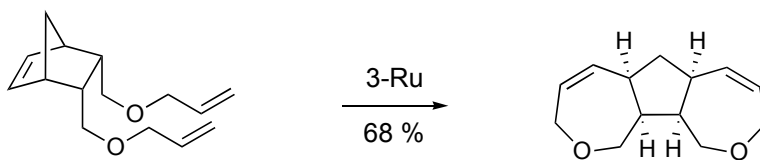
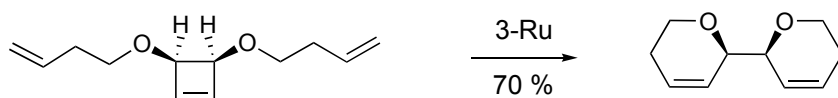
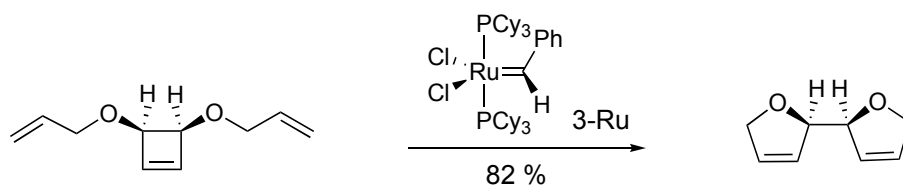
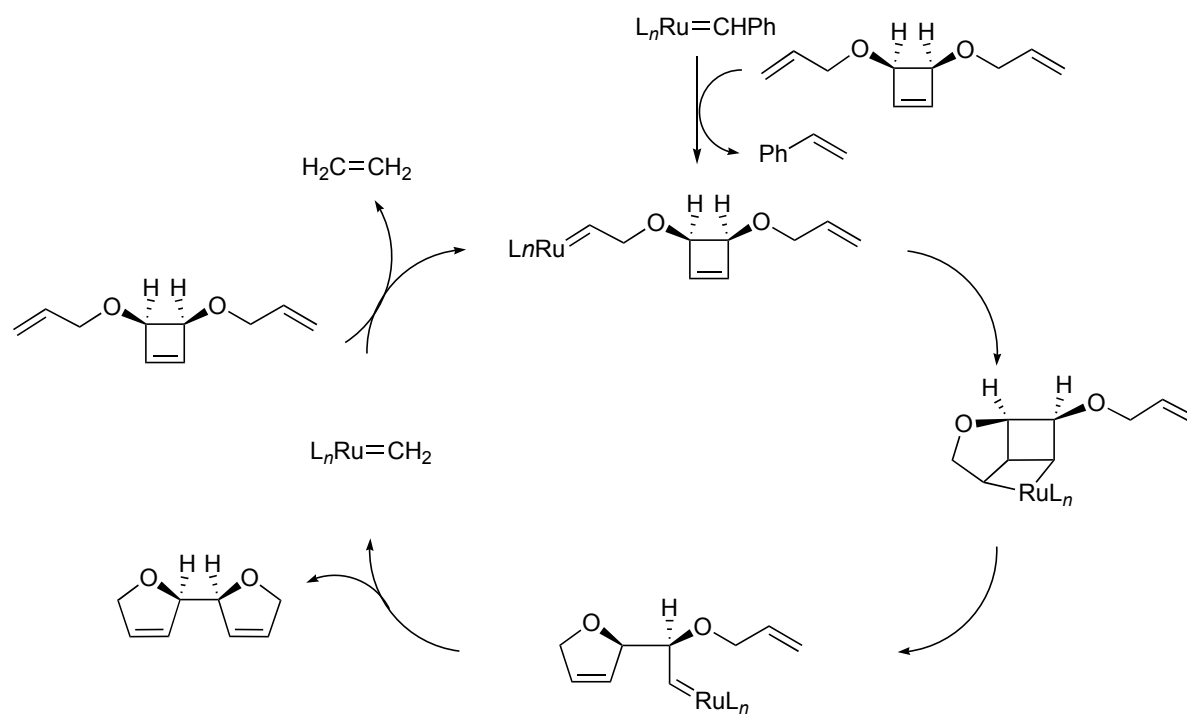


Métathèse tandem d'ouverture de cycle/ fermeture de cycle

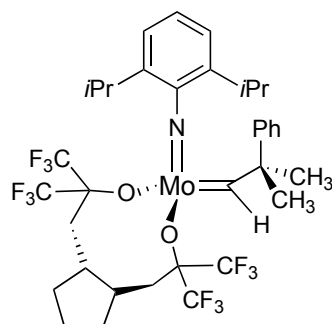


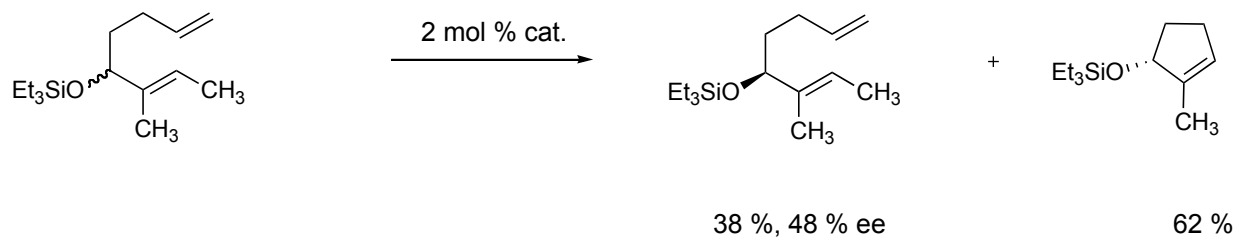
Tension de cycle augmentée pour éviter l'oligomérisation (ADMET) compétitive

