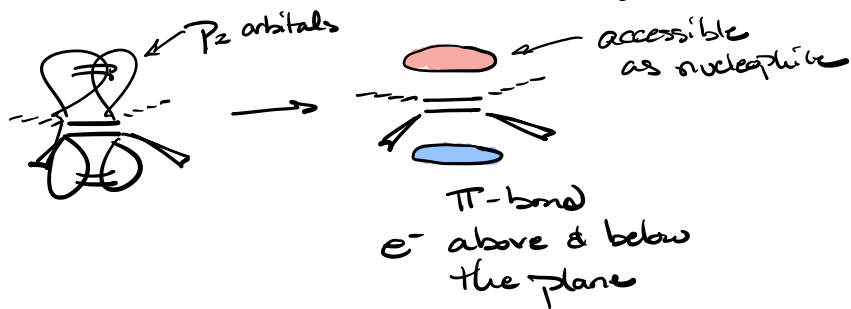
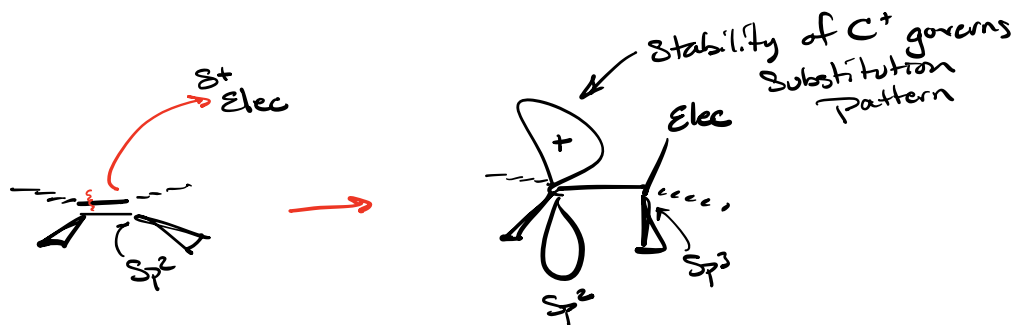


