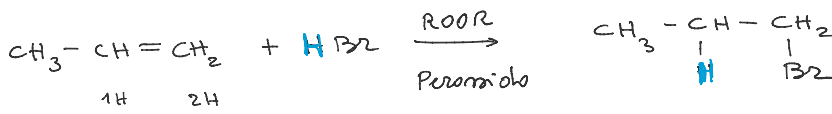


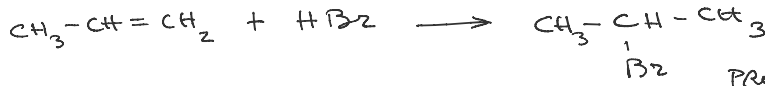
ADDIZIONE DI HBr IN CONDIZIONI RADICALICHE

Amezzare oli Solvente
 ATe T
 Presenza di ROOR



Il prodotto contraddice le regole di MARKOVNIKOV

PRODOTTO ANTI-MARKOVNIKOV



PRODOTTO MARKOVNIKOV

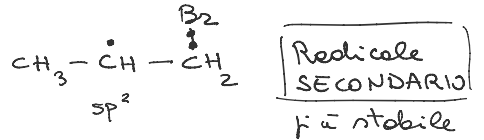
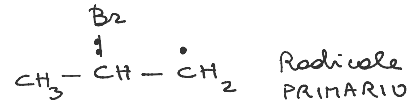
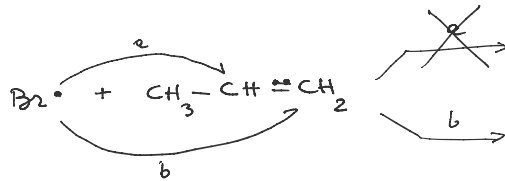
Mecanismo Radicalico

INIZIAZIONE

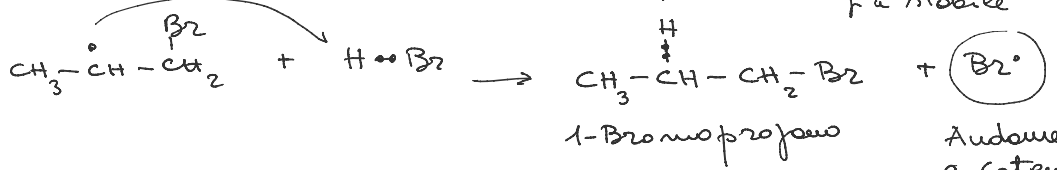


PROPAGAZIONE

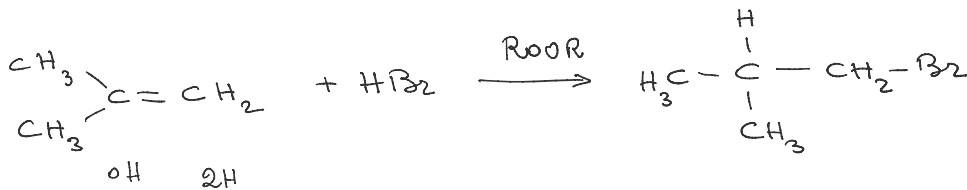
Addizione



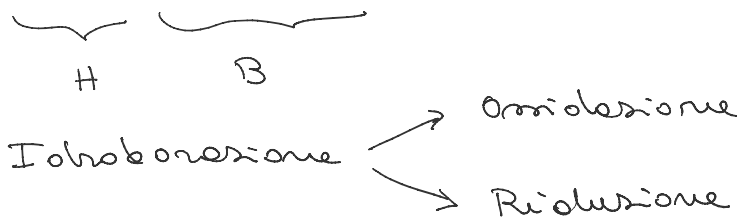
Transfer



Aumento a catena



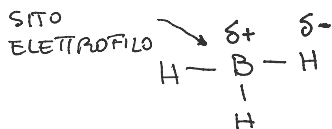
IDRIBORAZIONE (Addizione di Boreno BH₃)