- Mécanisme

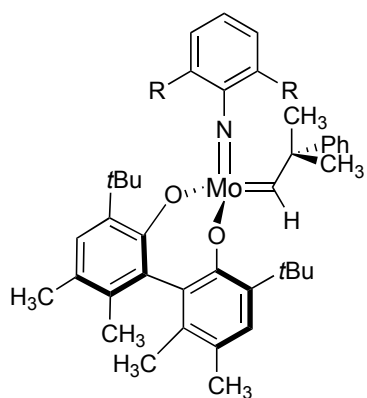


Dédoublément par RCM asymétrique



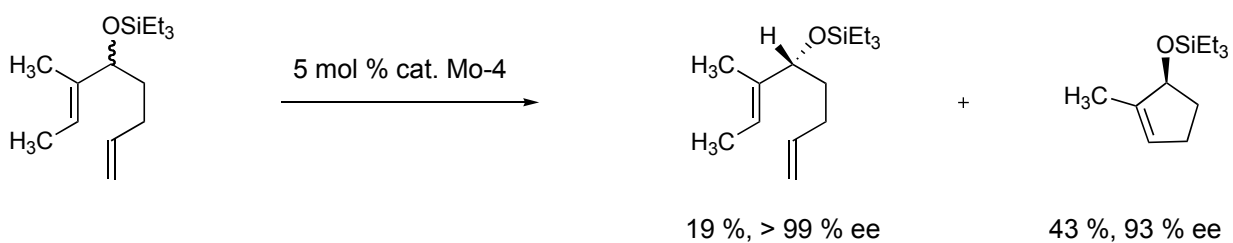


Grubbs 98JOC824



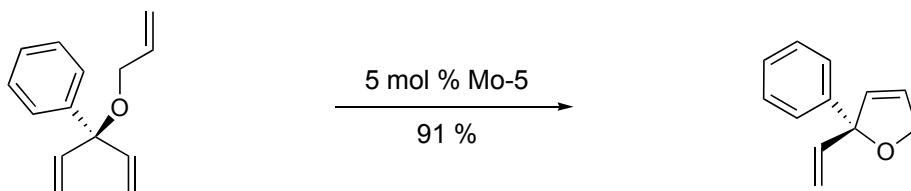
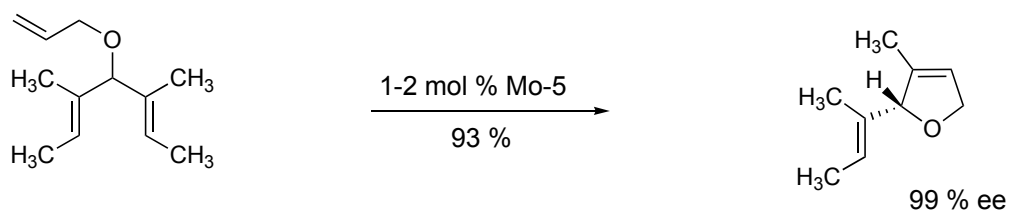
R = *i*Pr
R = Me

