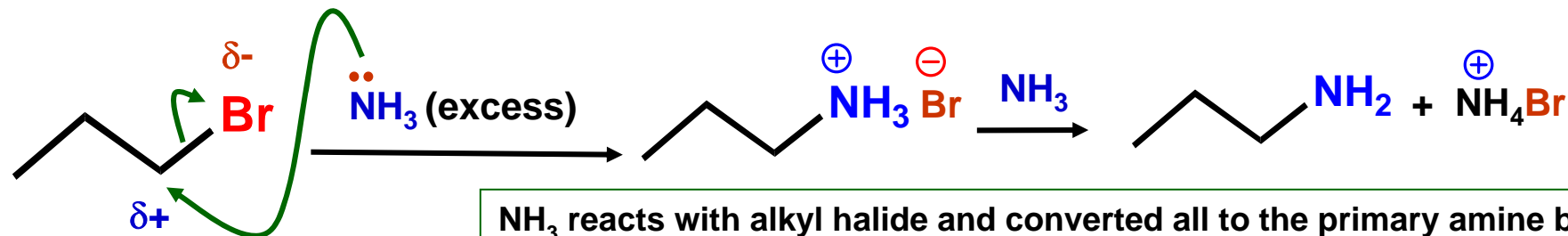
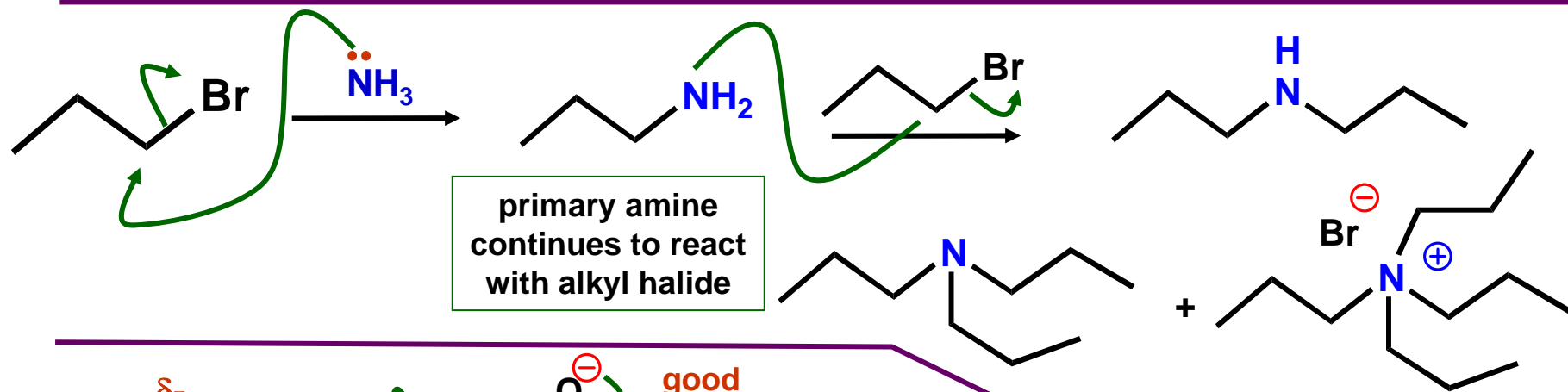


