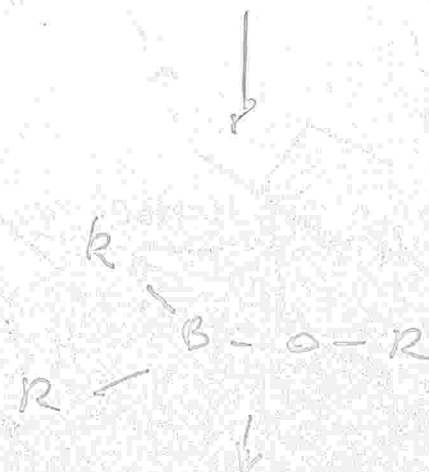
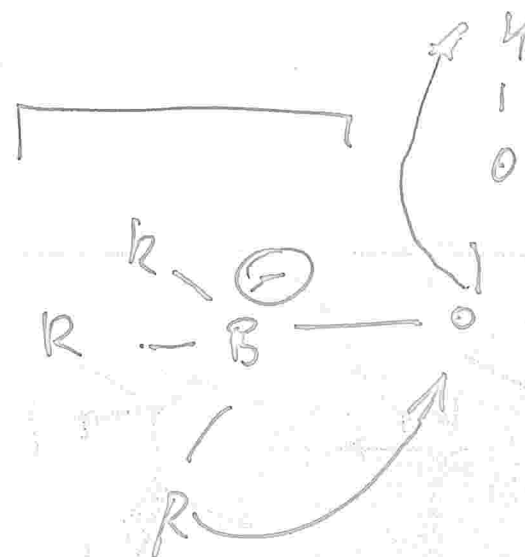
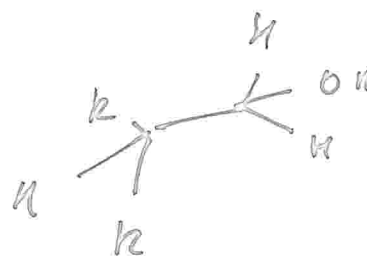