Mo-4
Mo-5



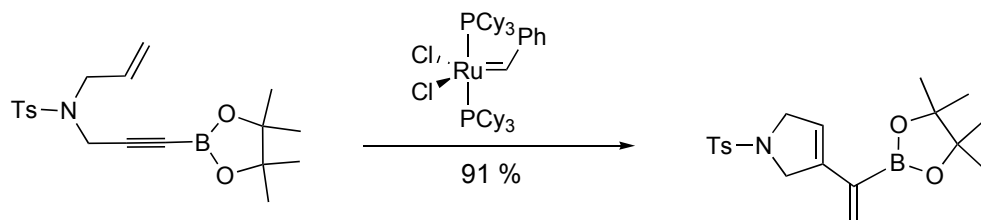
Hoveyda, Schrock 98JACS4041

- Désymétrisation

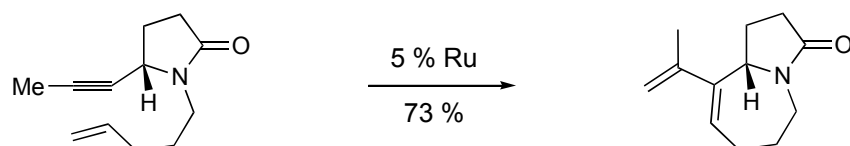


Hoveyda, Schrock 98JACS4041

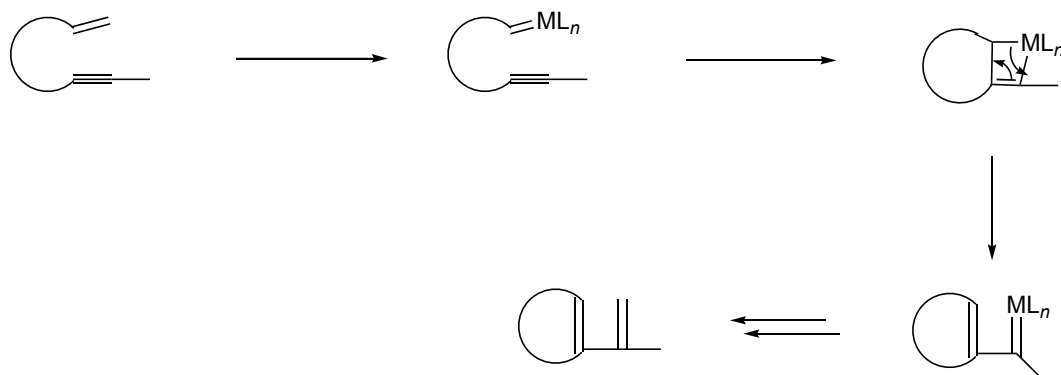
Métathèse ényne

