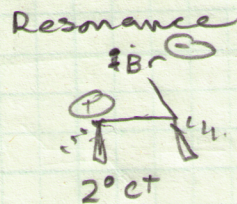
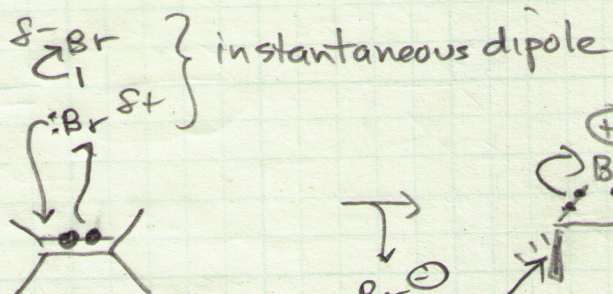
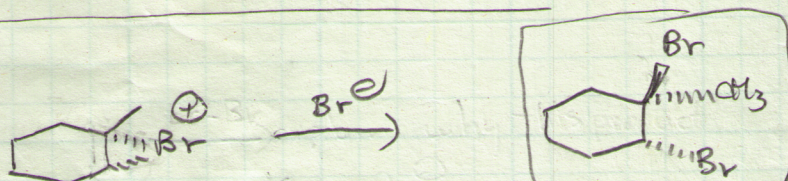
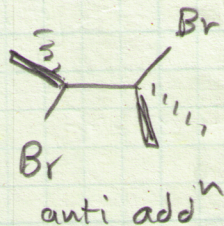
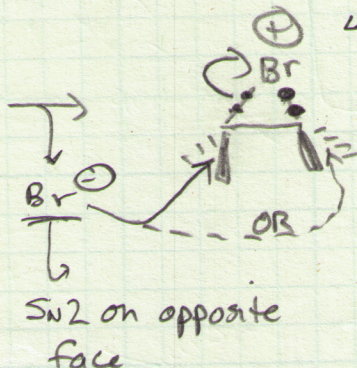