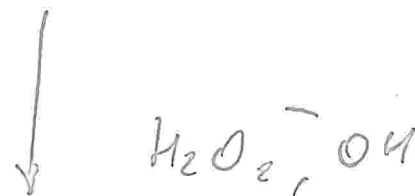
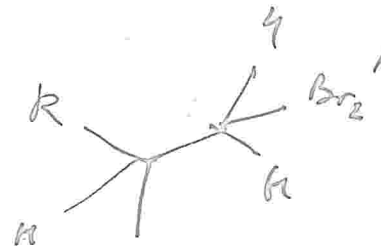
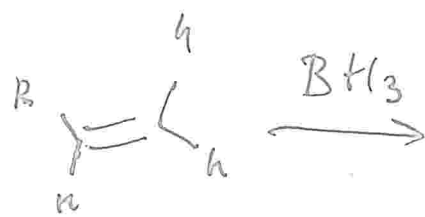
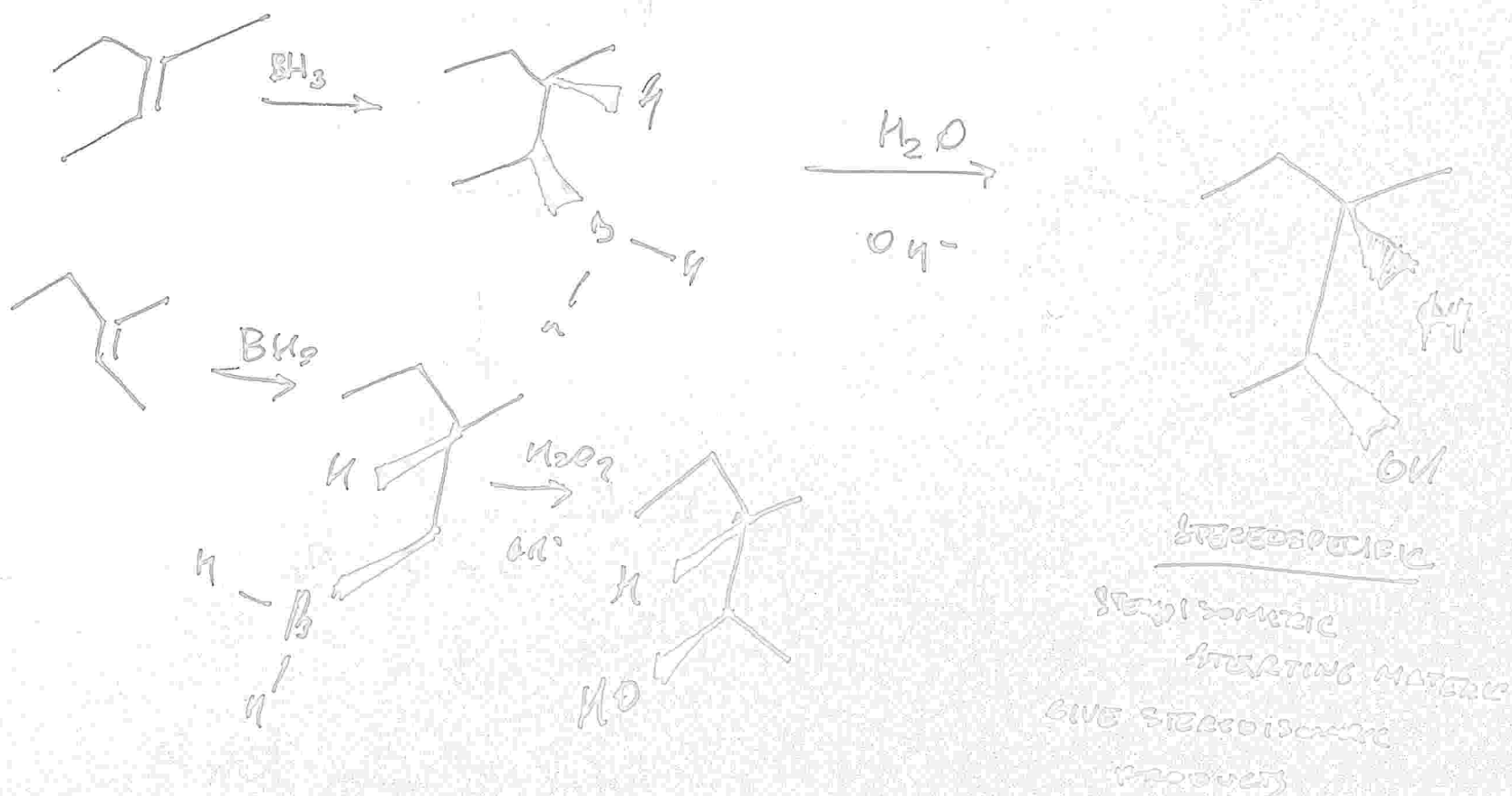
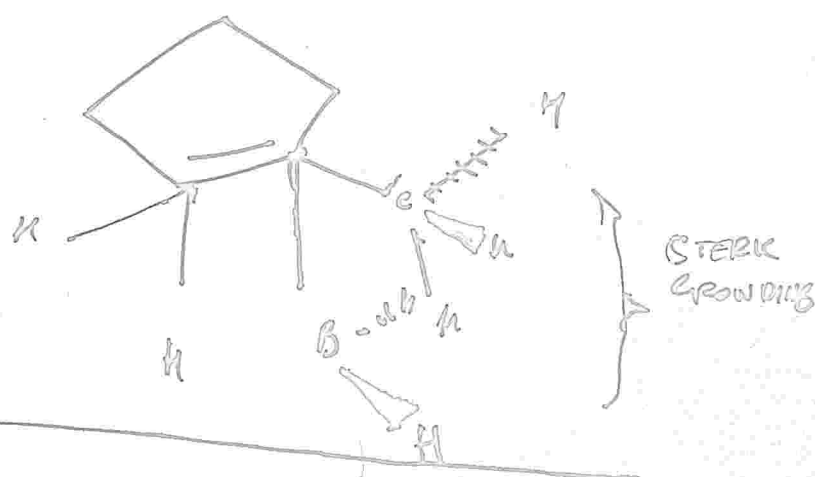
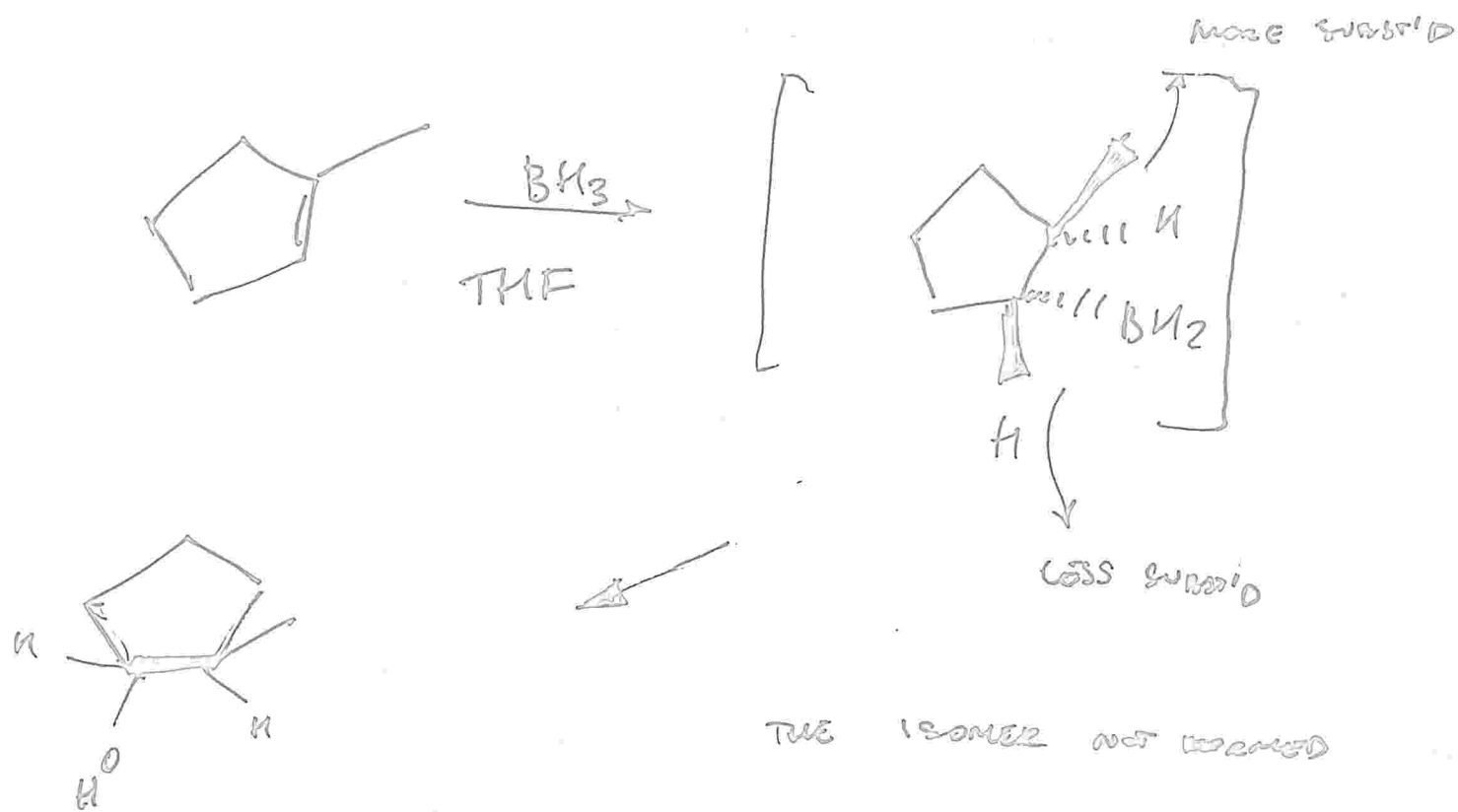


