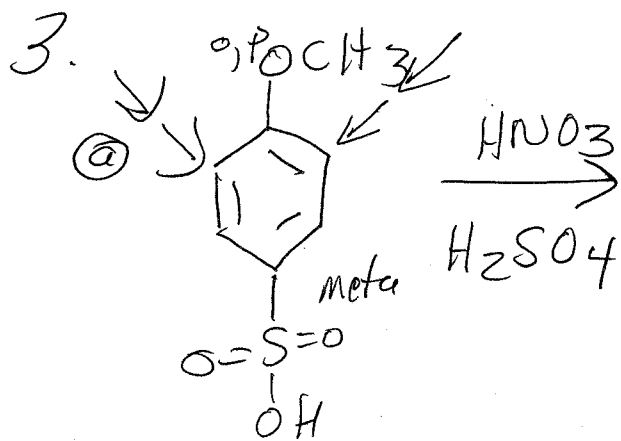
Many structures can  
 be drawn analogous to  
 Donation example.



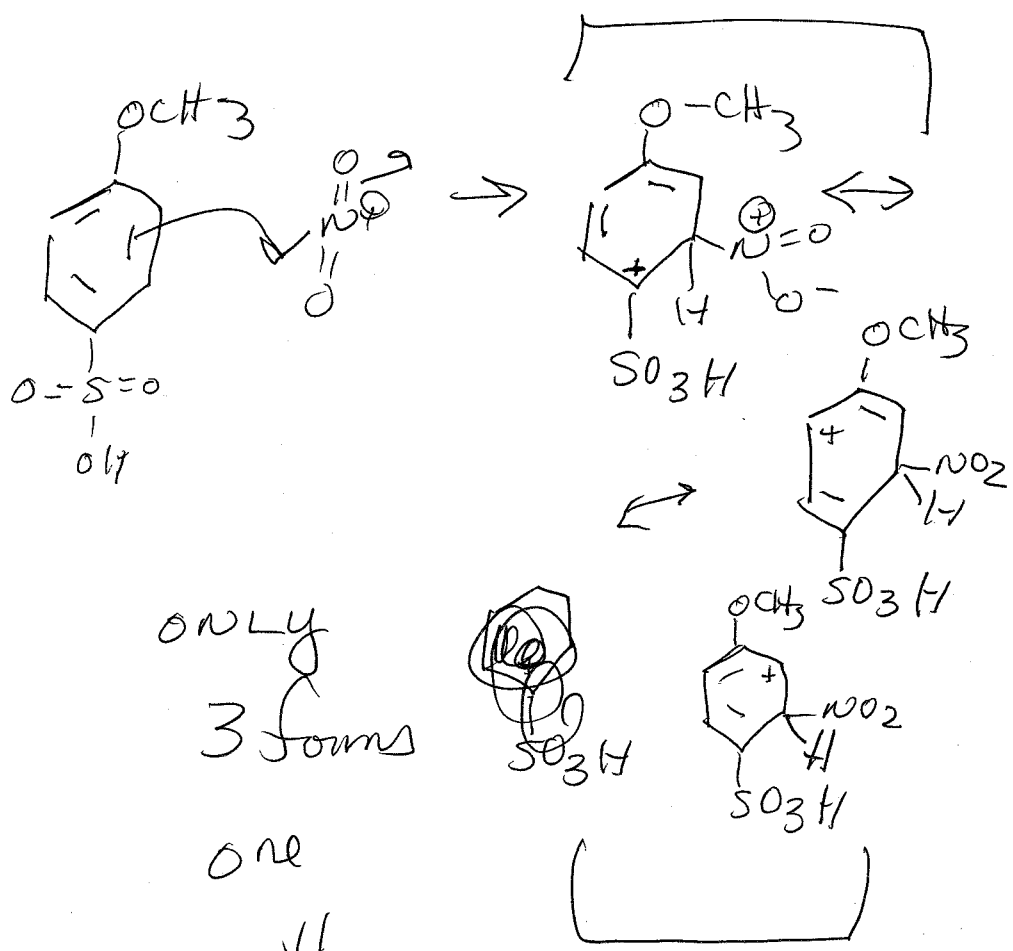
This form  
 bears the  
 + charge

Least

Does  $\text{CF}_3$  stabilize + charge?  
 Why?