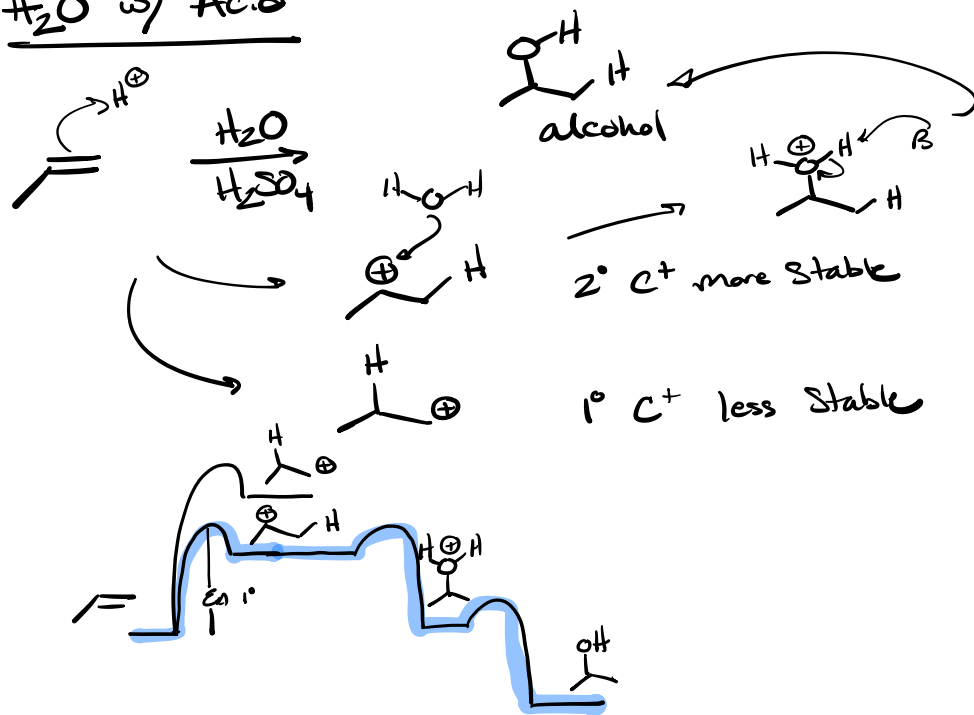
Alkenes

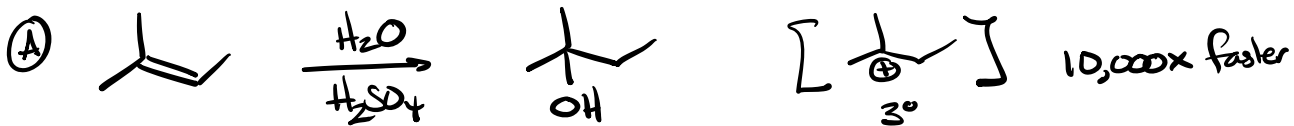


General Electrophilic Addition

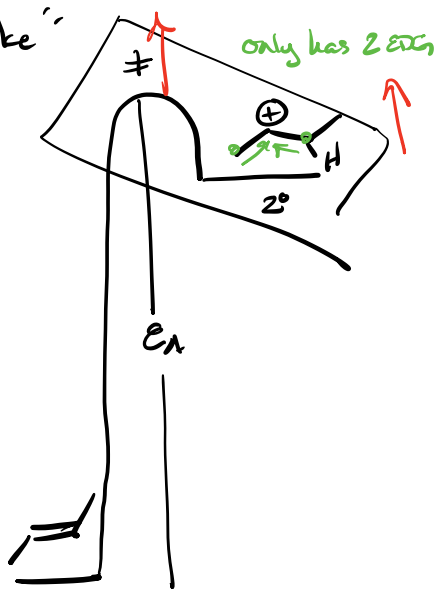
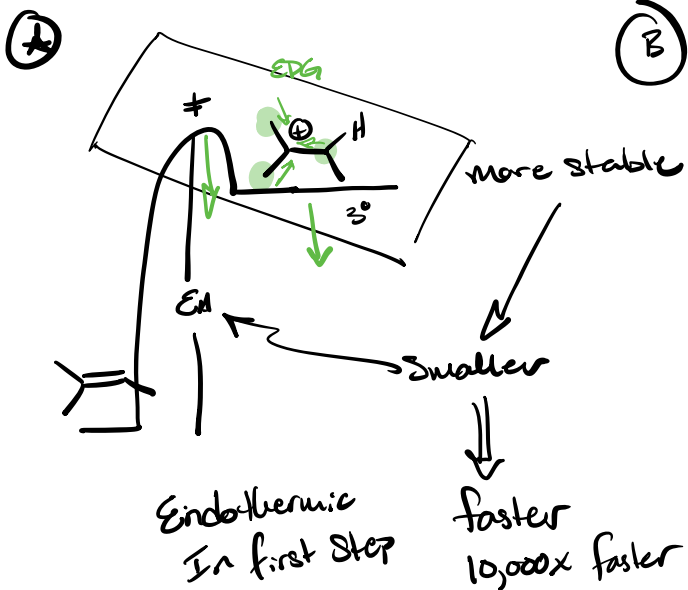


H_2O w/ Acid

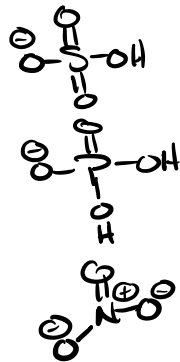
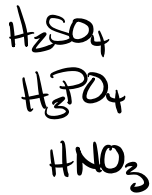
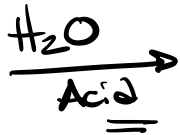




