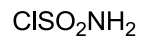
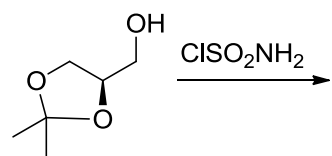
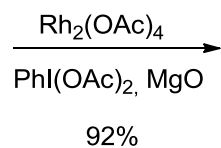


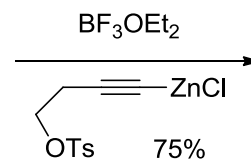
Denksport-1, 14.01.10 (H.J. Martin)



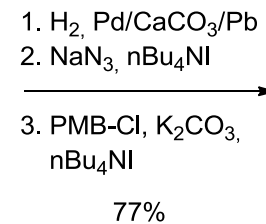
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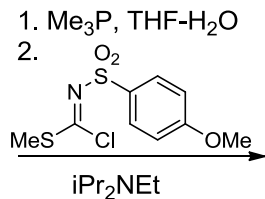
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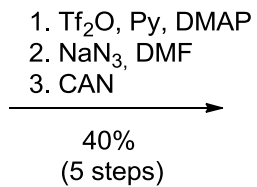
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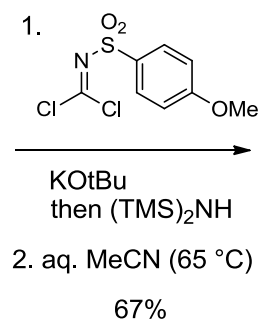
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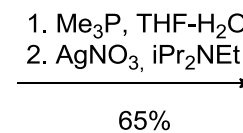
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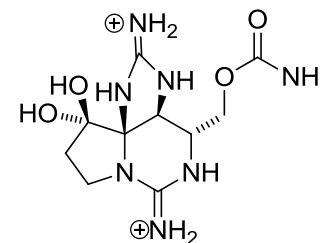
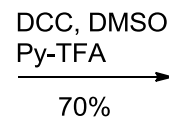
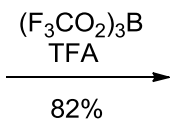
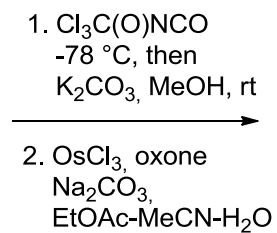
F

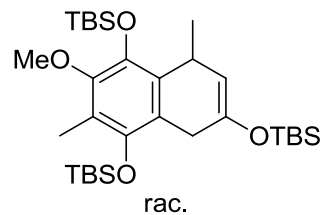


G

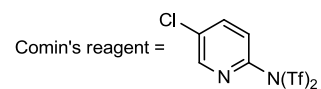


H

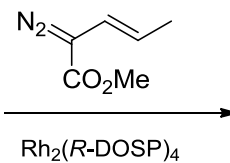




1. TFA, DCM
2. Comins Reagent
NaHMDS, -78 °C
3. Pd(PPh₃), LiBr
Et₃SiH, THF, reflux



A



Mechanism ?

B

(1:1)

DOSP = N-dodecylbenzenesulfonyl prolinat

- B**
1. H₂, Pd-C
 2. LiAlH₄
- 34% (3 steps)
after separation

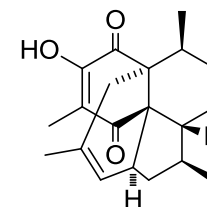
1. PCC, DCM
2. i-propenyl-MgBr
3. Tf₂O, DTBP
4. TBAF, air, rt

C

DTBP = 2,6-di-tert-butylpyridine

D

1. PhCH₃, 180 °C
 2. AlCl₃, PhNMe₂
- 62 %
- BF₃ OEt₂, -78 °C
- 51 %



(-)-columbiasin A

structure ?

(-)-elisapterosin B