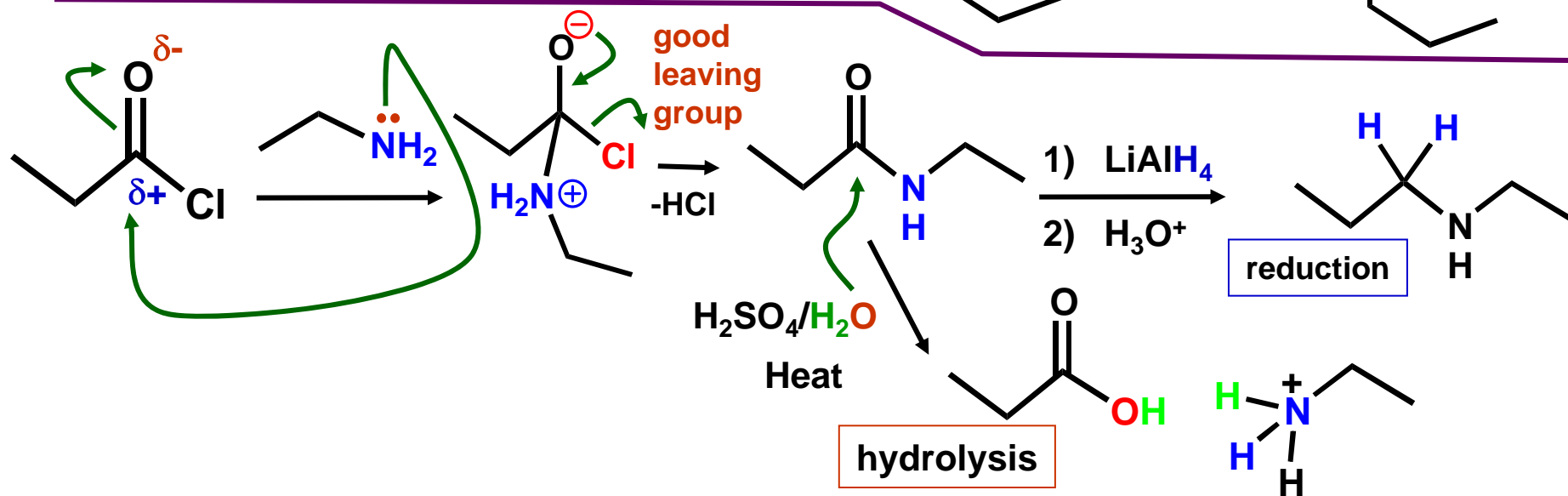
Review

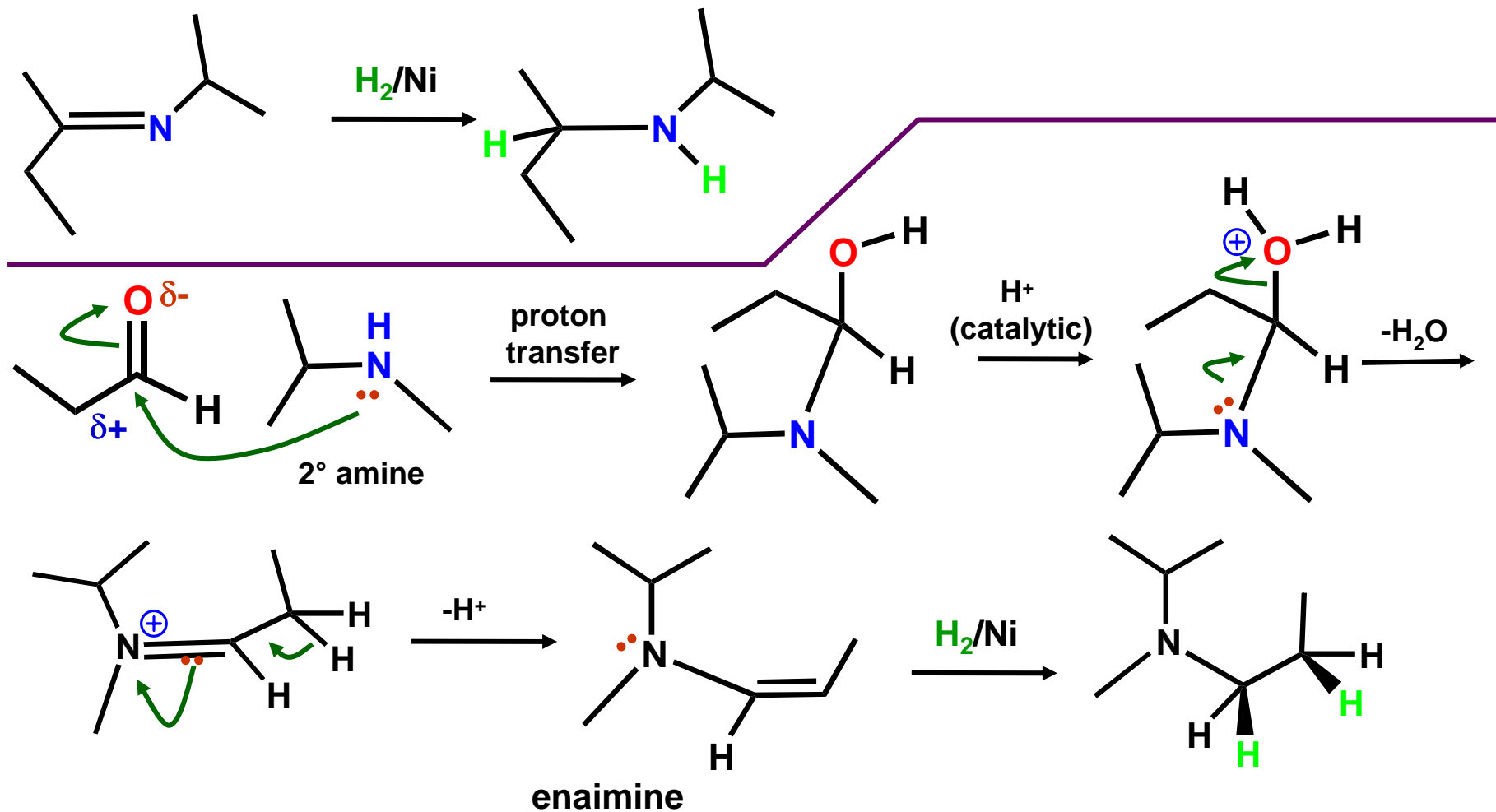
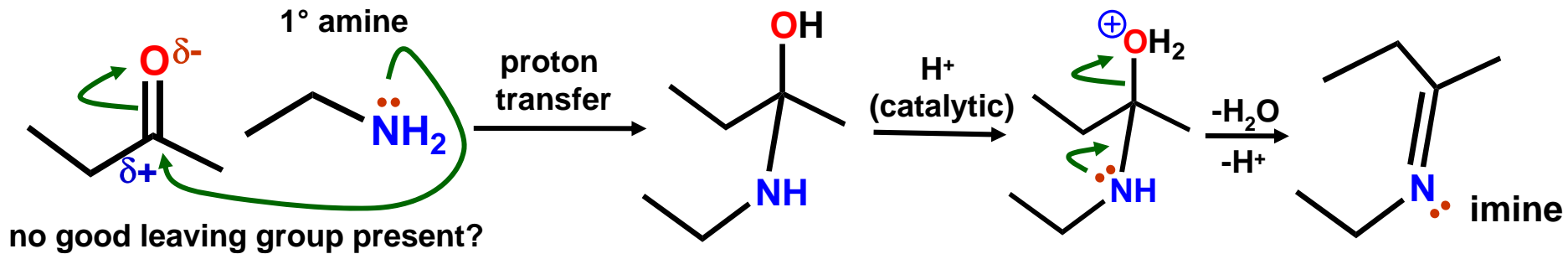


