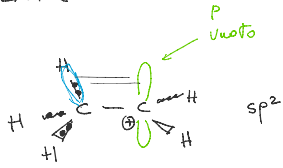
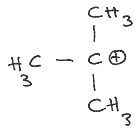


Scala di stabilità dei carbocationi spiegata dall'iperconiugazione



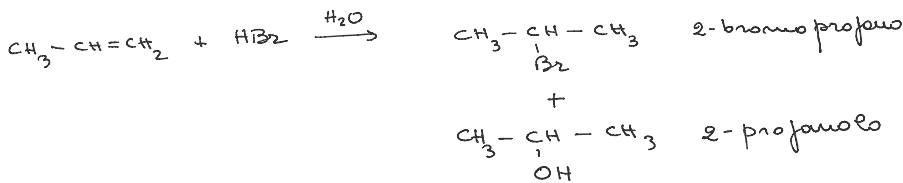
3 interazioni tra orbitale vuoto p (verde) e i doppietti σ



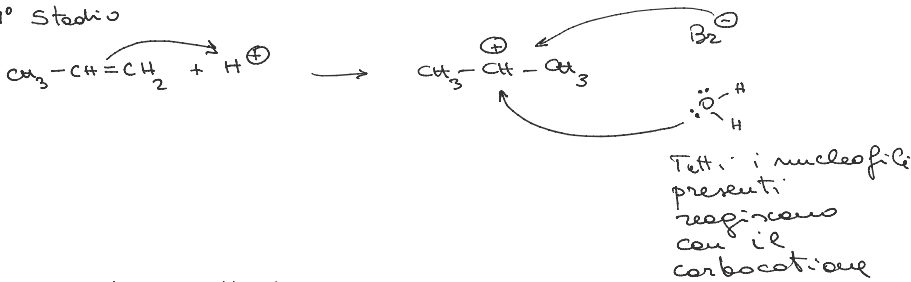
9 interazioni

Evidenze sperimentali

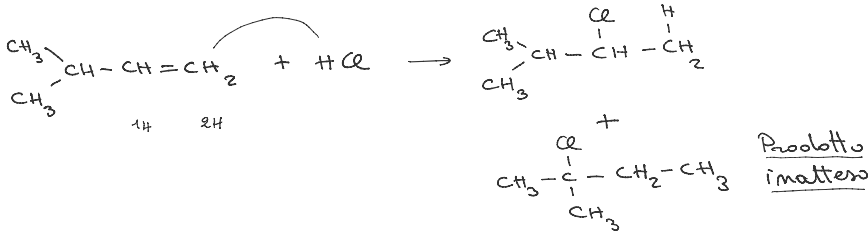
- ① serve un'acido forte
- ② Regioselectiva
- ③ Tutti i nucleofili presenti nell'ambiente di reazione formano reagenti
- ④ Presenza o scelte di prodotti inattesi



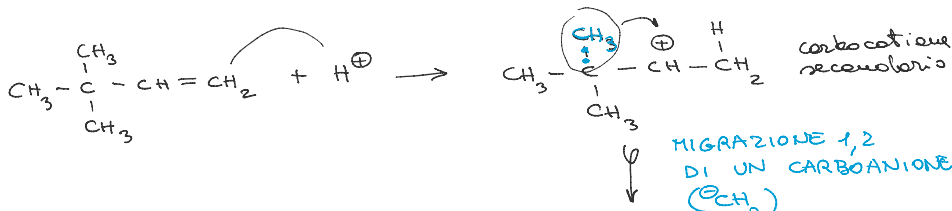
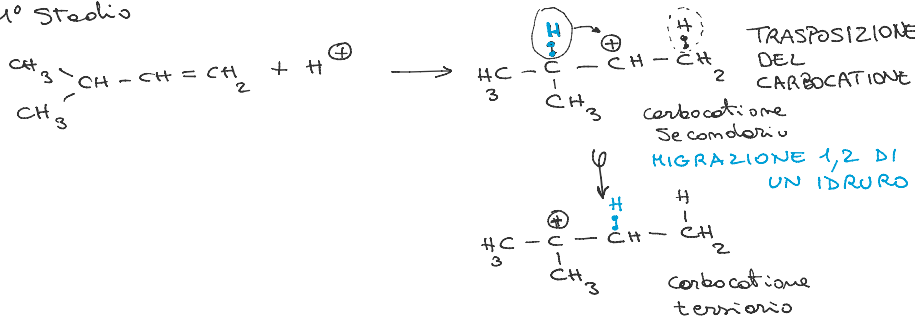
1° stadio