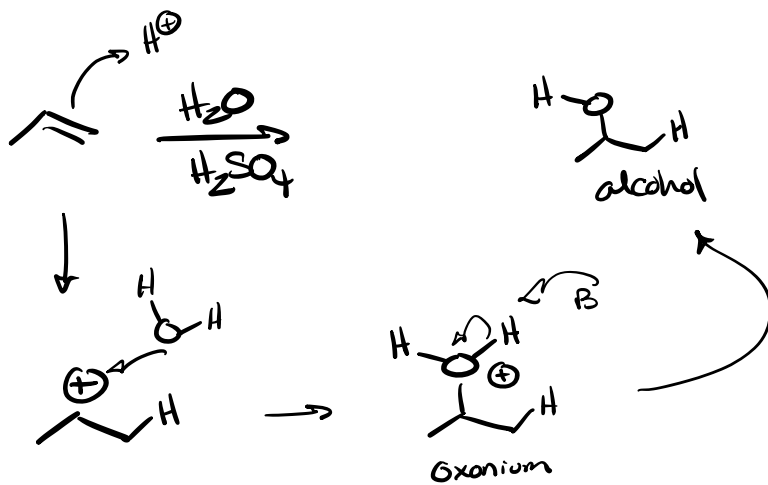
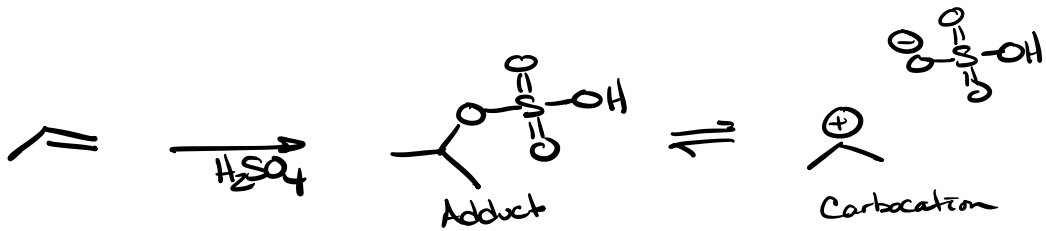
“Transition state product like”



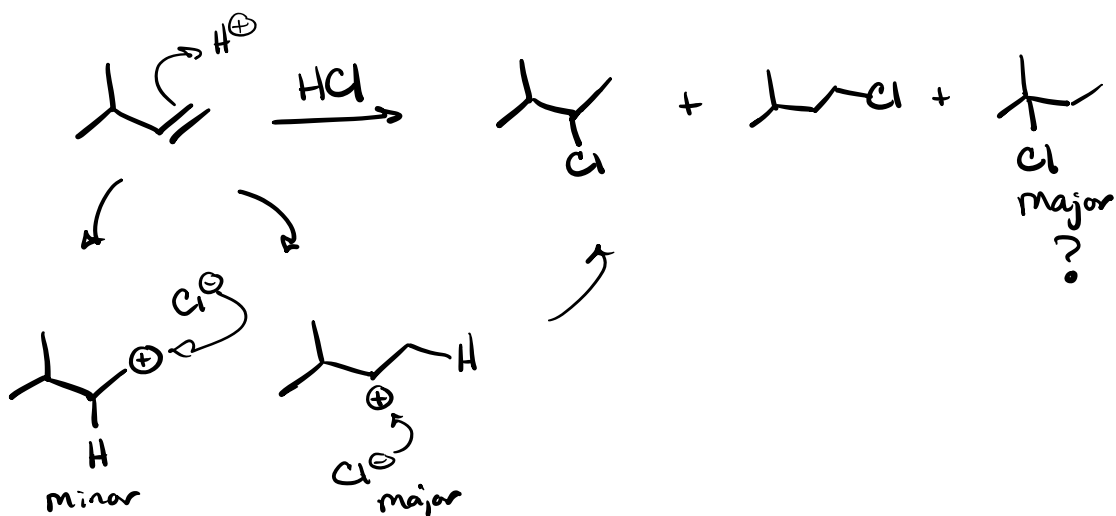
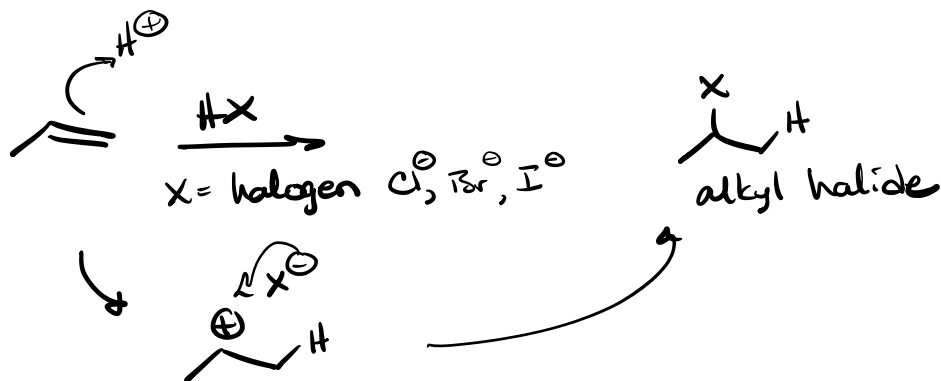
Hydration