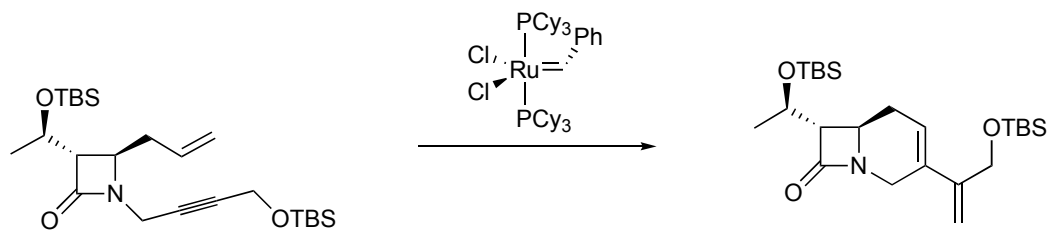


Renaud 2000ACIEE3101

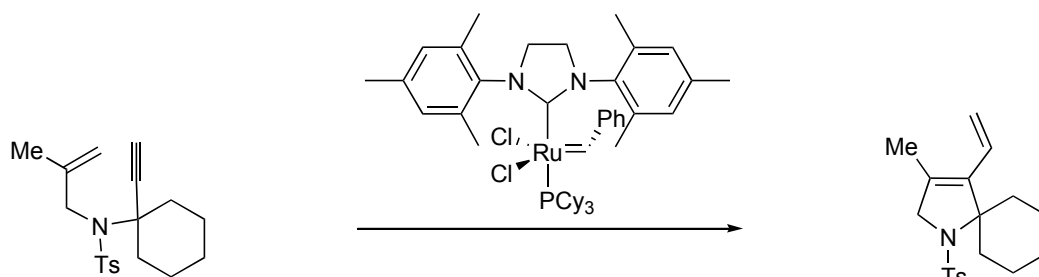


Morin 96JOC8356

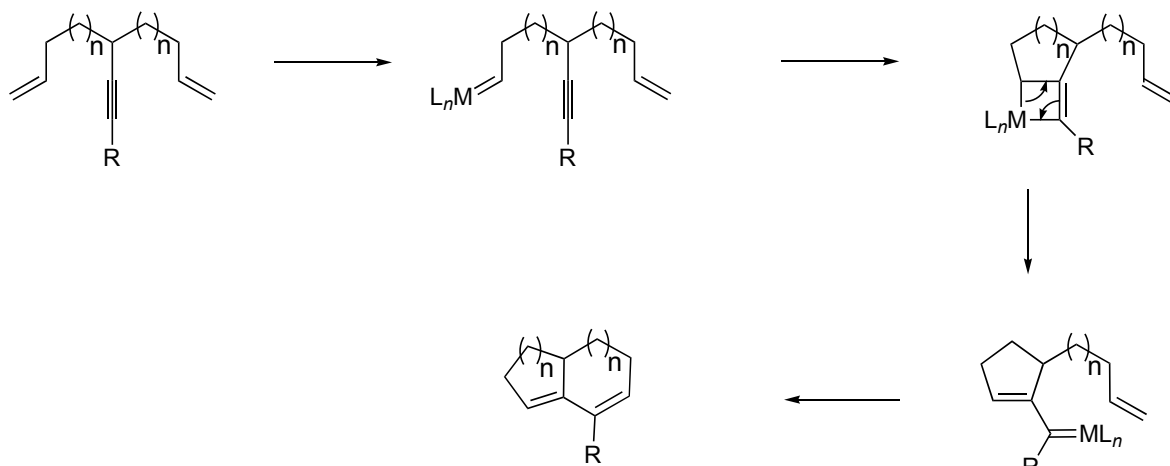


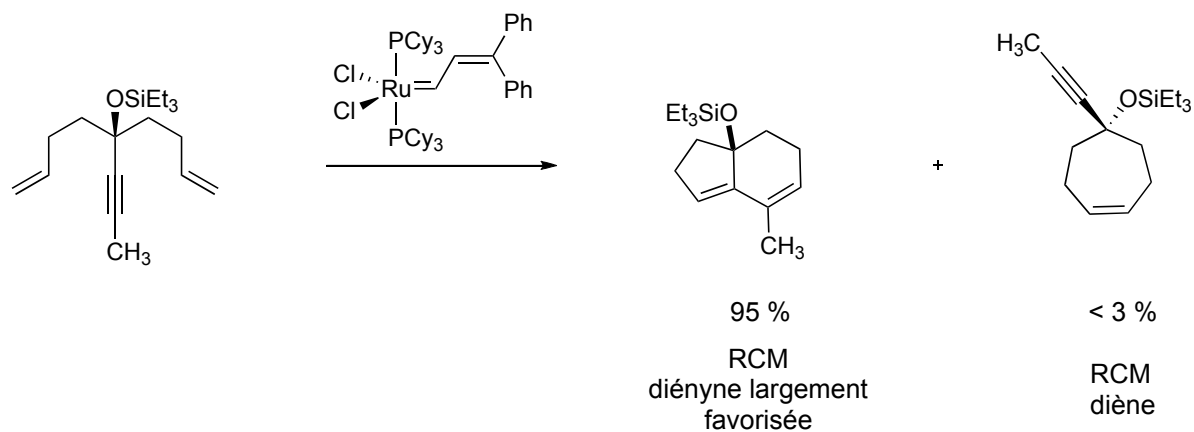


Barrett 98JOC7893

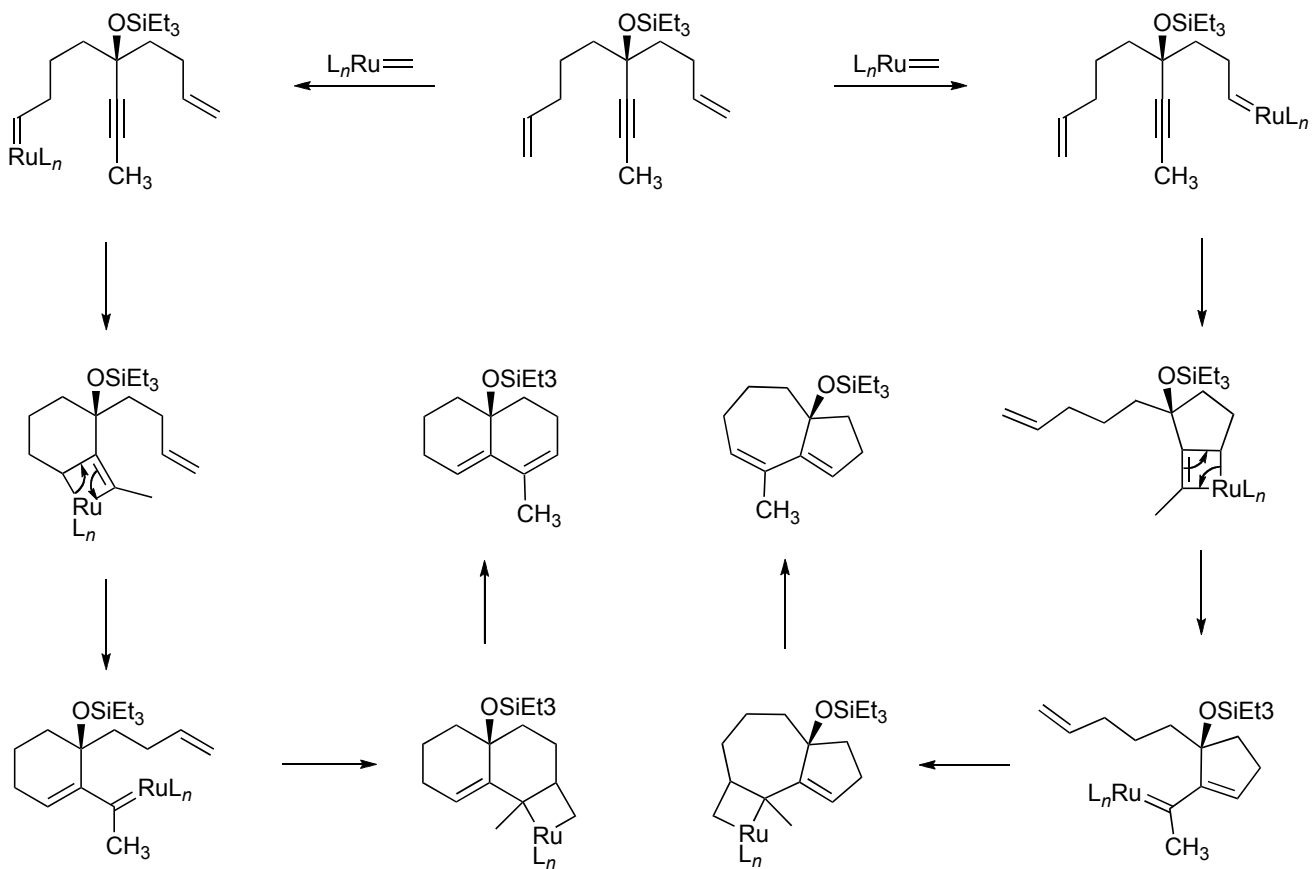


