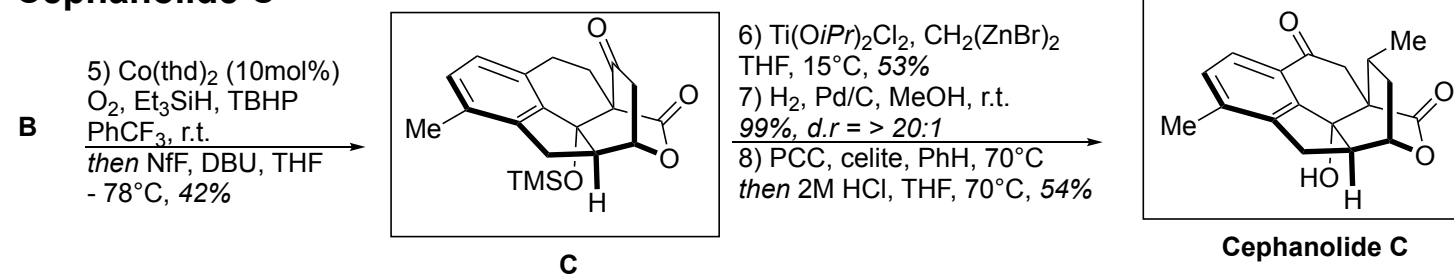
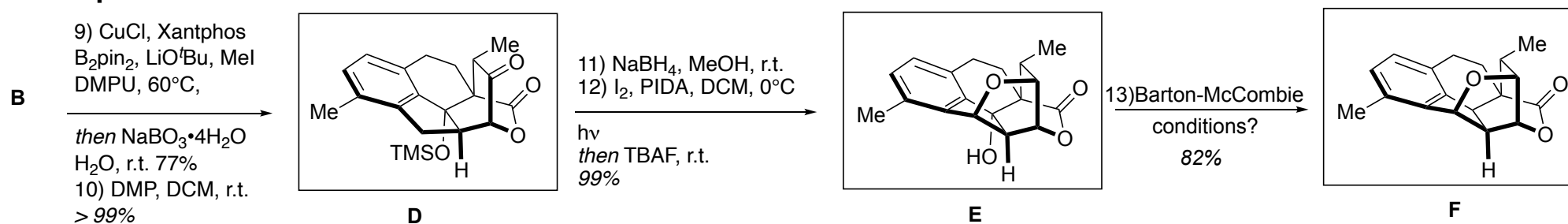


Cephanolide C

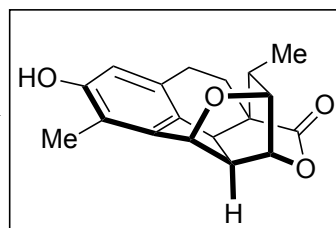


Cephanolide A

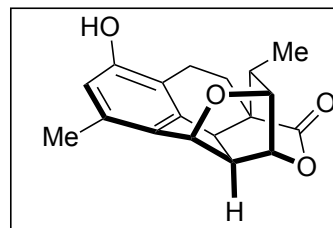


F

14) Malononyl peroxide
HFIP, 90°C
then Na₂S₂O₃
sat. aq. K₂CO₃
MeOH, r.t., 39% (6:1)



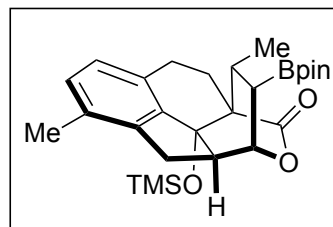
Cephanolide A



Cephanolide B,C,D

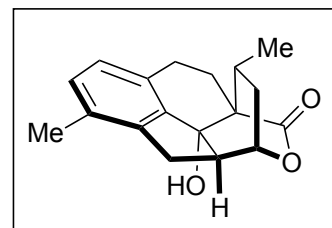
B

15) CuCl, Xantphos
B₂pin₂, LiO^tBu, MeI
DMPU, 60°C, 83 %



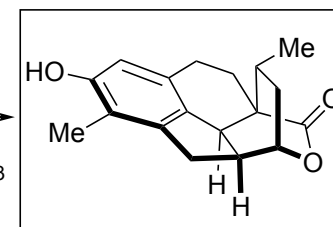
G

16) PhLi, Et₂O, -78°C
then MeOH/acetone
-78°C to r.t.
then PhSH
Ir[dF(CF₃)ppy]₂(dtbbpy)PF₆
blue LEDs
then 3M HCl, r.t., 76%



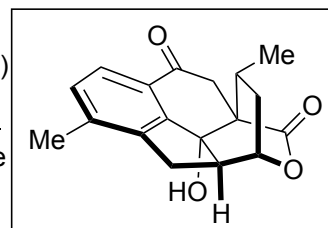
H

17) InCl₃ (20mol%)
Ph₂SiHCl, DCM, r.t. 97%
18) PPO, HFIP, 60°C
then sat. aq. NaHCO₃
MeOH, r.t. 74%
(1.3:1)



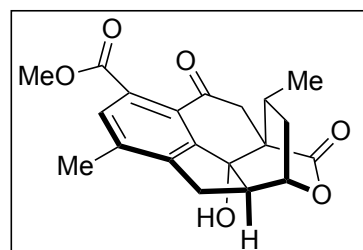
Cephanolide B

19) PCC, NaOAc
4Å MS, DCE
60 °C, 61%



Cephanolide C

20) MeONH₂•HCl
pyridine, EtOH,
80°C, > 99%
21) Pd(OAc)₂ (1eq)
Ag₂CO₃, K₂S₂O₈



Cephanolide D

CSA, KO₂CCO₂Me
DCE, 90 °C, 52 %
22) O₃, DCM, r.t.
then Me₂S, r.t.
35%

