

Course 343Lecturer GellmanDay FridayDate 10/Notes Taken By Kirandeep DeolTotal # of Pages 5

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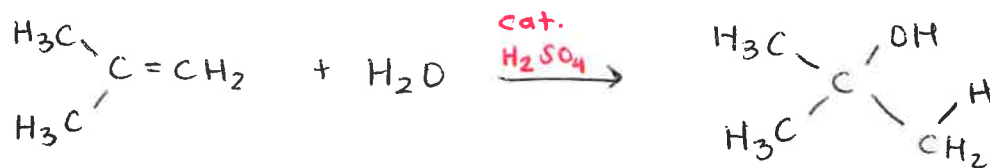
Exam #1 Monday

Chap. 1-4 => locations : by student last name

A-L = Bascom 165

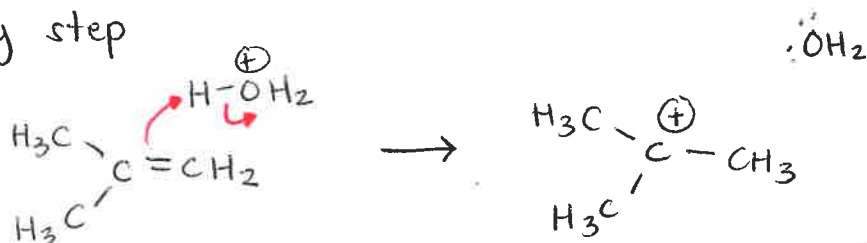
M-Z = HERE

Recall: Acid-catalyzed hydration of alkenes (variation on HX add'n)



Mechanism ...

key step



Why need acid catalyst?

H-OH pKa ~ 16

H-OH⁺ pKa ~ -2

NOTE: ALL STEPS in
 this mechanism
 are REVERSIBLE

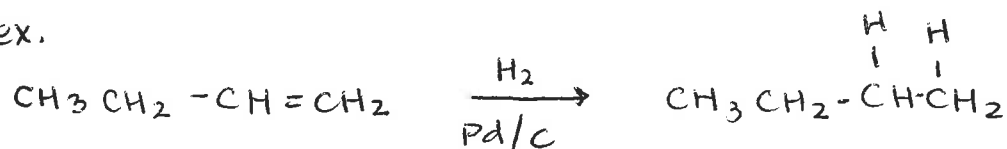
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Another catalysis example - Hydrogenation of alkenes

cat. = Pd/C

ex.



• the mechanism is ~~unclear~~ ^{unclear}

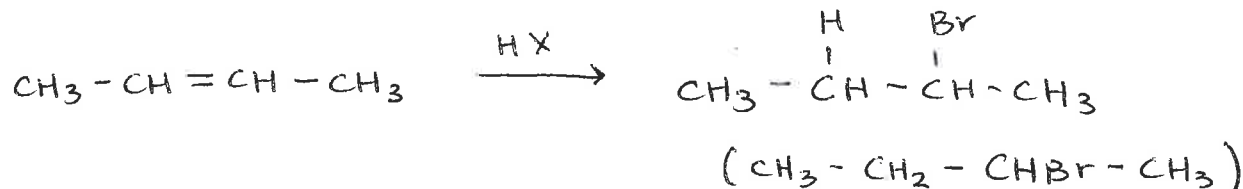
CHAPTER 5 - addition rxns of alkenes

Problems : 1-22, ~~24~~ 27-38, 47-54

overview (general themes)

