

CH-335 / Exercices - Séance N° 4

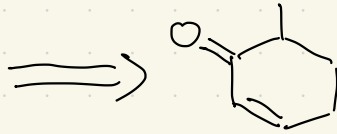
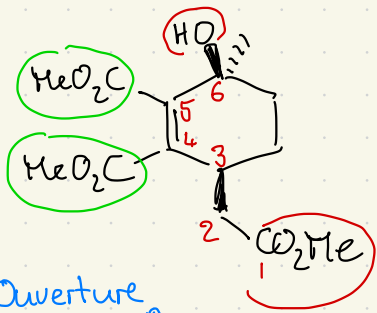
S. Dumolard

S. Gerber

SP 2025

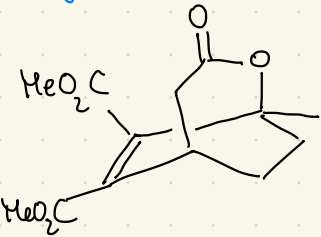
Exercice 1

1



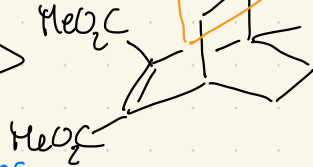
Ouverture
nucléophile
+
esterification
in situ

Reconnection



double liaison
par tautomérisie

IGF
[ox]
Bayer-Villiger
mCPBA

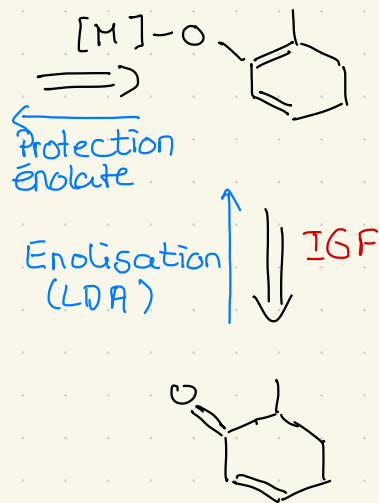
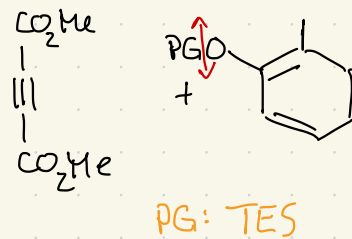
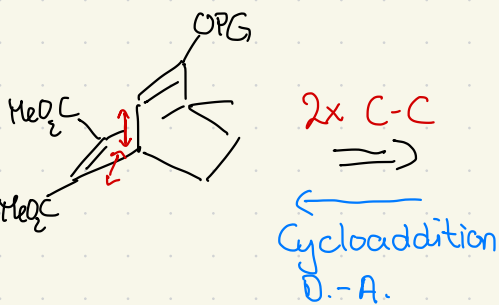


IGF
1. Déprotection
2. Tautomérisation
cyclohexadiène

Eléments clé

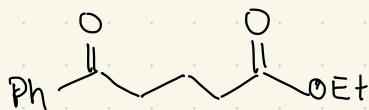
partenaire diérophile
pour ↑ Diels-Alder

- Cyclohexène + 2 esters (EWG)
 - 2 positions chirales
 - Me sur le cycle présent dès le départ
 - Alcool + ester en relation 1,6
- ⇒ penser à une reconnection



Exercice 4

molécule cible



Rétro

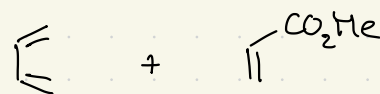
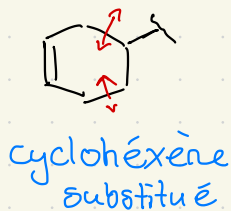
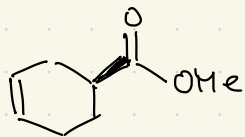


1,5-dicarbonyl

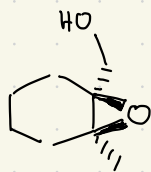
Transformation



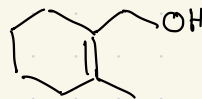
Addition 1,4 (de Michael)



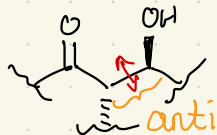
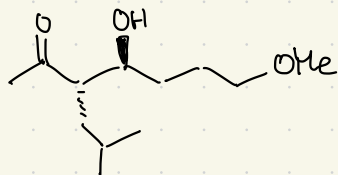
Cycloaddition de
Diels-Alder
(stéréosélective)



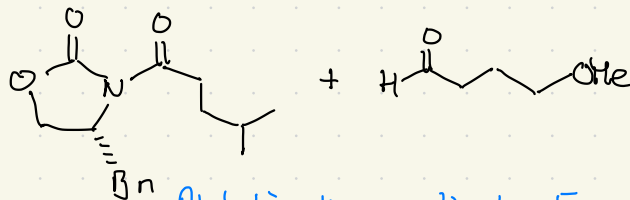
β -hydroxy époxyde
chiral



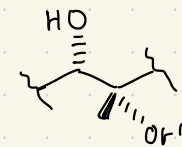
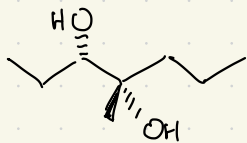
Époxydation asymétrique
de Sharpless



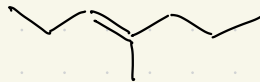
aldol anti



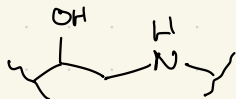
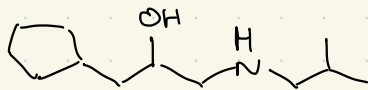
Aldolisation anti de Evans



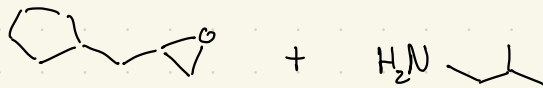
diol-1,2-syn



Dihydroxylation asymétrique de Sharpless



2-amino alcool



Ouverture nucléophile d'un époxyde

Exercice 3

Éléments clé

- Amide : première disconnection
- Cyclohexène : suggère Diels-Alder