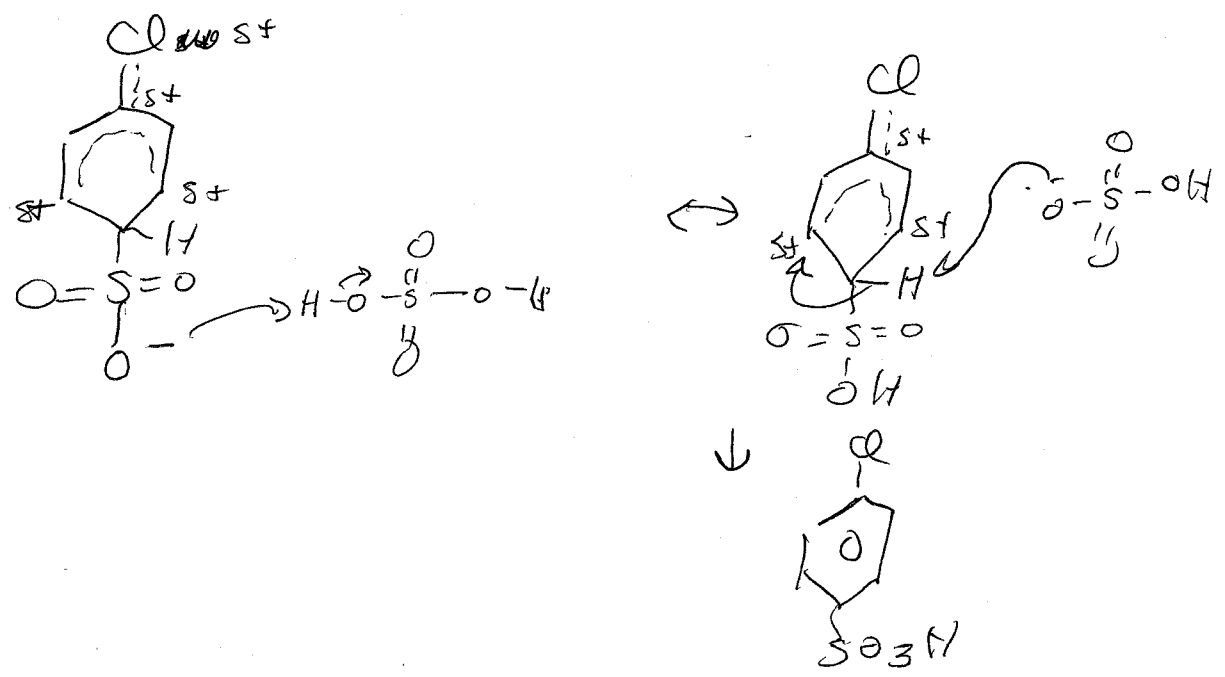
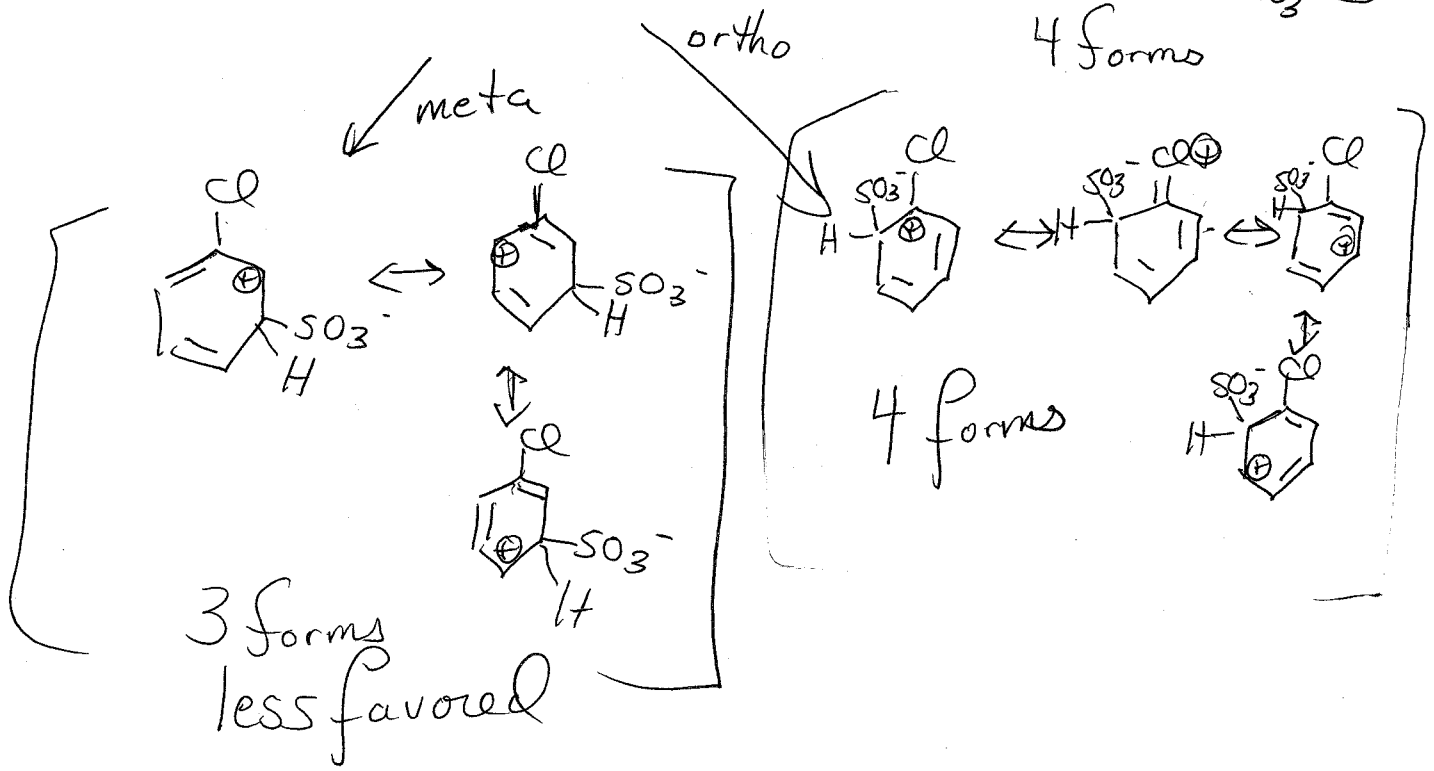