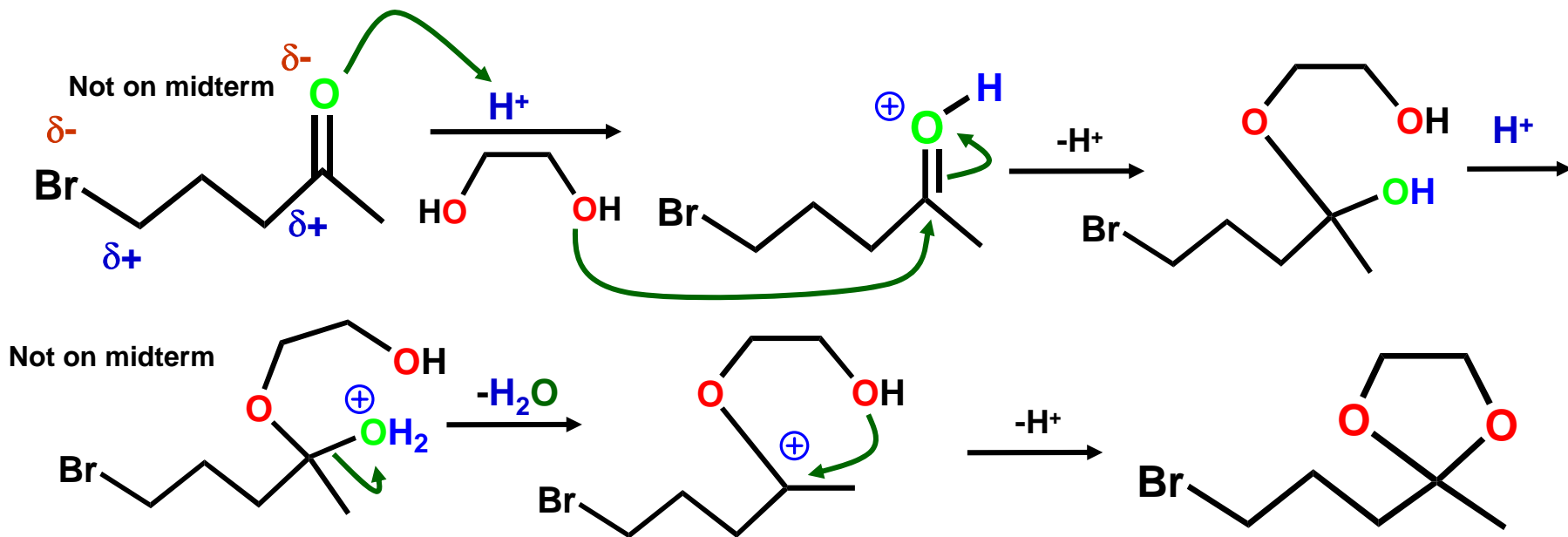
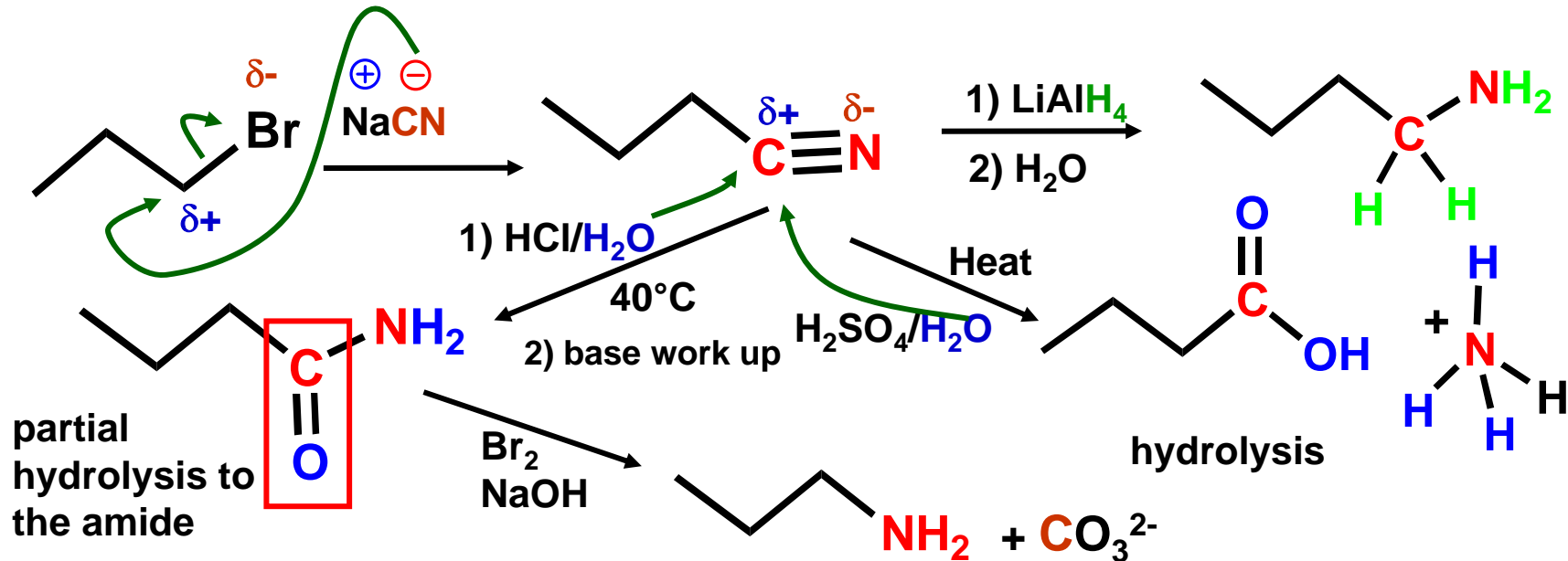
NH_3 reacts with alkyl halide and converted all to the primary amine before the primary amine has a chance to react with the alkyl halide again.



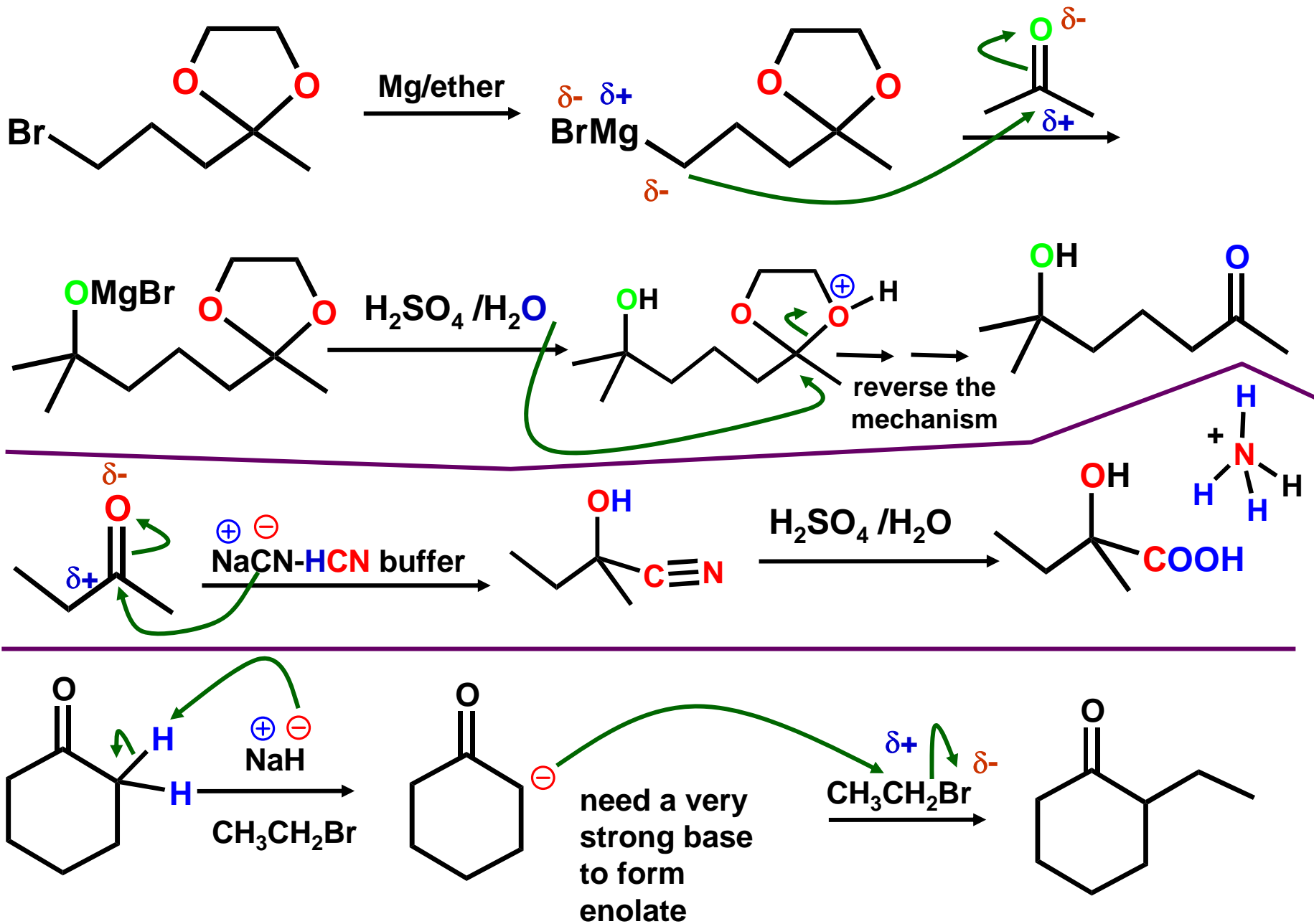
primary amine continues to react with alkyl halide



