

- ① HX ADDITION
- ② OXYMERCURATION
- ③ HYDROBORATION
- ④ REDUCTION

READ 10.7-10.9, 8.1-8.2

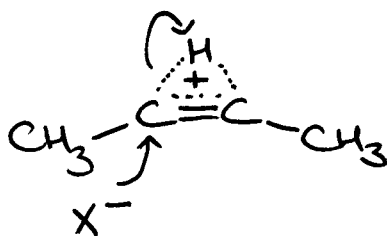
PROBLEMS 10.4, 10.16, 10.17, 10.21-23

① HX

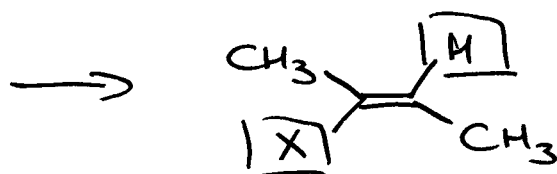


VINYLIC C⁺ UNSTABLE, 2° C⁺ VINYLIC ≈ 1° C⁺
and 1° C⁺ not a viable rxn intermediate

PROPOSED
INTERMEDIATE

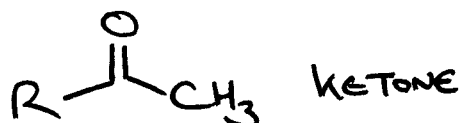
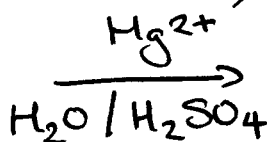
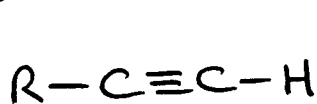


CYCLIC PROTONIUM
ION



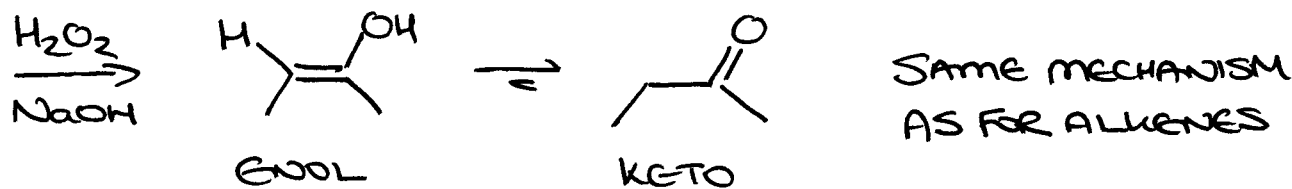
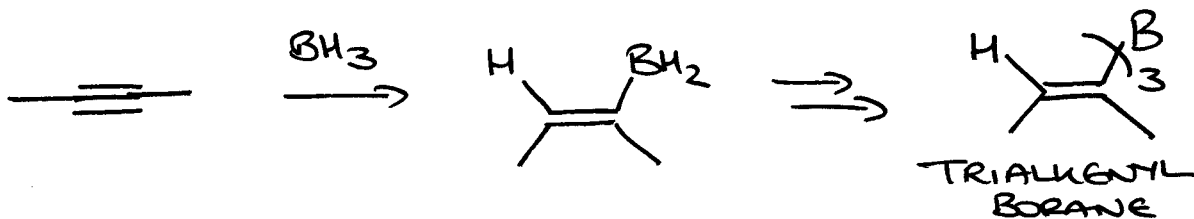
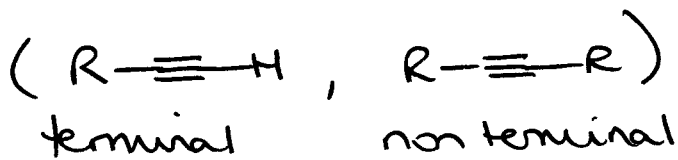
ACCOUNTS FOR
TRANS SELECTIVITY