④ Prodotti inattesi

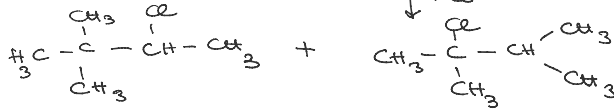
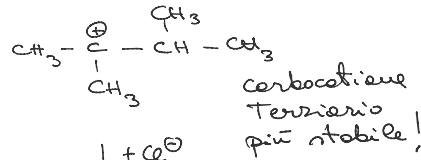


1° stadio



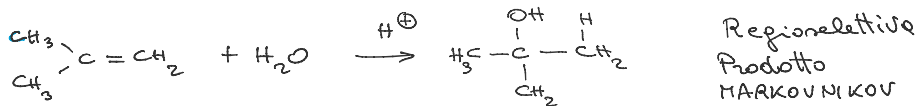
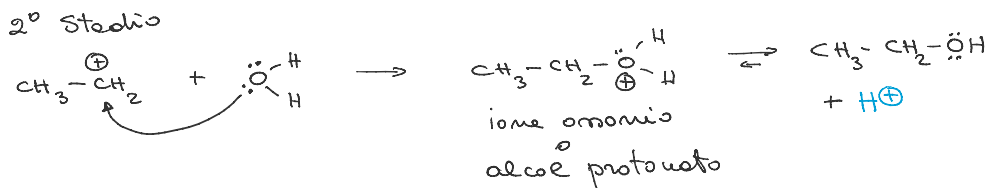
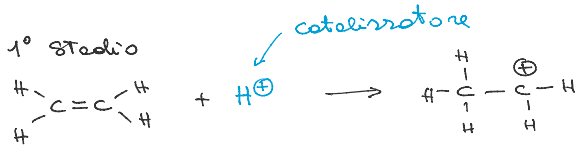
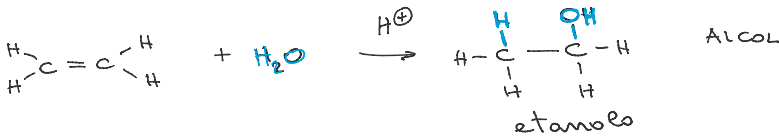
CH₃

MIGRAZIONE 1,2
DI UN CARBOANIONE
(⁻CH₃)

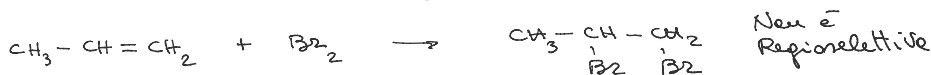


ATTITUDINI MIGRATORIE $\text{Ar}^\ominus > \text{H}^\ominus > \text{R}^\ominus$
Areni:

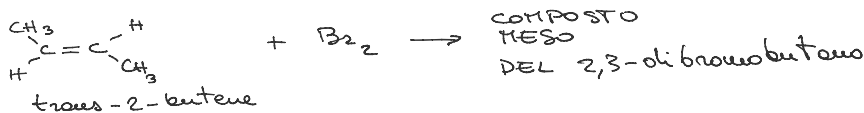
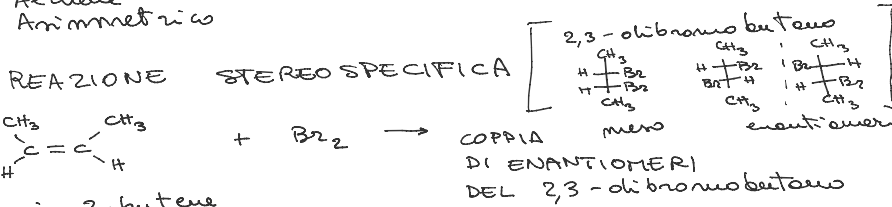
IDRATAZIONE (addizione di H₂O)



ALOGENAZIONE (Addizione di alogeno, solitamente Br₂ o Cl₂)