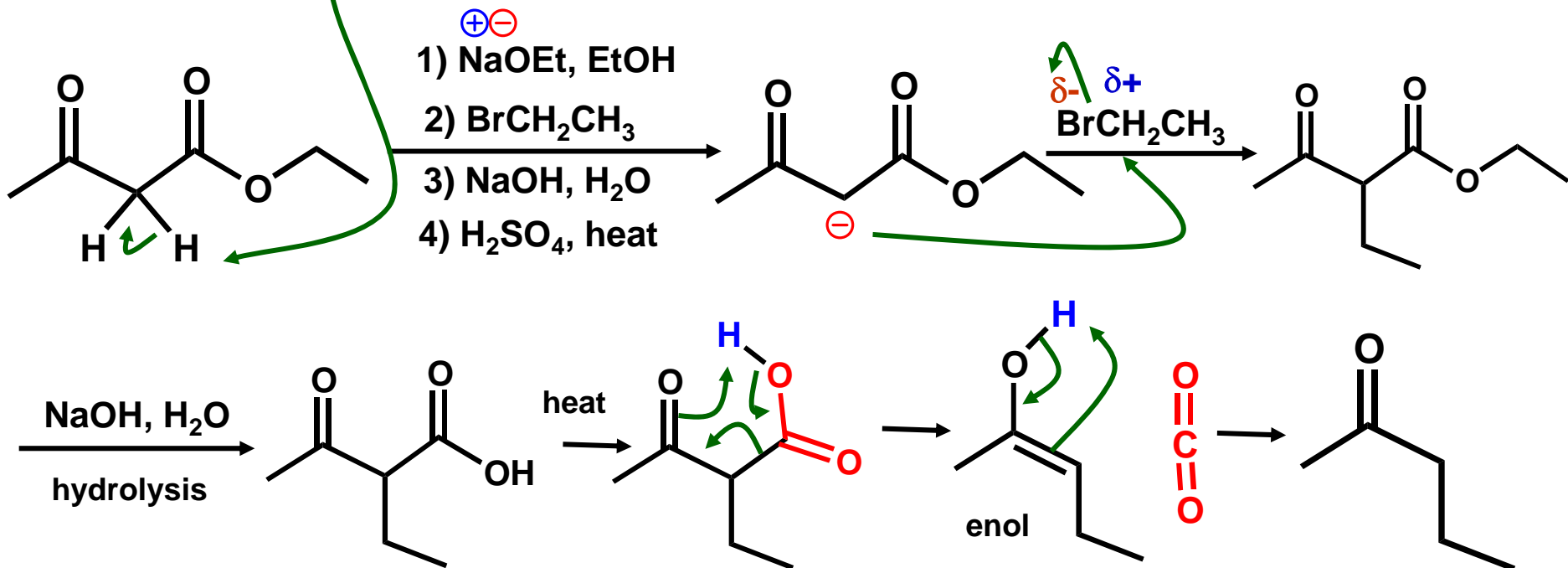
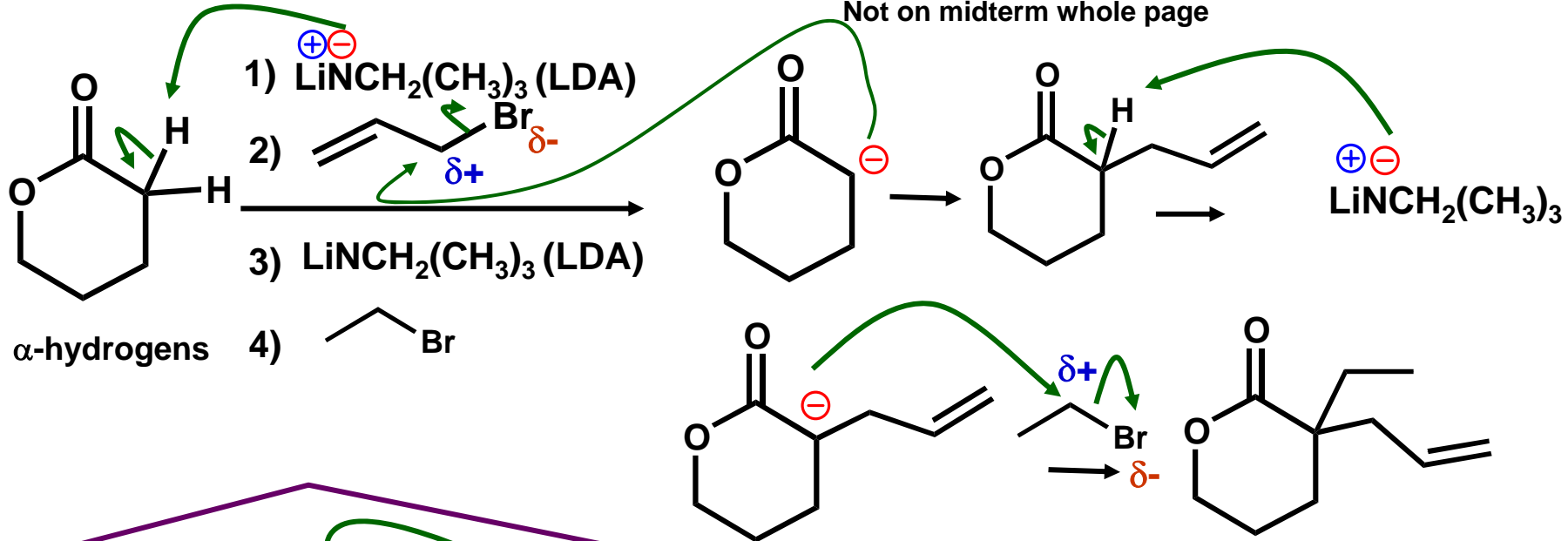




