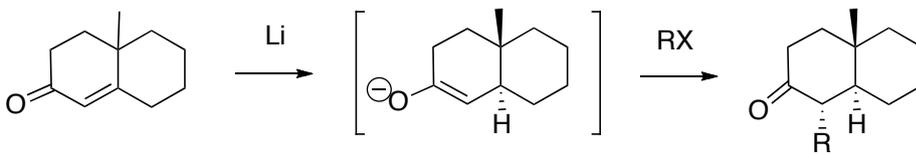
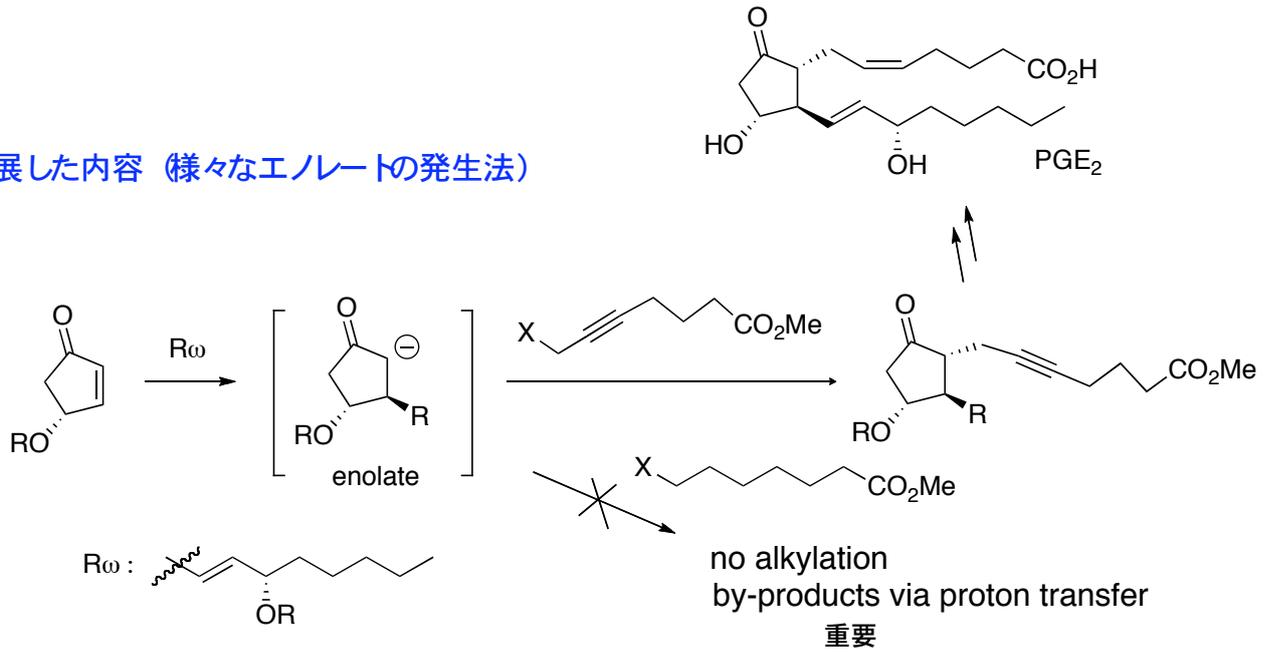
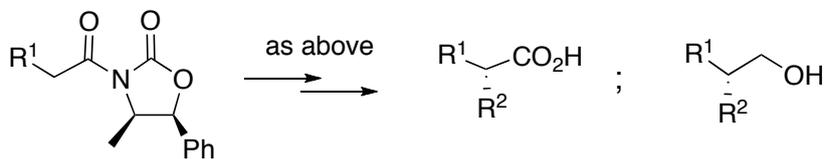
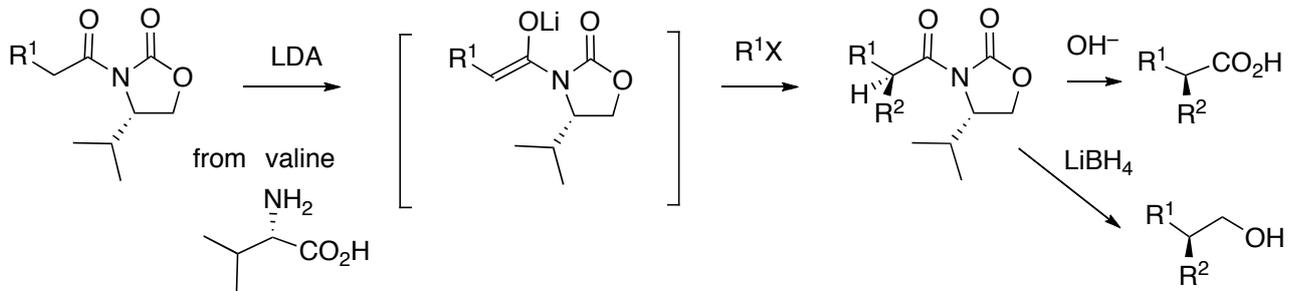


