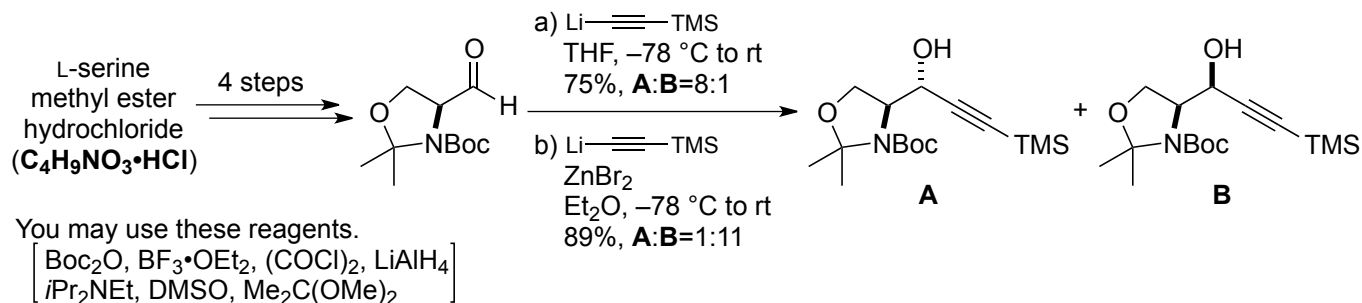


Name _____

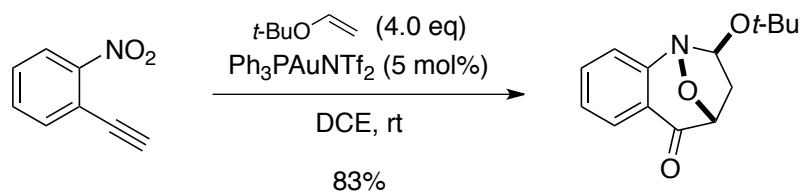
1.

- Propose a synthesis of Garner's aldehyde.
- Explain the selectivity of carbonyl addition by using Felkin-Anh model.



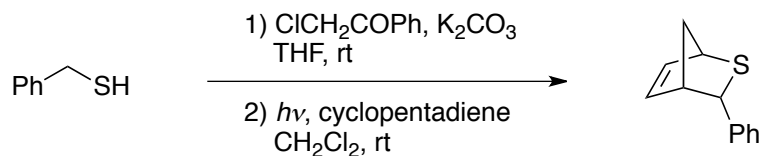
A. Dondoni and D. Perrone, *Org. Synth.*, **77**, 64 (2000)
 P. Herold, *Helv. Chim. Acta*, **71**, 354 (1988)

2.



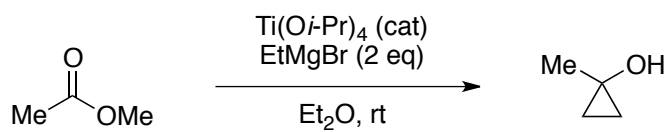
R.-S. Liu *et al.*, *J. Am. Chem. Soc.*, **133**, 1769 (2011)

3.



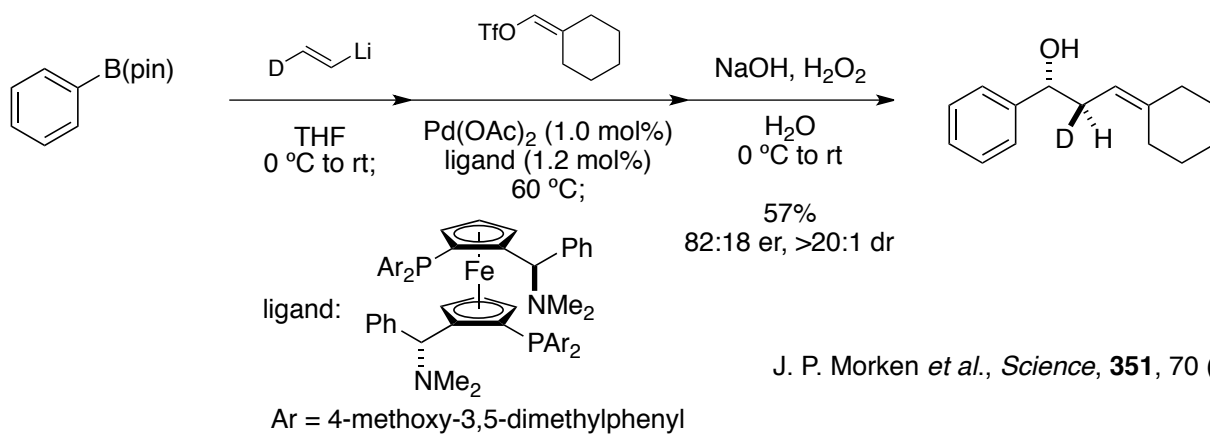
演習で学ぶ有機反応機構B125 (化学同人)
 Kennedy, M.; McKervey, M. A. *J. Chem. Soc., Perkin Tran.* **1**, 2565 (1991)

4.

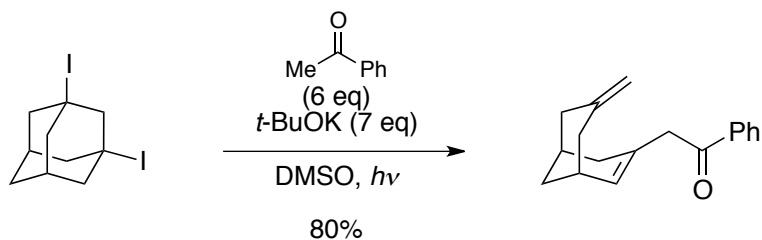


演習で学ぶ有機反応機構B128 (化学同人)
 Dötz, K. H. *Angew. Chem. Int. Ed. Engl.*, **14**, 644 (1975)

5.



6.



hint: The reaction proceeds via a $\text{S}_{\text{RN}}1$ reaction.

R. A. Rossi *et al.*, *J. Org. Chem.*, **62**, 4260 (1997)