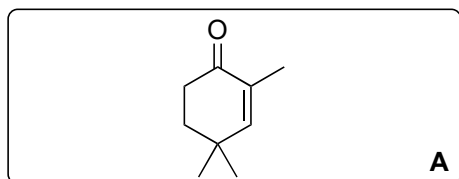


Total Synthesis of Kamebanin

T. Suzuki, W. Ikeda, A. Kanno, K. Ikeuchi, K. Tanino

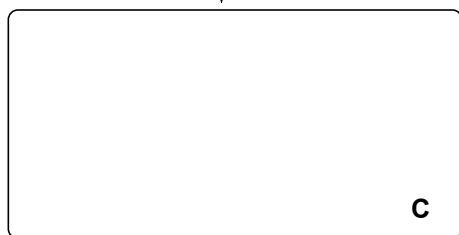
Chem. Eur. J. **2023**, 29, e20220351



↓ 1-4



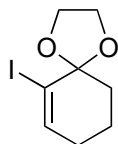
↓ 5-6



↓ 7-17



- 1) DIBAL, CH₂Cl₂, -78°C
- 2) MeC(OMe)₂NMe₂, *t*BuPh, 150°C
- 3) *m*CPBA, NaHCO₃, CH₂Cl₂, 0°C
- 4) Cp₂ZrCl₂, LiAlH(O*t*-Bu)₃, THF, rt



1

- 5) **1**, *n*BuLi, THF, -78°C then TsOH H₂O, rt
- 6) Cp₂TiCl₂, Zn, THF, rt
- 7) MOMCl, DIPEA, CH₂Cl₂, rt
- 8) LiCH₂CN, THF, -78°C
- 9) VO(acac)₂, TBHP, CH₂Cl₂, rt
- 10) Me₃Al, THF, 0°C to 35°C then LiNEt₂, HMPA, -78°C to -50 °C
- 11) MOMCl, DIPEA, (CH₂Cl)₂, 50°C
- 12) KHDMS, TIPSOTf, toluene, rt
- 13) KO*t*-Bu, Ph₃PCH₃Br, THF, rt
- 14) Ca, MeOH, 0°C
- 15) SeO₂, *n*PrOH, 100°C
- 16) DMP, NaHCO₃, (CH₂Cl)₂, rt
- 17) 6 M HCl, THF, rt

- 2) Name of the reaction
- 4) Name of the reagent?

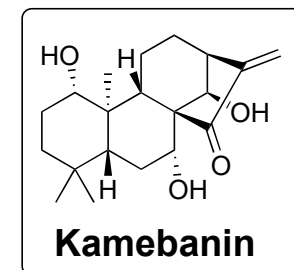
Possible synthesis of **1**?

- 6) Name of the active specie

- 10) Type of reaction

- 12) Type of reaction
Hint: ring formation

- 16) Structure and synthesis of DMP



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