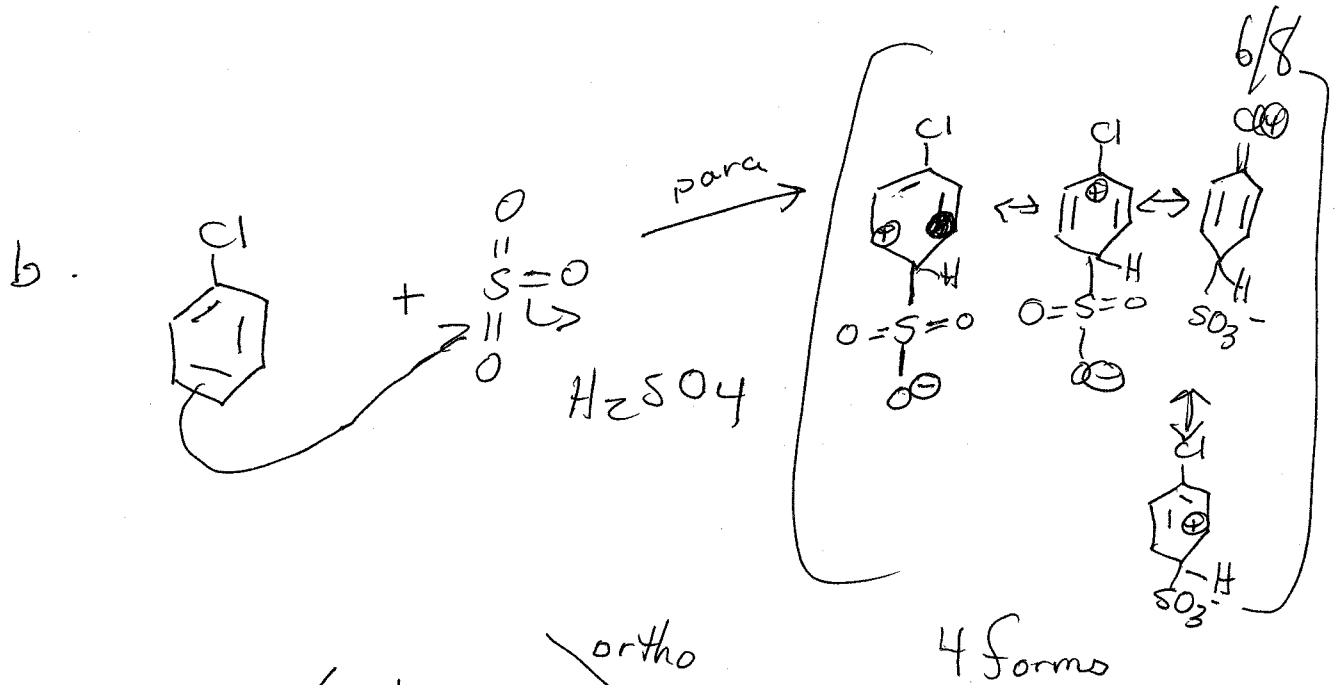