Dihalogenation Mechanism

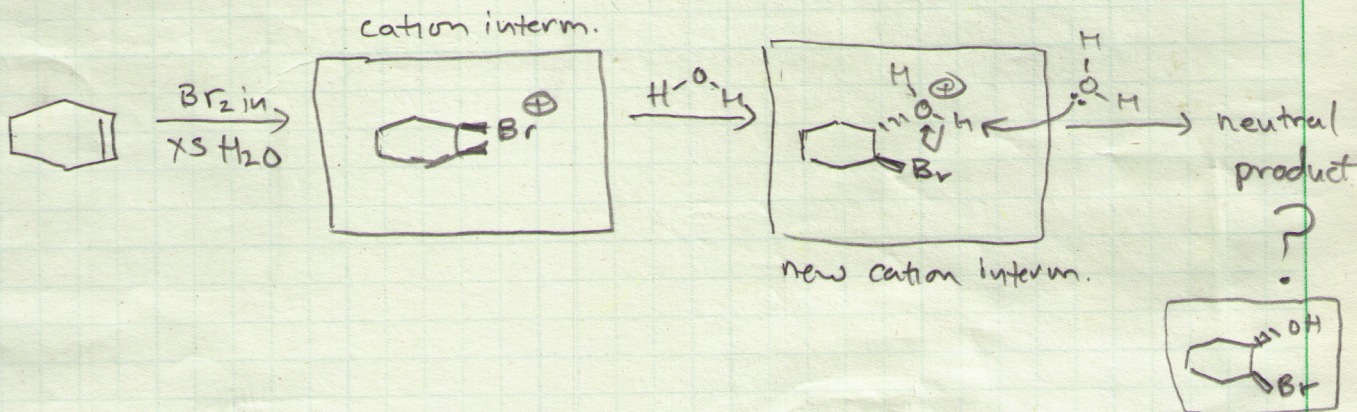


syn addⁿ to top OR bottom face

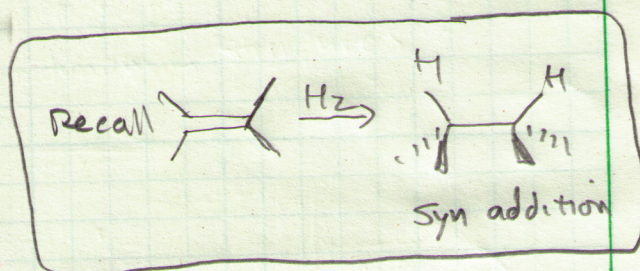
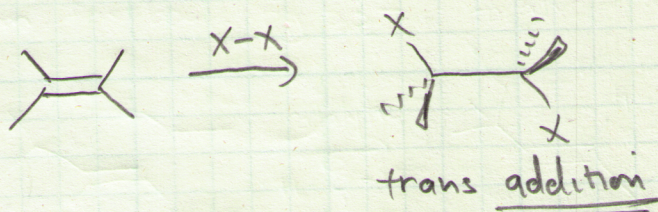


explain why this product is preferred.

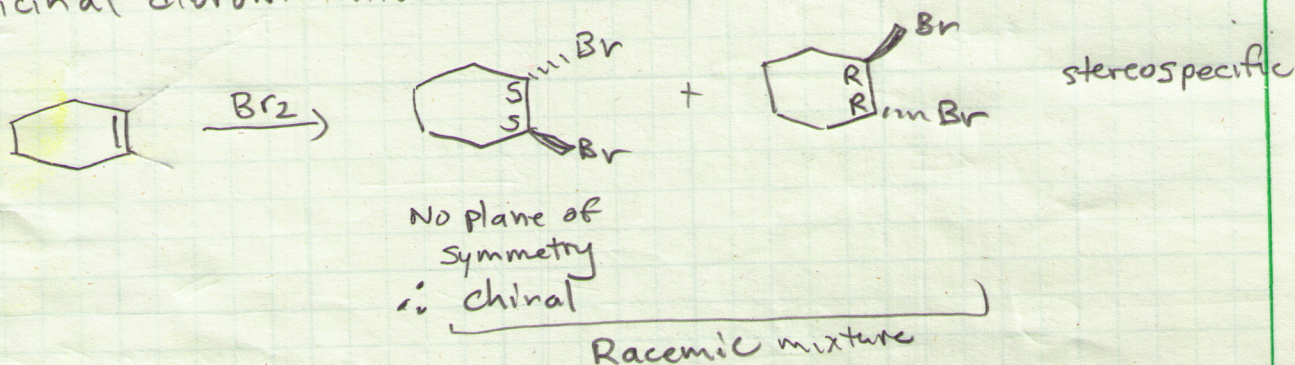
Bromohydrin addⁿ (Br₂, H₂O(XS))



Halogenation of Alkenes

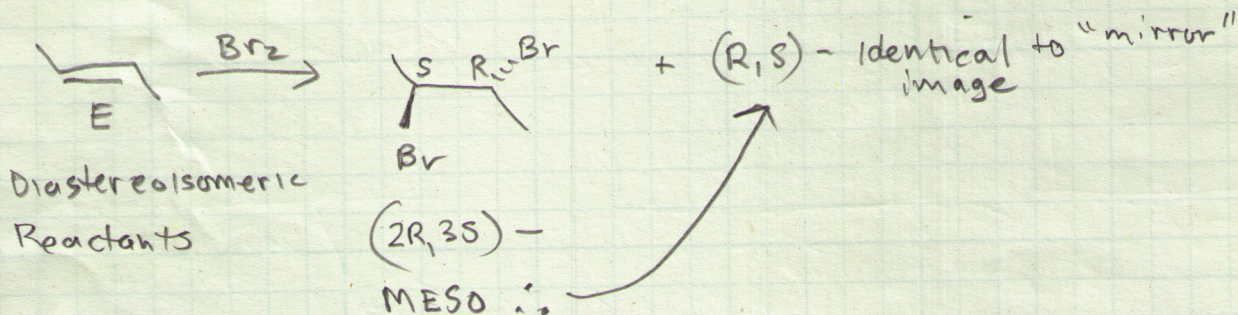
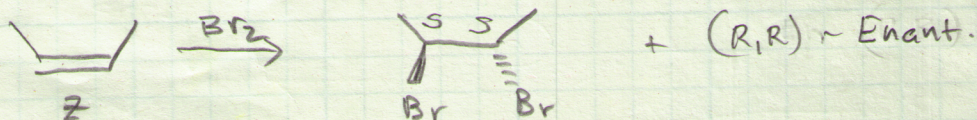


