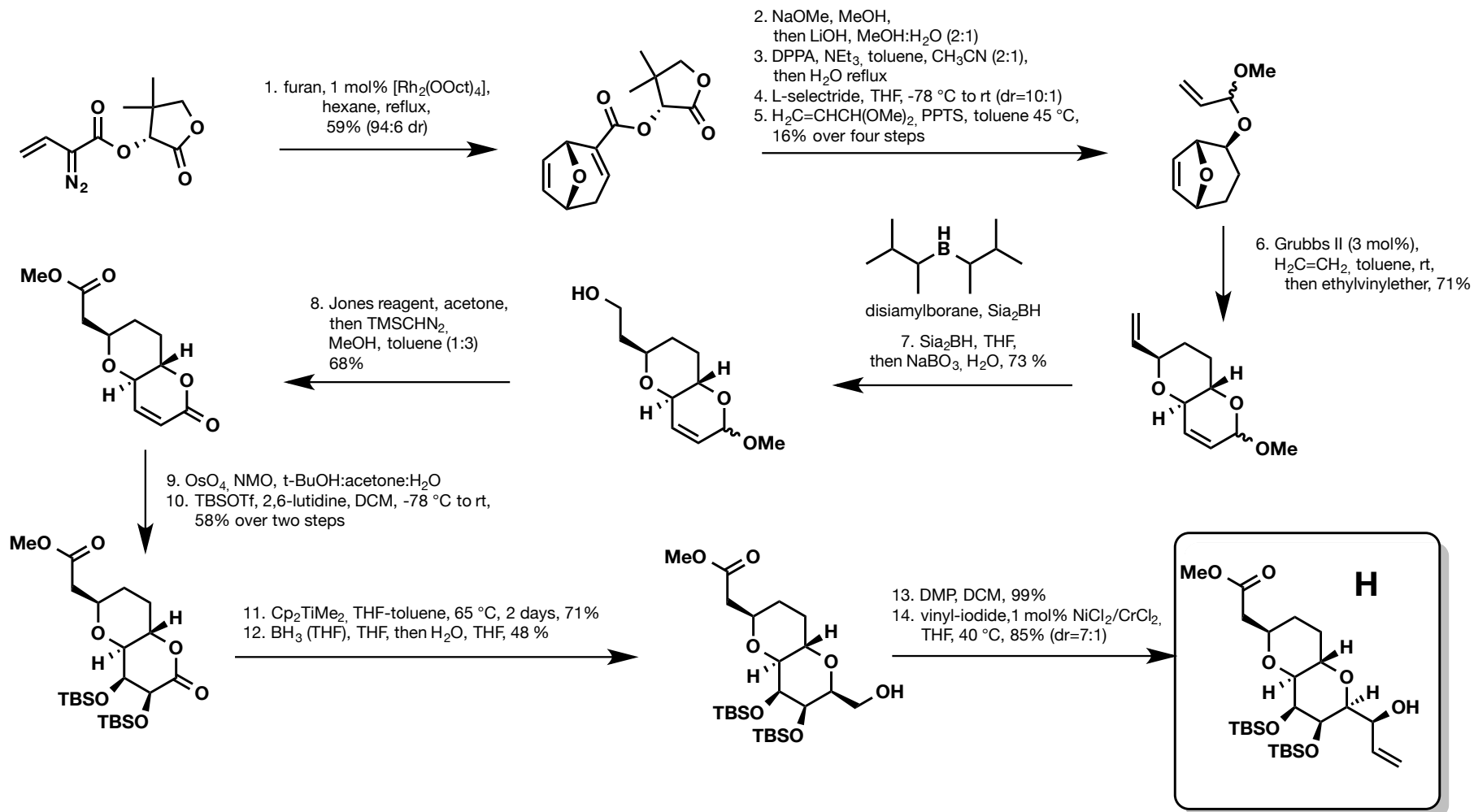


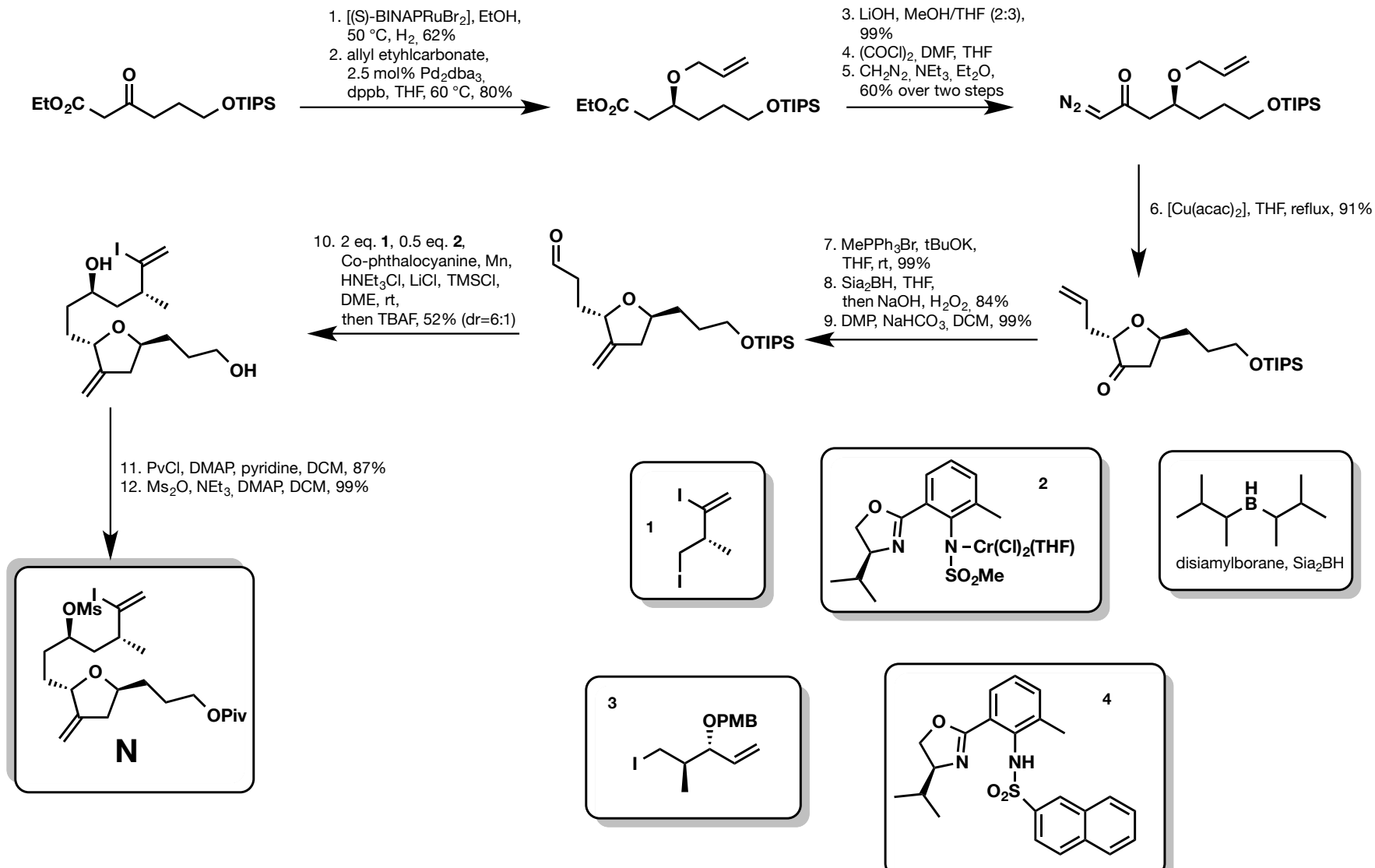
Total synthesis of Norhalichondrin B - Fragment A

