(-) Citrinadin A

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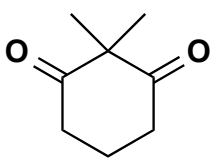
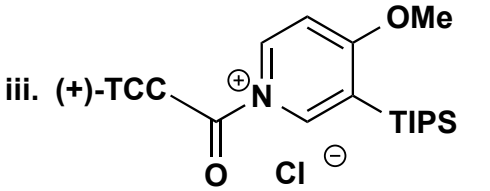


1) ethylene glycol, CSA, $(EtO)_3CH$, DCM
2) $(MeO)_2CO$, NaH, THF

3) NaH, ether, then Tf_2O
4) CuCN, MeLi, ether

over four steps: 64 %

i. LDA, THF, -78 °C
ii. $ZnCl_2$, THF, -78°C



iv. 0.5 M aq HCl 66% (92:8 dr)

6) Cs_2CO_3, THF/MeOH (1:1), heat, 80 %

7) TBAF*$3H_2O$, dioxane, 100 °C, 73 %

8) $PhSiMe_2CH_2MgCl$, CuBr*DMS, BF_3*OEt

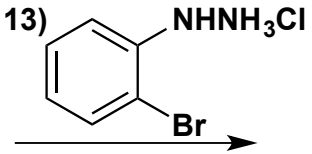
9) L-Selectride, THF, 71%

10) TBAF*$3H_2O$ DMF,150 °C

81%

11) CF_3CO_3H, Na_2CO_3 DCM, 0 °C, 76 %

12) $MeNH_2$, 100 °C 95 %



aq. H_2SO_4, reflux 81%

i. $AlEt_3$, THF, -78 °C
ii. AlH_3*$EtNMe_2$, PhMe
iii. MeOH, AcOH, $NaCNBH_3$

97 %

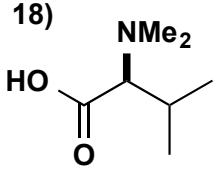
15) PPTS, DCM
then Davis' oxaziridine

16) AcOH, DCM

NAME?

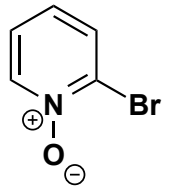
17) 3-Methylbut-1-yne,
$Pd(PPh_3)_2Cl_2$, CuI
DMF, *i*-Pr_2NH, 80 °C, 86%

18)

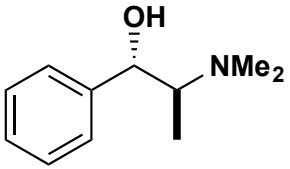


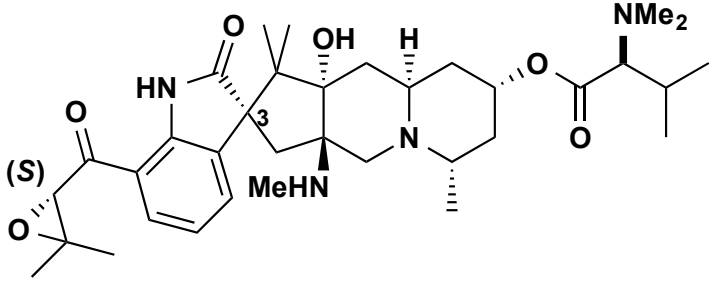
EDCI, DMAP, DCM,
97 %

19) $Au(PPh_3)NTf_2$,
THF, 75 %



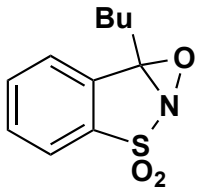
20) Et_2Zn, O_2, PhMe
81 % (5:1 dr)





(-)-citrinadin A

Davis' oxaziridine



(+)-TCC