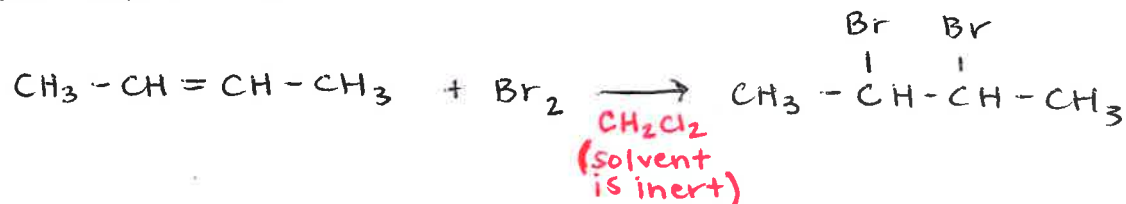
- alkene π system = nucleophile
- partner = electrophile = vary

Recall: HX



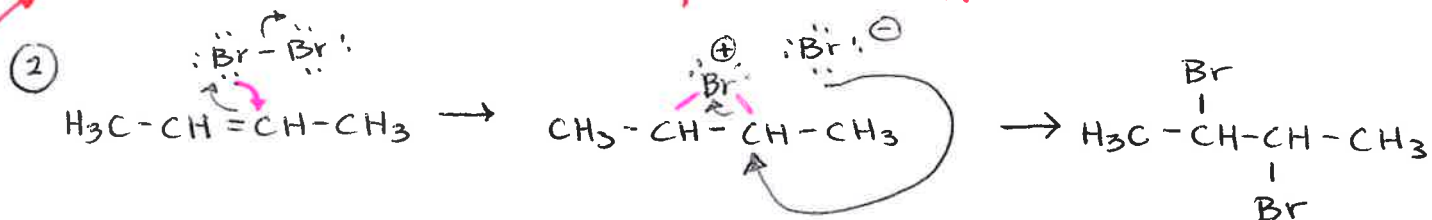
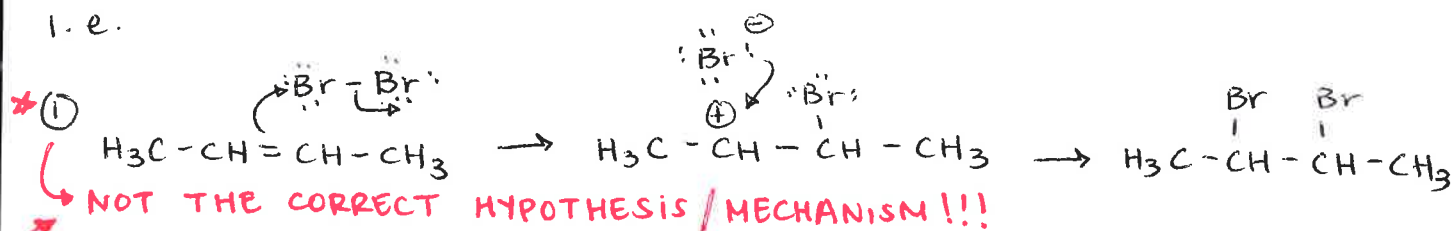
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New reactions:

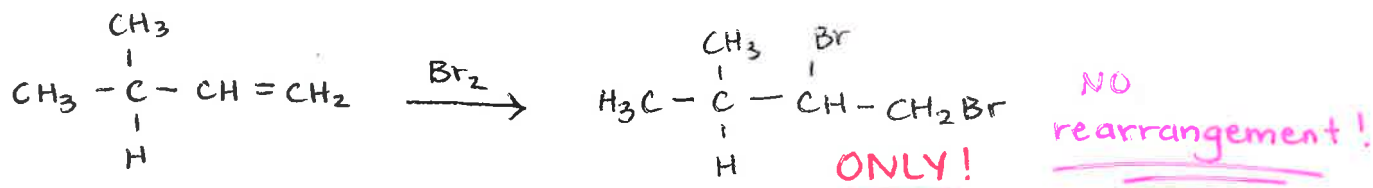


Mechanism: Direct extension from HX?

i.e.



observe:



