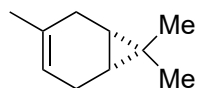


Enantioselective Total Synthesis of (+)-Euphorikanin A

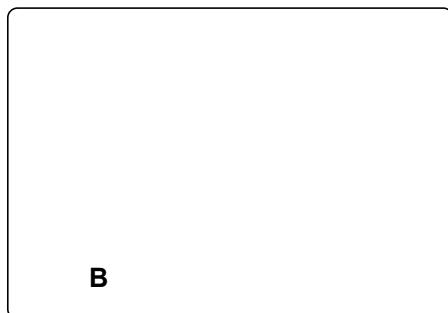
M. J. Classen; M. N. A. Böcker; R. Roth; W. M. Amberg; E. M. Carreira,
J. Am. Chem. Soc. **2021**, *143*, 22, 8261-8265



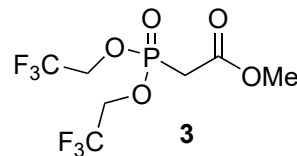
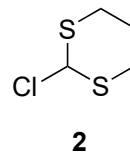
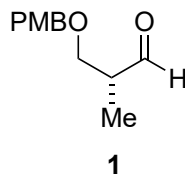
1-4



5-11



- 1) O_3 then Me_2S then $(MeO)_3CH$, $CeCl_3 \cdot 7H_2O$
- 2) $TMSCl$, LDA , $-78^\circ C$ to r.t.
- 3) $SnCl_4$ (1 eq.)
- 4) $AcOH$, $120^\circ C$



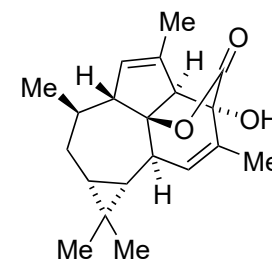
- 5) Me_2CuLi then **1**
- 6) $t-BuMe_2SiOTf$, 2,6-lutidine
- 7) $LiHMDS$ then **2**
- 8) DDQ
- 9) $SO_3 \cdot py$, Et_3N , CH_2Cl_2 , $DMSO$
- 10) **3**, $KHMDS$ then **previous product**
- 11) Sml_2

1) Name of the starting material

9) Name reaction?

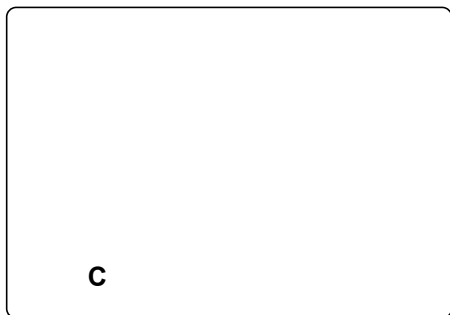
10a) Name reaction?

10b) In step 10 the authors first tried a HWE olefination but ended up using the olefination named above. Can you imagine why?

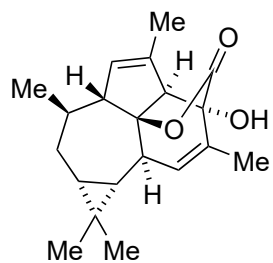


Euphorikanin A

12-18



19

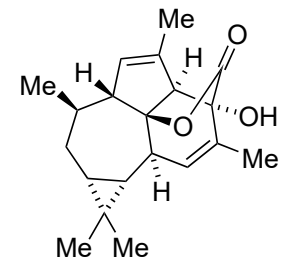


Euphorikanin A

- 12) PIFA
- 13) CBr_4 , PPh_3
- 14) TBAF
- 15) Martin's sulfurane
- 16) Me_2CuLi then I_2
- 17) $\text{KN}(\text{SiMe}_3)_2$, Davis oxaziridine
- 18) DMP

19) *t*-BuLi

15) Structure of Martin's sulfurane and mechanism?



Euphorikanin A