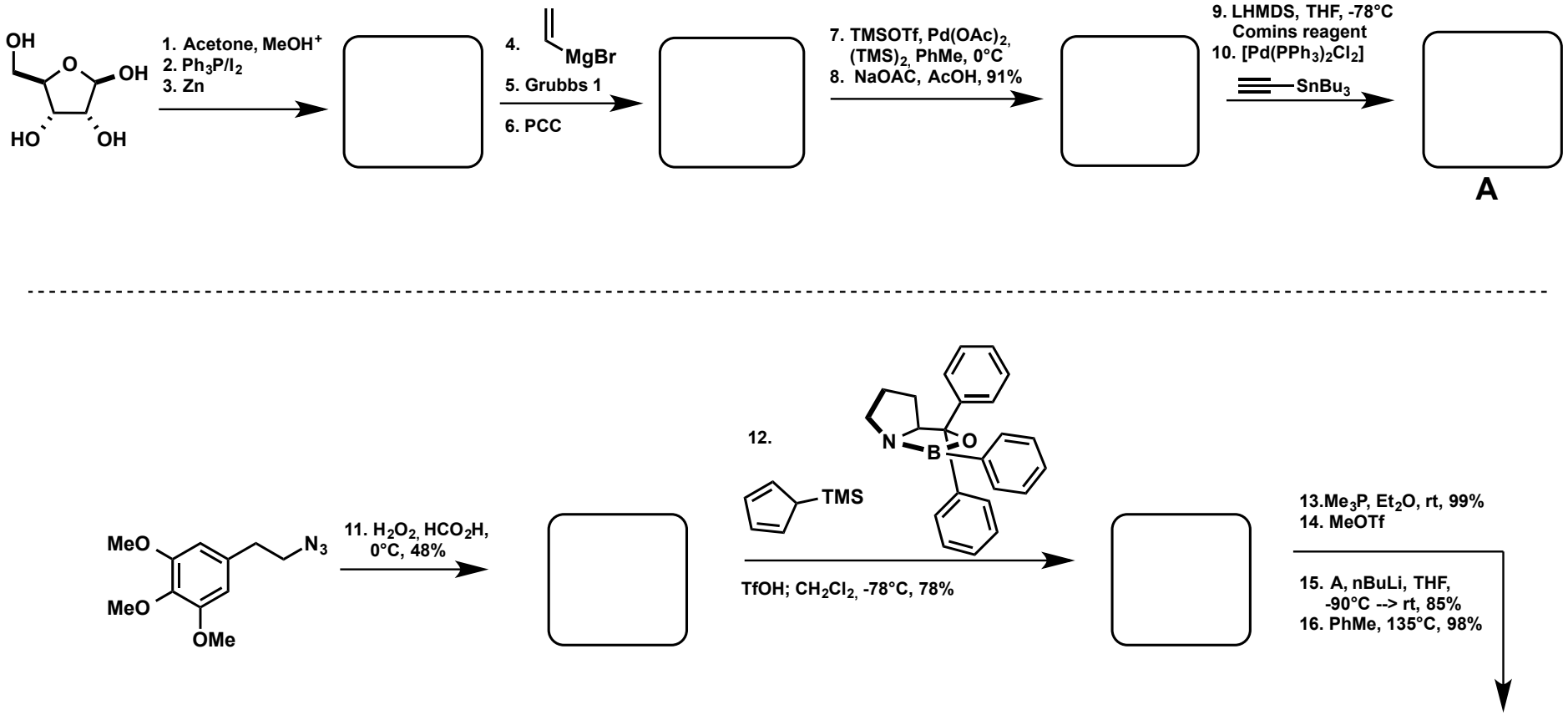
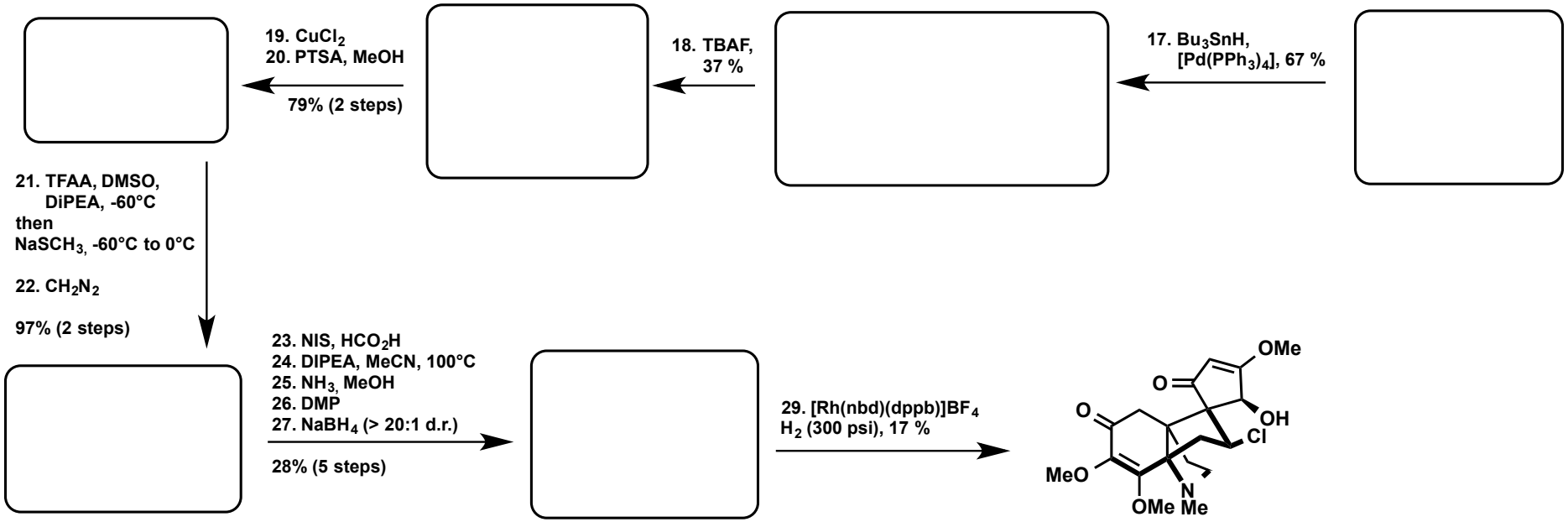
Total Synthesis of (-) - Acutumine *S. M. King, N. A. Calandra, S. B. Herzon* *Angew. Chem. Int. Ed. 2013, 52, 3642-3645*




19. CuCl2
20. PTSA, MeOH
79% (2 steps)
18. TBAF,
37 %
17. Bu3SnH,
[Pd(PPh3)4], 67 %
21. TFAA, DMSO,
DiPEA, -60°C
then
NaSCH3, -60°C to 0°C
22. CH2N2
97% (2 steps)
23. NIS, HCO2H
24. DIPEA, MeCN, 100°C
25. NH3, MeOH
26. DMP
27. NaBH4 (> 20:1 d.r.)
28% (5 steps)
29. [Rh(nbd)(dppb)]BF4
H2 (300 psi), 17 %
OMe
O
O
OH
Cl
MeO
N
OMe Me