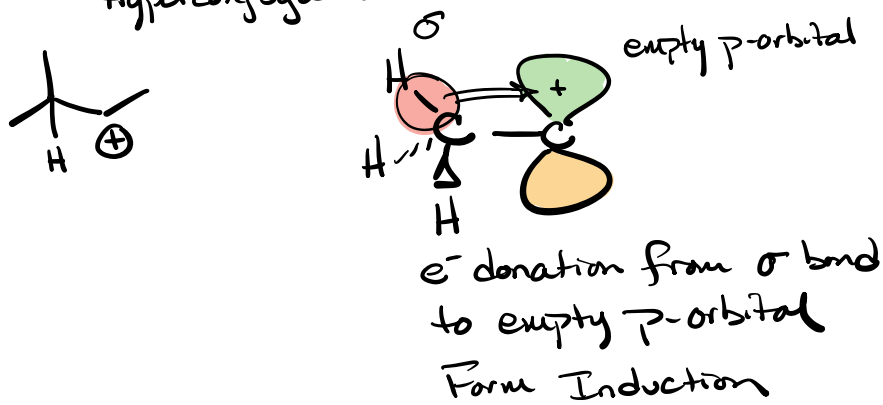
non nucleophilic
not competing
with H_2O
as nucleophile

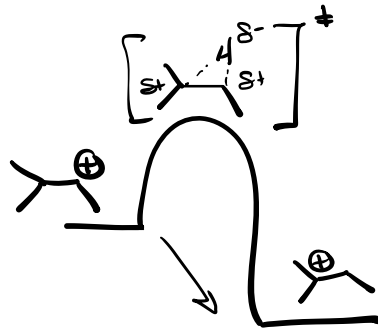
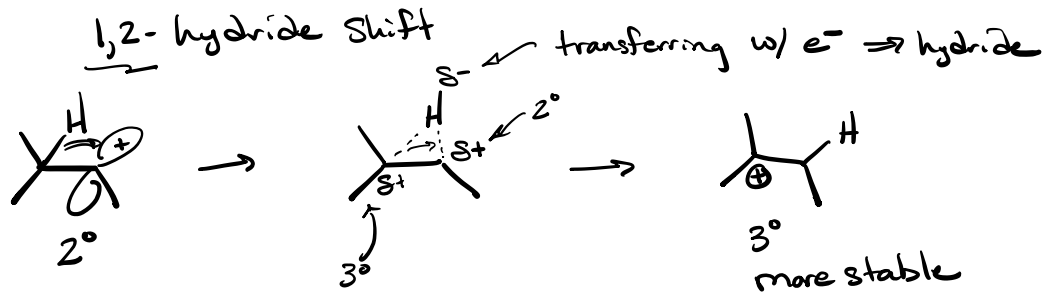


Halogenation



Hyperconjugation





not looking at 1,3 or 1,4 or 1,5

⇒ only 1 shift occurs

⇒ no multiple shifts

Carbocation Studies (Special Studies)