## Chapter 23 エステルエノラートとClaisen 縮合 (その4)

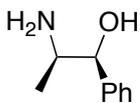
発展した内容 (様々なエノラートの発生法)



不斉合成への展開

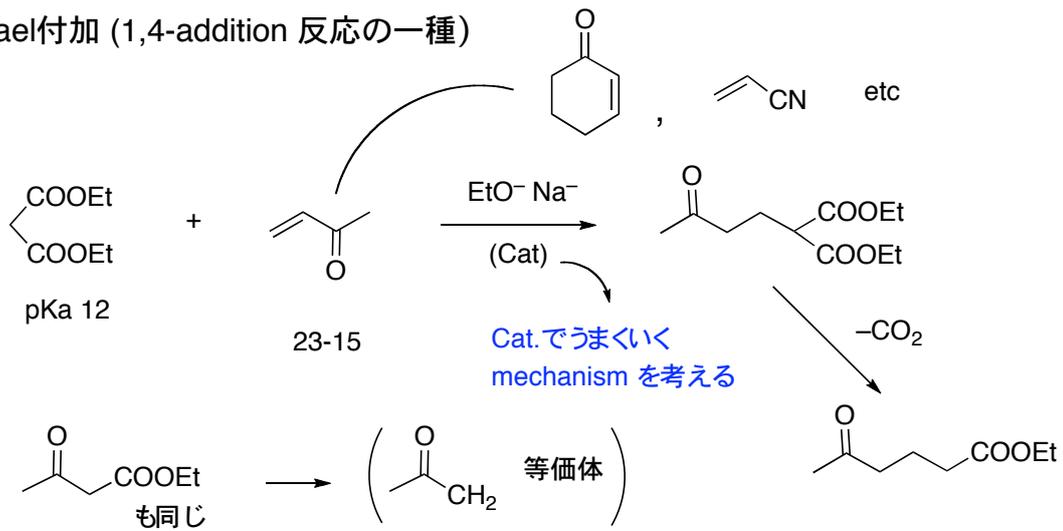


from Nor-Ephedrine

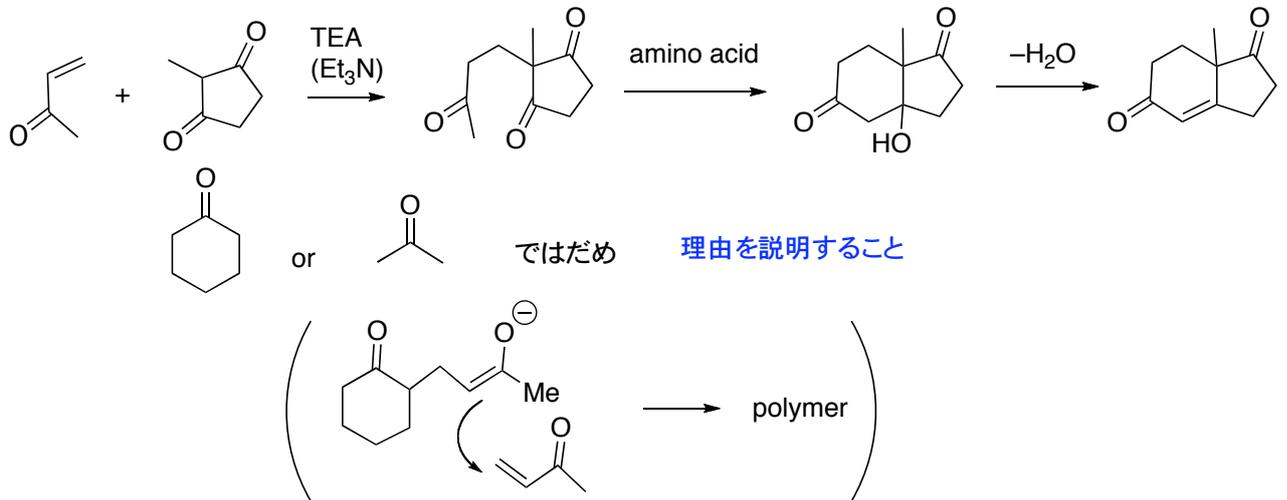


## Chapter 23 エステルエノラートとClaisen 縮合 (その5)

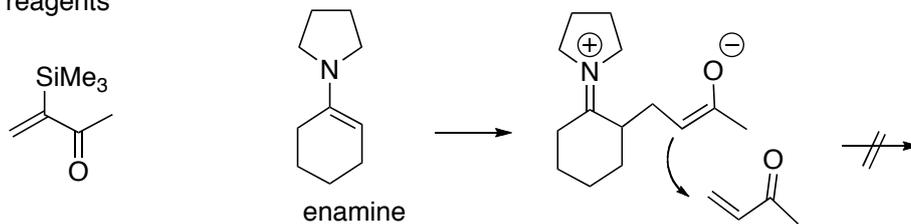
Michael付加 (1,4-addition 反応の一種)



