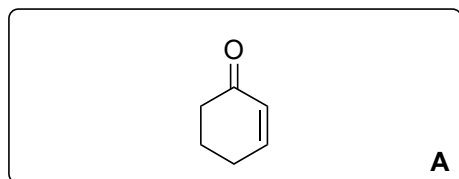


Enantioselective Syntheses of Wickerols A and B

J. Chung, J. S. Capani, M. Göhl, P. C. Roosen, C. D. Vanderwal
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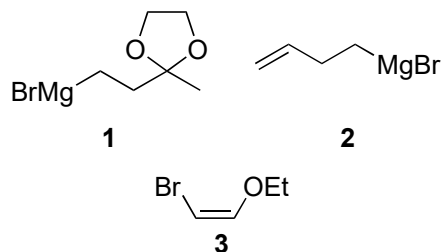
1–6



8–12



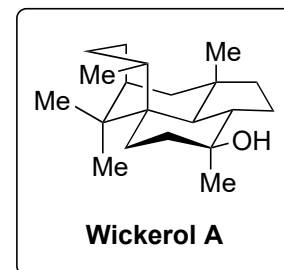
- 1) $[\text{Rh}(\text{COD})\text{Cl}]_2$, (*R*)-BINAP, AgBF_4 , AlMe_3
- 2) TBSCl, NMI
- 3) $\text{Rh}_2(\text{cap})_4$, *t*BuOOH, K_2CO_3
- 4) **1**, $\text{CuBr}\cdot\text{SMe}_2$, TMSCl, HMPA
- 5) aq. HCl
- 6) **2**, CuCl, LiCl, ZnCl_2 , TMSCl, HMPA
- 7) aq. KOH, MeOH



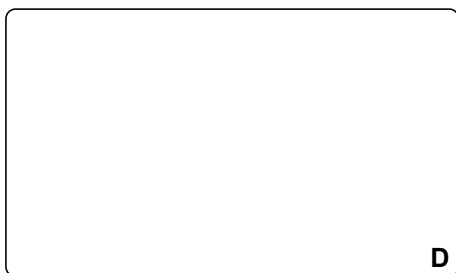
- 8) **3**, LDA (2 equiv) *then* CeCl_3 *then* **B**
- 9) $\text{Sc}(\text{OTf})_3$, EtOH
- 10) PdCl_2 , CuCl, O_2
- 11) SmI_2 , HMPA
- 12) SOCl_2 , pyridine

5) Hint: Ring formation

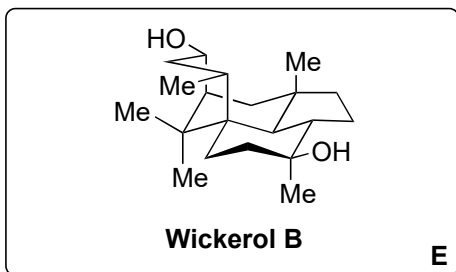
9) Name of the reaction?
 10) Name of the reaction?



13-20



21-24



21-24

Wickerol A

- 13) DIBAL-H
- 14) Allylbromide, NaH
- 15) $i\text{Pr}_2\text{NEt}$, 190 °C
- 16) LiAlH_4
- 17) MsCl , NEt_3
- 18) LiBEt_3H
- 19) TBAF
- 20) OsO_4 , NaIO_4 , 2,6-lutidine

- 21) HCl
- 22) HFIP, 1,4-dioxane
- 23) Et_2Zn , CH_2I_2 , TFA
- 24) PtO_2 , H_2 , AcOH

- 25) NaH , CS_2 , MeI
- 26) Bu_3SnH , AIBN

15) Name of the reaction?

20) Name of the reaction?

21) Name of the reaction?

23) Name of the reaction?

24) Name of the catalyst?

Bonus question: If the product of step 21) is treated with a base, a different reaction takes place. Product? Name of the reaction?

25 + 26) Name of the reaction?