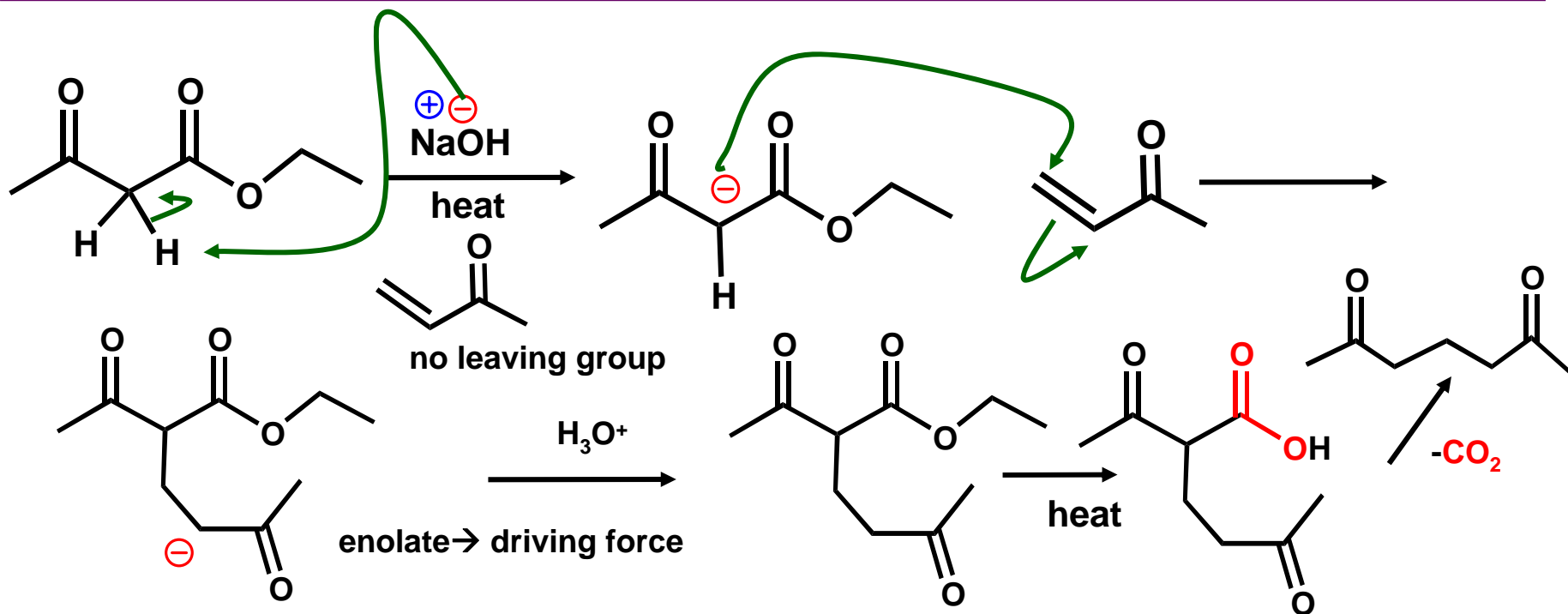
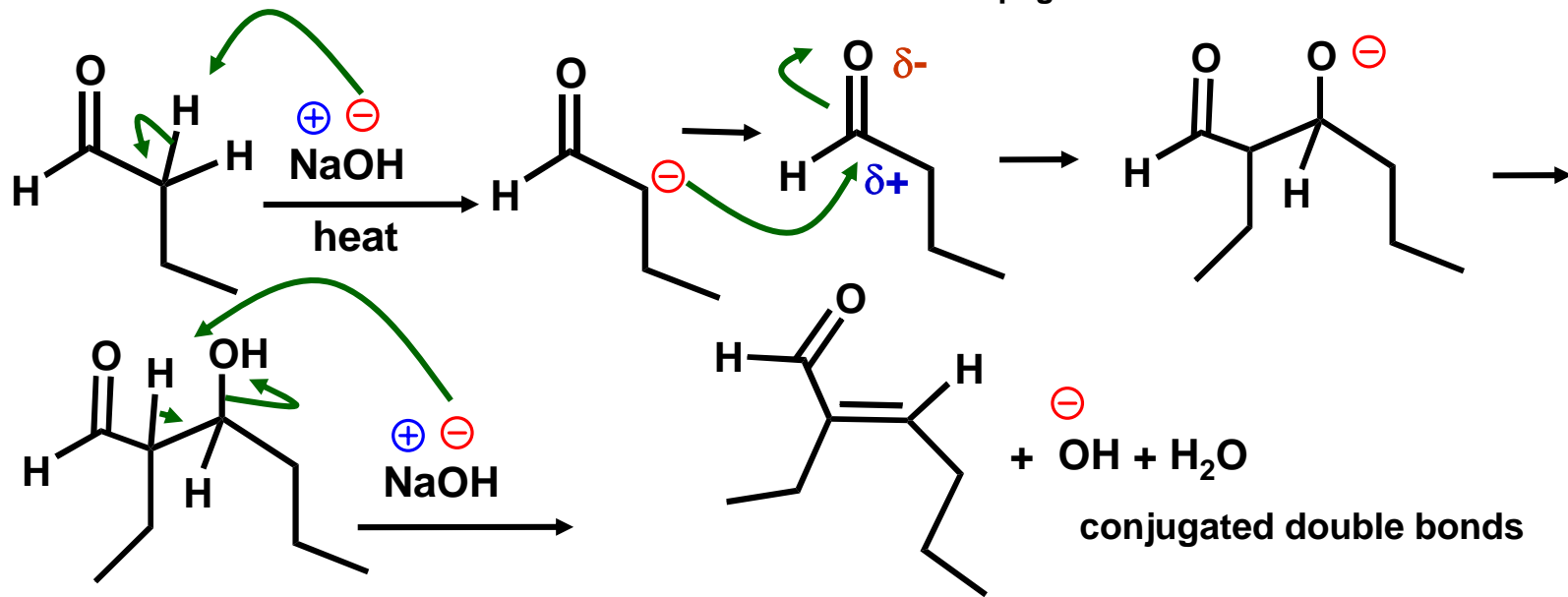
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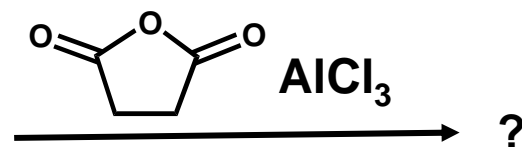
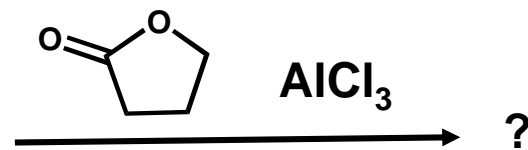
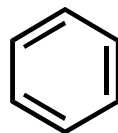
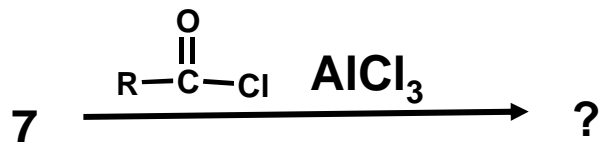
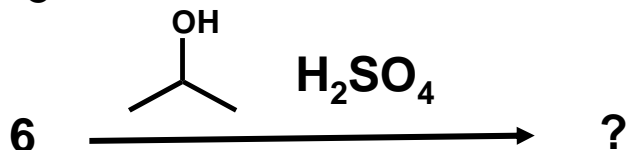
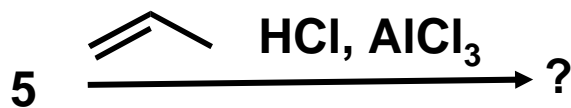
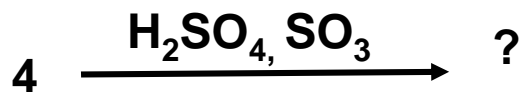
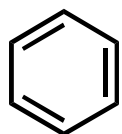
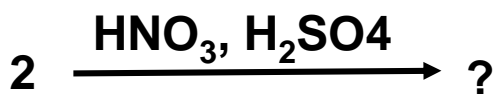
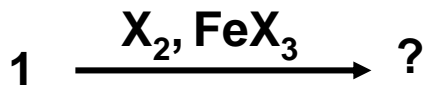


