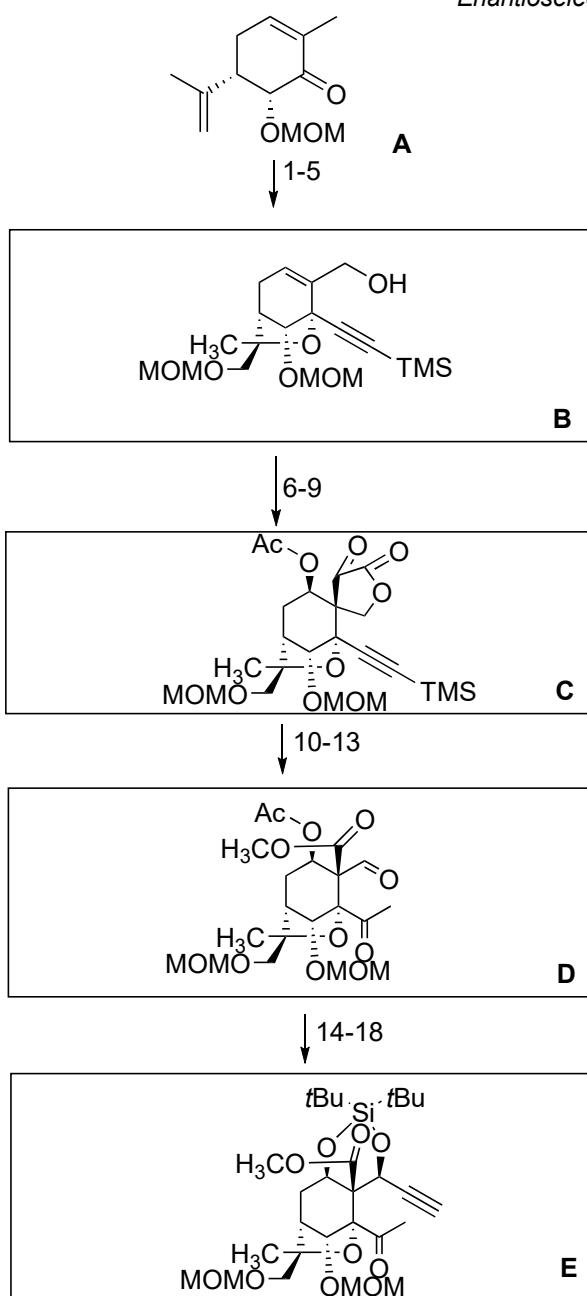


Synthesis Challenge 92

Enantioselective Synthesis of Euonyminol, M. Tomanik, Z. Xu, S. B. Herzon, *JACS*, **2021**,
<https://dx.doi.org/10.1021/jacs.0c12998>



1) (-)-Ski ketone, oxone, K_2CO_3

2) I, then PPTS

3) MOMCl, $i\text{Pr}_2\text{NEt}$

4) SeO_2 , pyridine *N*-oxide

5) NaBH_4 , $\text{CeCl}_3 \cdot 7\text{H}_2\text{O}$

6) II, DMAP

7) ((4-acetamido)benzenesulfonyl azide, NET_3

8) $\text{Cu}(\text{TBS})_2$

9) O_3

10) Magnesium monoperoxyphthalate

11) HF^*NEt_3

12) $\text{Hg}(\text{OTf})_2$, tetramethylurea, H_2O

13) Dess-Martin-Periodinane, pyridine

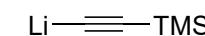
14) III, $\text{LaCl}_3 \cdot 2\text{LiCl}$

15) Tf_2O , DMAP

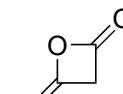
16) HCl

17) K_2CO_3 , CH_3OH

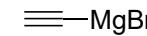
18) $\text{Si}(\text{OTf})_2(t\text{-Bu})_2$



I



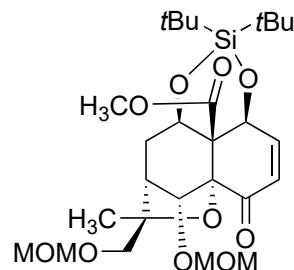
II



III

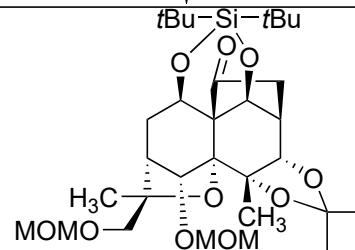
19-22

- 19) Pd/BaSO₄, H₂ (5 atm)
20) O₃
21) NaOEt, EtOH
22) MsCl, Et₃N



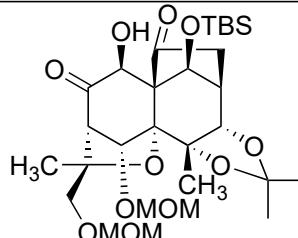
23-26

- 23) CH₃Li*LiBr
24) DMDO
25) LiCl, 130°C
26) PTSA, 2,2-dimethoxypropane



27-32

- 27) TBAF
28) Dess-Martin-Periodinane, pyridine
29) TBSOTf, NEt₃
30) Pb(OAc)₄
31) K₂CO₃, CH₃OH
32) Al(CH₃)₃



33-39

- 33) NaBH₄, CeCl₃*7H₂O
34) PTSA, 2,2-dimethoxypropane
35) TBAF
36) LiAlH₄
37) AcOH, THF-H₂O
38) Ac₂O
39) NaOCH₃, CH₃OH