3' other attack

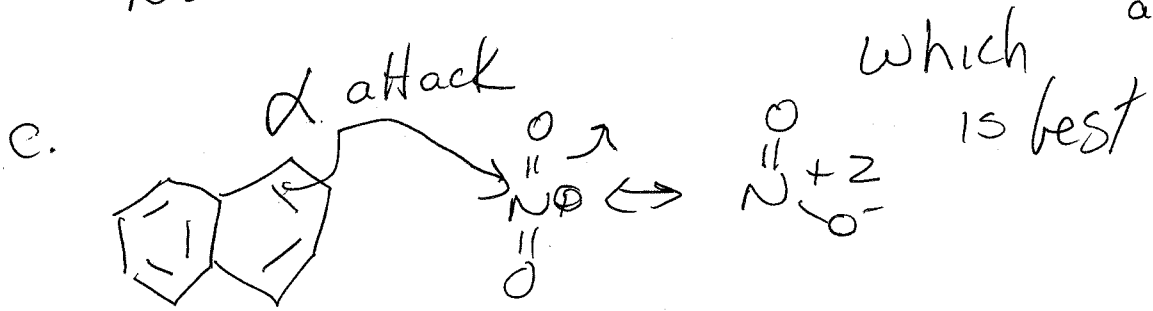


+ charge at site with EWG  
Destabilized intermediate

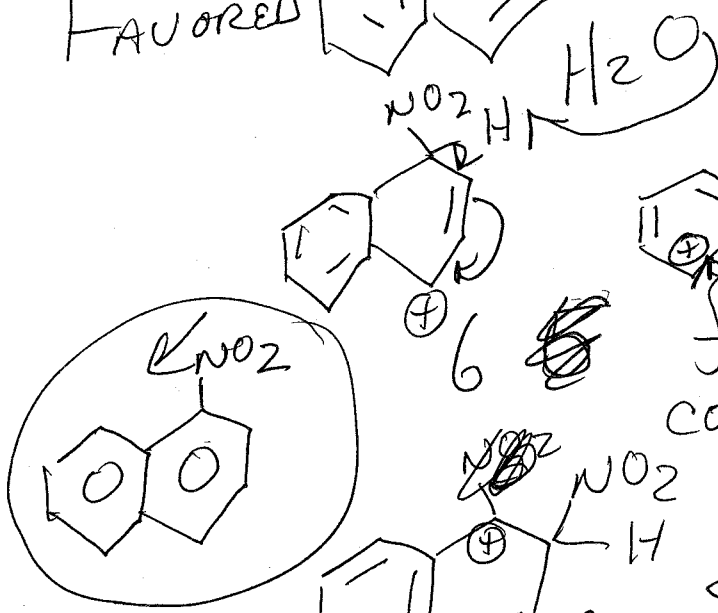
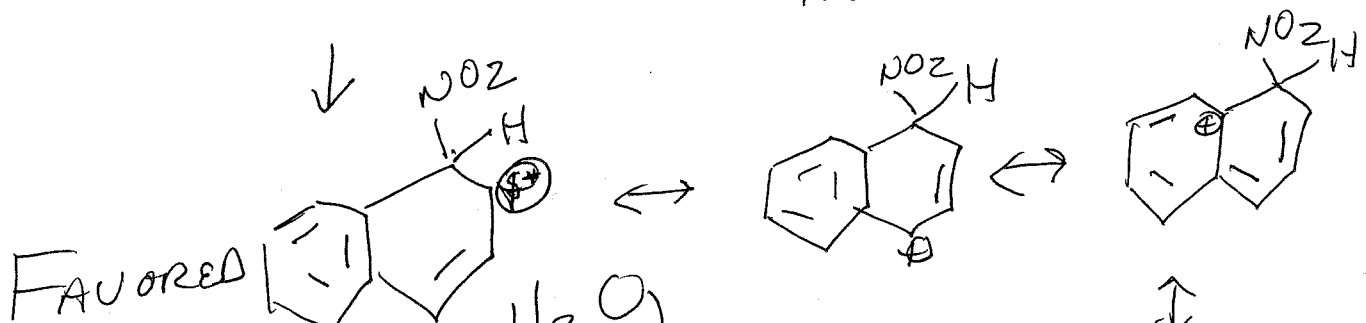