From here on is on the midterm except reaction 21

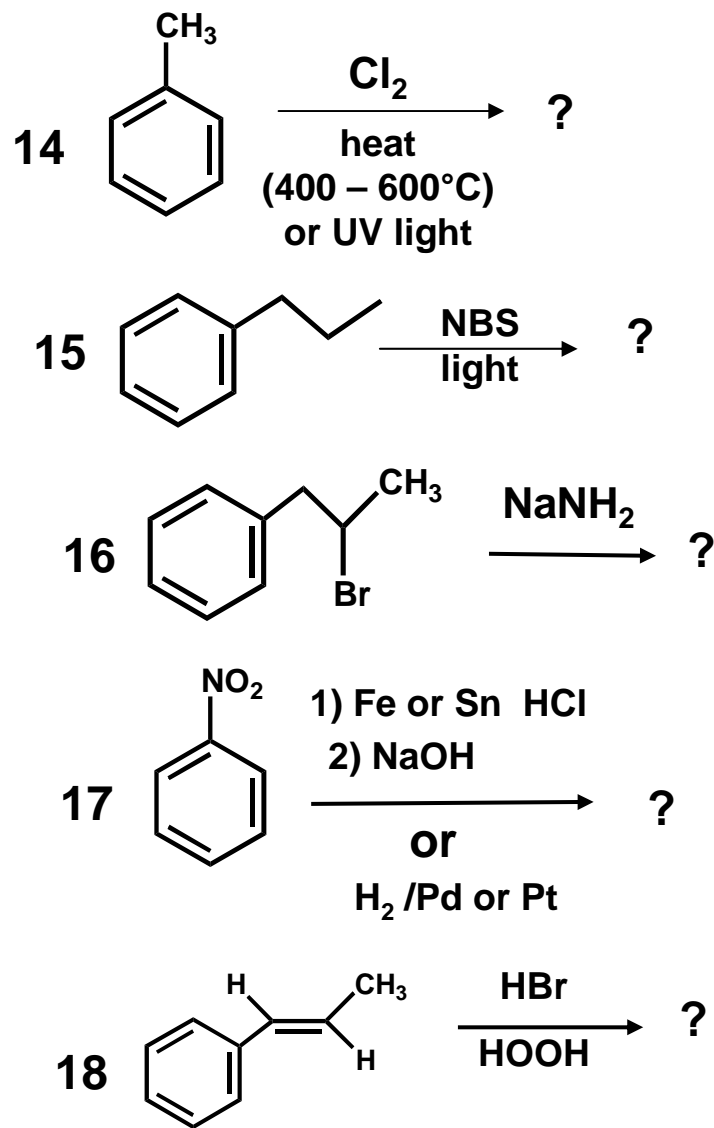
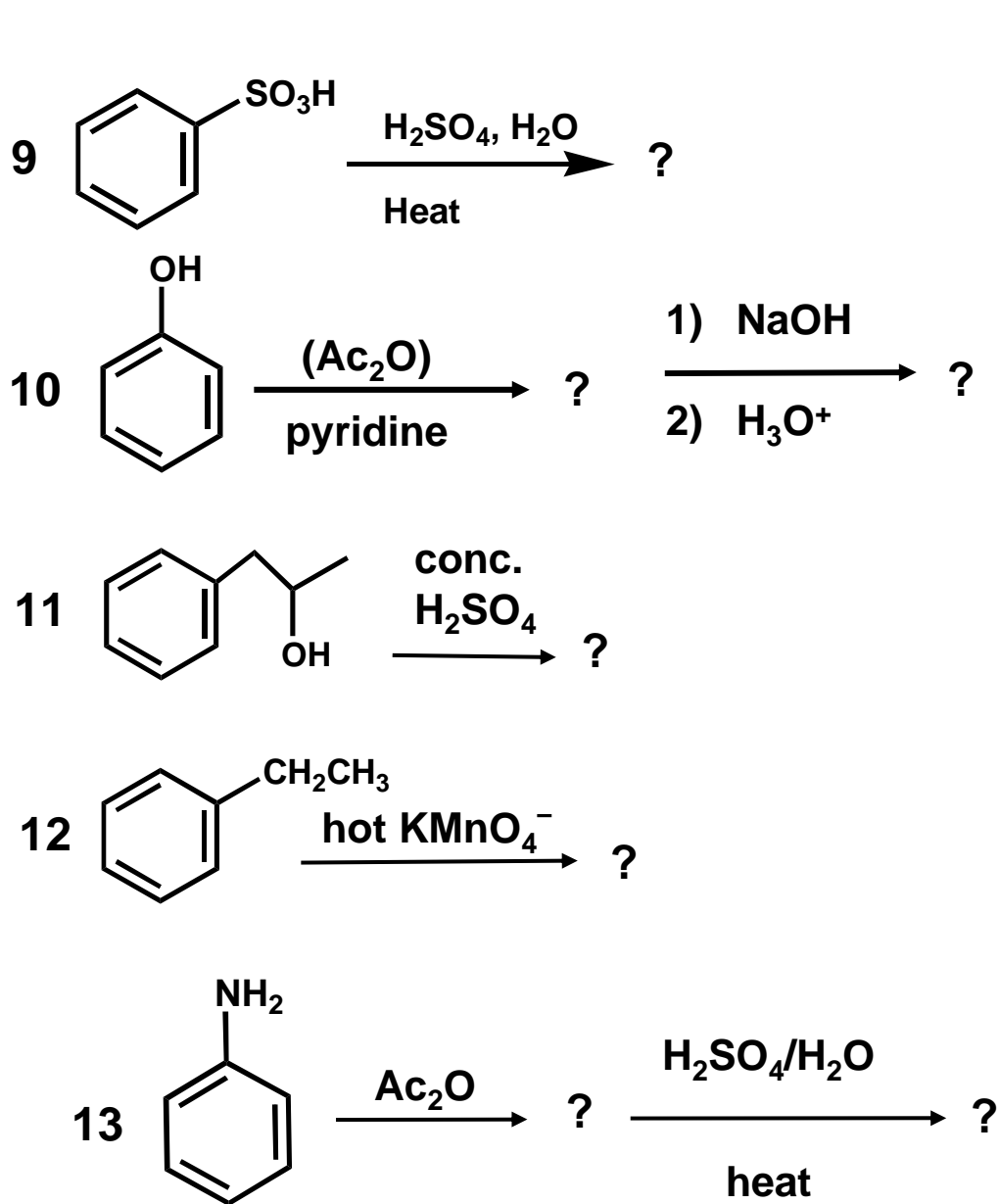
Electrophilic Aromatic substitution review

- How can you recognize an ortho, para-director and why is it an ortho, para director?
- How can you recognize a meta-director and why is it a meta-director
- Nitrogen is a strong activator, why?
- Fluorine is a deactivator, why and why is it an ortho, para director?
- Why does fluorobenzene react faster than iodobenzene
- Oxygen is a greater activator than a halogen but is slower than a nitrogen, why?
- What type of director is an alkyl or aryl group, why?
- What is the order of reactivity for ortho, para-directors
- Which substituent is a stronger deactivator $-\text{NO}_2$ or $-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_3$ why?
- Go over third substitution