K. L. Jackson, J. A. Henderson, H. Motoyoshi, A. J. Phillips, *ACIE*, 2009, 48, 2346-2350



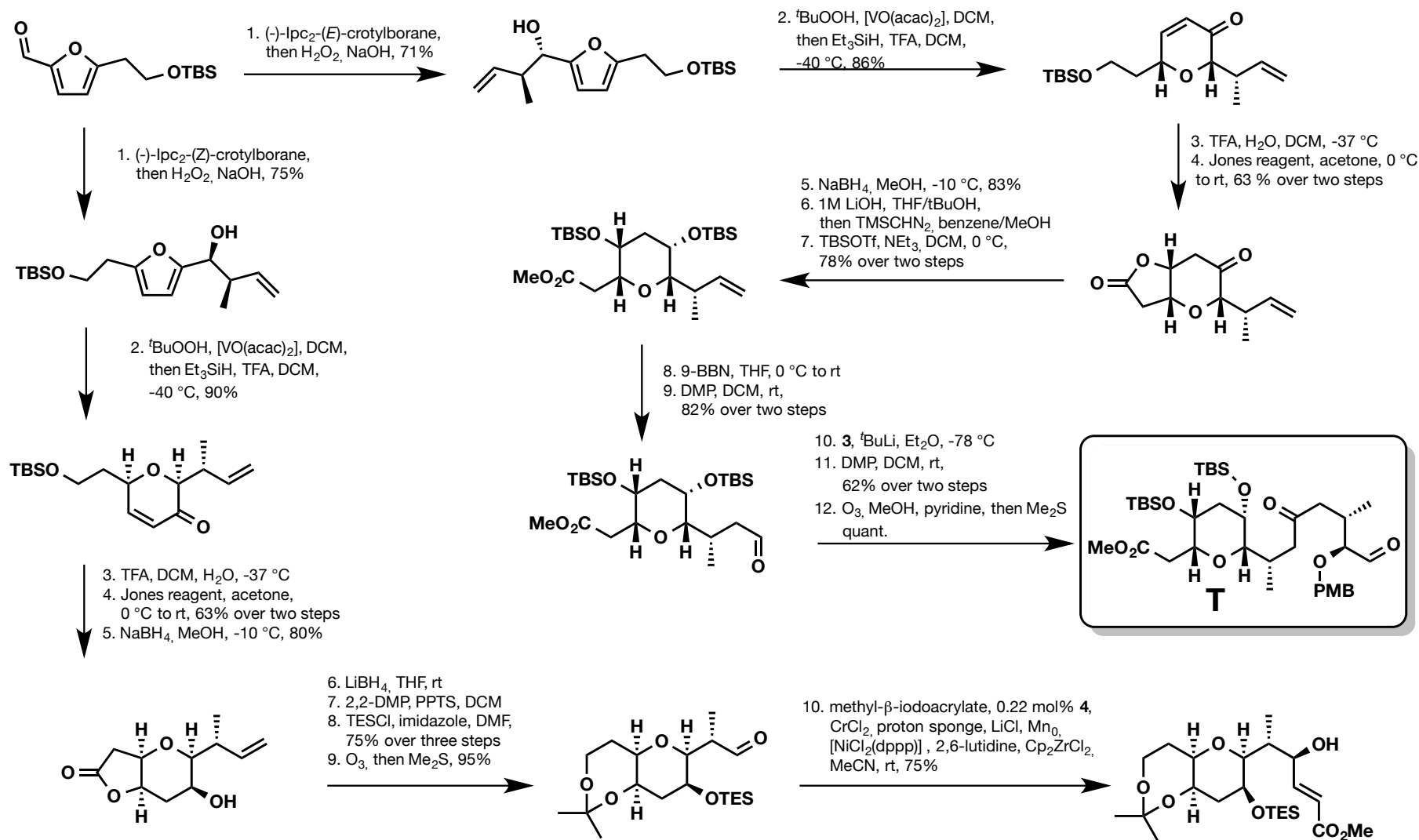
Total synthesis of Norhalichondrin B - Fragment B

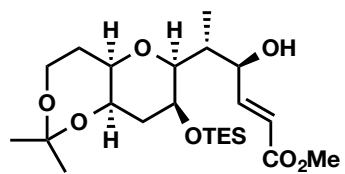
K. L. Jackson, J. A. Henderson, H. Motoyoshi, A. J. Phillips, *ACIE*, **2009**, *48*, 2346-2350



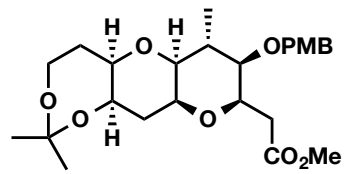
Total synthesis of Norhalichondrin B - Fragment C&D