学生実験

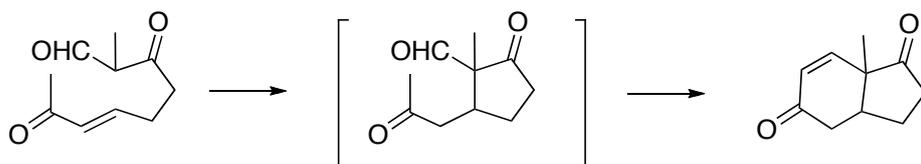


new reagents



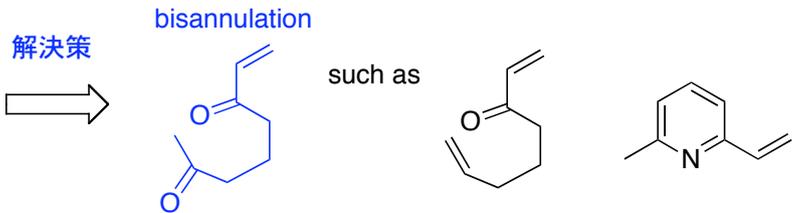
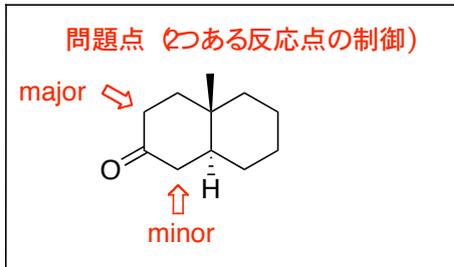
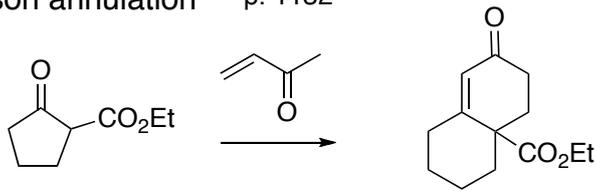
分子内バージョン