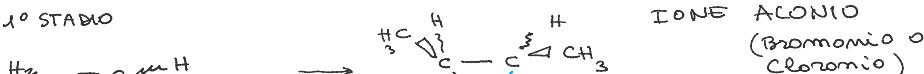
Alcena
Asimmetrica



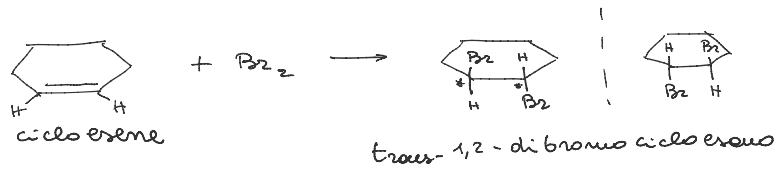
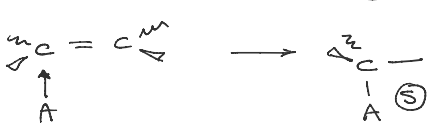
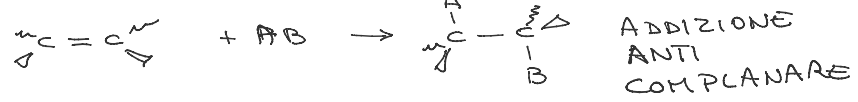
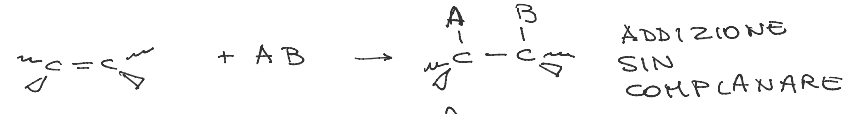
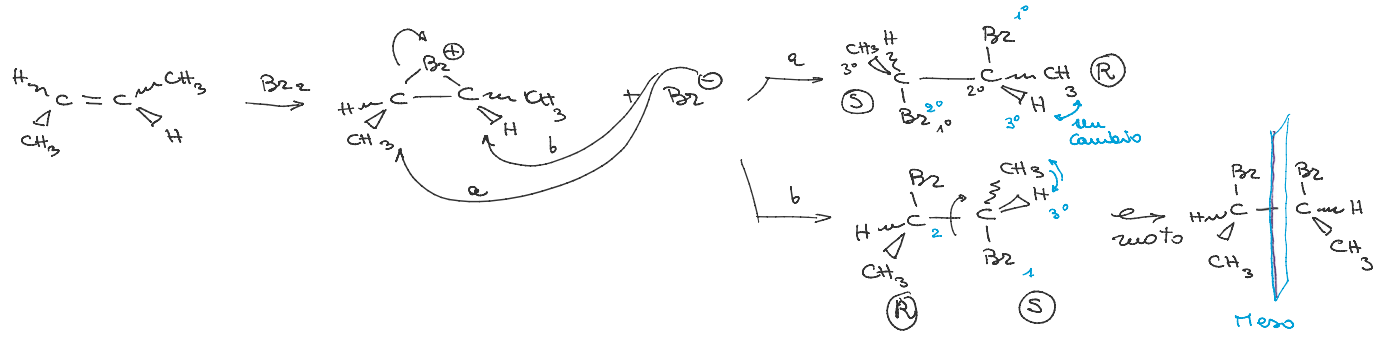
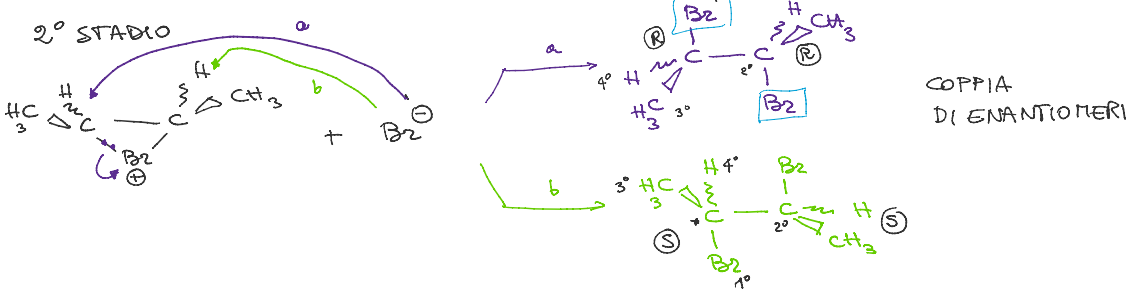
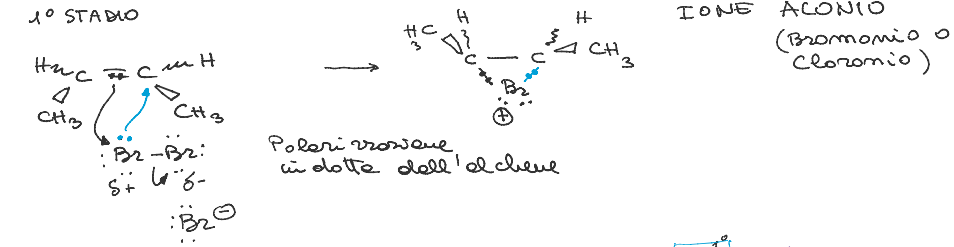
Da determinati stereoisomeri configurazionali come reagenti si ottengono ESCLUSIVAMENTE specifici stereoisomeri configurazionali come prodotti.