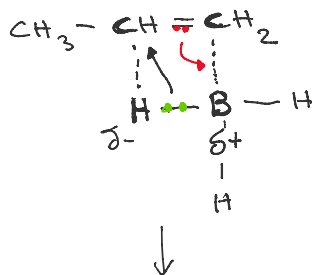


- ① Regioselective
- ② Stereospecifica
- ③ Non de' trasposizioni

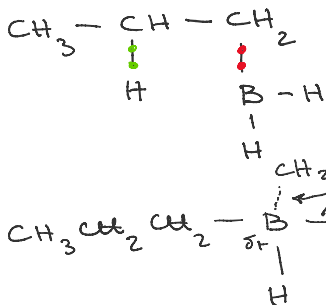
B₂H₆ Diboreno → monomero BH₃

BH₃ è un IDRURO DI BORO

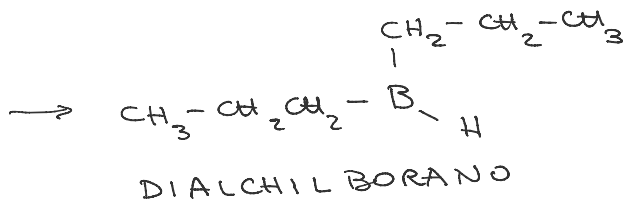




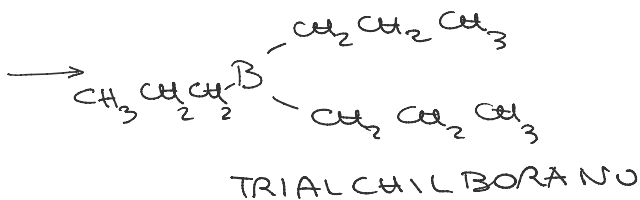
Stato di Transizione a 4 CENTRI



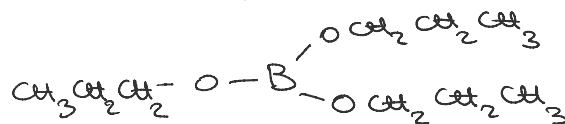
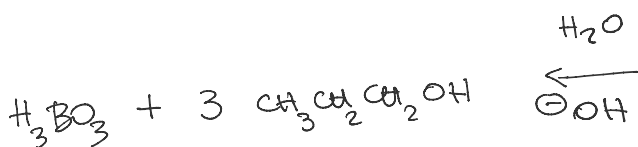
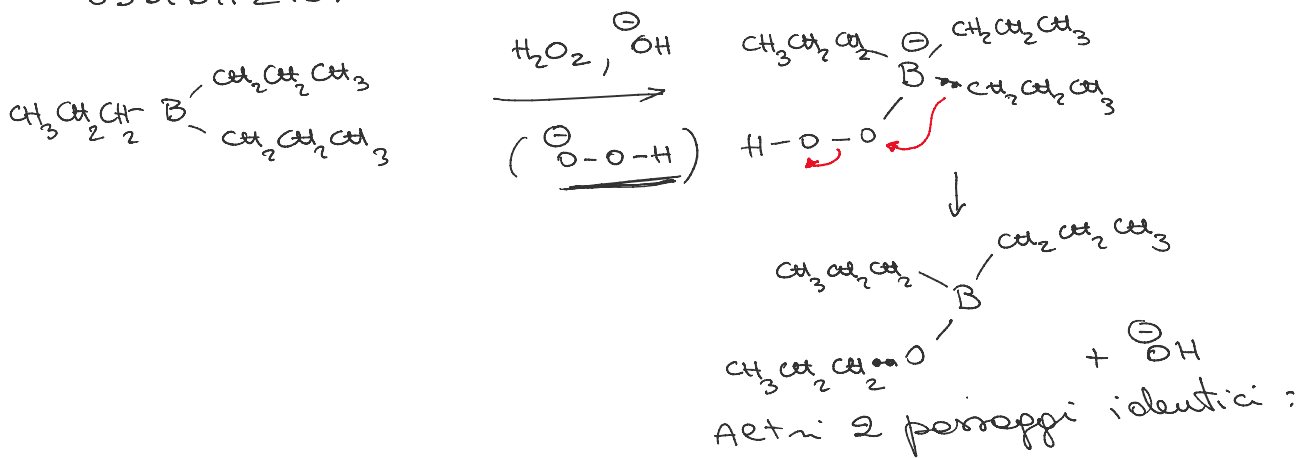
ALCHIL BORANO (Propil borano)