HYDROBORATION OF ALKENES



# DATE: MARKOVNIKOV HYDRATION



# MECHANISM OF ALKENE HYDROGENATION:

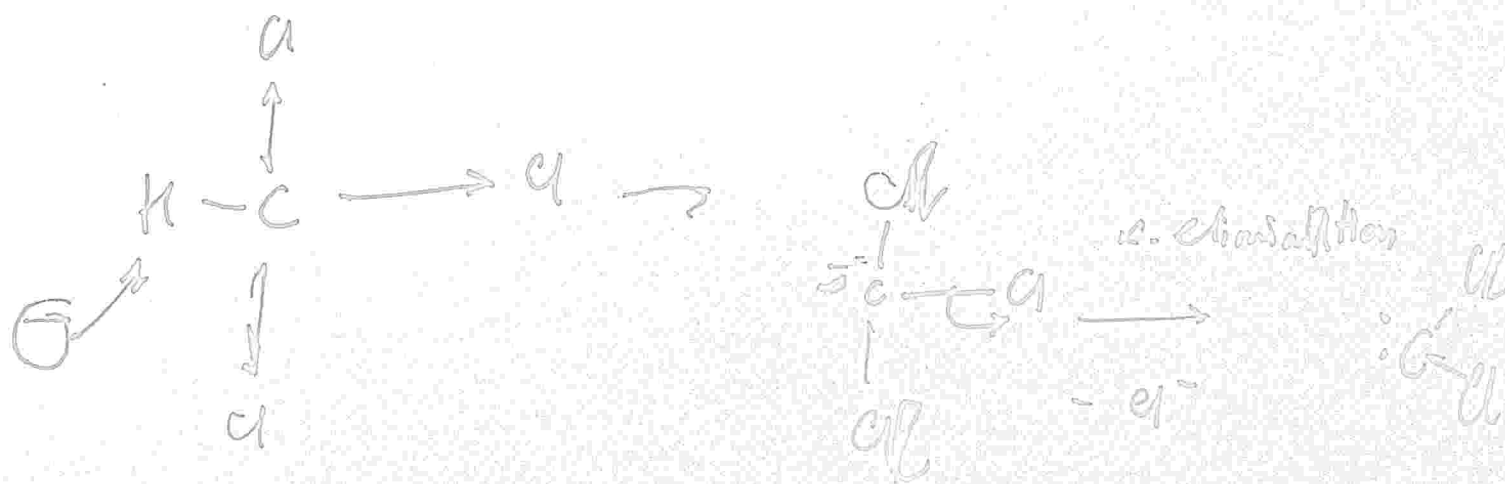
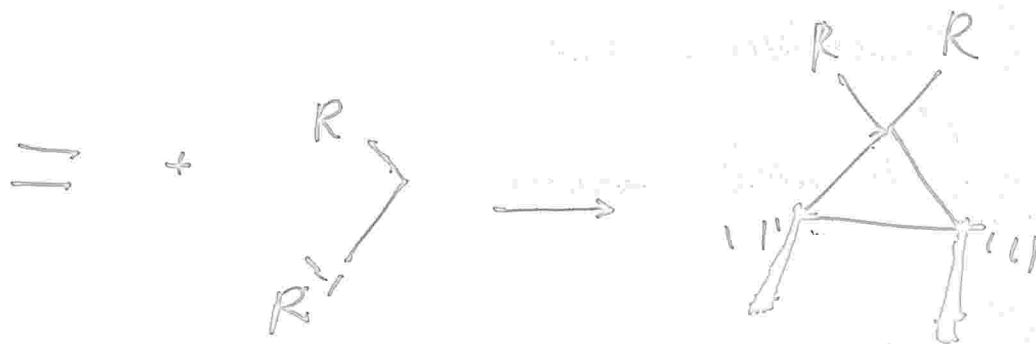
H-H IS DELIVERED WITH SYN  
STEREO CHEMISTRY FROM HYDROGEN  
AND TO THE SAME FACE OF  
THE DOUBLE BOND

