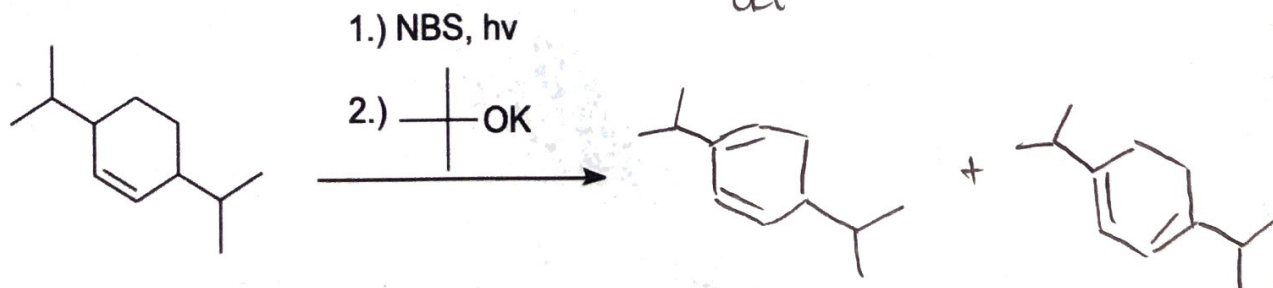
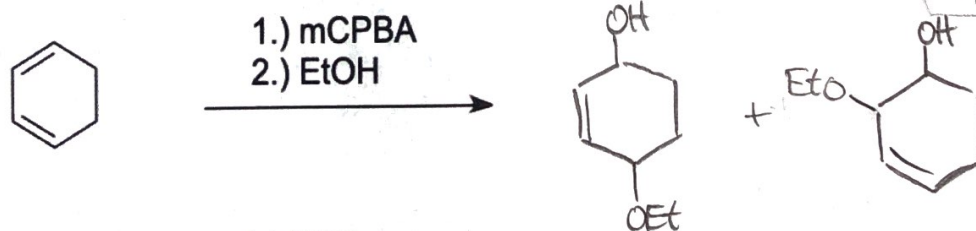
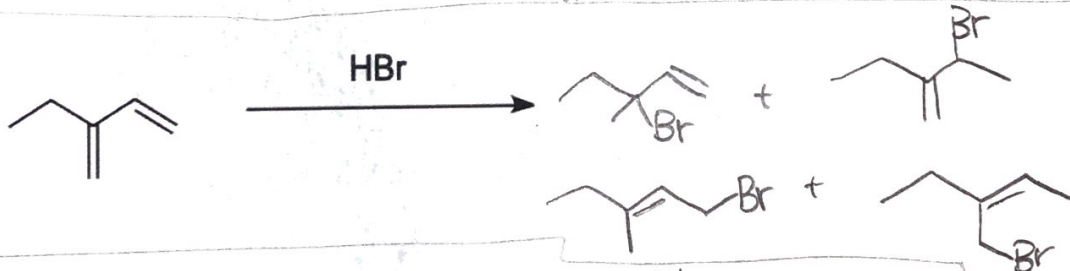
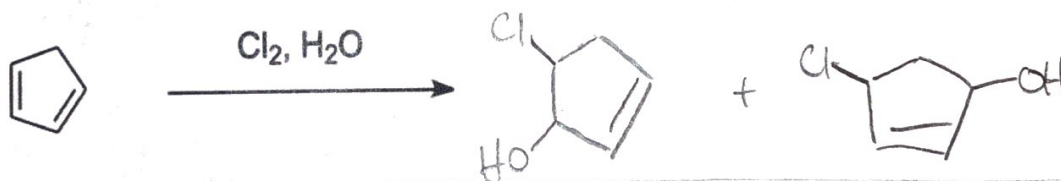
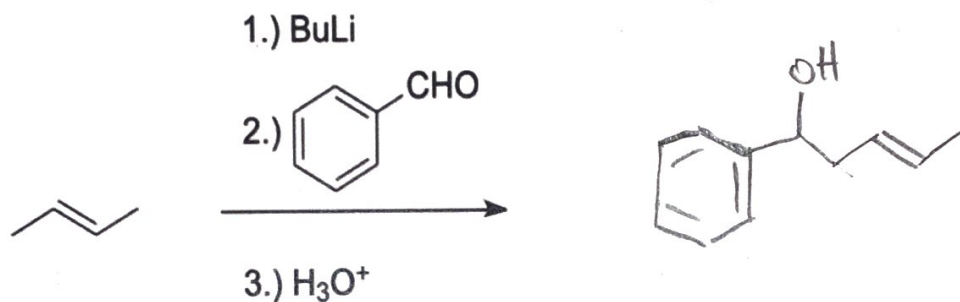