Vicinal dibromination

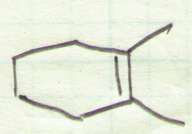


Stereospecific Rxn

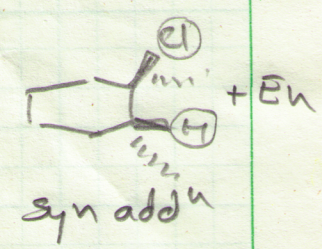
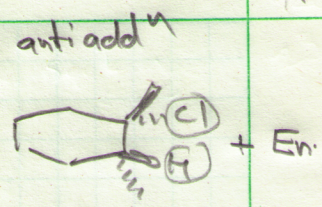
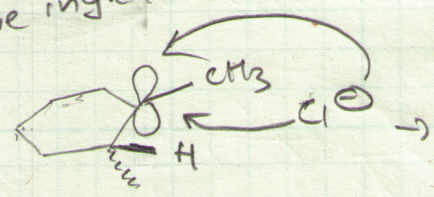
if stereoisomeric reactants give a unique set of stereoisomeric products



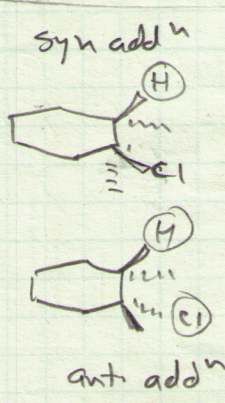
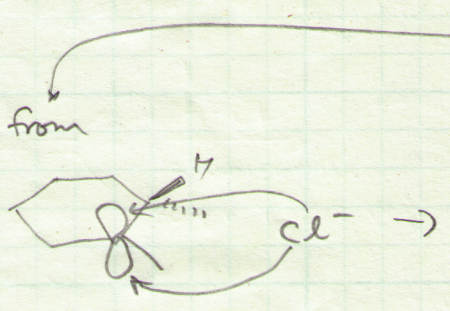
TWO STEREOCENTERS



