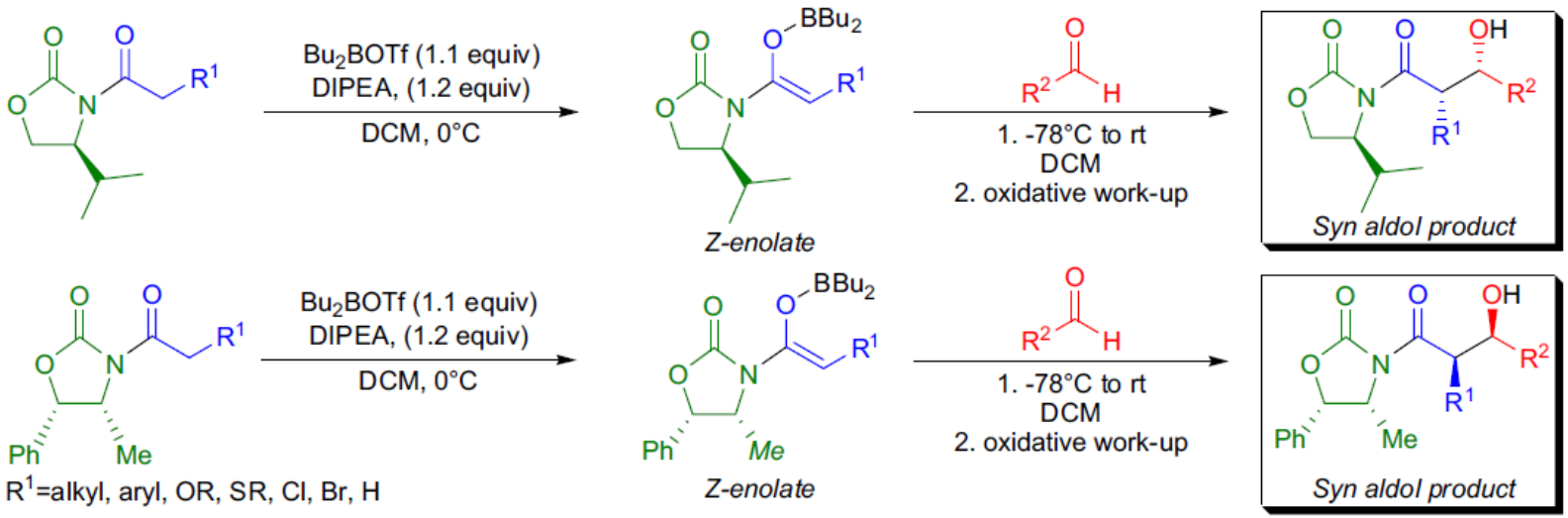
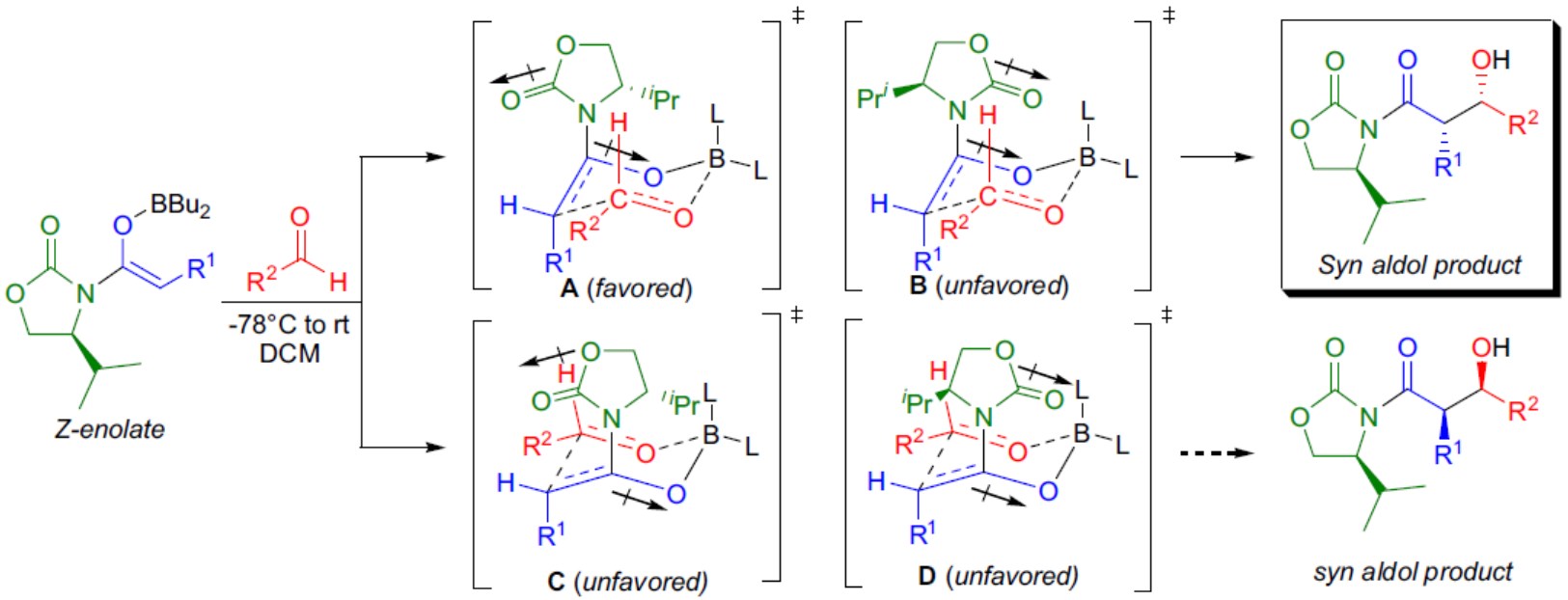
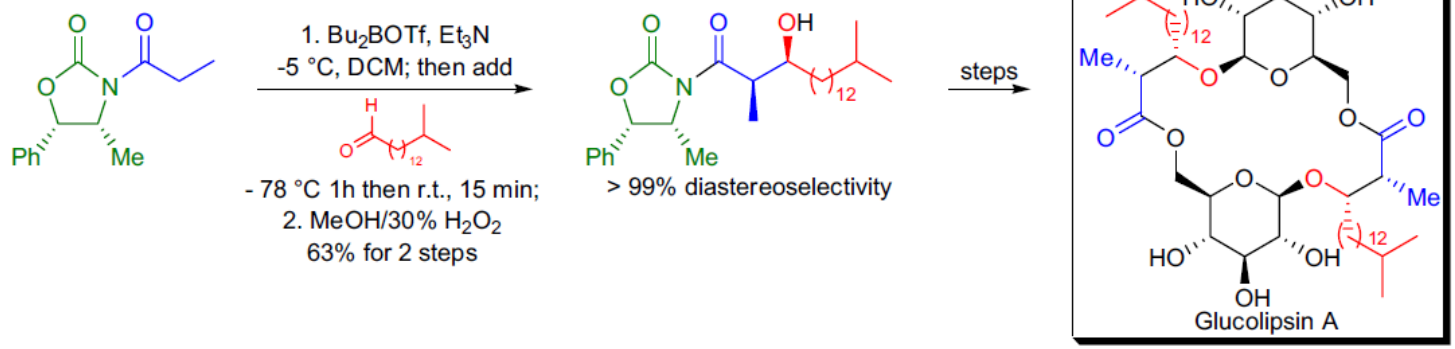
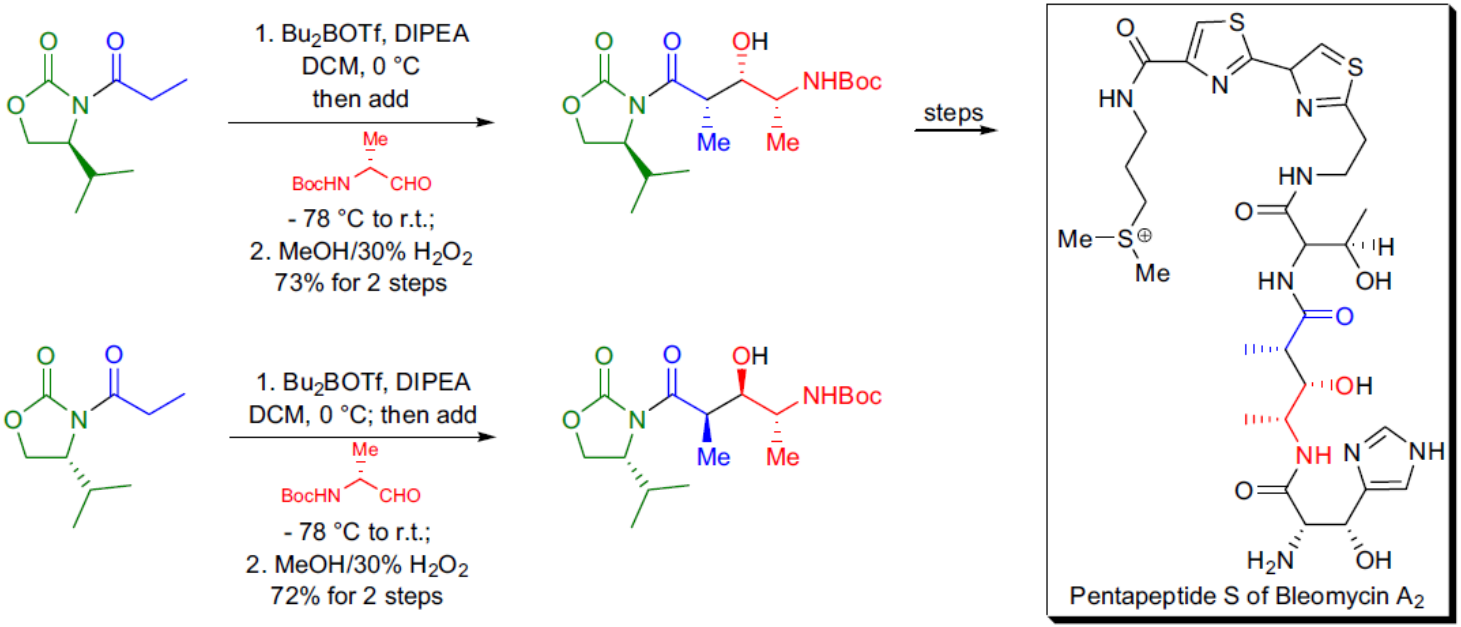
EVANS ALDOL REACTION



R^1=alkyl, aryl, OR, SR, Cl, Br, H


BBu2
R1
Z-enolate
R2
H
-78°C to rt
DCM
iPr
A (favored)
B (unfavored)
C (unfavored)
D (unfavored)
Syn aldol product
syn aldol product
OH


1. Bu2BOTf, Et3N
-5 °C, DCM; then add
- 78 °C 1h then r.t., 15 min;
2. MeOH/30% H2O2
63% for 2 steps
> 99% diastereoselectivity
steps
Glucolipsin A


1. Bu2BOTf, DIPEA
DCM, 0 °C
then add
- 78 °C to r.t.;
2. MeOH/30% H2O2
73% for 2 steps
1. Bu2BOTf, DIPEA
DCM, 0 °C; then add
- 78 °C to r.t.;
2. MeOH/30% H2O2
72% for 2 steps
steps
Pentapeptide S of Bleomycin A2