② OXYMERCURATION

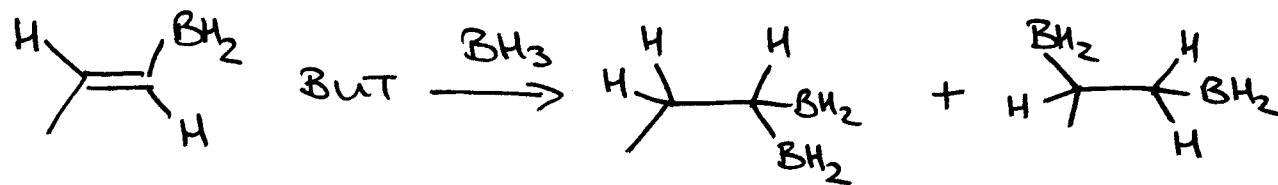
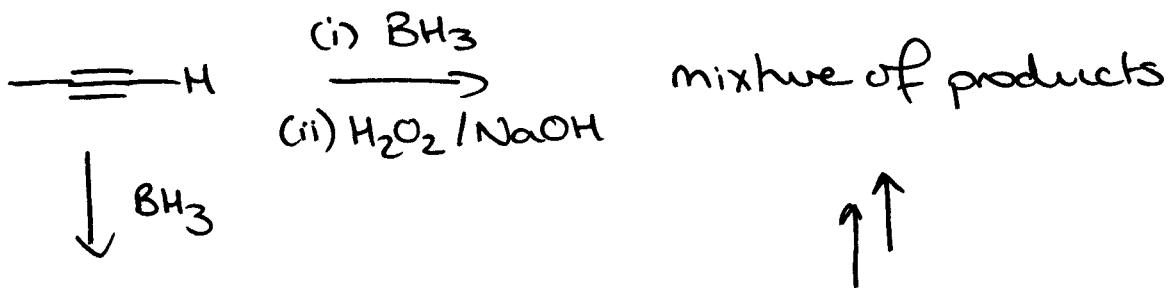


Hg(OAc)₂ or HgSO₄

③ HYDROBORATION

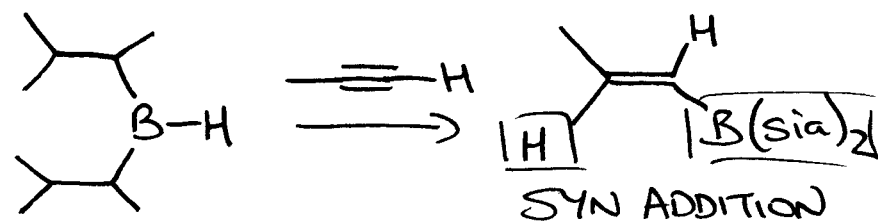


Terminal Alkynes



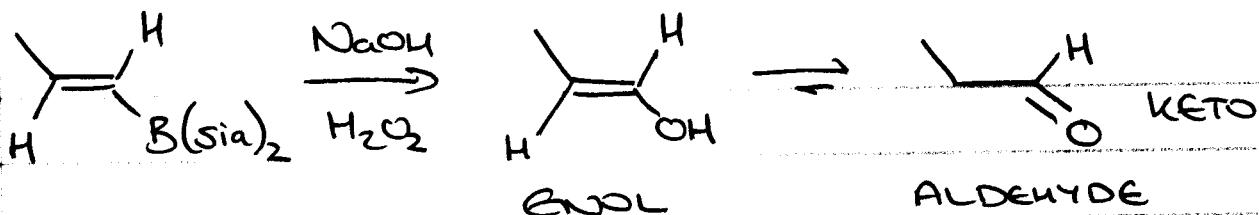
ANTI MARKOVNIKOV

DISIAMYL BORANE $(\text{sia})_2\text{BH}$

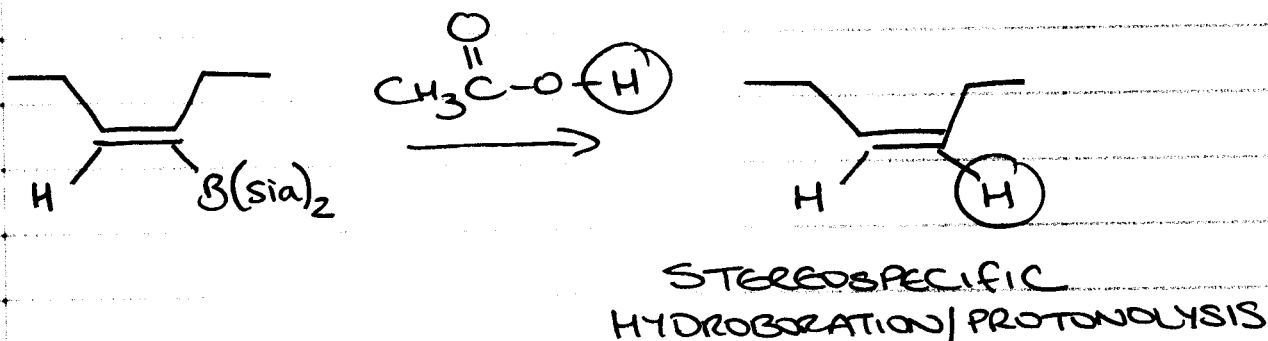


STOPS HERE, ONLY ONE B-H ADDITION (STERICS)