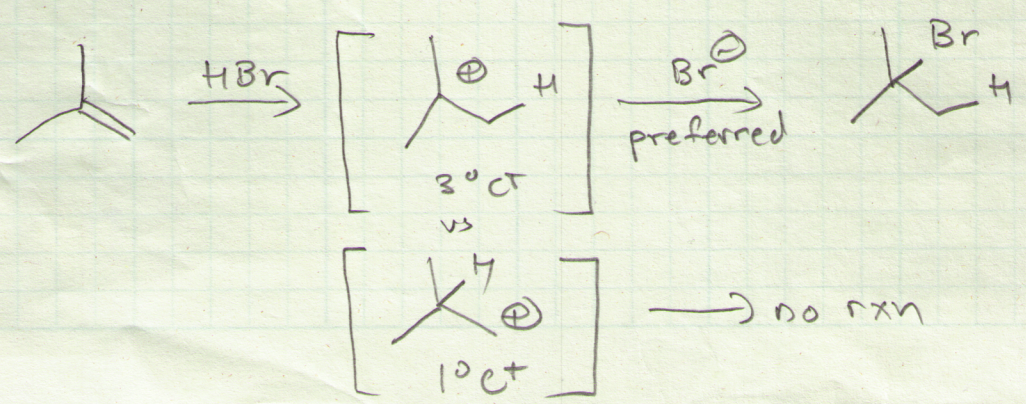
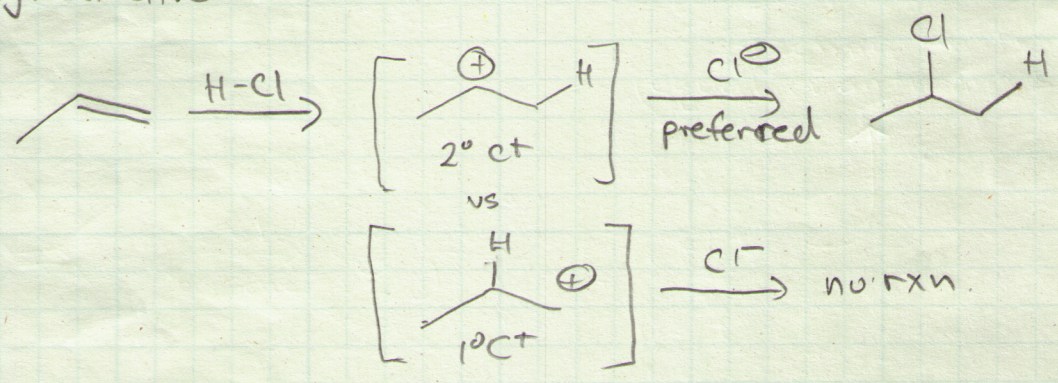
active ingredient
 HCl
 non reactive solvent
 (CH_3COOH)
 [acetic acid]



En = enantiomer



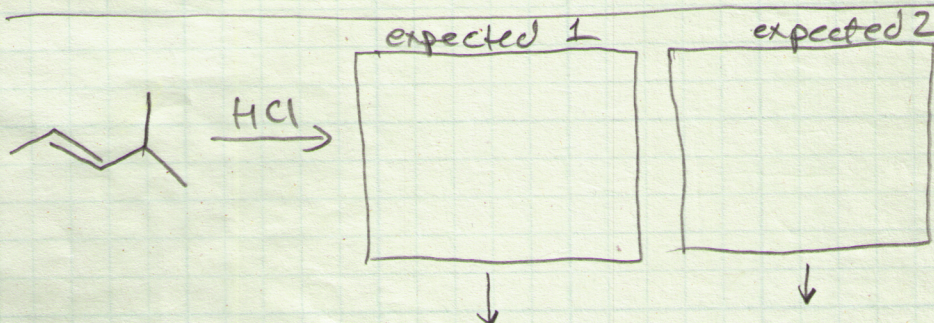
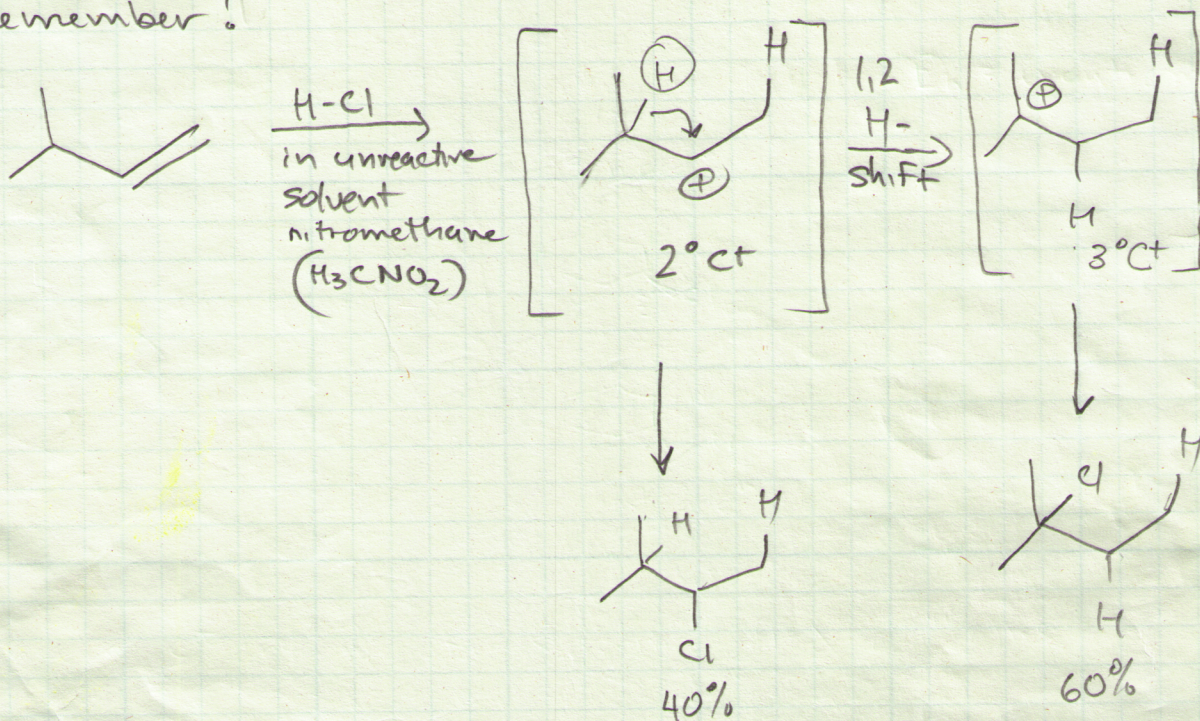
Since a C^+ intermediate is formed, H-X addⁿ rxns are regioselective