- RCM de diénynes

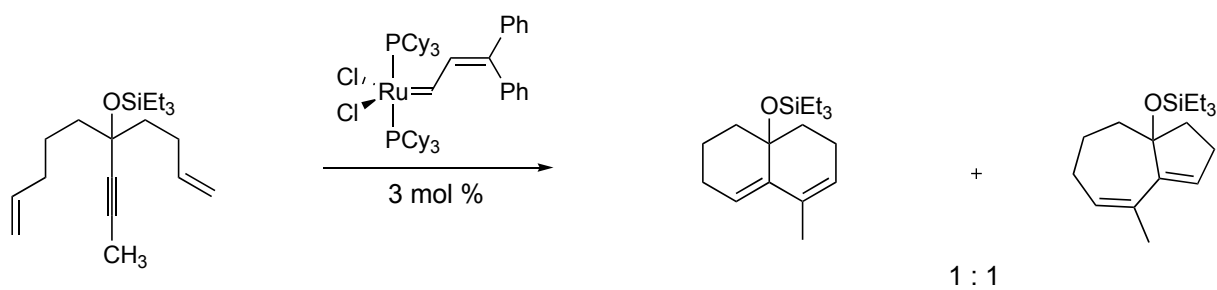




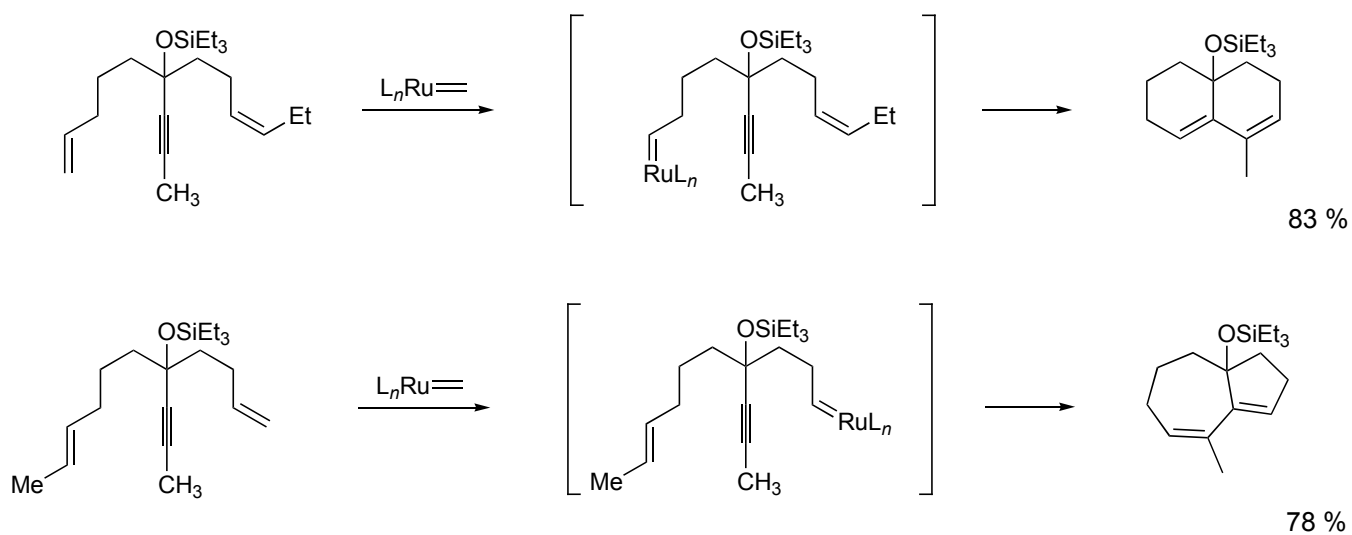
- Substrats non symétriques



Exemples

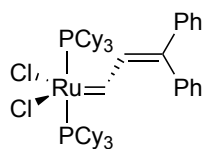
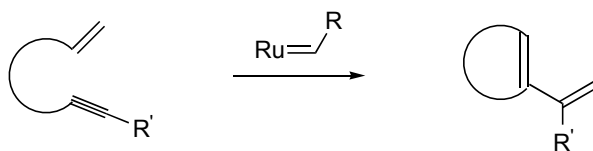


