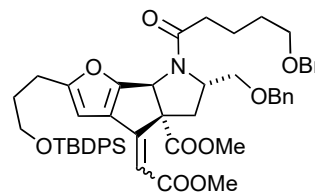


- 1) DIBAL excess, CH₂Cl₂, -78 °C
- 2) (MeO)₂P(O)CH₂COOMe, *t*-BuOK
- 3) Pd(PPh₃)₄, Ag₂SO₄, NEt₃, reflux

- 1) DDQ, CH₂Cl₂/H₂O 9:1, r.t.
- 2) ClC(O)(CH₂)₄OBn, NEt₃,

- 1) NiCl₂ · 6 H₂O, NaBH₄, Na₂CO₃, MeOH/THF 10:1, -40 °C
- 2) LiAlH₄ (3 equiv), 0 °C
- 3) MsCl, NEt₃, DMAP, -78 °C to r.t.

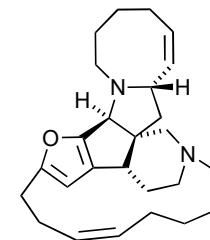


- 1) SmI₂ 0.1 M, 0 °C
- 2) MsCl, NEt₃, DMAP, 0 °C
- 3) *t*-BuOK, -78 °C

- 1) NH₃, EtOH/THF, reflux
- 2) ClC(O)(CH₂)₄OTBDPS, NEt₃, r.t.
- 3) BCl₃ excess, CH₂Cl₂, -78 °C
- 4) IBX 12 equiv, DMSO, r.t.

- 1) *t*-BuOK, MePPh₃I 3.5 equiv, r.t.
- 2) Grubbs II, reflux
- 3) AcCl, MeOH, r.t.
- 4) DMP 5 equiv, CH₂Cl₂, r.t.

- 1) *t*-BuOK, MePPh₃I 3.5 equiv, r.t.
- 2) Grubbs I, CH₂Cl₂, reflux
- 3) Red-Al, toluene, reflux



Total Synthesis of (+)-Nakadomarin A
Ian S. Young, Michael, A. Kerr,
J. Am. Chem. Soc. **2007**, *129*, 1465–1469.