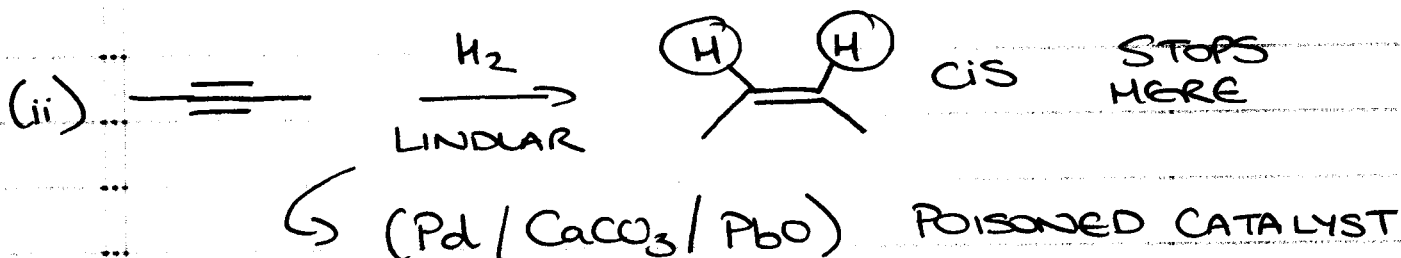
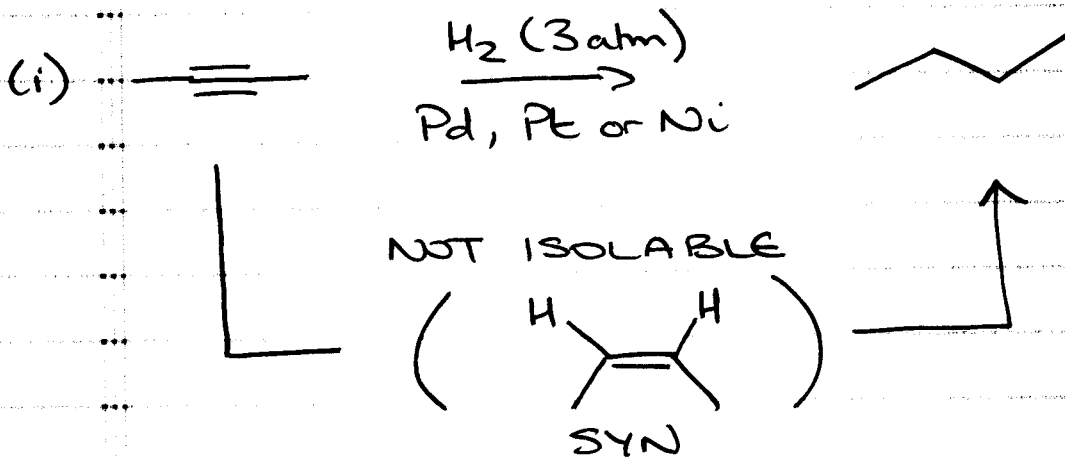
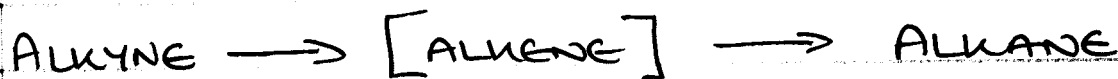
4