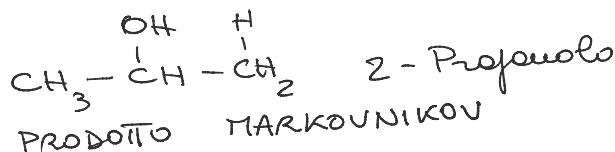
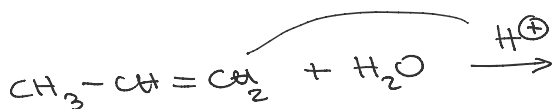
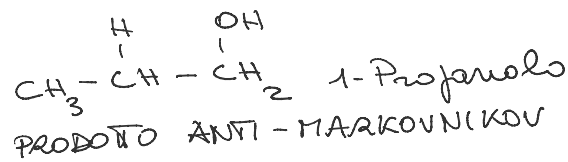
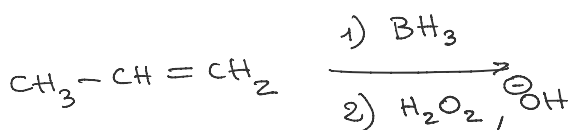
Altro stato di transizione a 4 centri con un'altra molecola di propene



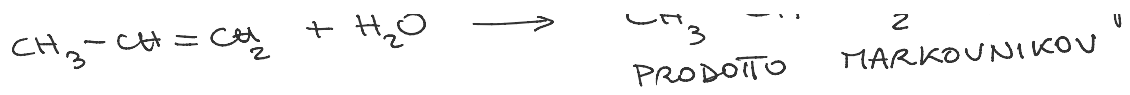
OSSIDAZIONE



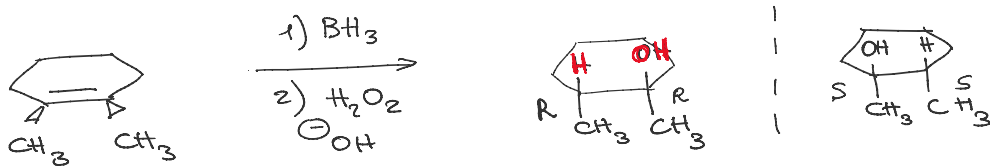
Estere dell'acido borico



...

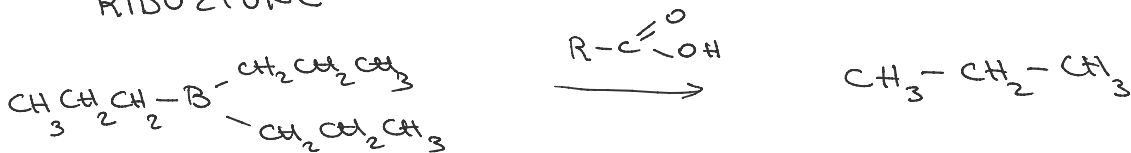


la reazione è regioselectiva e dà prodotti Anti-Markovnikov. Nessuna trasposizione perché non si formano intermedi carbocationici

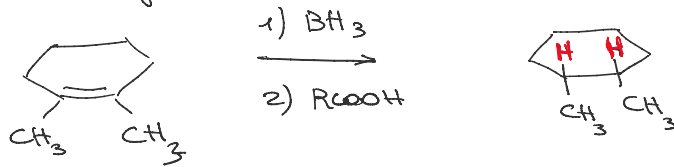


ADDIZIONE
SIN
COMPLANARE

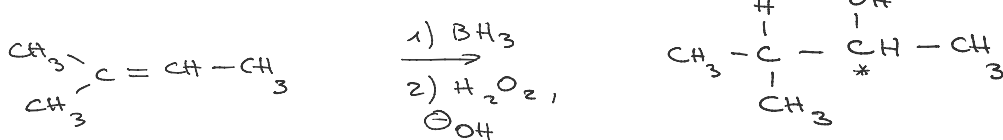
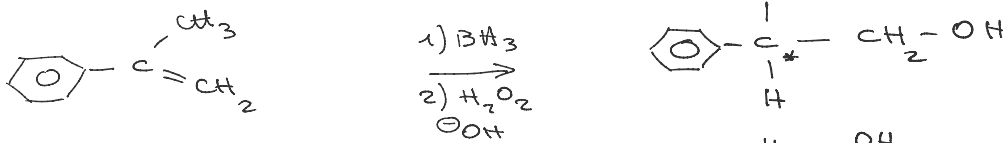
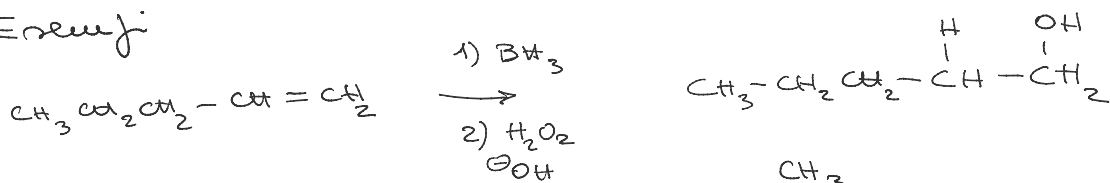
RIDUZIONE



