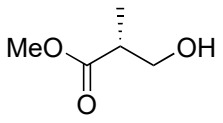
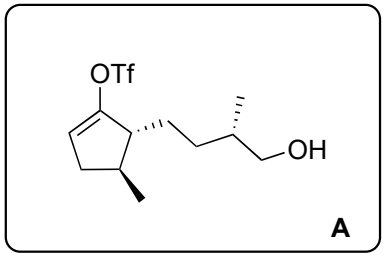
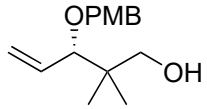
Enantioselective Total Synthesis of (+)-Aberrarone

W. M. Amberg, E. M. Carreira, *J. Am. Chem. Soc.* **2022**, *144*, 15475–15479.

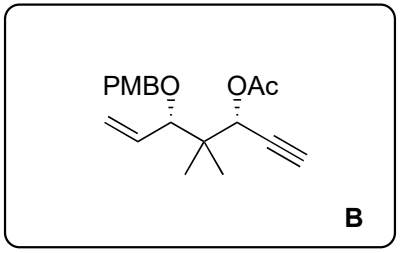


1–7

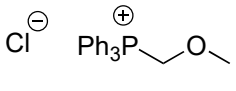




8–11



1) TBDPSCl, Imidazole
2) DIBAL-H, -78 °C
3) **1**, NaHMDS, -78 °C *then* 2M HCl
4) **2**, MeLi, -78 °C *then* SM (after step number 3)
5) NaHMDS, CS_2, MeI
6) *n*-Bu_3SnH, AIBN
7) KHMDS, Comins' reagent *then* TBAF



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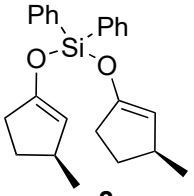

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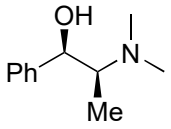
8) DMSO, DIPEA, SO_3•Py
9) **3**, $Zn(OTf)_2$, Et_3N, **4**
10) TBAF
11) Et_3N, DMAP, Ac_2O



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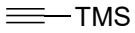
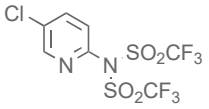


4

5) + 6) Name of the reaction?

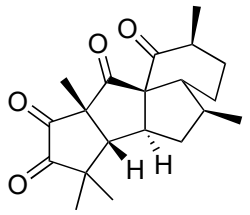
Barton Mccombie

7) Structure Comin´s reagent?



8) Name of the reaction?

Parikh-Doering oxidation



(+)-Aberrarone

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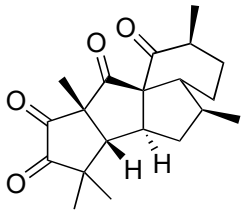
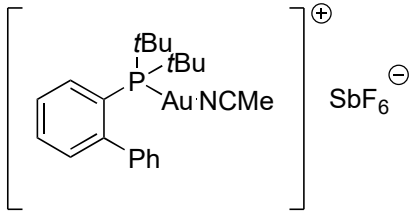
12–19



(+)-Aberrarone

12) Et_3N, $PdCl_2(PPh_3)_2$, CuI *then* **B**
13) DMSO, DIPEA, SO_3•Py
14) **5** (5 mol%), DCE, 0 °C *then*, *n*-Bu_3SnOMe
15) DDQ
16) $LiAlH_4$
17) H_2, PtO_2
18) DMSO, DIPEA, SO_3•Py
19) SeO_2



5

12) Name of the reaction?

Sonogashira coupling

14) cyclization cascade occure (4 reactions)

19) Name of the reaction?

Riley oxidation