Biais stériques

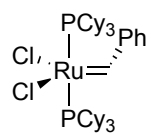


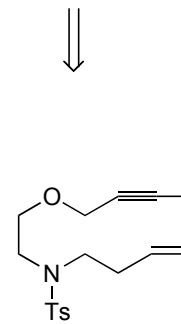
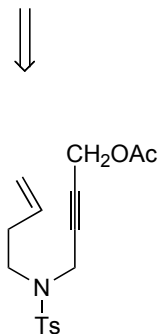
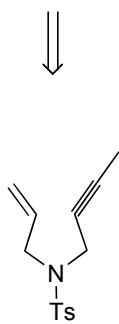
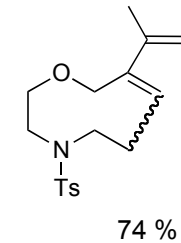
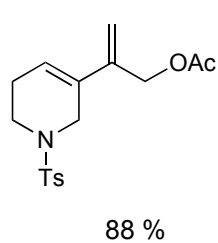
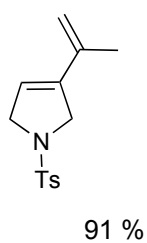
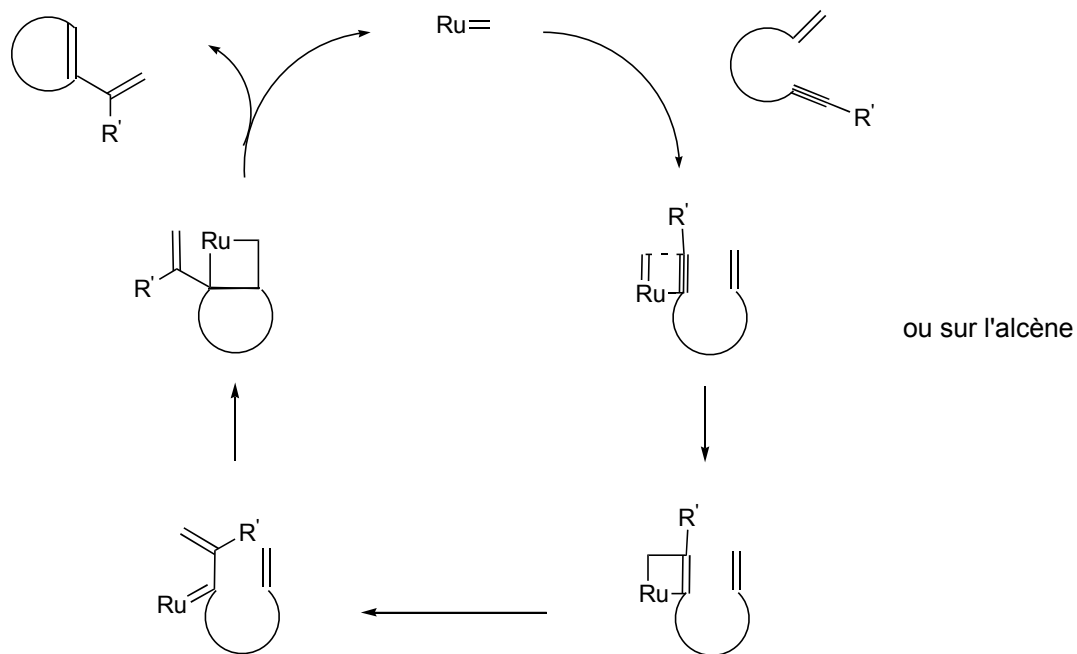
Grubbs 94JACS10801

1. RCM de ène yne

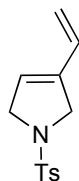
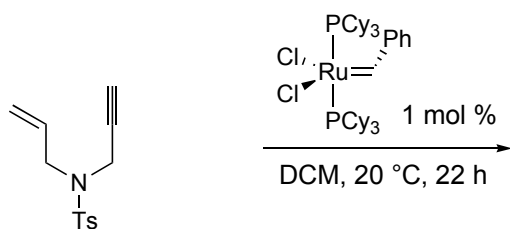


