

Chemistry 310
Prof. B. Hanson
Spring 2009

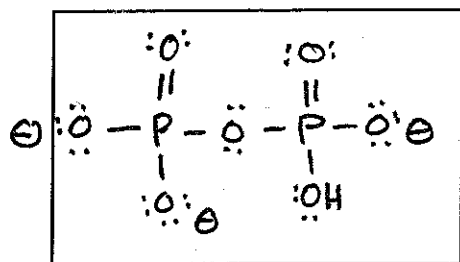
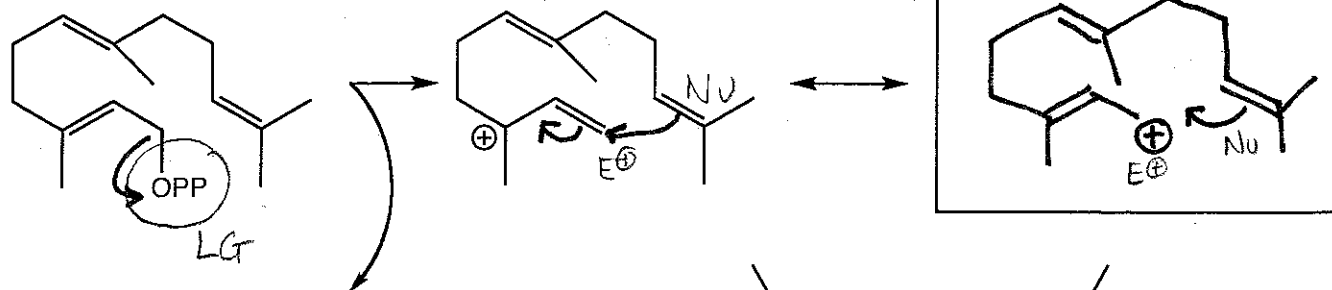
Name: KEY

Quiz #2

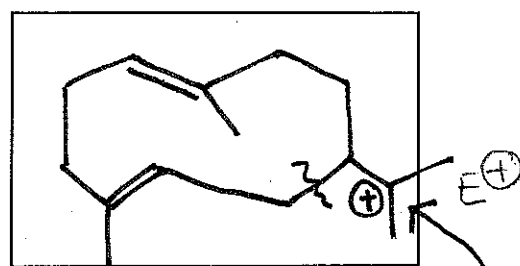
On the next page is a reaction scheme.

1. Fill in all boxes with the missing structure.
2. On all structures, add lone pairs to the heteroatoms.
3. Add mechanistic arrows to every step where needed.
4. Put a wavy line on the newly formed bonds where requested.
5. With a different writing utensil, circle and label all leaving groups, all electrophiles, and all nucleophiles.

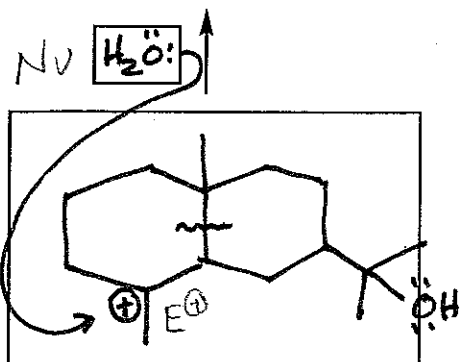
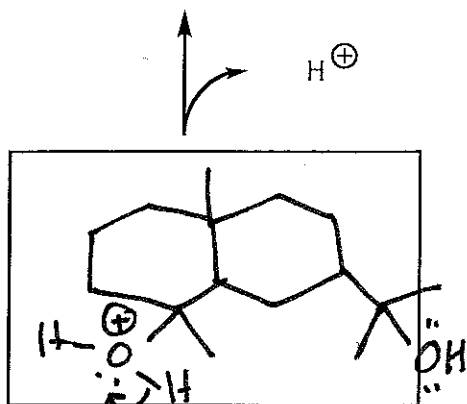
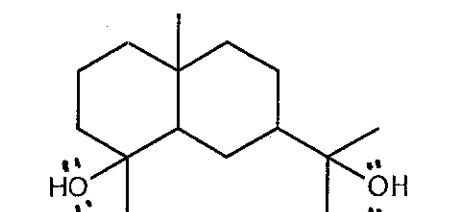
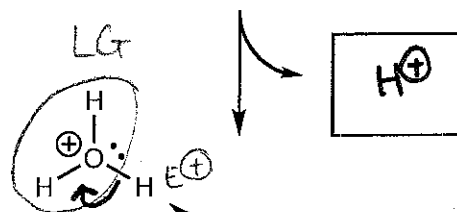
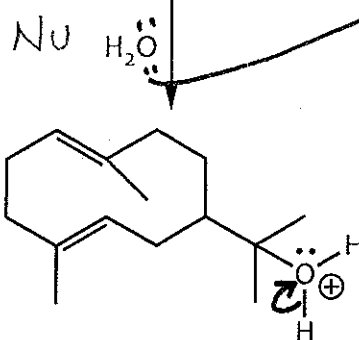
Note: You don't have to work this linearly. If you get stuck, start in the middle or even work backwards. There are clues everywhere!



full structure, no abbrev.
proper ionization state



a carbonium ion a new C-C bond is formed; put a wavy line through it



a carbonium ion a new C-C bond is formed; put a wavy line through it