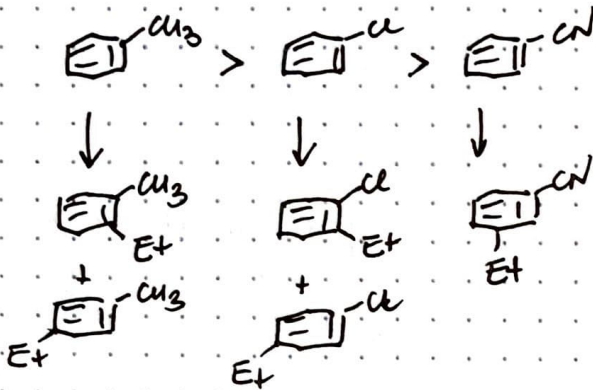


ESERCIZIO 1

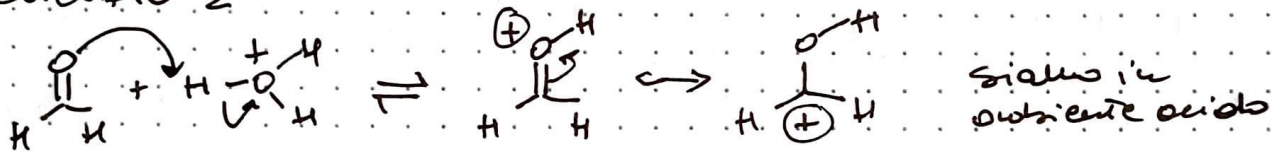


La reattività dipende dall'energia dello stato di transizione del passaggio lento della reazione.

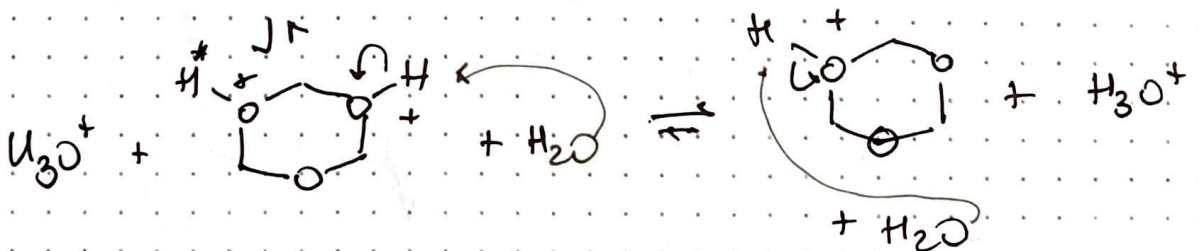
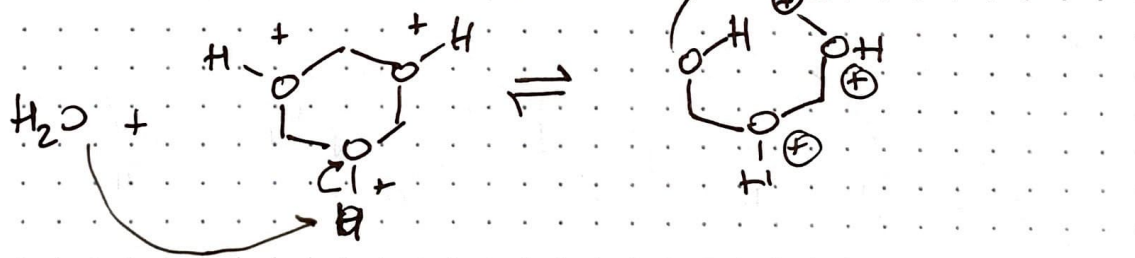
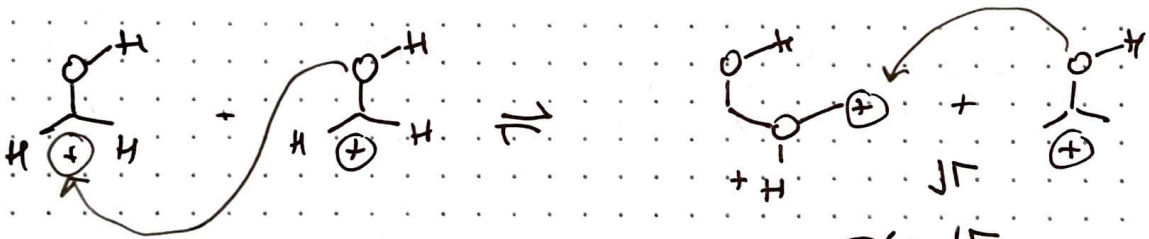
La sostituzione all'anello benzene, ma influenza la stabilità dell'intermedio carbonico che

si forma e conseguentemente quello dello stato di transizione associato (Postulato di Hammond). Quindi il toluene avrà uno stato energia minore e reagirà + velocemente.