K. L. Jackson, J. A. Henderson, H. Motoyoshi, A. J. Phillips, *ACIE*, 2009, 48, 2346-2350



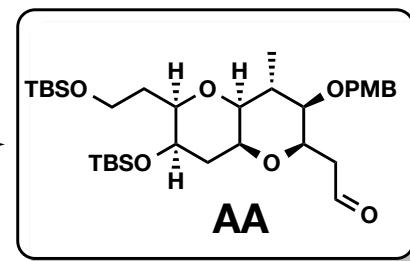


11. PMBOC(=NH)CCl₃, BF₃/OEt₂,
12. TBAF, MeOAc, THF,
50% over two steps



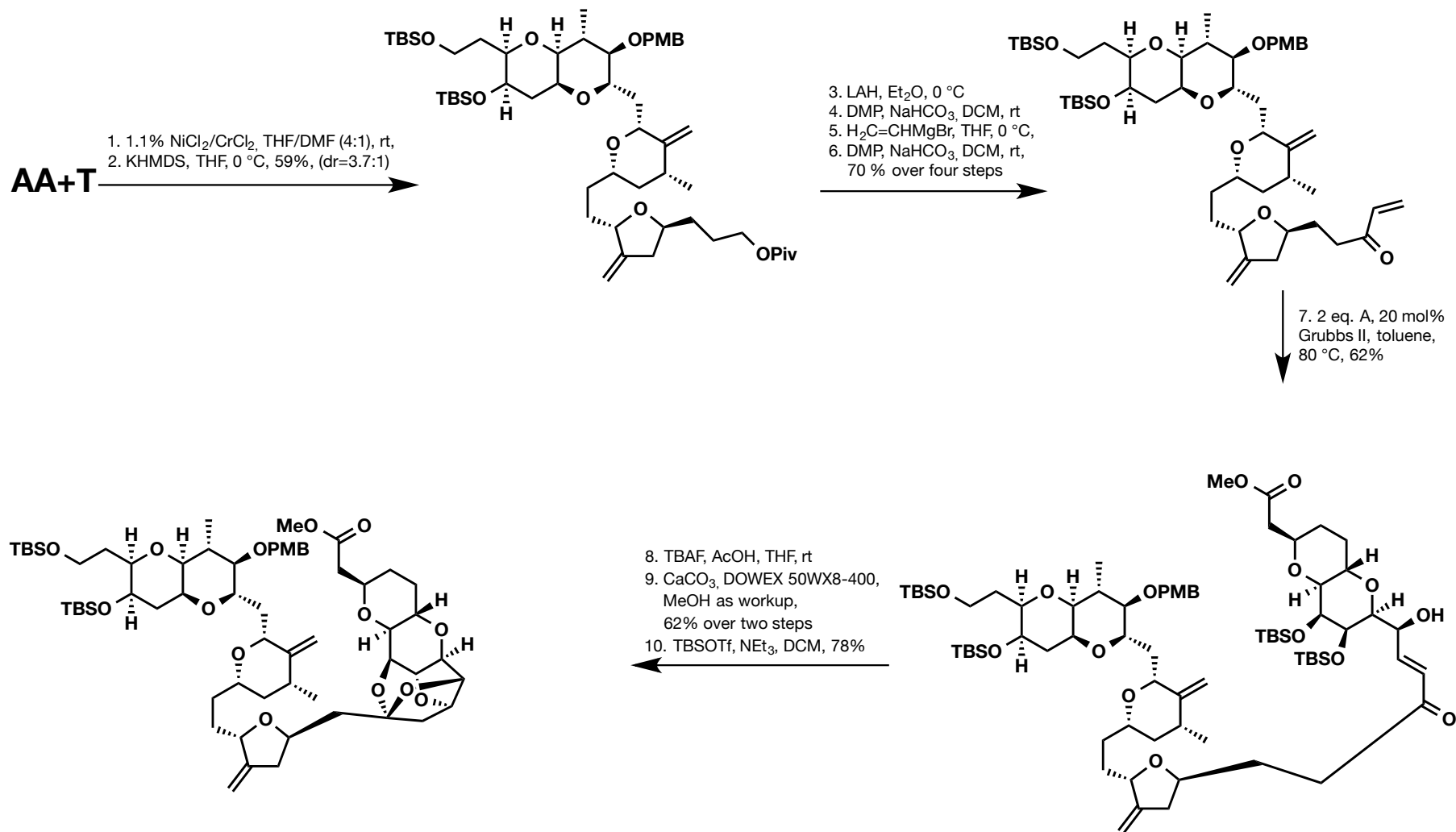
13. PPTS, MeOH
14. TBSOTf, NEt₃, DCM,
87% over two steps