ou



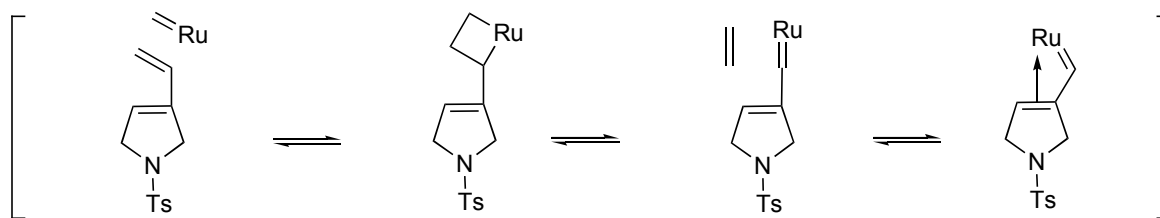


Alcynes terminaux

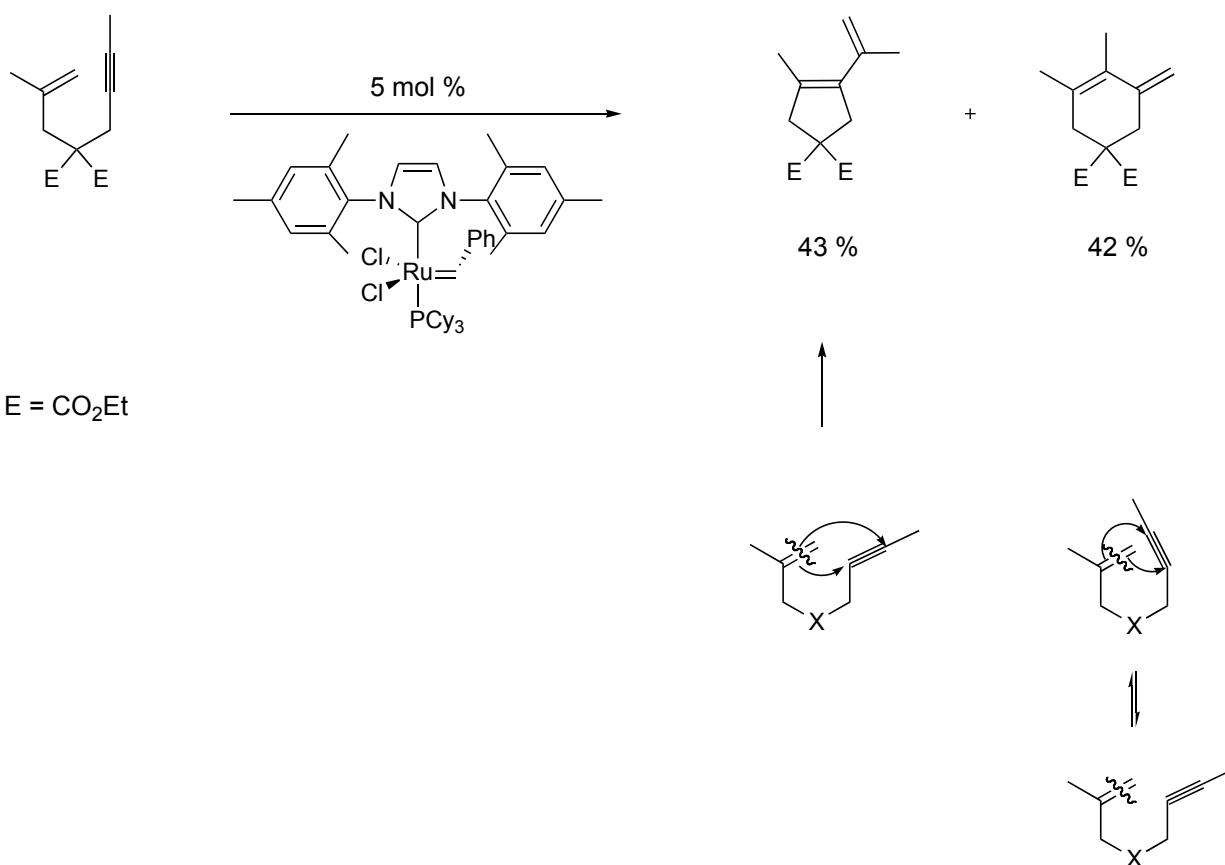


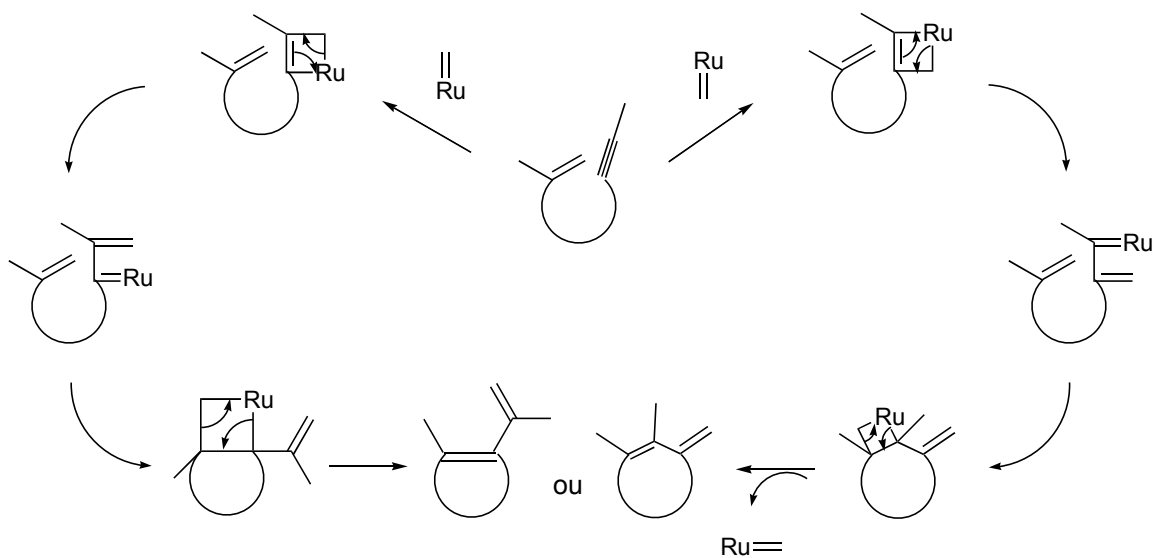
sous Ar 21 %

sous CH₂CH₂ 90 %

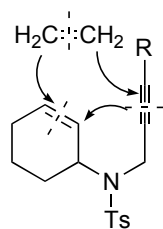
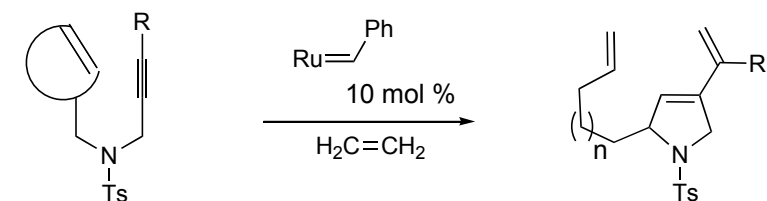


Solution : excès de $\text{H}_2\text{C}=\text{CH}_2$ \longrightarrow formation du produit

