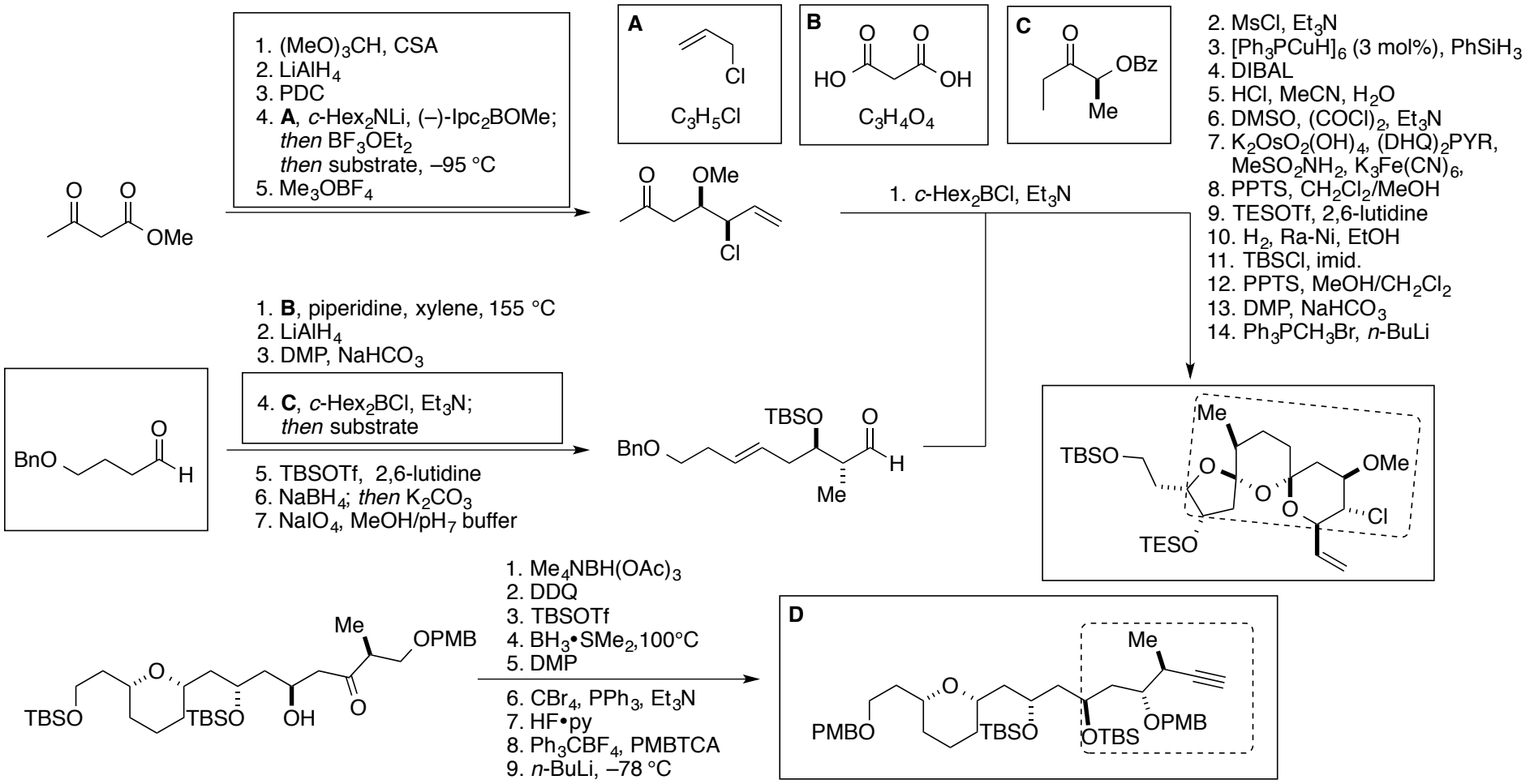
E54: Synthesis of Spirastrelloide A methyl ester[1,2]



[1] I. Paterson, E. A. Anderson, S. M. Dalby, J. H. Lim, P. Maltas, O. Loiseleur, J. Genovino, C. Moessner, *Org. Biomol. Chem.* **2012**, *10*, 5861.

[2] I. Paterson, E. A. Anderson, S. M. Dalby, J. H. Lim, P. Maltas, *Org. Biomol. Chem.* **2012**, *10*, 5873.

