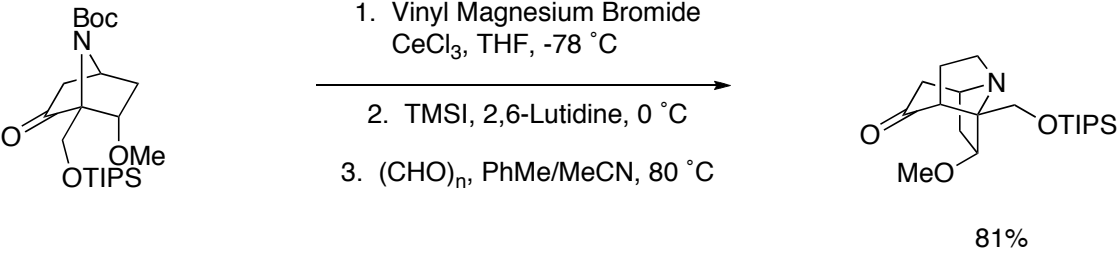
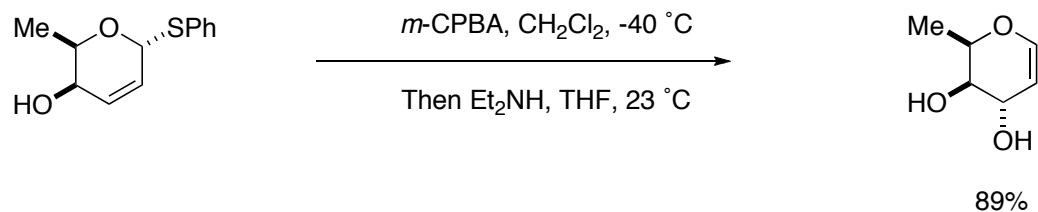
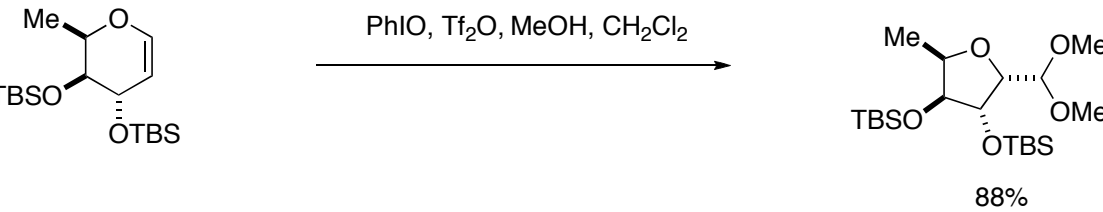
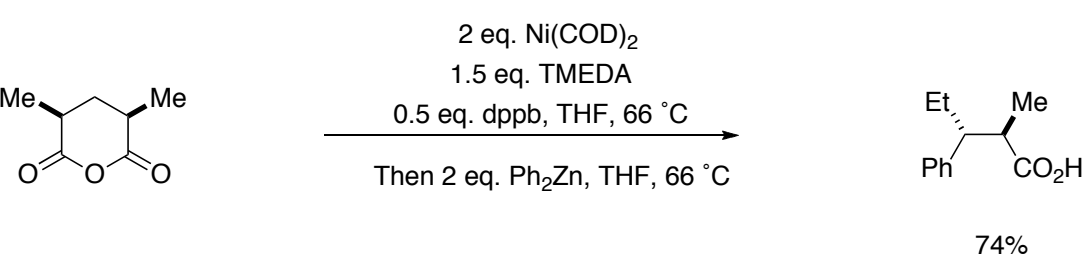
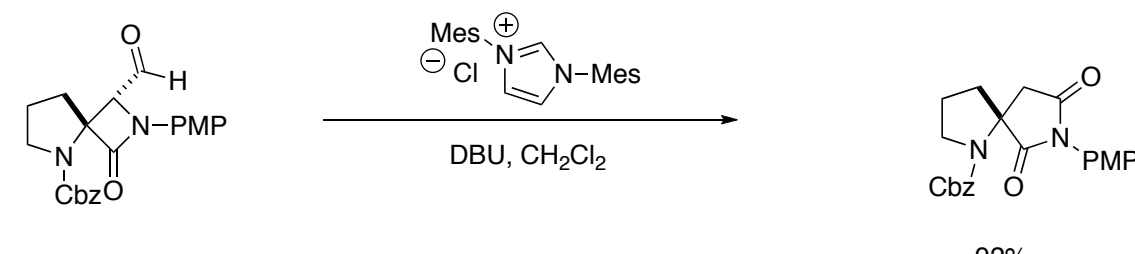


Problem Set 10/12/07

1. 
1. Vinyl Magnesium Bromide
CeCl₃, THF, -78 °C
2. TMSI, 2,6-Lutidine, 0 °C
3. (CHO)_n, PhMe/MeCN, 80 °C
81%
2. 
2. *m*-CPBA, CH₂Cl₂, -40 °C
Then Et₂NH, THF, 23 °C
89%
3. 
PhIO, Tf₂O, MeOH, CH₂Cl₂
88%
4. 
2 eq. Ni(COD)₂
1.5 eq. TMEDA
0.5 eq. dppb, THF, 66 °C
Then 2 eq. Ph₂Zn, THF, 66 °C
74%
5. 
Mes⁺
Cl⁻ N-Mes
DBU, CH₂Cl₂
92%