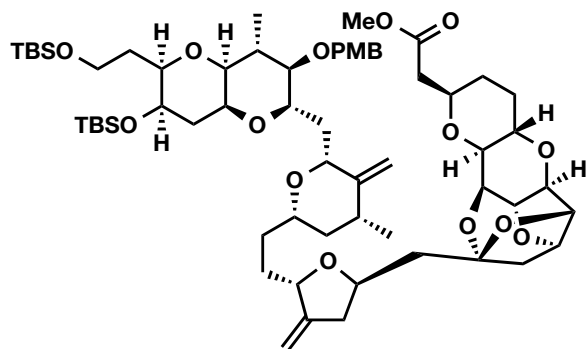
15. LAH, Et₂O, 0 °C
16. DMP, DCM,
90% over two steps



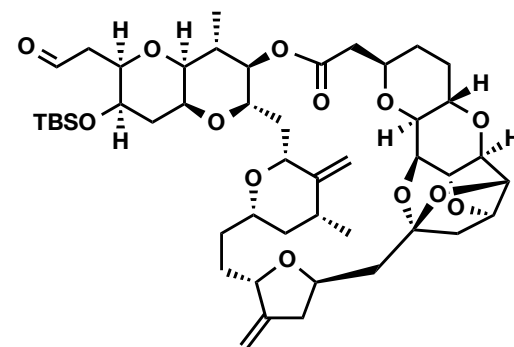
Total synthesis of Norhalichondrin B - Joining Fragments

K. L. Jackson, J. A. Henderson, H. Motoyoshi, A. J. Phillips, *ACIE*, 2009, 48, 2346-2350

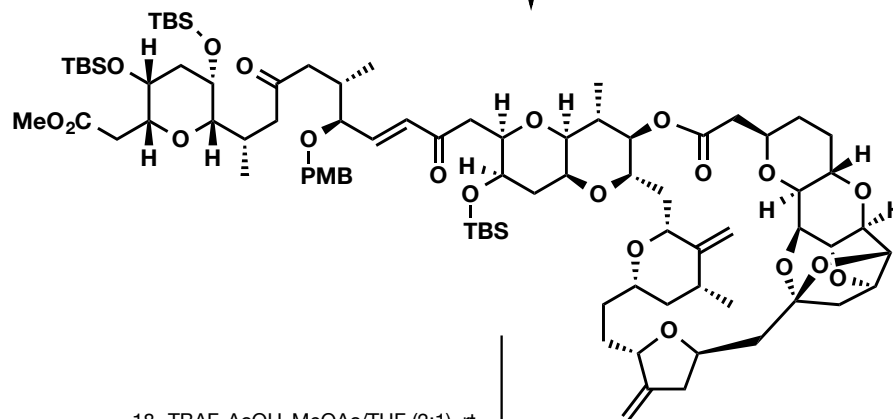




11. DDQ, DCM, PH 7 phosphate buffer, 65%
12. 1M LiOH, THF, rt, quant.
13. 2,4,6-Trichlorobenzoylchloride, NEt₃, THF, rt, then DMAP, toluene reflux, 92%
14. PPTS, MeOH, 97% brsm (45% conversion, selective monodeprotection)
15. DMP, NaHCO₃, DCM, rt, 89%



16. dimethyl(diazomethyl)-phosphonate (20 eq.), SnCl₂, DCM, rt, 74%
17. **N** (1eq.), K₂CO₃, 18-crown-6, toluene, 60 °C, 83%



18. TBAF, AcOH, MeOAc/THF (2:1), rt
19. DDQ, DCM/MeOH (10:1), 65% over two steps
20. LiOH, THF/H₂O (3:1), 60 %

