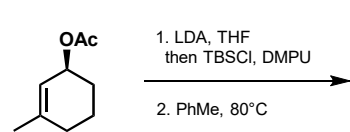
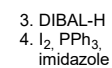


Enantioselective Total Synthesis of Guanacastepene N

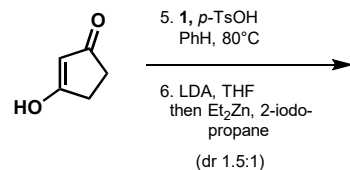
21.06.17



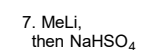
A



B



C

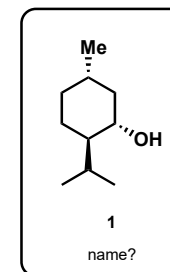


D

8. (i) **B**, *t*-BuLi
(ii) CuCN
(iii) TMSBr
(iv) **D**

E

9. 2,6-lutidine,
Me₂N=CH₂!
then MeI
10. K₂CO₃
CH₂Cl₂/MeOH/H₂O



11. *m*-CPBA
12. NaBH₄, CeCl₃·7H₂O
13. TBSCl, imidazole

F



G

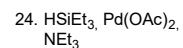
16. LHMDS, DMPU
benzyl cyanofornate
17. KHMDS, Tf₂O

H

18. HF
19. TPAP, NMO

20. Pd₂(dba)₃·CHCl₃ (12 mol%),
dppb (24 mol%), KOAc, DMA
80°C

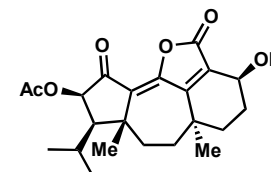
I



J

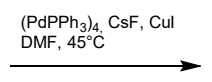
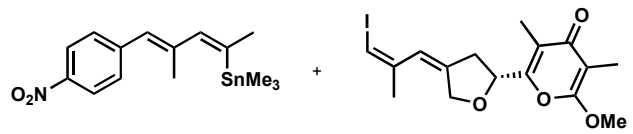
25. NBS, (BnO)₂
CCl₄, reflux

26. HSnBu₃, air
then PPh₃



guanacastepene N

dppb = bis(diphenylphosphino)butane
DMA = *N,N*-dimethylacetamide



K

+

L

(67%)

(22%)