Conjugation #2: Reactions with Conjugated Systems

Hey, gang, welcome back. Okay, so now that we know how to identify conjugated systems as well as understand the stability (through resonance) conjugated systems provide, let's put our new knowledge to the test by revisiting reactions we've done before.

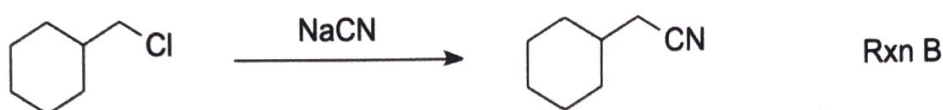
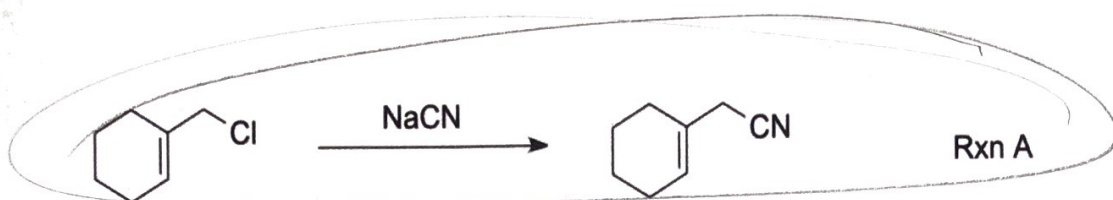
- 1.) Below are many reactions you'll recognize from your OChem I glory days, but now there's a small twist—conjugation. Complete these reactions while acknowledging any additional products (should any ones form).

Ignore stereochemistry, focus on regiochemistry

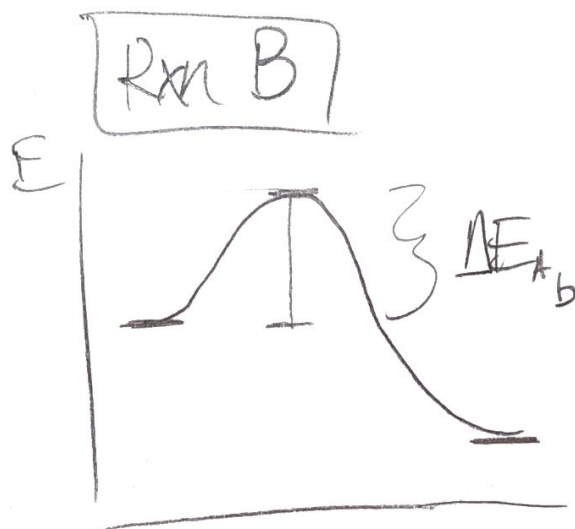
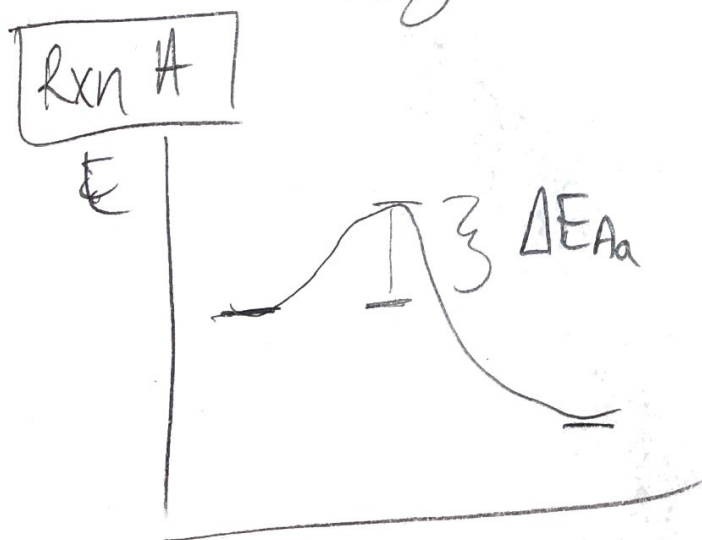
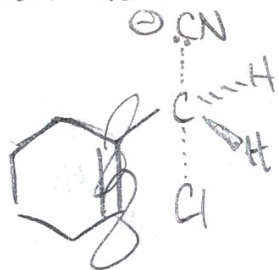


