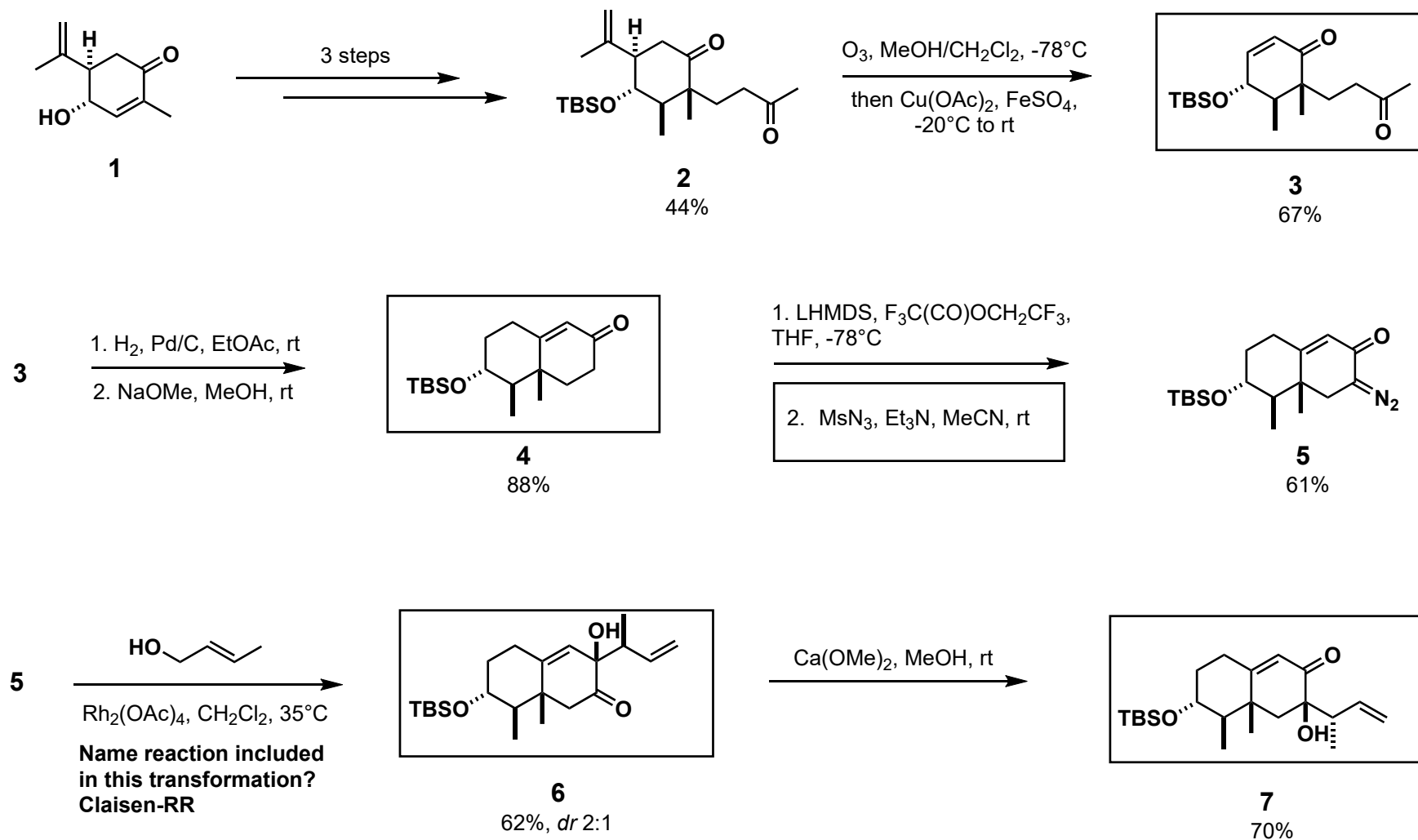


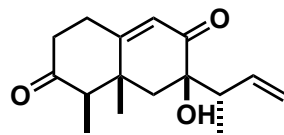
The Furan Shuffling Hypothesis: A Biogenetic Proposal for Eremophilane Sesquiterpenoids

Angew. Chem. Int. Ed. **2019**, *58*, 7004–7007.
J. Am. Chem. Soc. **2017**, *139*, 16096-16099. (For first 8 steps)

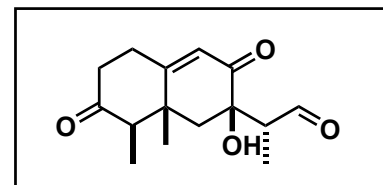


7

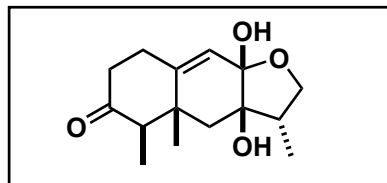
1. HF, MeCN/THF, rt

2. DMP, NaHCO₃,
CH₂Cl₂, 0°C8
89%O₃, pyridine,
CH₂Cl₂/MeOH, -78°Cthen PPh₃, rt

**Role of pyridine in
ozonolysis?**
Fragmentation of carbonyl oxides
(*Org. Lett.* 2012, 14, 2242.)

9
76%

9

NaB(OAc)₃H, CH₂Cl₂, rt10
63%TBD, O₂, THF, rt

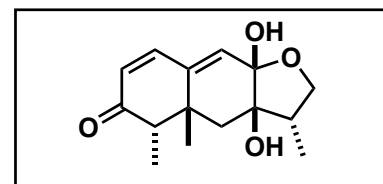
**Potential alternative
conditions for this
transformation?**

- i) LHMDs, PhSeCl;
ii) NaIO₄

- i) AcOH, Br₂; ii) pyridine

- i) Et₃N, TMSCl;
ii) Pd(OAc)₂, *p*-BQ

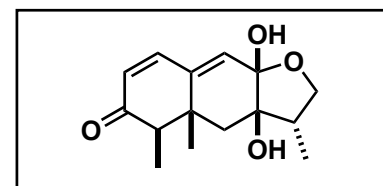
...



Microsphaeropsisin B

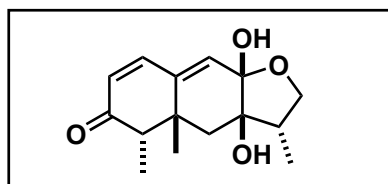
10%

+



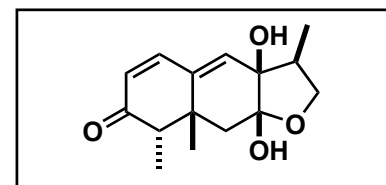
Microsphaeropsisin C

35%



Microsphaeropsisin B

Ca(OMe)₂, MeOH, 60°C
The Furan Shuffling Reaction



Periconianone C

22% (65% brsm)