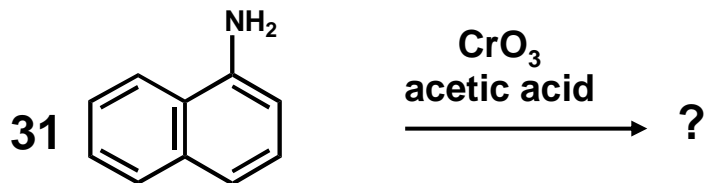
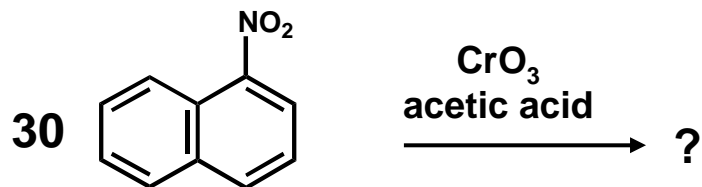
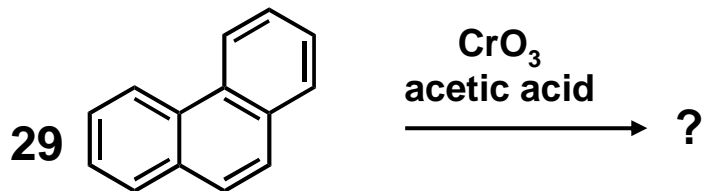
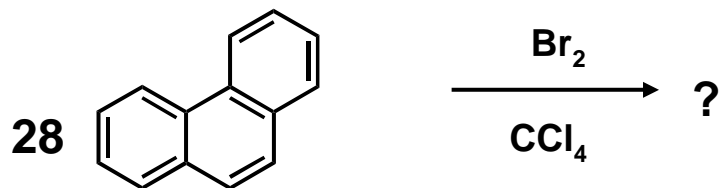
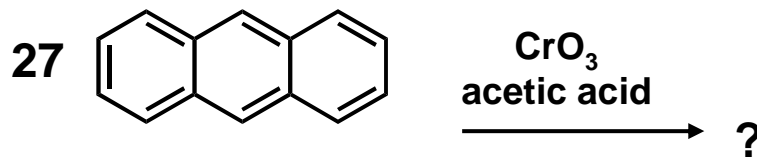
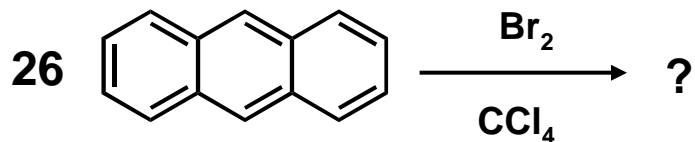
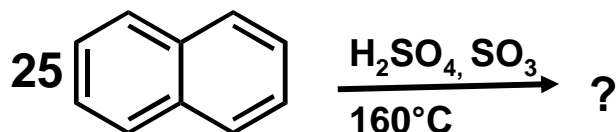
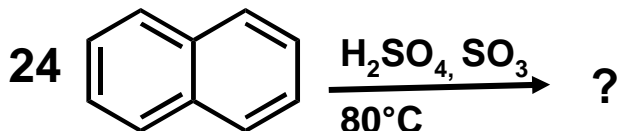
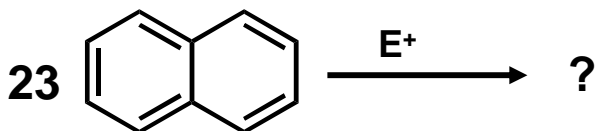
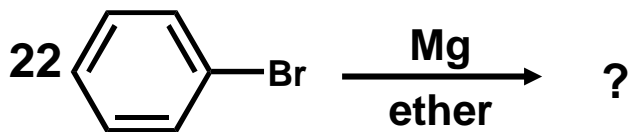
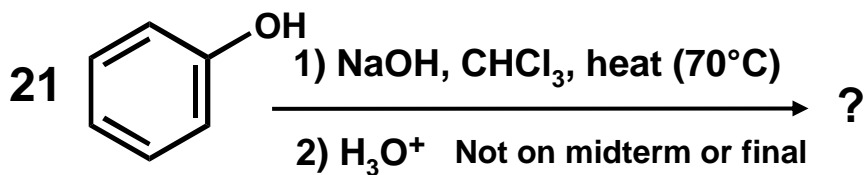
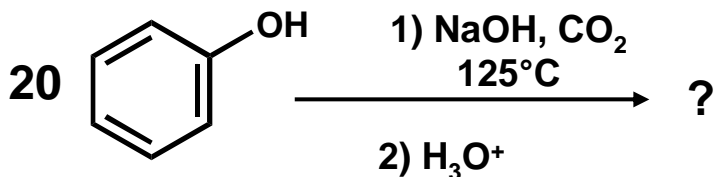
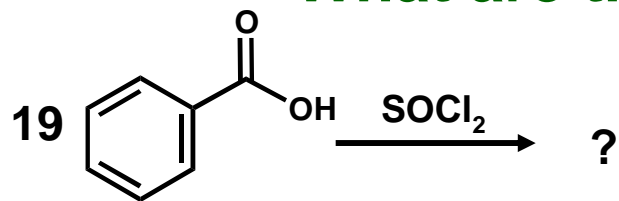
What are the electrophiles generated in the following reactions