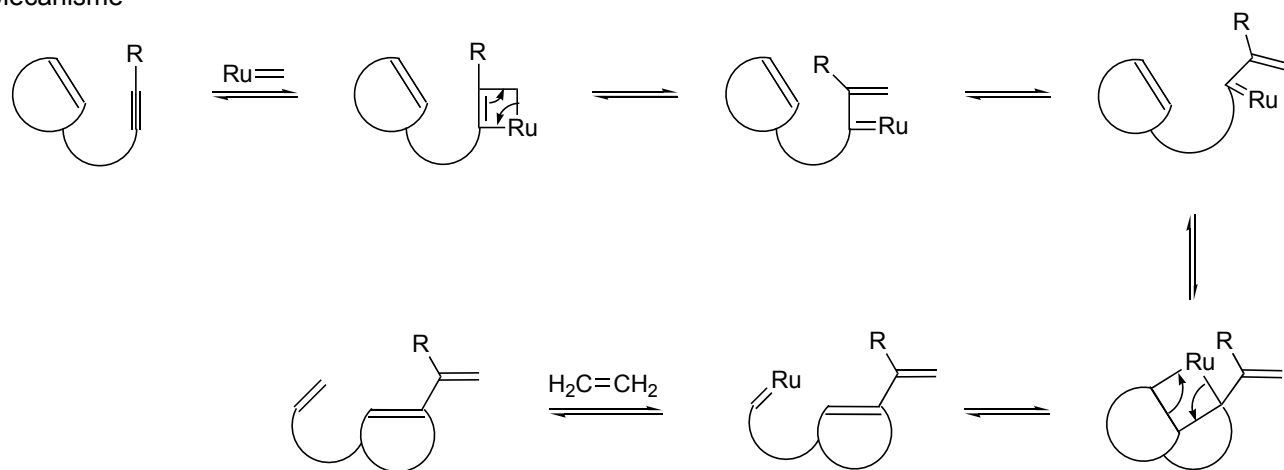


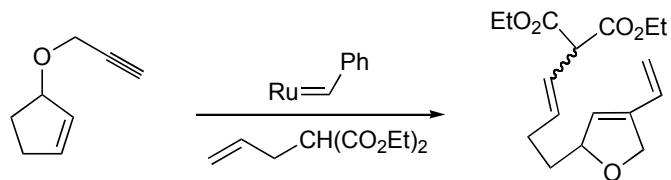


3. ROM/RCM ényne



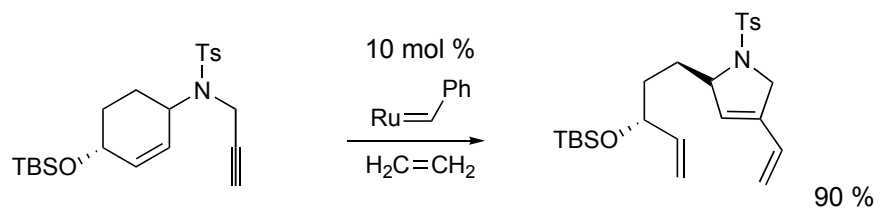
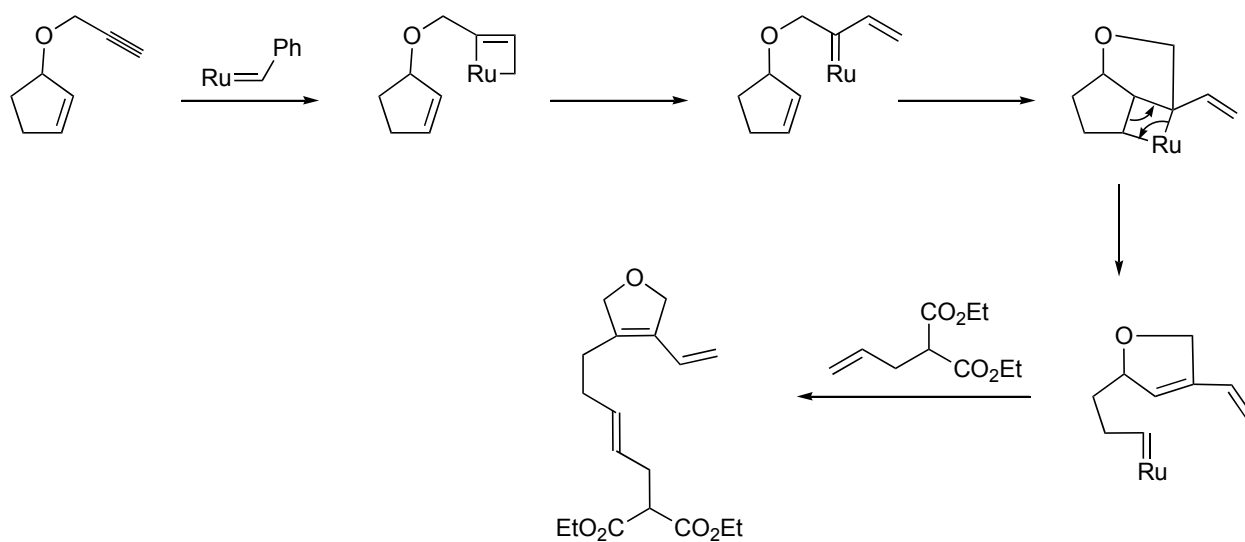
Mécanisme



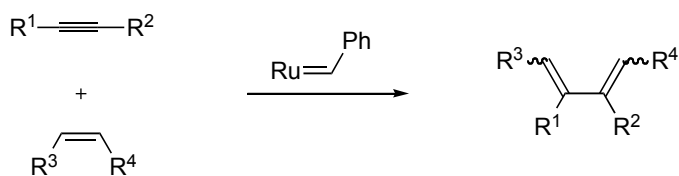


79 % (E/Z = 3/1)

Blechert 2002ASC631



4. Métathèse ényne intermoléculaire (métathèse croisée)



difficile car implique métathèse d'oléfines, énynes, diyne
 → produits = oléfines, diènes, polymères,...

→ solution : prendre comme alcène : l'éthylène