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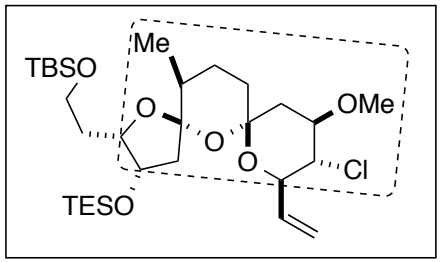
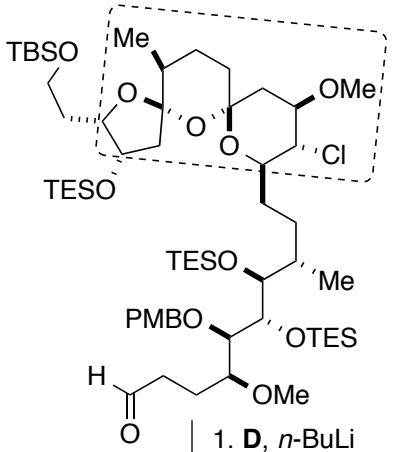
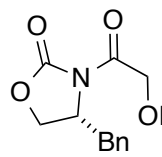


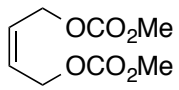
1. 9-BBN; **F**, $[PdCl_2(dppf)]$, Ph_3As, Cs_2CO_3
2. $BH_3 \bullet SMe_2$; H_2O_2, NaOH
3. TESOTf, 2,6-lutidine
4. PPTS, $MeOH/CH_2Cl_2$
5. DMP, $NaHCO_3$

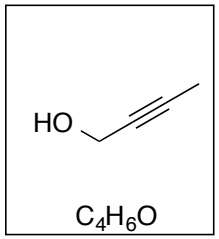


E



G

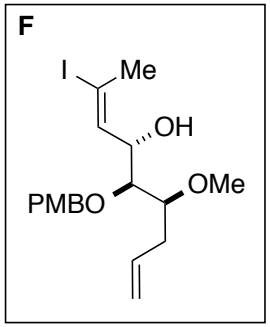




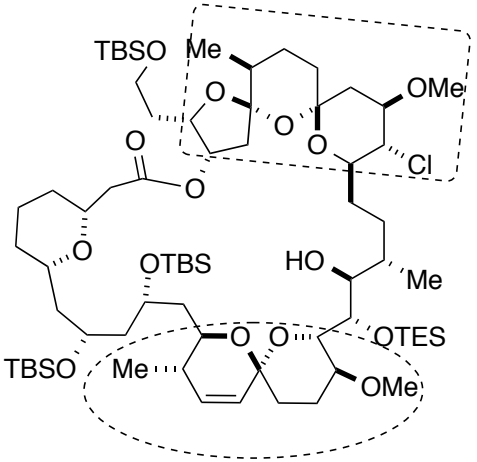
C_4H_6O

1. Cp_2TiCl_2, i-BuMgCl; I_2
2. DMP
3. **E**, *n*-Bu_2BOTf, Et_3N, PhMe
4. MeNH(OMe) HCl, $AlMe_3$
5. TESOTf
6. AllylMgBr
7. $Zn(BH_4)_2$
8. Me_3OBF_4
9. PPTS, MeOH

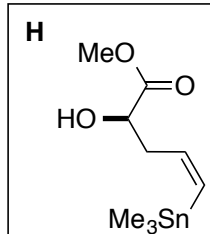
F



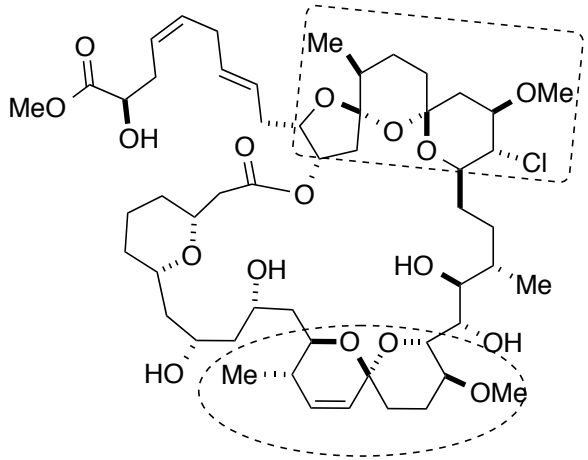
1. **D**, *n*-BuLi
2. H_2, $Pd/CaCO_3/Pb$, quinoline
3. DMP, $NaHCO_3$
4. DDQ, CH_2Cl_2/pH_7 buffer
5. TEMPO, PhI(OAc), CH_2Cl_2/pH_7 buffer; $NaClO_2$, NaH_2PO_4, 2-methyl-2-butene
6. TBAF, AcOH
7. 2,4,6-trichlorobenzoyl chloride, Et_3N; *then* DMAP, PhMe



H



1. HF•py
2. PPTS, $(MeO)CMe_2$
3. PPTS, MeOH
4. DMP, $NaHCO_3$
5. $Ph_3{=}CH_2$
6. Grubbs II, **G,** PhH, 80 °C
7. $PdCl_2(MeCN)_2$, **H**
8. PPTS, MeOH, 35 °C



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