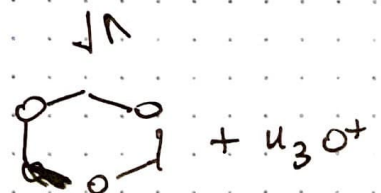
ESERCIZIO 2



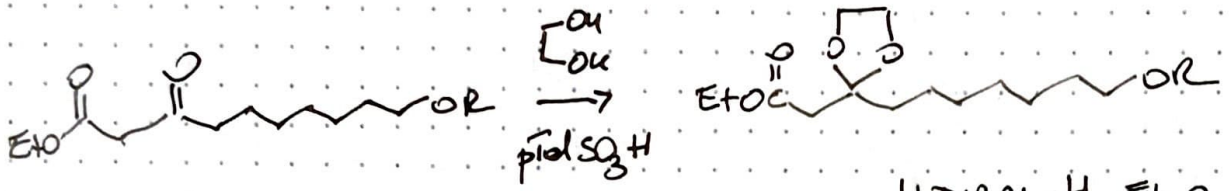
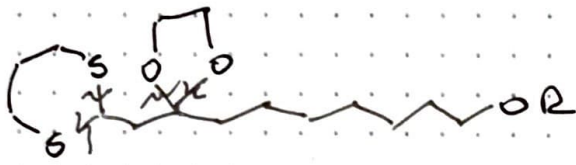
si ottiene un acido



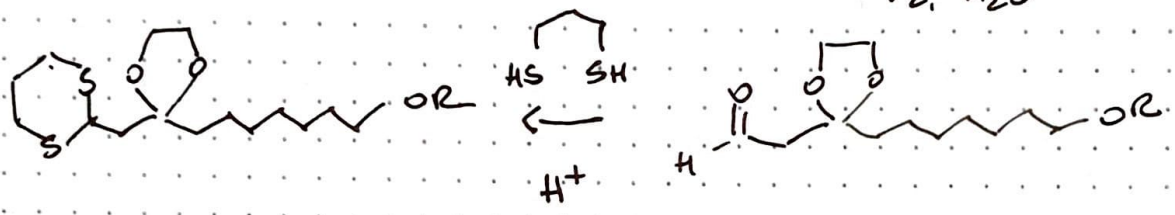
le reazioni di deprotonazione possono avvenire in qualsiasi momento



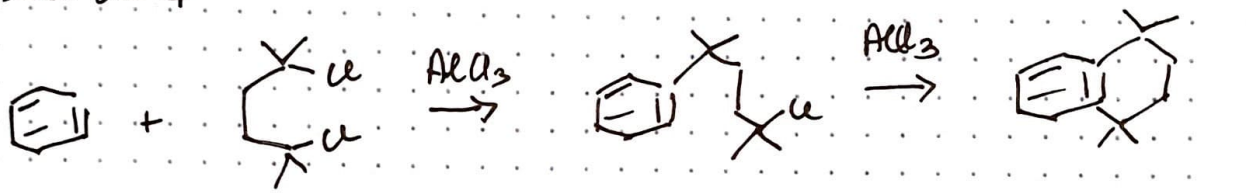
ESERCIZIO 3



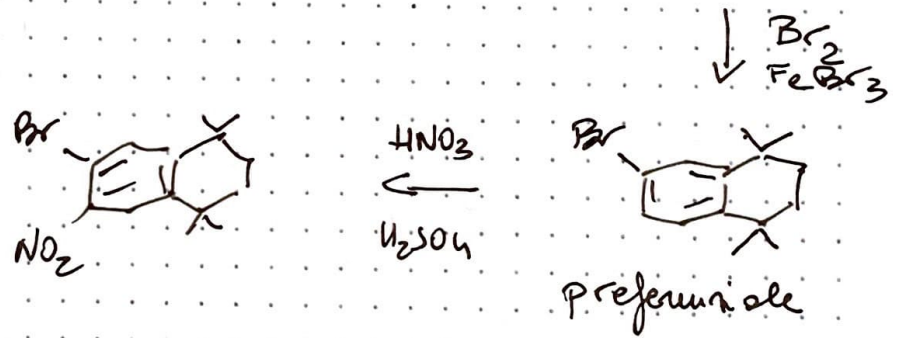
1. DIBAL-H, Et<sub>2</sub>O  
2. H<sub>2</sub>O