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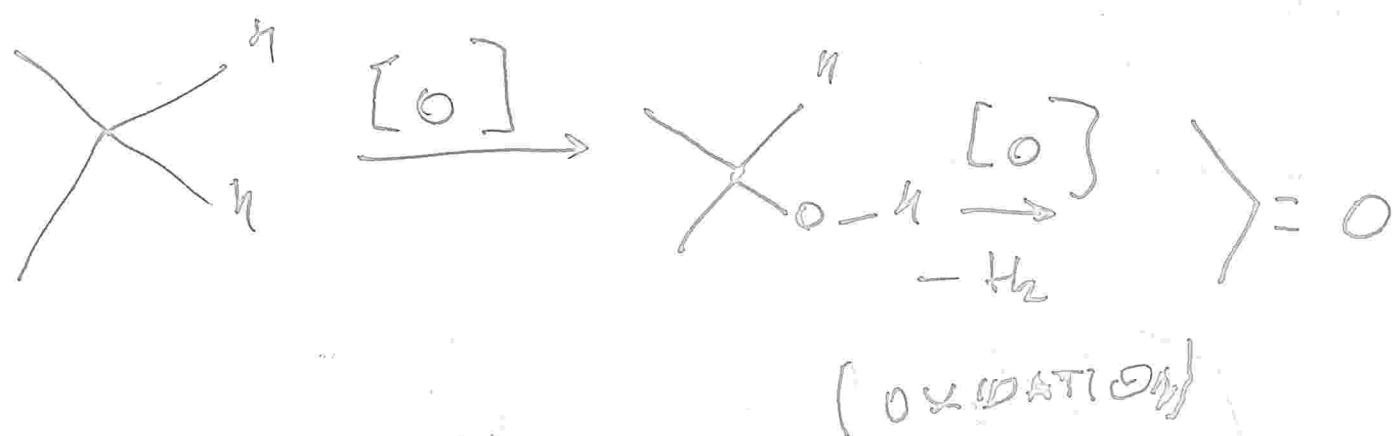
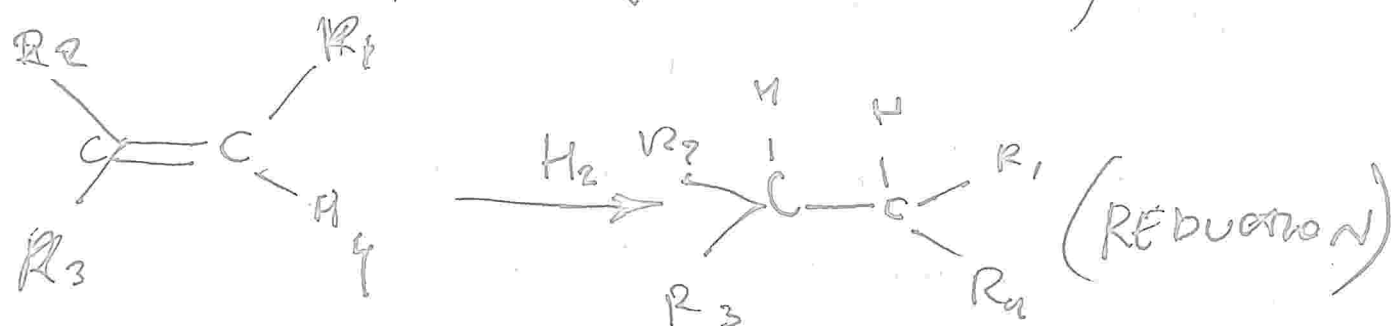
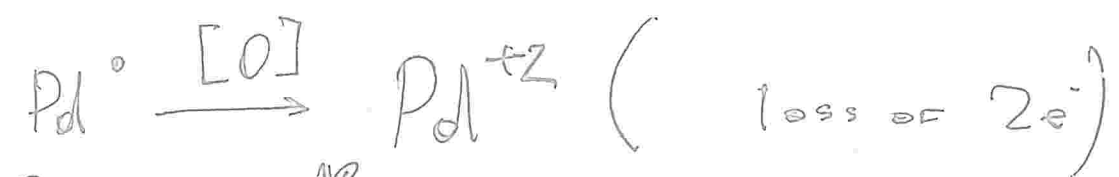
## CHEMOSELECTIVITY



## CYCLOPROPANE



NOTE THAT HYDROGENATION IS  
STEREOSPECIFIC



REAGENT

$\text{Pd/C}$  (Palladium on carbon)

$\text{PtO}_2$  (Adams catalyst)

METAL CARBENOIDS REACT WITH  
ALKENES TO FORM NONHALOGENATED  
CYCLOPROPANES