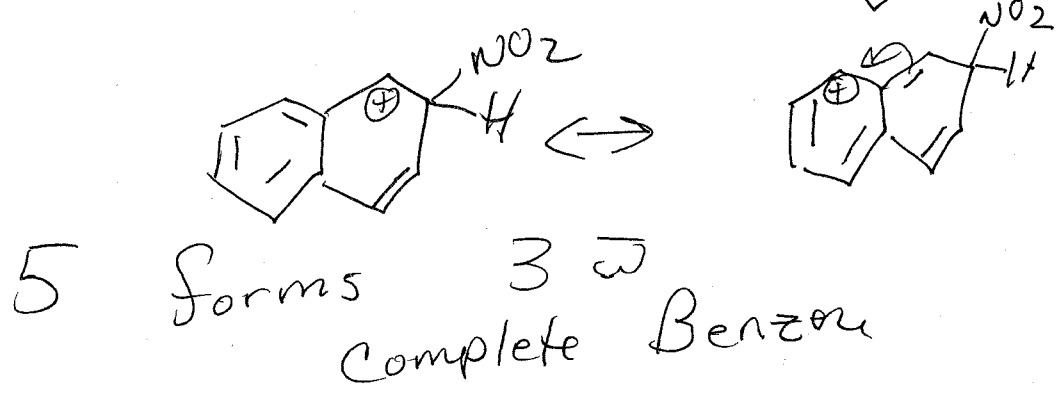
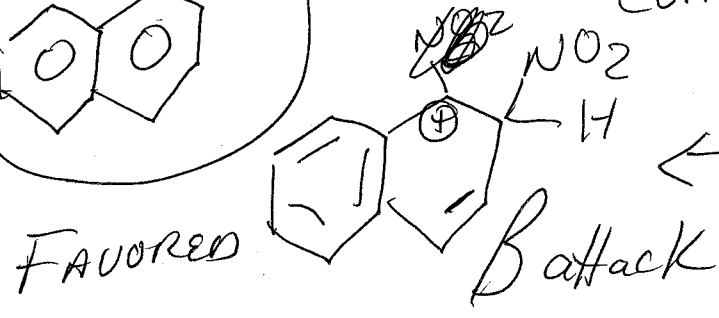
NOTE Naphthalene has 2 spots for attack 7/8