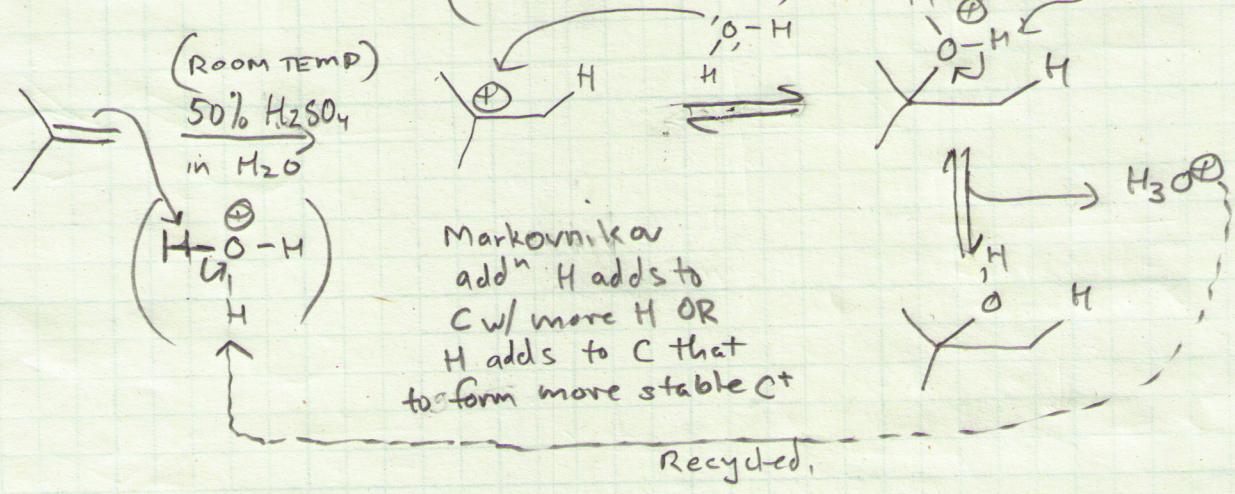
Markovnikov's Rule w/ H-X

H^+ Lewis Acid will add to the C of $C=C$ to give the more stable C^+ intermediate. X^- will add to the C^+ .