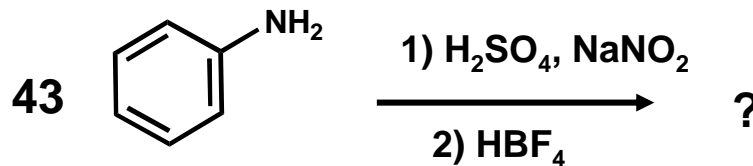
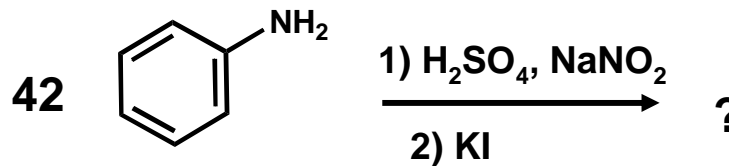
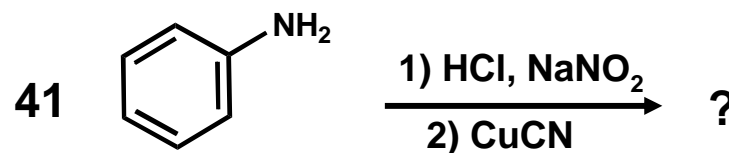
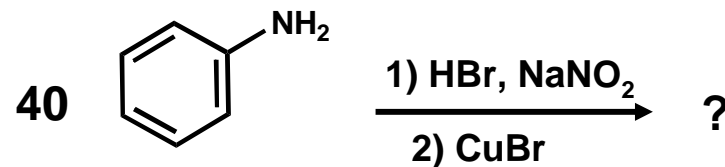
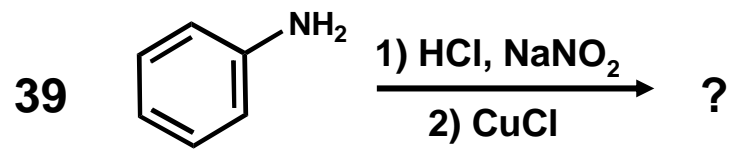
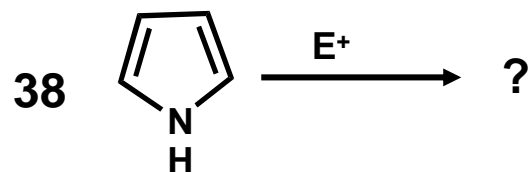
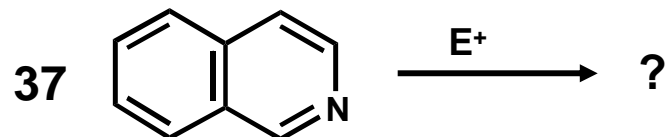
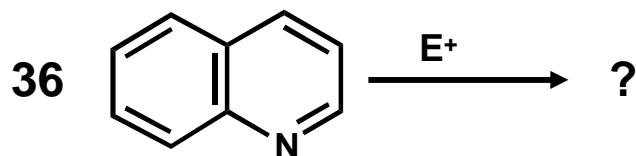
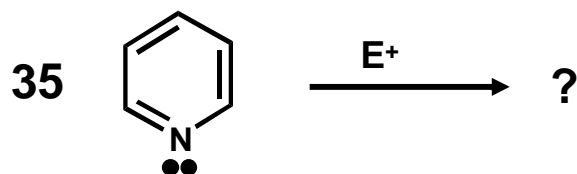
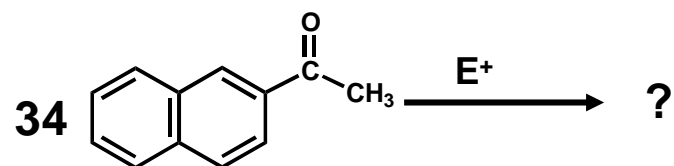
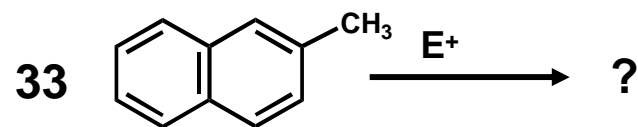
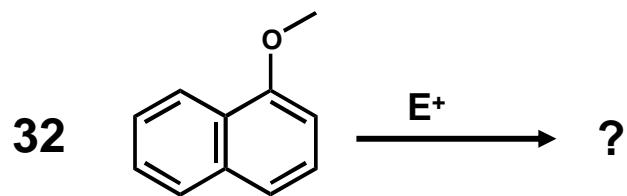
What are the product in the following reactions?



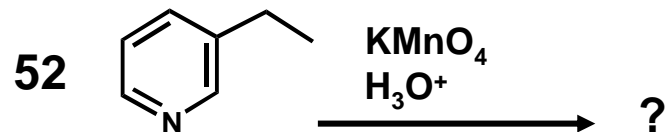
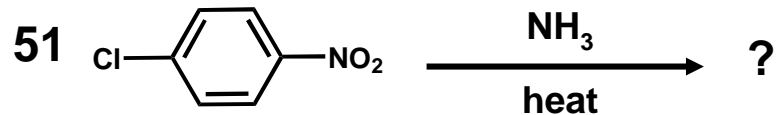
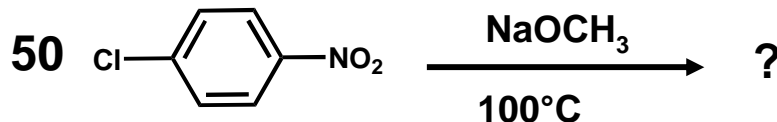
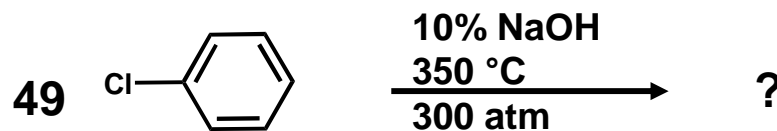
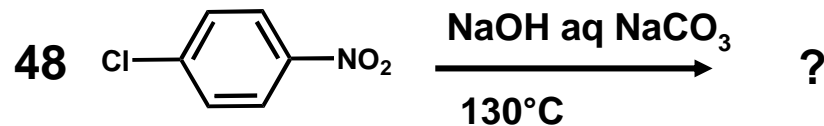
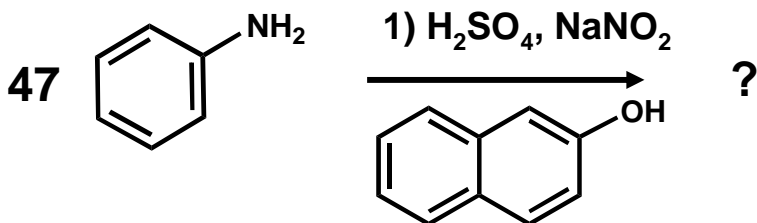
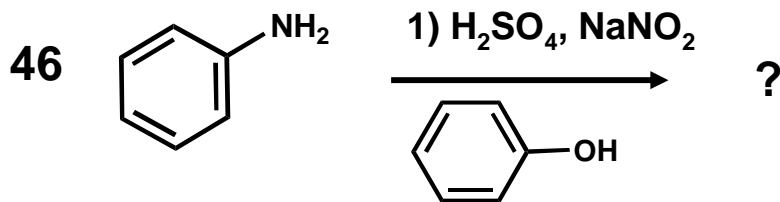
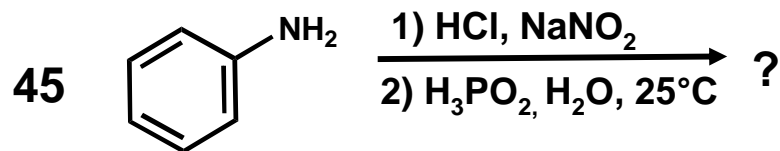
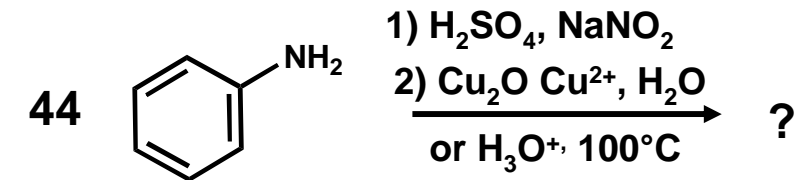
What are the product in the following reactions?



What are the product in the following reactions?



What are the product in the following reactions?



What are the product in the following reactions?