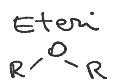
Isoiborazione-riduzione consente di addizionare 2 idrogeni al doppio legame (SIN COMPLANARE)



Esempi

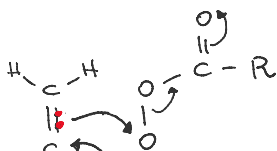
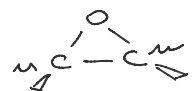


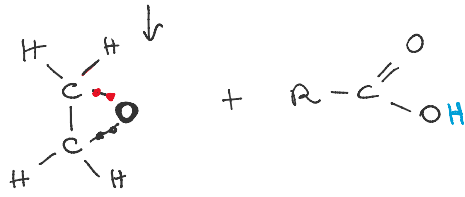
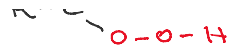
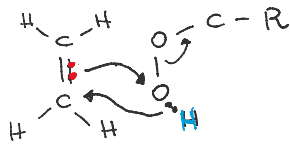
OSSIDAZIONE \longrightarrow EPOSSIDAZIONE
 \longrightarrow OSSIDILAZIONE



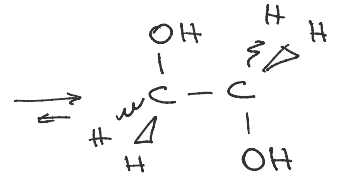
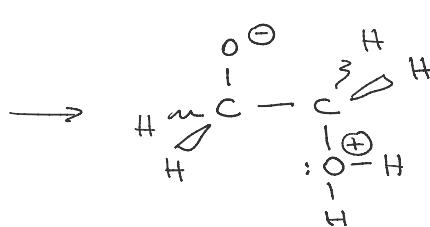
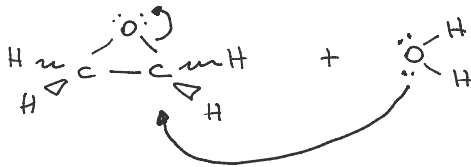
EPOSSIDAZIONE

Sintesi degli EPOSSIDI
Reazione con PERACIDI
CARBOSSILICI $\text{R}-\text{C}(=\text{O})-\text{O}-\text{O}-\text{H}$

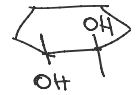
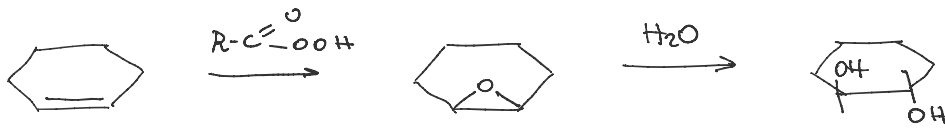




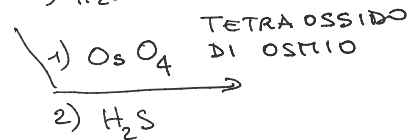
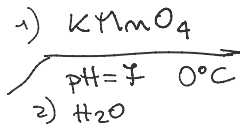
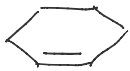
Epossido



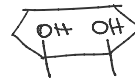
I due gruppi $\ominus\text{OH}$ si legano con modalità ANTI COMPLANARE



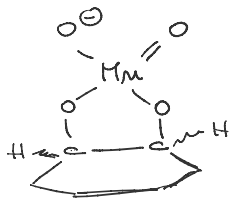
OSSIDAZIONE



Addizione di 2 gr. OH



ADDIZIONE SIN COMPLANARE



Esercizio

