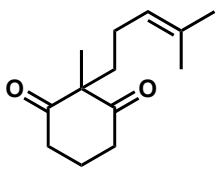


1) Baker's yeast
H_2O/DMSO, 30°C
2) $TsHNNH_2$, C_7H_8, 70°C
3) mCPBA, DCM, 0°C,
then PPTS, rt
4)TBSOTf, 2,6-lutidine, 50%

How would you prepare the starting material?

Is this material chiral? Whatch out dynamic kinetic resolution!

5) nBuLi, THF, -50°C,
then MeI, nBuLi, -50°C to rt
then $(HCHO)_n$
6) isobutyric acid, DCC, DMAP,
DCM, rt

7) LDA, THF, -78°C, *then* TMSCl,
-78°C to 75°C

Name the reaction in step 5 and 7!
Draw the TS for 7!

8) $TMSCHN_2$, $MeOH/C_7H_8$
9) MeLi, Et_2O, 0°C to rt
10) BH_3*THF; THF, 50°C
11) Swern
12) KOH, THF/MeOH, 0°C to rt
13) H_2, Pd/C, EtOAc, rt
14) NH_2OBn*HCl,
NaOAc, 85°C
$MeOH/H_2O$

15) $Pd(OAc)_2$, PIDA,
$AcOH/Ac_2O$, 100°C
16) HCl, 85°C
H_2O/MeOH/THF/ac
17) DMP, DCm, rt

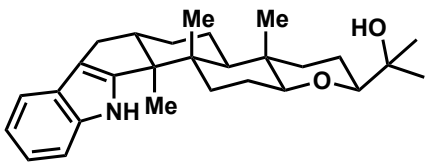
hint: remember the last quiz!

18) vinyl-MgBr, $CeCl_3$* 2LiCl,
THF, -78°C
19) Grubbs, CH_2Cl_2, rt
20) TFA, CH_2Cl_2, 0°C to rt
21) $LiAlH_4$, THF, 0°C

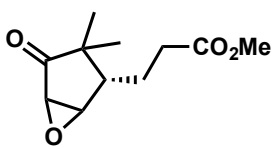
Name the catalyst in 22!

Name the reaction in 25!

22) H_2, $[C_8H_{12}]Ir[P(C_6H_{11})_3C_5H_5N]Pf_6$, DCM, rt
23) DMP, CH_2Cl_2,rt
24) LDA, THF, 0°C, then HMPA, DMS
25) N-Chloroaniline, CH_2Cl_2, -78°C then NEt_3
26) Raney-Ni, EtOH, rt
27) TsOH, DCM, 50°C



For the Pro's:



1. $TsNHNH_2$, DCM, HOAc
2. BF_3*OEt_2, DCM, rt

name the reaction!
draw mechanism and TS!

hint: new NMR signals

^{13}C: 68ppm and 80ppm