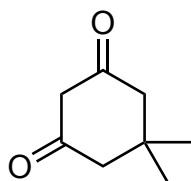


Enantioselective Total synthesis of (+)-Garsubellin A

Dongseok Jang, Minchul Choi, Jinglong Chen, and Chulbom Lee

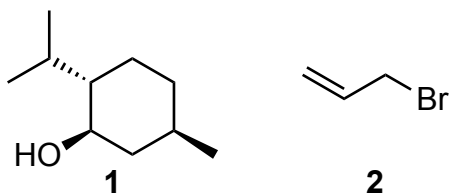
Angew. Chemie Int. Ed. 2021, DOI 10.1002/anie.202109193.



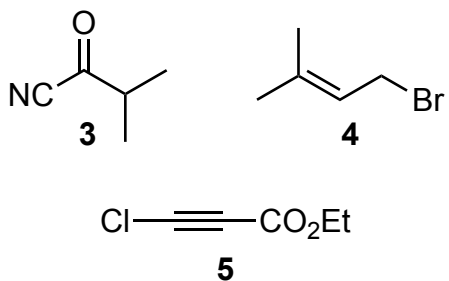
1-4



5-8



- 1) **1**, (+) CSA
- 2) LDA, **2**
- 3) *t*-BuOK
- 4) LiAlH₄, then aq HCl



- 5) LiHMDS, **3**
- 6) L-selectride, then, cat TBAI, **4**
- 7) *t*-BuOK, **5**
- 8) DIBAL-H (1.2eq)

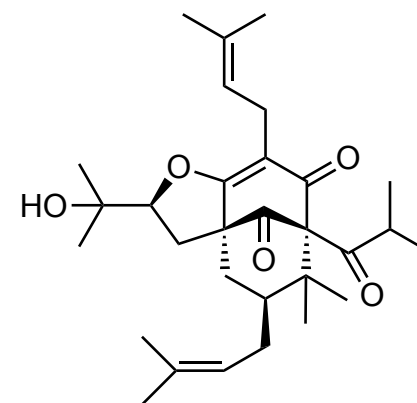
1) Name of compound **1**

3) tip: epimerization to β-face-allylated enone

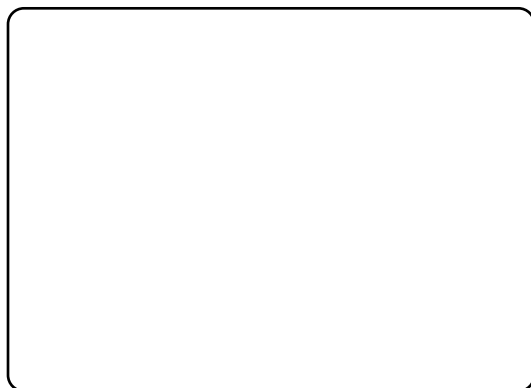
4) Named reaction?

5-7) tip: α-facial preference.
t-BuOK is a bulky base.

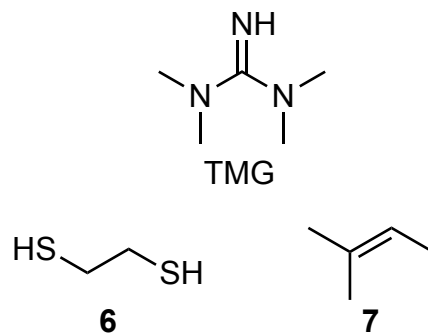
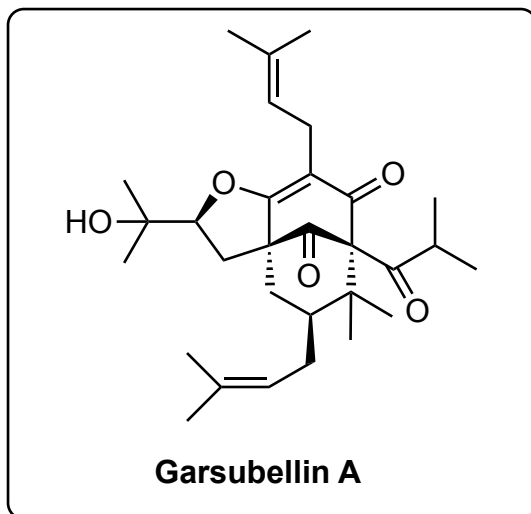
8) aldehyde formed



Garsubellin A



9-12



9) TMG, **6**
then, DMP
10) m-CPBA (4.5 eq), H₂O
11) MeLi, Et₂Zn, *then*, LDA,
(2-thiophene)Cu(CN)Li, **2**
12) Grubbs' 2nd, **7**

9) **6** will do double 1,4-addition, one ring was formed.
10) The final THF-ring formed in this step, please suggest a mechanism.