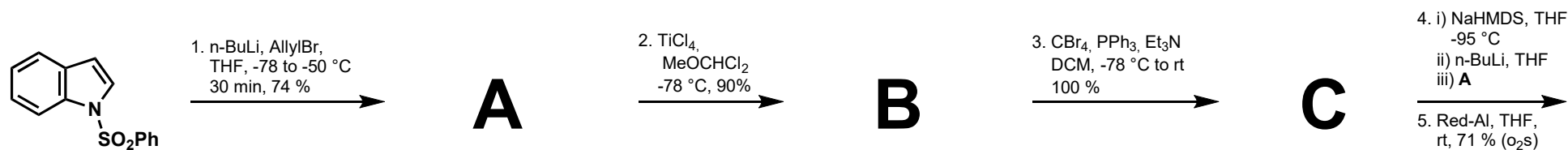


Stereoselective Synthesis of (+)-Aspidofractinine
David Gagnon and Claude Spino; J. Org. Chem. 2009, 74, 6035-6041



D

minor
20%

+

E

major
71%

6. i) Cl₃CC(O)NCO
THF, 0 °C
ii) K₂CO₃, MeOH, H₂O
0 °C to rt, 96 % (o₂s)
7. i) TFAA, Et₃N,
ii) Cl₃CCH₂OH
DCM, 0 °C to rt, 87 %

F

8. Zn, THF, AcOH
rt, 100%
9. Cl(CH₂)₃I, K₂CO₃
MeCN, rt, 77 %

10. BrCH₂COCl, Et₃N
DCM, 0 °C, 84 %

G

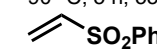
11. Grubbs II, DCM
rt, 86 %
12. TsNHNHTs, DBU
THF, 0 °C, 92 %
13. Cu(OTf)₂·3 PhMe
DCM, rt, 70 %

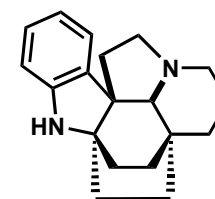
H

14. NaI, acetone
15. n-Bu₃BH, AIBN
PhH, 92 % (o₂s)

16. Na· anthracene
DME, -70 °C, 96 %
17. PhSeO₂H, THF/Pyr
6:1, reflux, 61 %

I

18. Sealed tube, PhH
90 °C, 5 h, 55%

19. Raney-Ni, i-PrOH
reflux, 67 %
20. LiAlH₄, THF, reflux
70 %



(+)-Aspidofractinine

