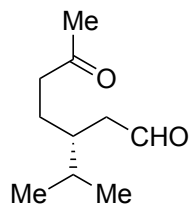
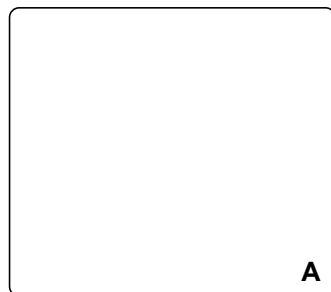




Total synthesis of (-)-Retigeranic acid A



EtNO₂, Et₃N, Ac₂O
then DABCO, O₂

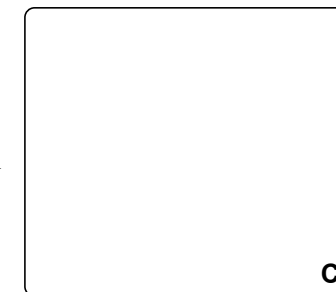
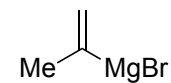


a) MeOCH₂PPh₃Cl,
t-BuOK; then aq. HCl
b) Zr(*n*-PrO)₄,
LiOH·H₂O



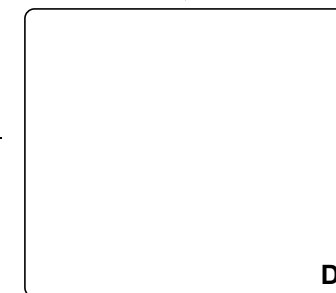
a) I₂, 4-DMAP

b) Pd(PPh₃)₄,
ZnBr₂

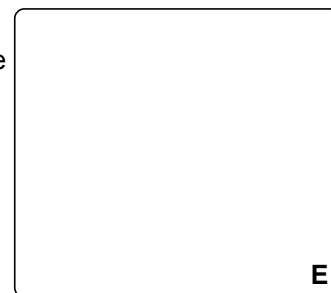


CH₂/Cl, LiBr,
TMSCH₂Li

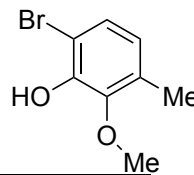
aq. NH₄Cl work-up
epimerised the product



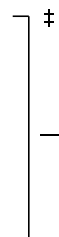
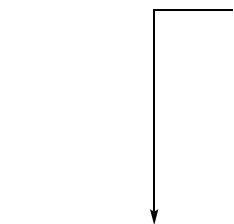
TosMIC, *t*-BuOK,
then DIBAL-H



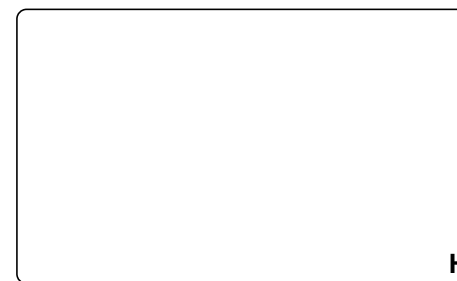
NaH, *n*-BuLi,

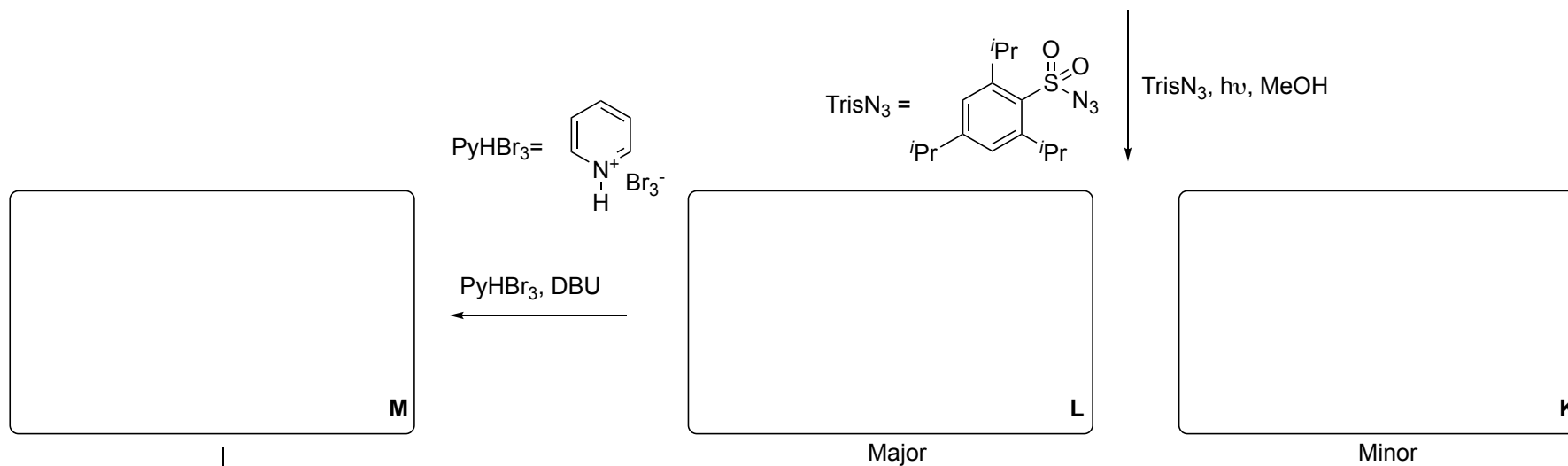
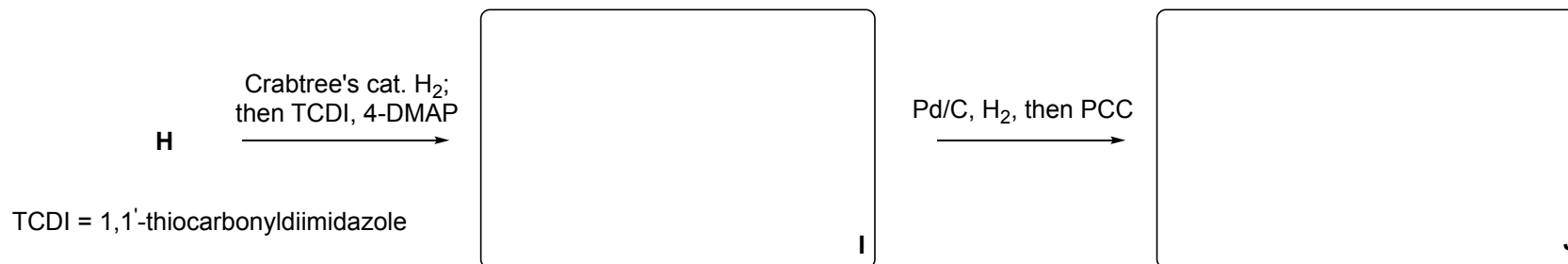


PIFA, K₂CO₃



Sml₂, *t*-BuOH, H₂O





Mn(dpm)₃, Ph(*i*-PrO)SiH₂,
aq. KOH work-up