G. Stork (Columbia Univ., New York, NY)

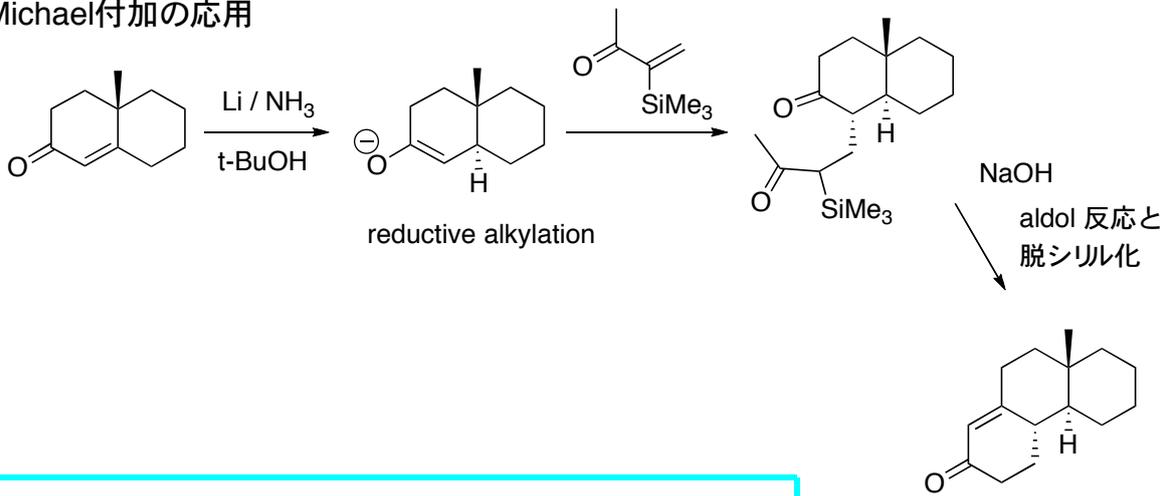


## Chapter 23 エステルエノラートとClaisen 縮合 (その6)

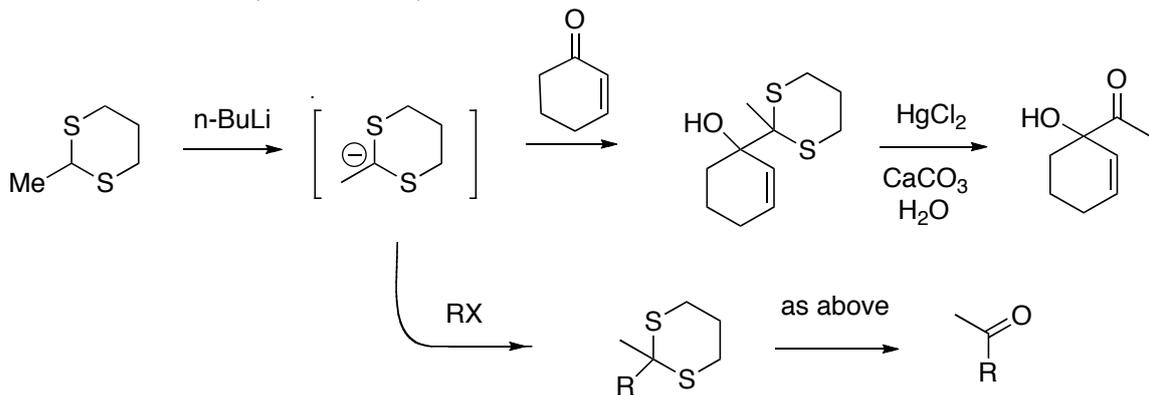
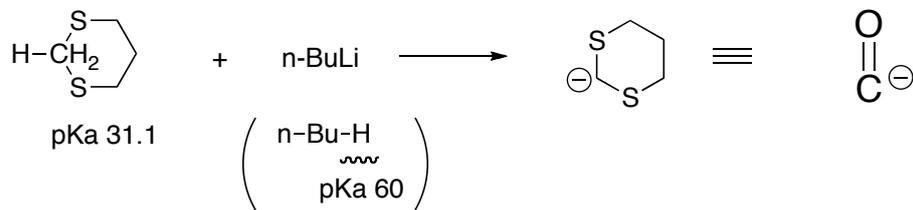
Robinson annulation p. 1132



Michael付加の応用



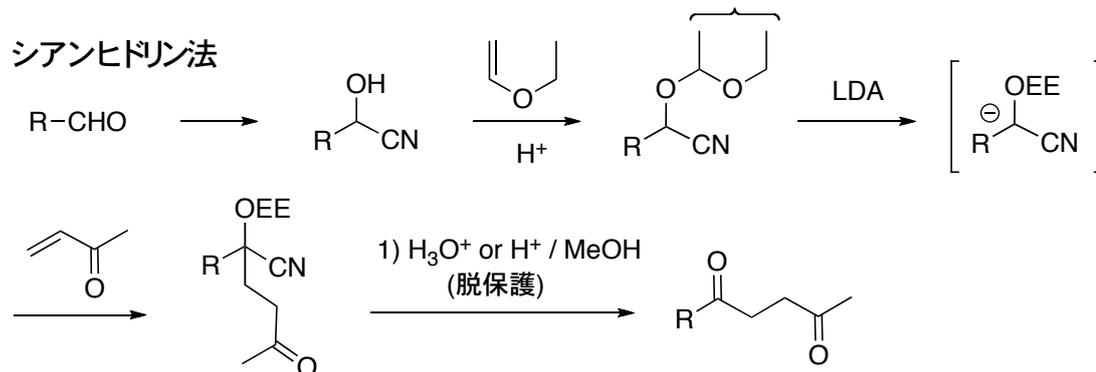
acyl anion (p1134)



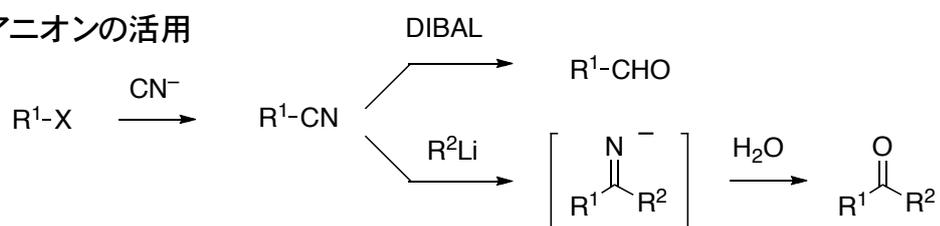
## Chapter 23 エステルエノラートとClaisen 縮合 (その7)

### その他のアシルアニオン

#### (1) シアンヒドリン法



#### (2) CN アニオンの活用



P1141

### 総合問題 23-23