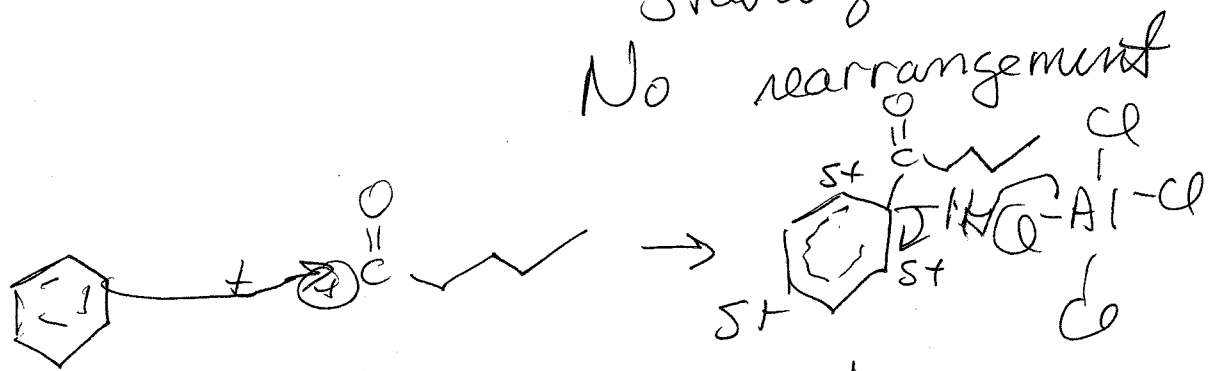
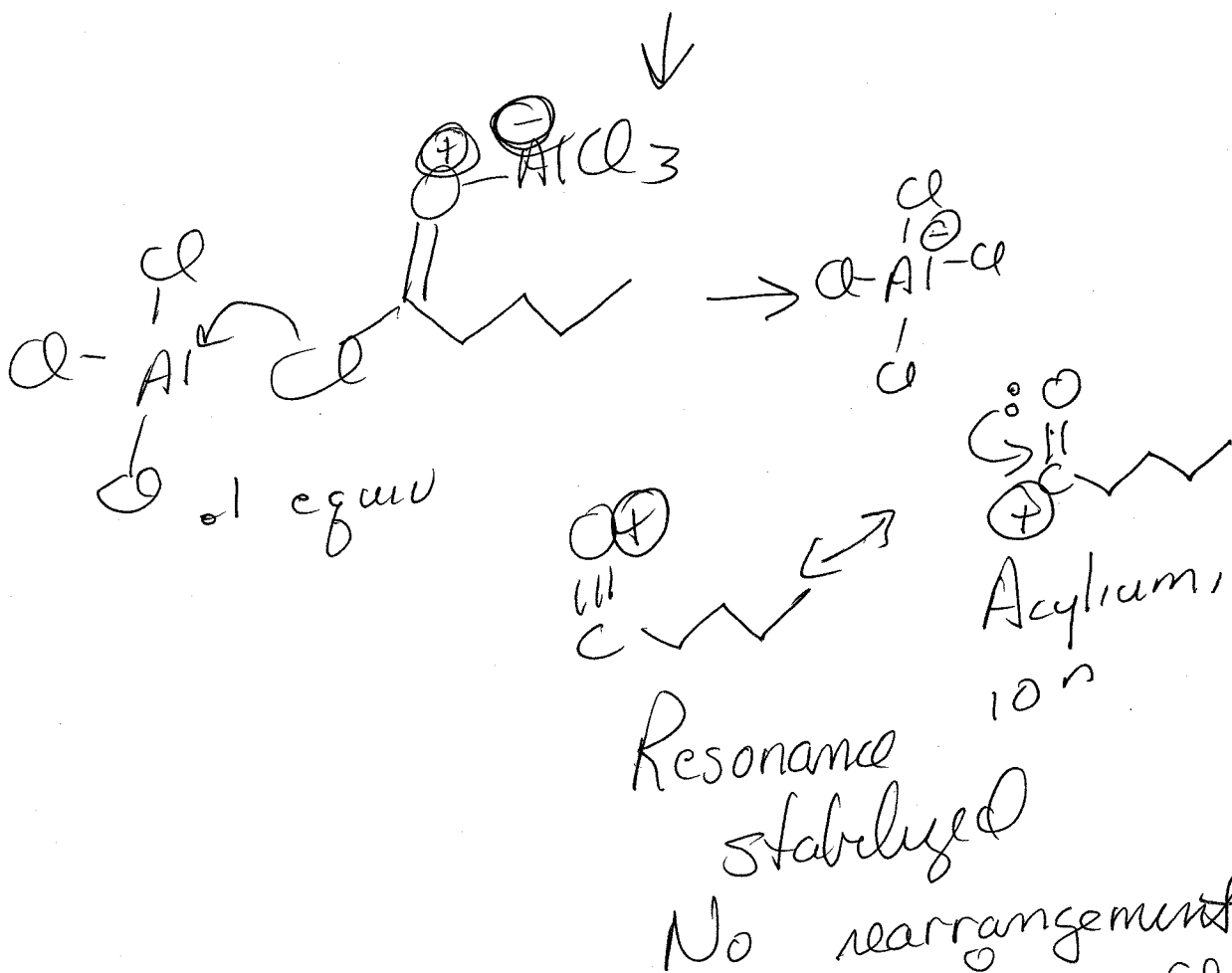
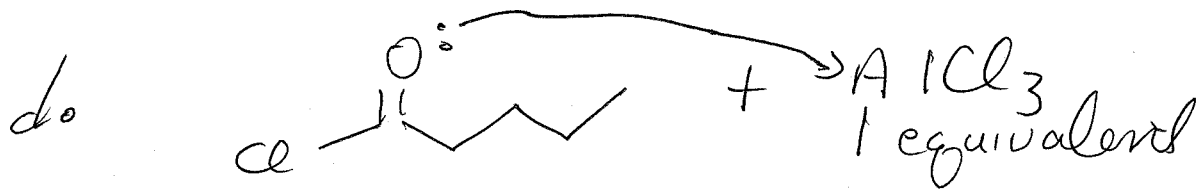


Generated as in other prob



forms complete benzene





CAN IT  
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