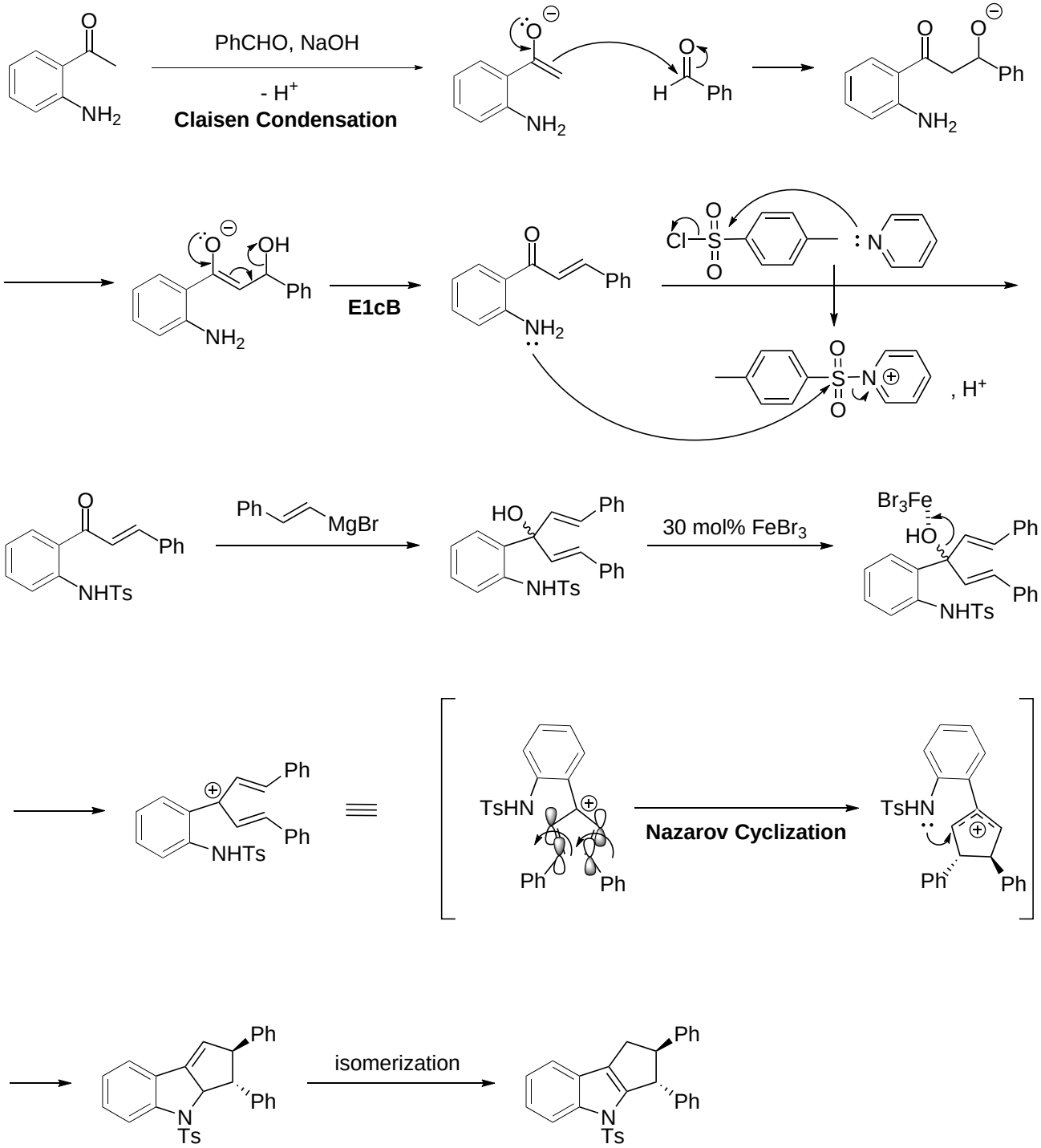
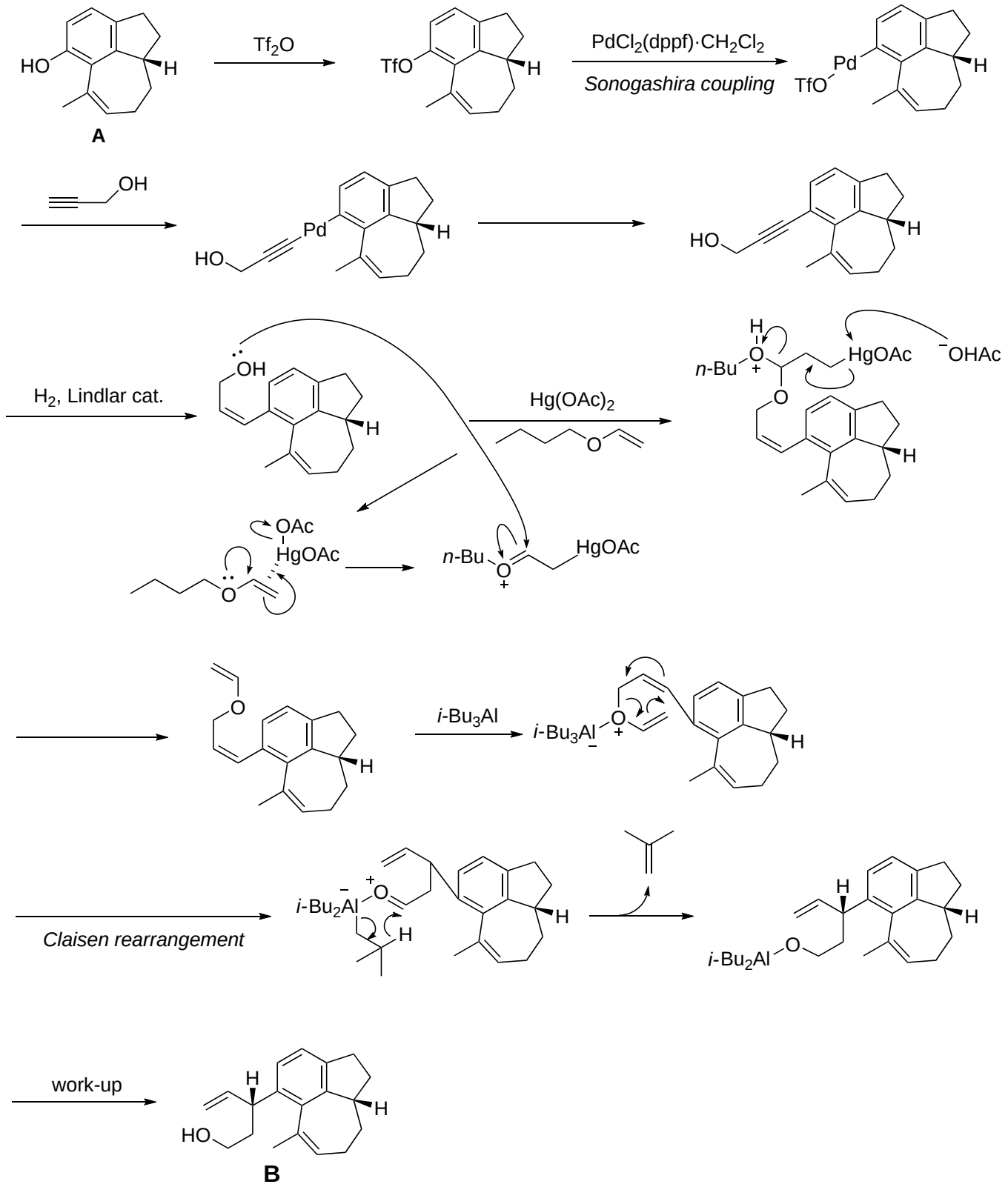
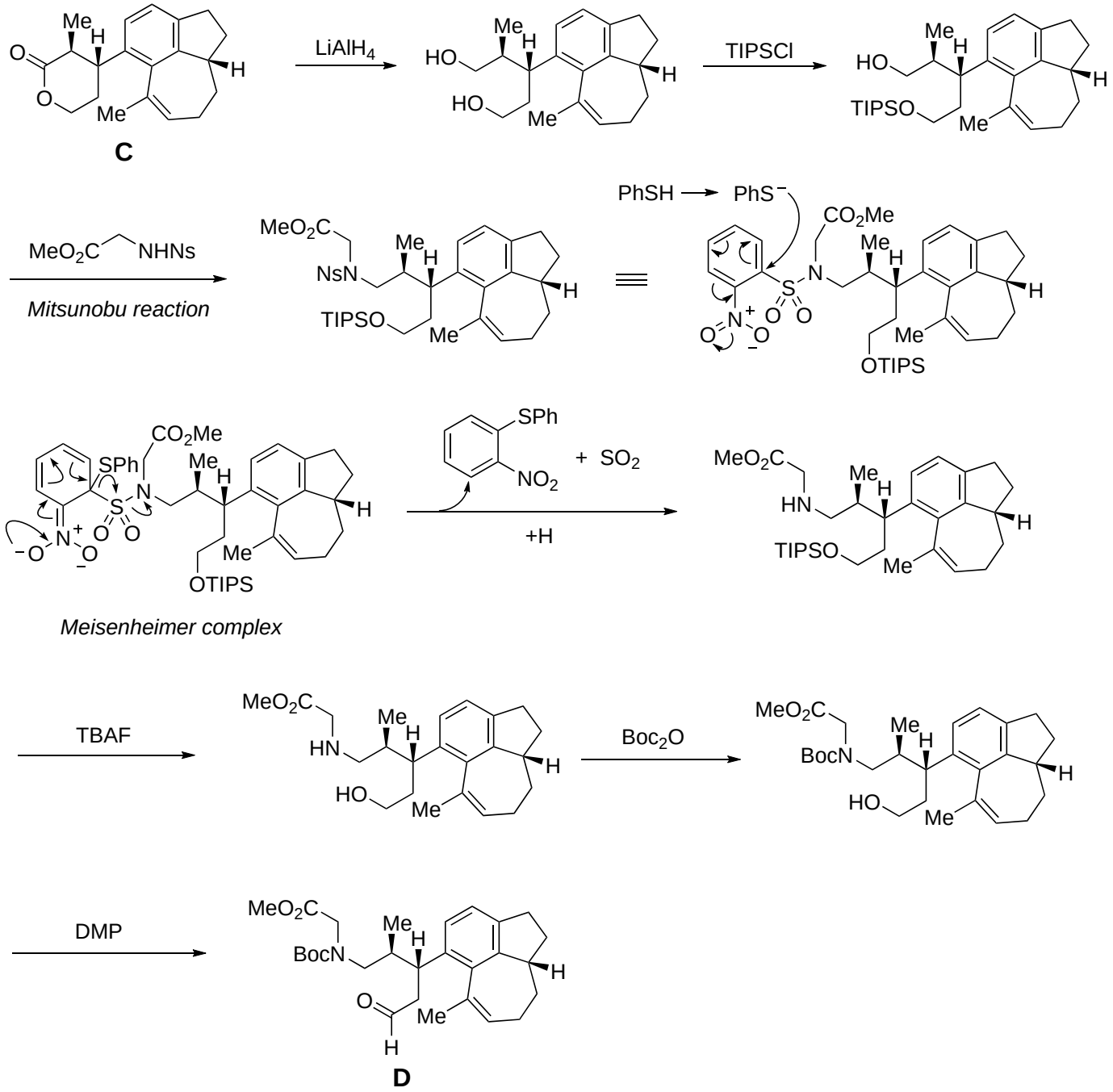
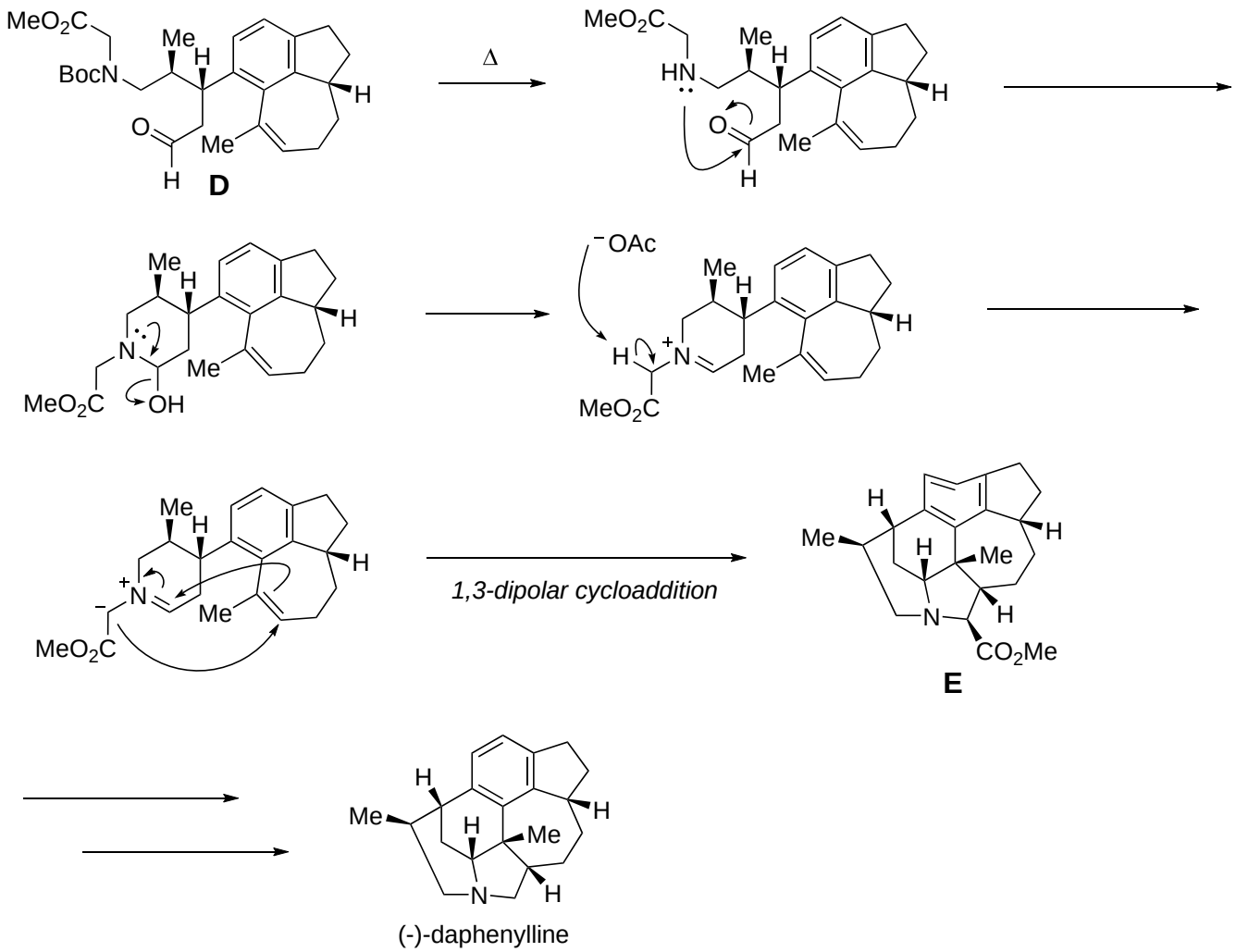

PhCHO, NaOH
- H+
Claisen Condensation
E1cB
30 mol% FeBr3
Br3Fe
Nazarov Cyclization
isomerization


HO
H
A
Tf2O
TfO
H
PdCl2(dppf)·CH2Cl2
Sonogashira coupling
Pd
TfO
H
OH
Pd
HO
H
HO
H
H2, Lindlar cat.
OH
H
Hg(OAc)2
O
H
n-Bu
O
HgOAc
OHAc
O
H
OAc
HgOAc
O
n-Bu
O
HgOAc
O
H
i-Bu3Al
i-Bu3Al
O
H
Claisen rearrangement
i-Bu2Al
O
H
H
H
i-Bu2Al
O
H
H
work-up
H
HO
H
B


C
LiAlH4
TIPSCl
MeO2C NHNs
Mitsunobu reaction
PhSH
PhS−
Meisenheimer complex
SPh
NO2
+ SO2
+H
TBAF
Boc2O
DMP
D



(-)-daphenylline