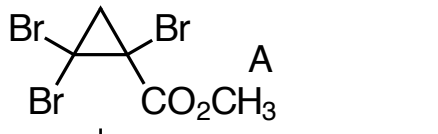
Synthesis Challenge # 36

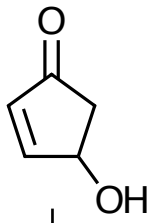
AG Wegner

11.06.2015



1-3

B



4-6

C

1) Dibal
2) TIPSCl
3) CH_3Li

4) CH_3I/Ag_2O
5) TBSOTf/Et_3N/**B**
6) NaOH

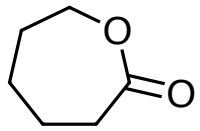
How would you prepare compund A

7-10

D

11-12

E



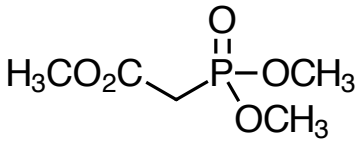
14-16

F

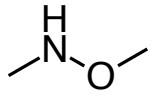
7) **I**, KHMDS
8) H_2/Pd-C
9) **II**, $AlCl_3$
10) TBAF; HBr

11) vinylMgBr
12) TBSOTf

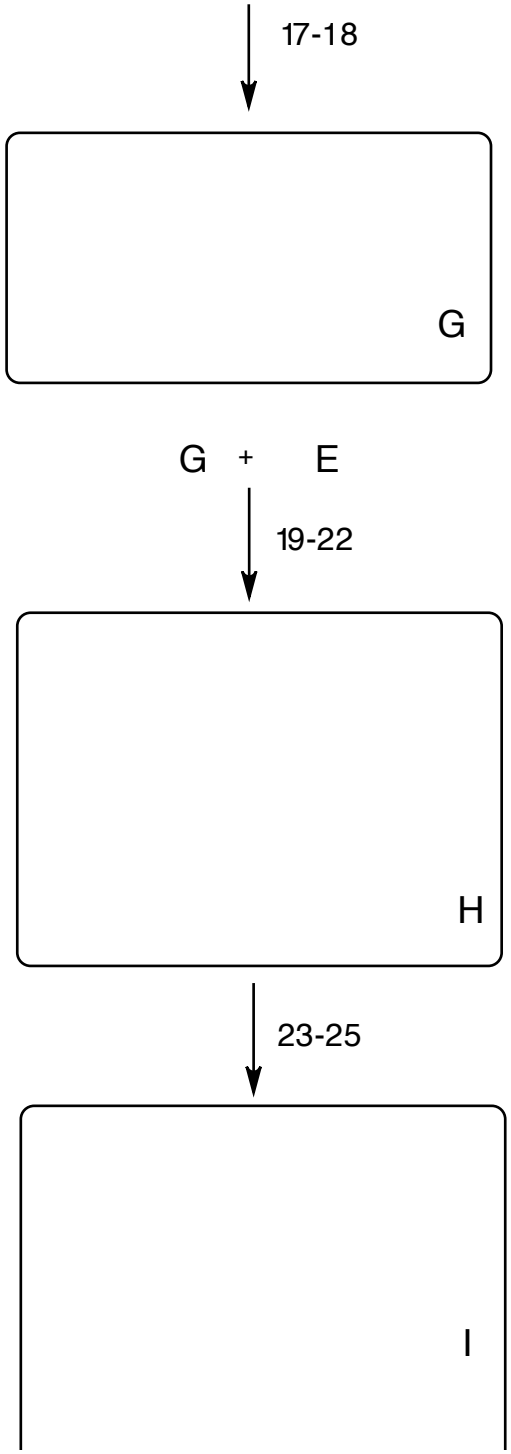
13) $EtNH_2$
14) SO_3*py, Et_3N, CH_2Cl_2/DMSO
15) *p*-TsOH
16) Br_2, Et_3N



I



II

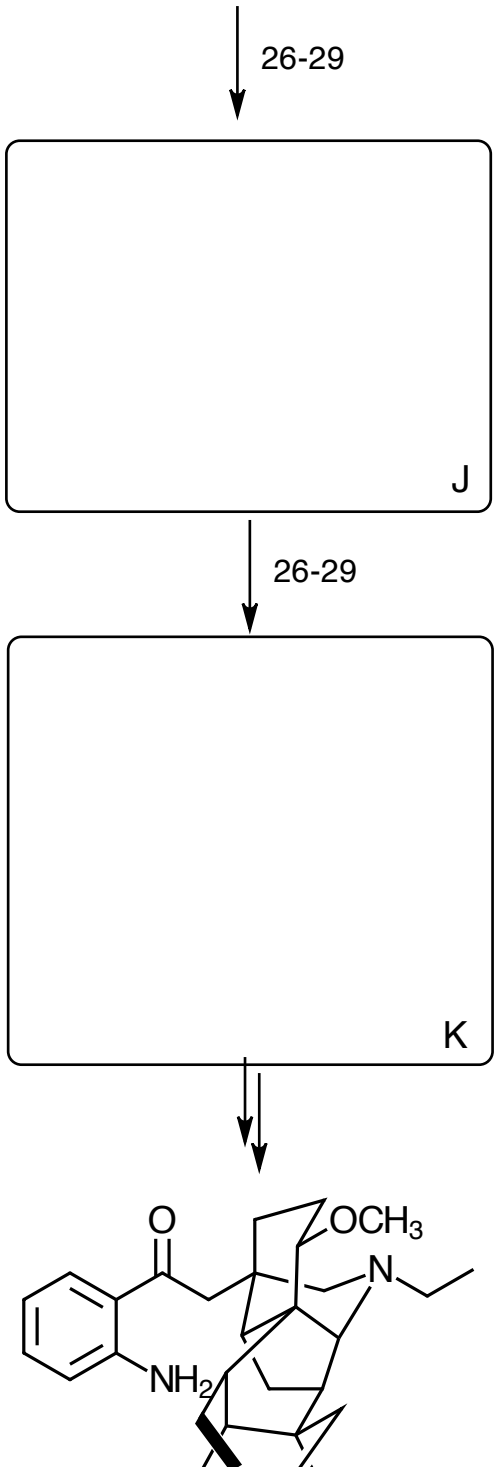


17) LiHMSDS, CH_3O_2CCN, PhSeCl
18) H_2O_2, CH_2Cl_2

19) G, E, $Sc(OTf)_3$
20) OsO_4, NMO
21) $Pb(OAc)_4$
22) DBU

23) Tf_2NH
24) CAN
25) MsCl, Et_3N

Hint:
Step 23: Mannich-type N-acyliminium cyclization
Step 24: allylic oxidation



26) Bu_3SnH, AIBN
27) TBSOTf, Et_3N
28) PhSeCl
29) $NaIO_4$

30) H_2/Pd-C
31) $NaBH_4$
32) CH_3I/*t*-BuOK
33) $LiBH_4$
34) CrO_3