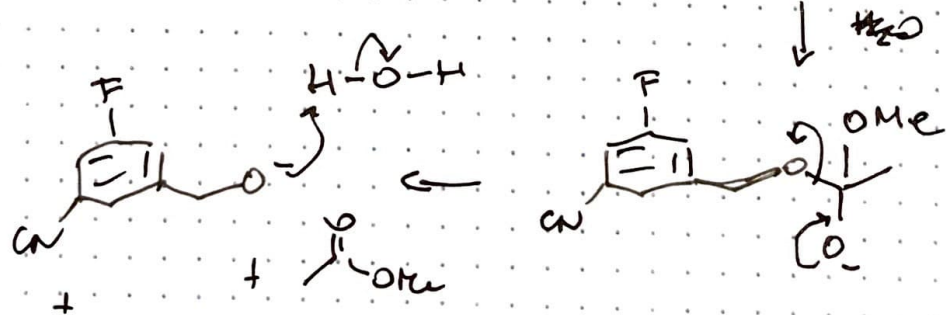
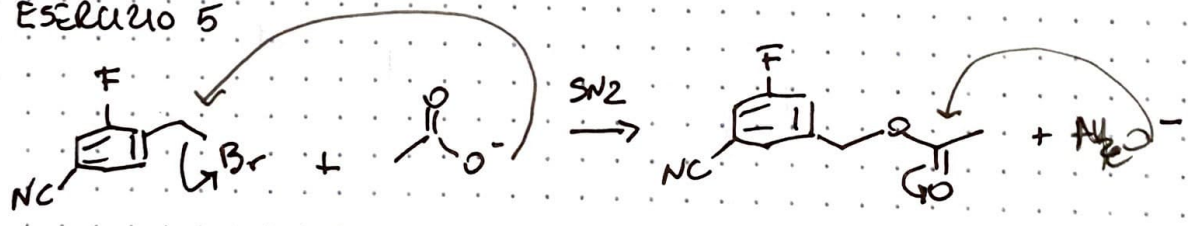
ESERCIZIO 4



Preferenziale



ESERCIZIO 5



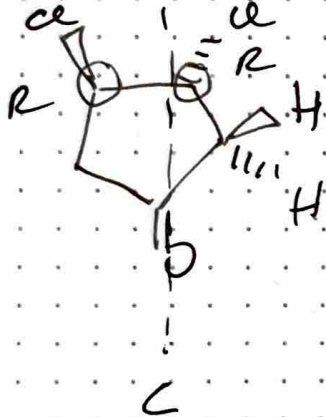
Prodotto

Secondo passaggio: transesterificazione (C.M.T. OR 3)

ESERCIZIO 5

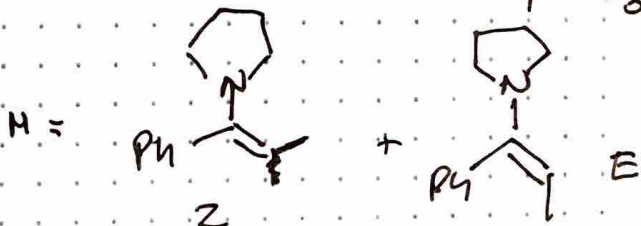
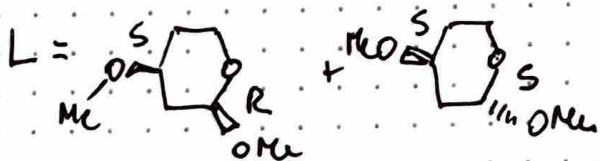
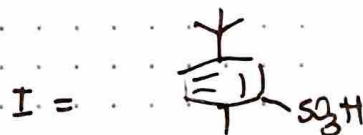
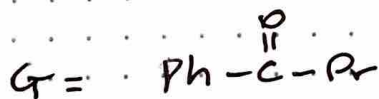
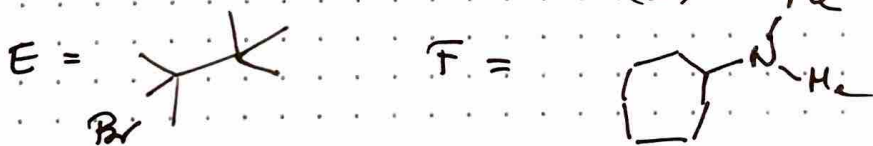
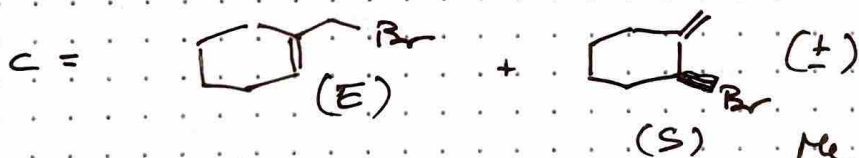
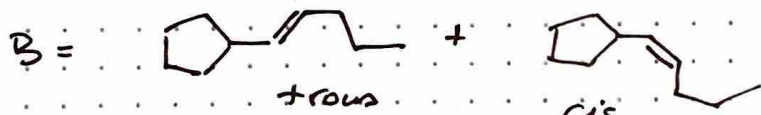
non si può ottenere 3 direttamente perché in presenza di base forte le nitriche (-CN) viene idrolizzato ad acido.  
(ESERCIZIO PROGRAMMA ORG. 3)

ESERCIZIO 6



1. ASSE C<sub>2</sub> (passa x i carboni)
2. Chirale
3. C, C - omotopici  
H, H - dieterotopici
4. 2 stereocentri, R, R

ESERCIZIO 7



ESERCIZIO 8