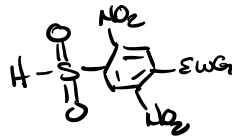


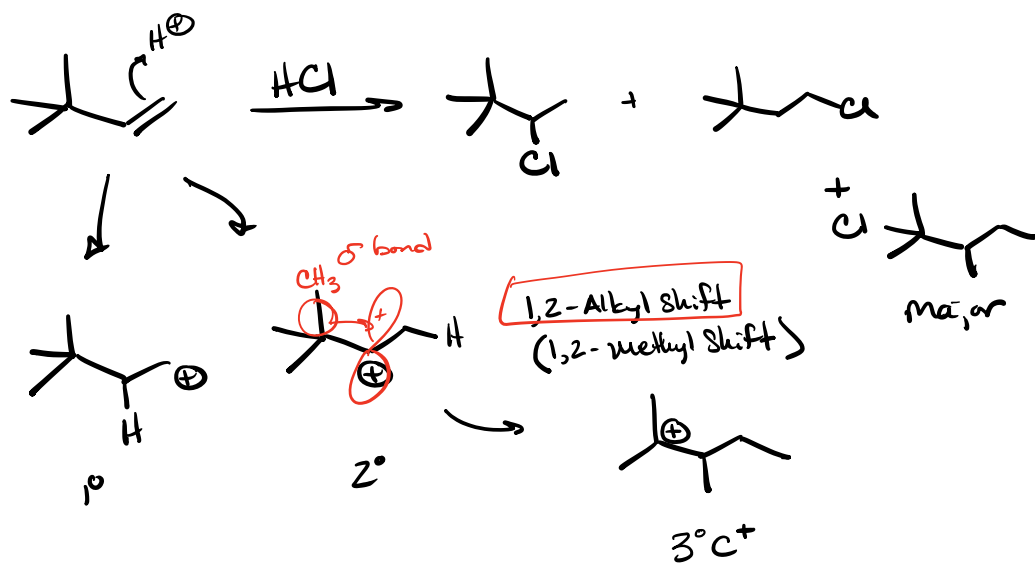
magic acid → many many Rearrangements

or Super acid