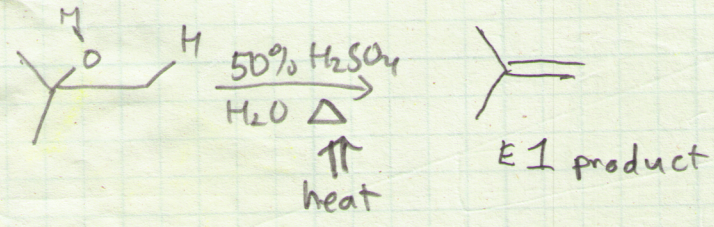
Remember?



Hydration of an Alkene (H-OH addition)

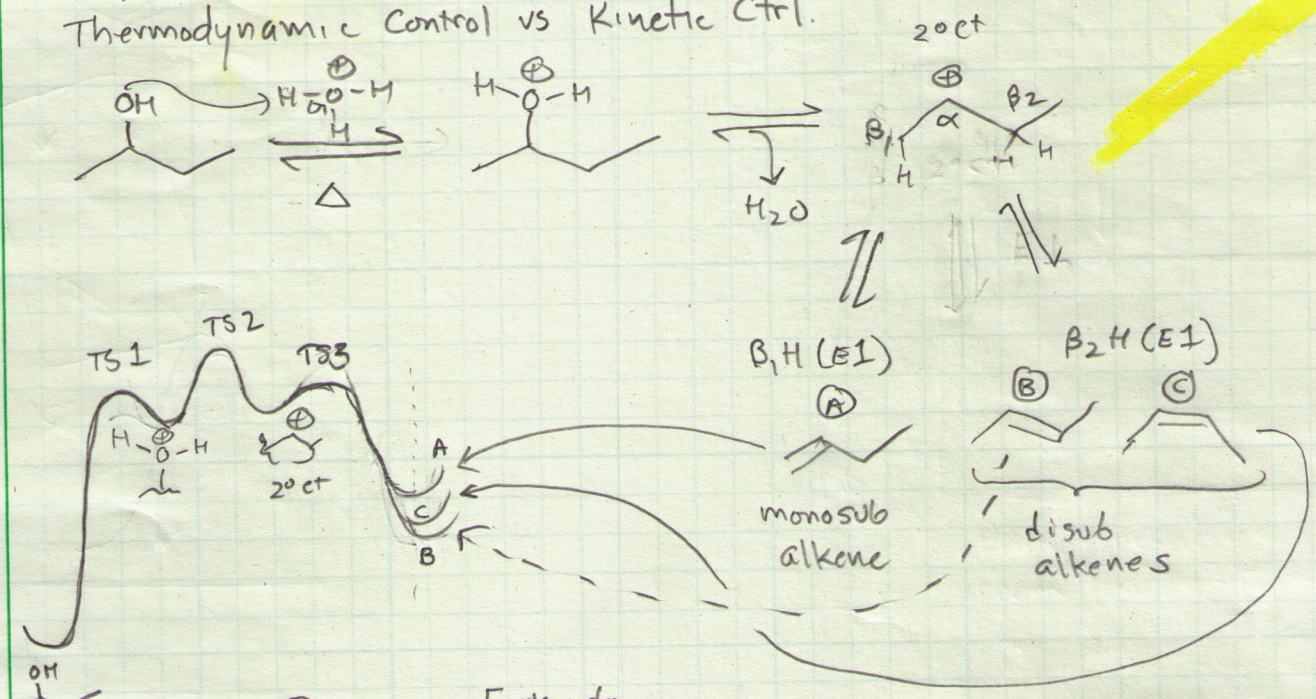


Recall



Dehydration Revisited.

Thermodynamic Control vs Kinetic Ctrl.



(A) Reverses Faster to 2° ct intermediate which can do another E1 to (B) or (C)

Reversibility of (B) and (C) back to 2° ct intermediate is slower
So products will accumulate rel. to (A)