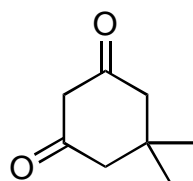


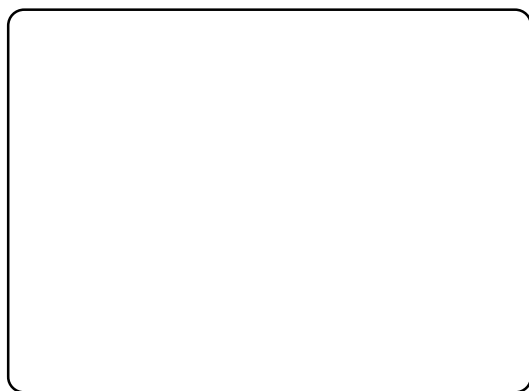
Enantioselective Total synthesis of (+)-Garsubellin A

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

D. Jang, M. Choi, J. Chen, C. Lee, Angew. Chemie Int. Ed. 2021, DOI 10.1002/anie.202109193.



1-4



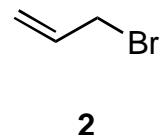
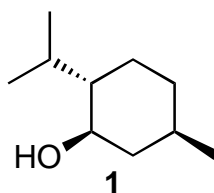
4-8

1) **1**, (+) CSA

2) LDA, **2**

3) *t*-BuOK

4) LiAlH₄
then, aq HCl

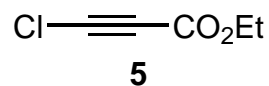
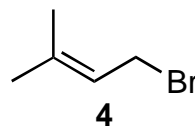
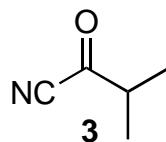


5) LiHMDS, **3**

6) L-selectride,
then, cat TBAI, **4**

7) *t*-BuOK, **5**

8) Dibal-H

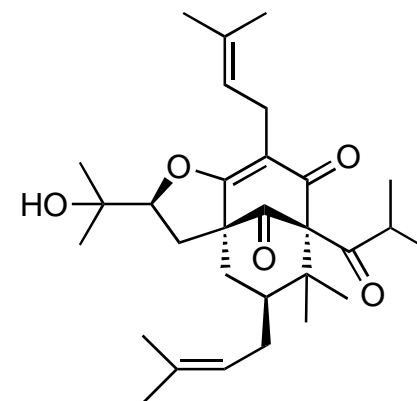


1) Name of compound **1**

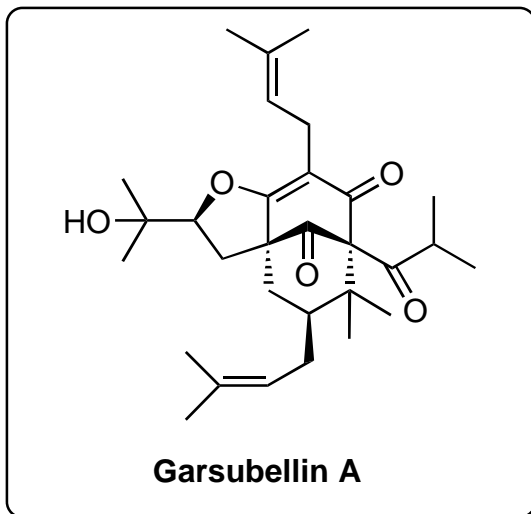
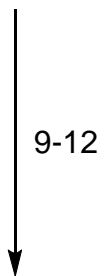
3) tip: epimerization to β -allylated enone

4) Name reaction?

5-7) tip: a-facial preference.
Please rationalize the
diastereoselectivity in reaction 5



Garsubellin A

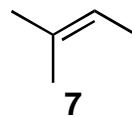
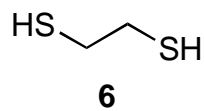


9) TMG, **6**
then, DMP

10) m-CPBA (4.5 eq)

11) MeLi, Et₂Zn
then, LDA, **2**
(2-Th)Cu(CN)Li

12) Grubbs' 2nd, **7**



10) Please suggest a mechanism for the tricyclic ketone formation.