2.) Below are two SN2 reactions. When performed in a lab, it is found that one is significantly **faster** than the other:

- Identify the faster reaction
- Explain why (briefly or with a drawing)
- Draw an energy diagram with a curve for each reaction, reflecting the difference in reaction speed

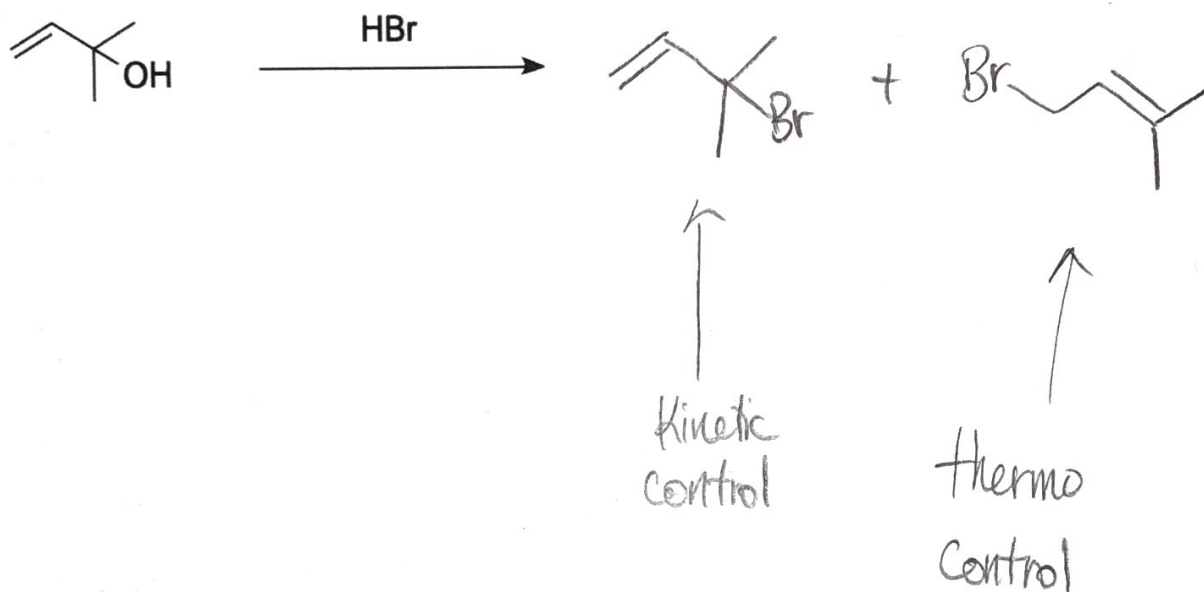


• Allylic position is stabilized by neighboring p orbitals in the transition state



ΔE_{Aa} is smaller than E_{Ab}

- 3.) Consider the reaction below, and complete the following:
- Predict the products formed
 - Of the products formed, identify the product formed under thermodynamic control & the one formed under kinetic control
 - For both the thermo & kinetic products, suggest an appropriate reaction temperature that would maximize each product



Kinetic Temp: 0°C

Thermo Temp: 25°C