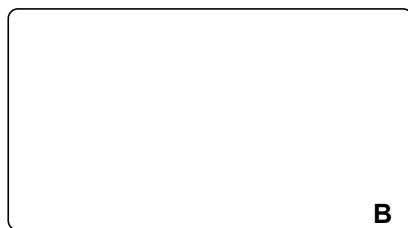


- 1) i) Thioanisole, DABCO, *n*BuLi
THF, 0 °C, 1h
ii) - 78 °C, **A**, 45 min, **80 %**
- 2) (*R*)-CBS, catecholborane,
DCM, - 78 °C, 24 h, **89 %**, 90 % ee



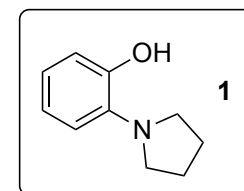
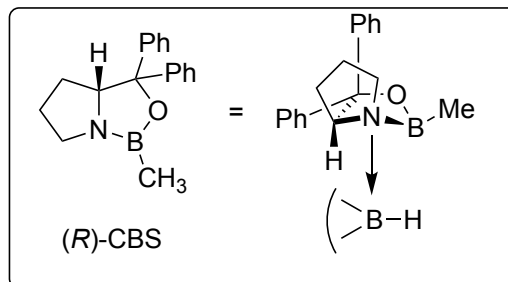
- i) **1**, MeMgBr
Toluene, 0 °C
- ii) methyl acrylate
55 °C, 24 h
- iii) wash 3N HCl
80 %



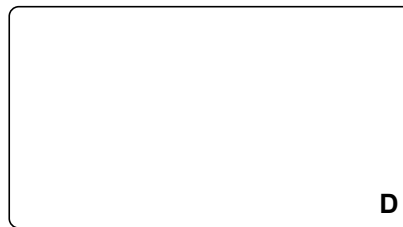
Which type of compound is **A** ?

Name of the second reaction ?
Explain the stereochemistry

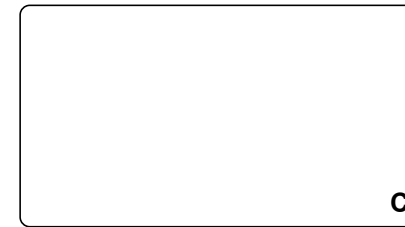
draw the approach
of the ketone with CBS



- i) Li, 4,4'-di-*tert*-butylbiphenyl
THF, 0 °C, 2 h
ii) - 40 °C, **D**, 3 h
- iii) MeOH, quench, remove Li
concentrated
- iv) K₂CO₃, MeI
DMF, 60 °C, 10 min
97 %



- i) LiHMDS
THF, - 78 °C, 0.5 h
- ii) (EtO)₃P, bubbling O₂
74%



- 1) VO(OEt)₃
*t*BuOOH
DCM, rt, 3 h
90 %
- 2) Ac₂O, DMAP
Et₃N, rt, 3 h
93 %



Name ?

- 1) i) LiHMDS, THF, - 78 °C to rt
ii) sat. aq. NH₄Cl, reflux, 2 h
- 2) TESCl, imid., DMAP
DMF, rt, 2 h

97 % (two steps)