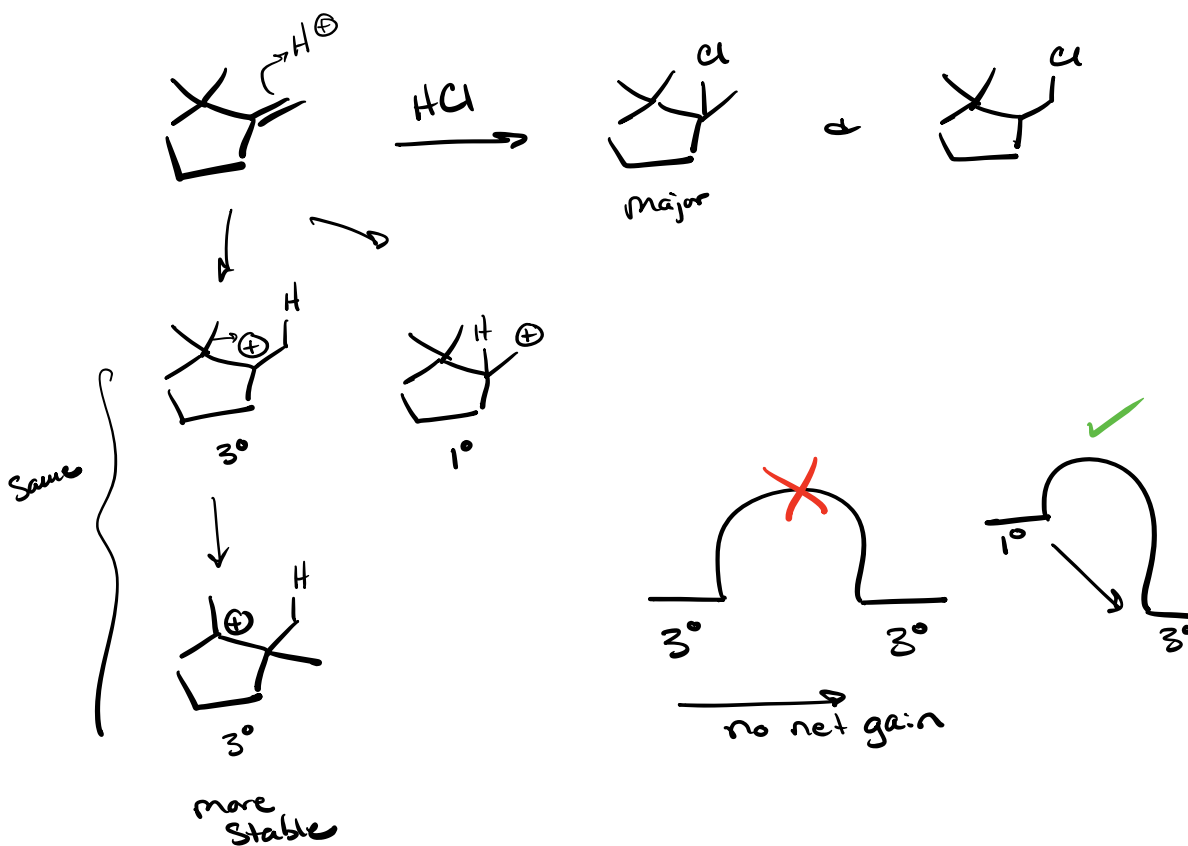
3 days

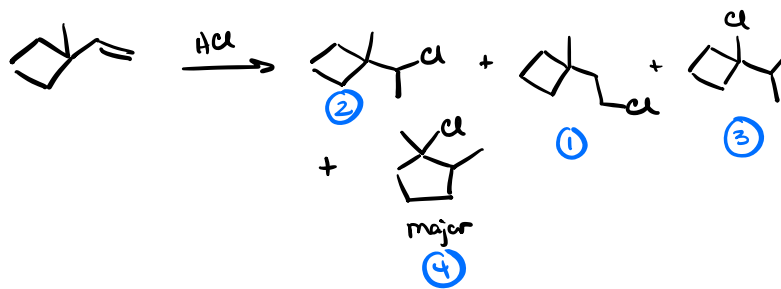
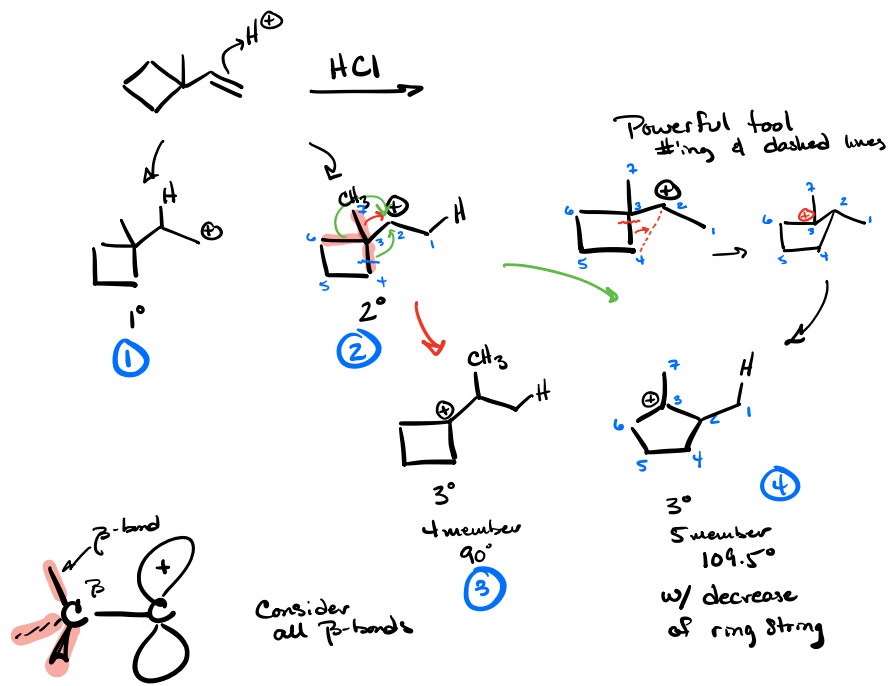
no nucleophile