∴ Disprove hypothesis ①

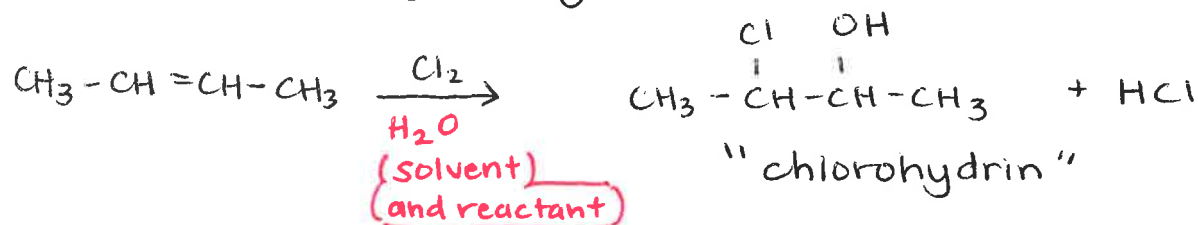
ONLY HYPOTHESIS ② IS CONSISTENT w/ LACK of rearrangement.

Note: same for Cl₂

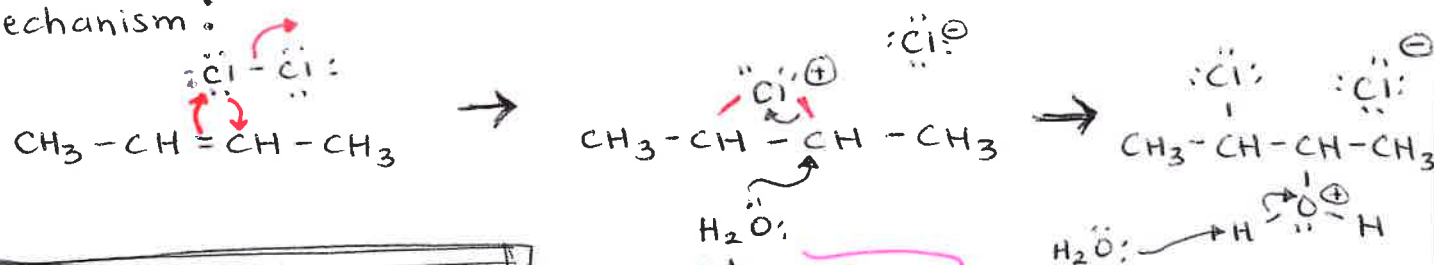
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Another rxn: Halohydrin formation



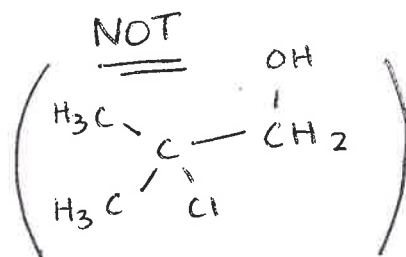
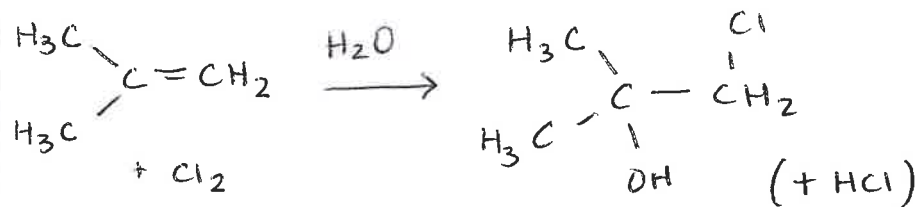
Mechanism:



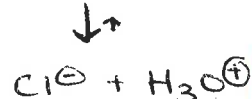
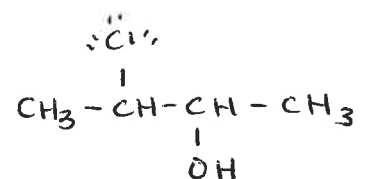
"Regioselectivity"?

i.e. what happens if the alkene is unsymmetrical

ex.



there is a "sea" of water vs. Cl^- ions



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Rationale?



must
really
→
be