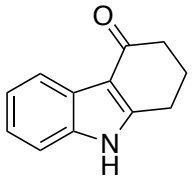
Synthesis Challenge 102

AG Wegner

17.03.2022



A

1-2

1) NaH, $ClCO_2Me$
2) $POCl_3$, DMF

B

3-4

3) $NaBH_4$, then TBSCl, imidazole
4) Acryl aldehyde, BHT, proton sponge, 130ºC

C

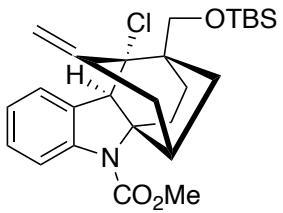
6

5) NaHMDS, $MeOCH_2PPh_3Cl$
6) $Hg(OAc)_2$, then KI

D

7-8

7) *t*BuOK, $N_2CHPO(OMe)_2$, –78ºC to rt
8) $n Bu_3SnH$, AIBN, benzene, reflux, then PPTS, CH_2Cl_2

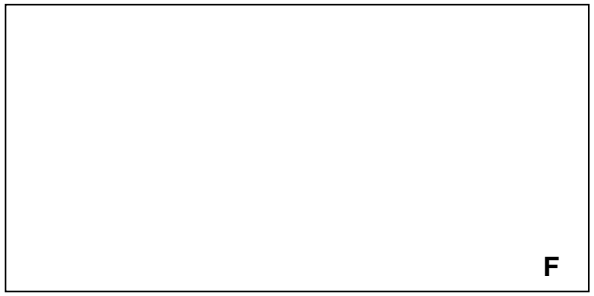


E

D!!!

9-11

9) $RuCl_3$, $NaIO_4$, $MeCN/H_2O$
10) SmI_2, THF
11) Dess-Martin-Periodinane, CH_2Cl_2

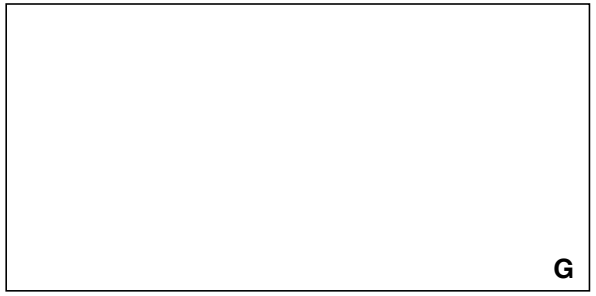


F

E

12-14

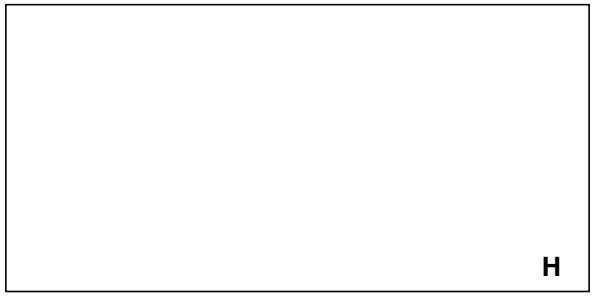
12) LiHMDS, Comins' reagent, –78ºC to rt
13) $Pd(PPh_3)_4$, CO, Et_3N, THF/MeOH
14) NaOCl, pyridine



G

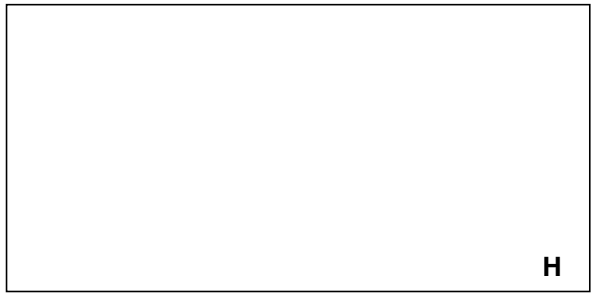
15-16

15) HF*pyridine
16) Dess-Martin-Periodinane, CH_2Cl_2, then Ph_3PChCN, then Pd/C, H_2



17-18

17) Zn, NH_4Cl, MeOH/H_2O, 45ºC
18) Raney Ni, H_2 (4 atm), then Pd/C, H_2 (4 atm)



19-20

19) EtSLi, HMPA
20) 1-cyclohexyl-3-(2-morpholino- ethyl)-carbodiimide metho-*p*-toluenesulfonate, DMSO