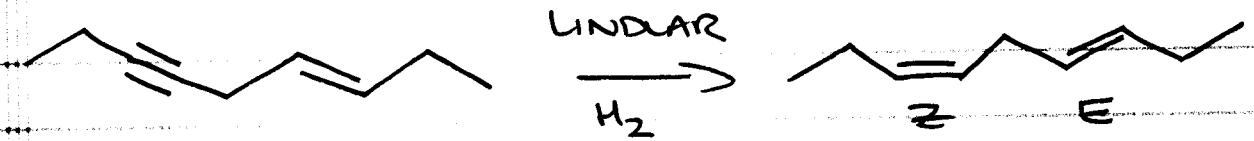
REACTION w/ ACETIC ACID



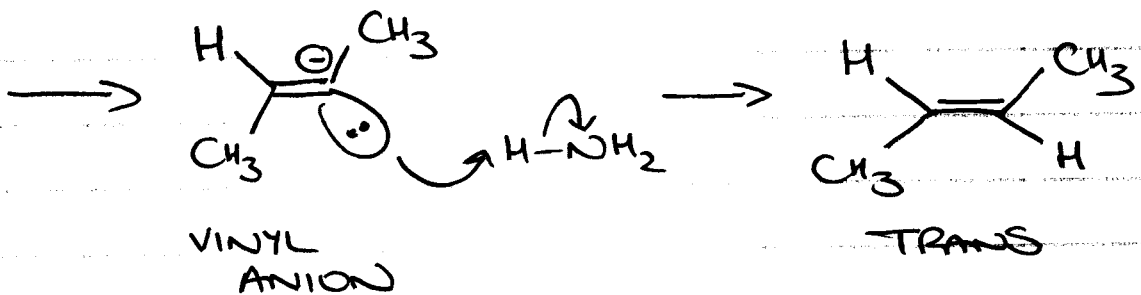
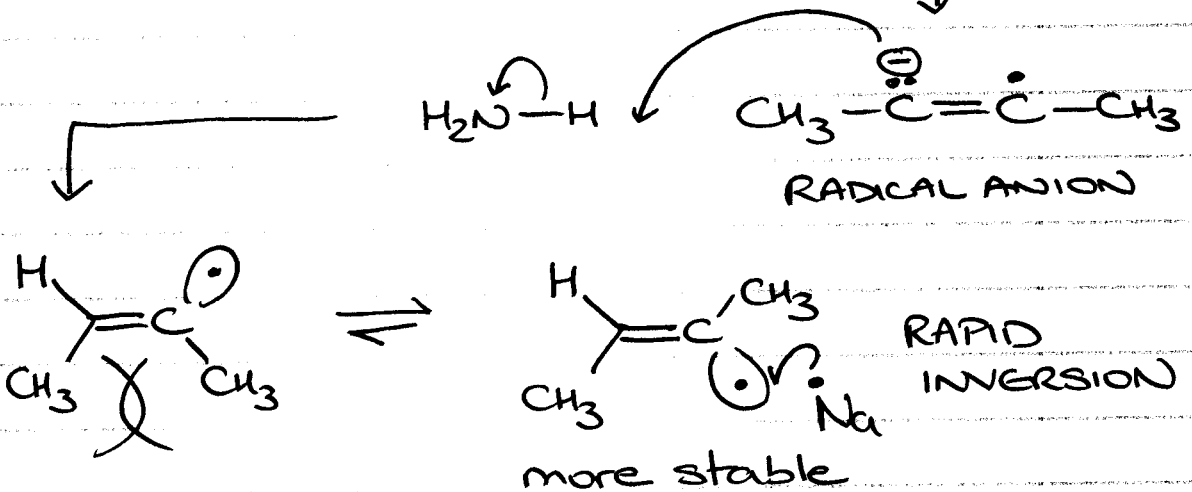
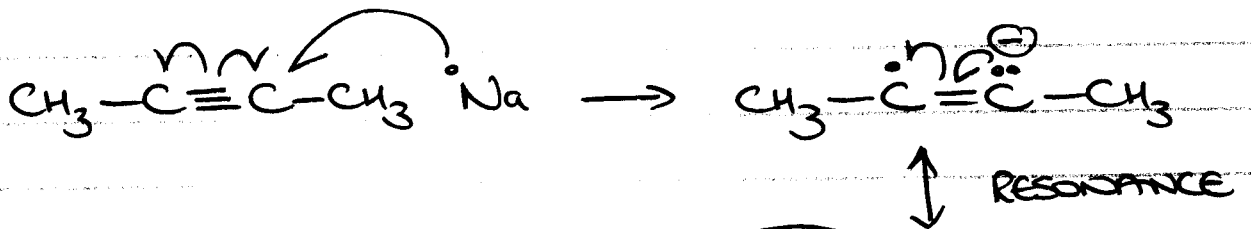
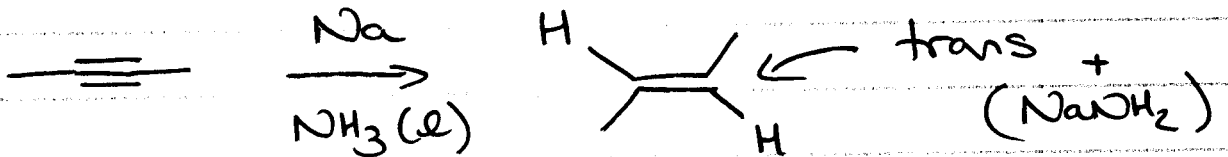
4 REDUCTION



(5)



(iii) DISSOLVING METAL REDUCTION



DOES NOT WORK WITH TERMINAL ALKYNES