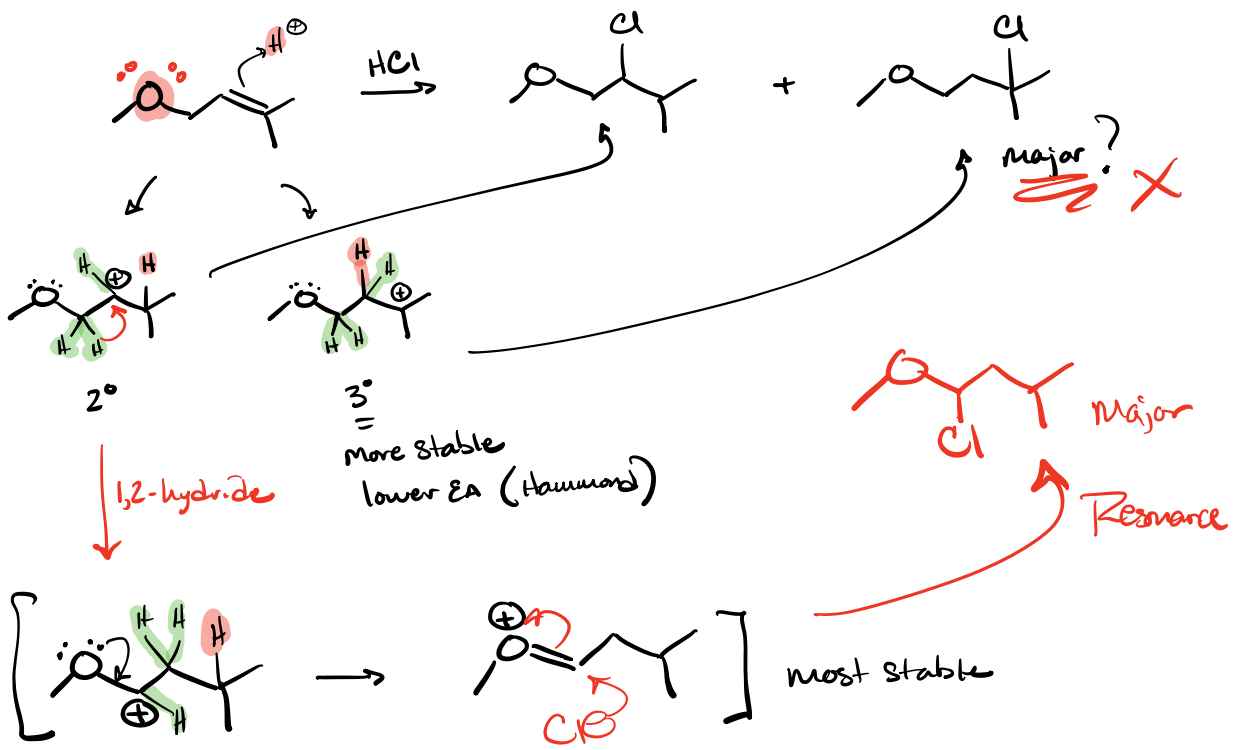




* Any time a C^+ is formed 1,2-hydride & 1,2-Alkyl shifts are possible.




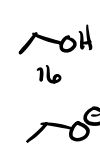






2° Resonance Stabilized C⁺

2° w/ Resonance >> 3°

Resonance always trumps induction

More stabilizing		C [⊖]	N [⊖]	O [⊖]	F [⊖]
↑	EN/hybridization 20 pka	C-H	N-H	O-H	F-H
		60	40	16	3
	Resonance 15-10 pka				
	Size 3-5 pka			4.5	16
	Induction 1-3 pka				

log Scale