Mecanismo di reazione bistadio

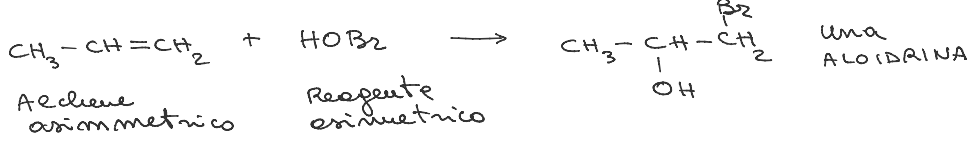
1° STADIO



Meccanismo di reazione bisterale



FORMAZIONE DI ALOIDRINE (Addizione di acido ipobromoso o ipocloroso HOBr o HOCl)



Operativamente si fa con Br₂ e H₂O (lungo eccano)

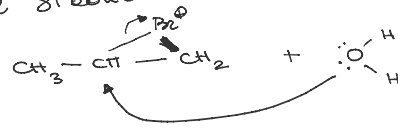


Operativamente si fa con Br_2 e H_2O

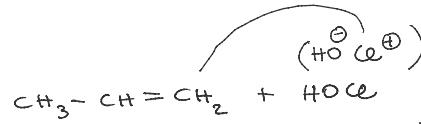
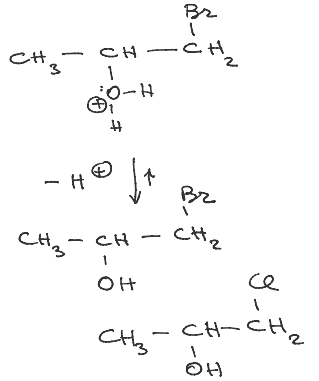
1° stadio



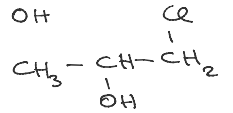
2° stadio



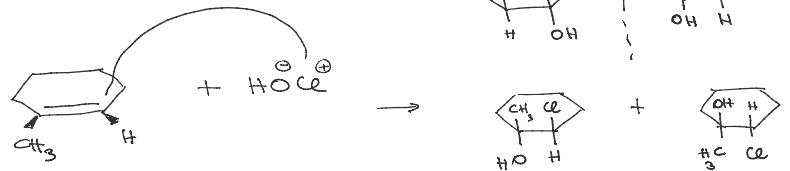
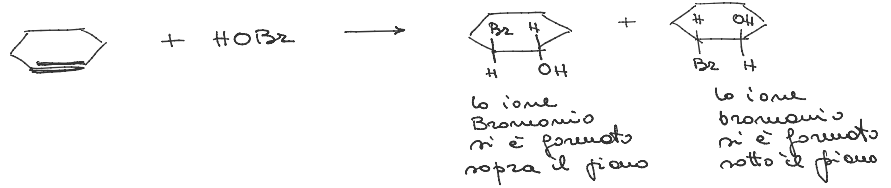
REGIOSELETTIVA



Applico
Markovnikov
considerando
 Cl^+ come
elettrofilo al
posto del protone



Reazione ANTI COMPLANARE
Reazione STEREOSPECIFICA



Si è regioselettiva che
stereospecifica