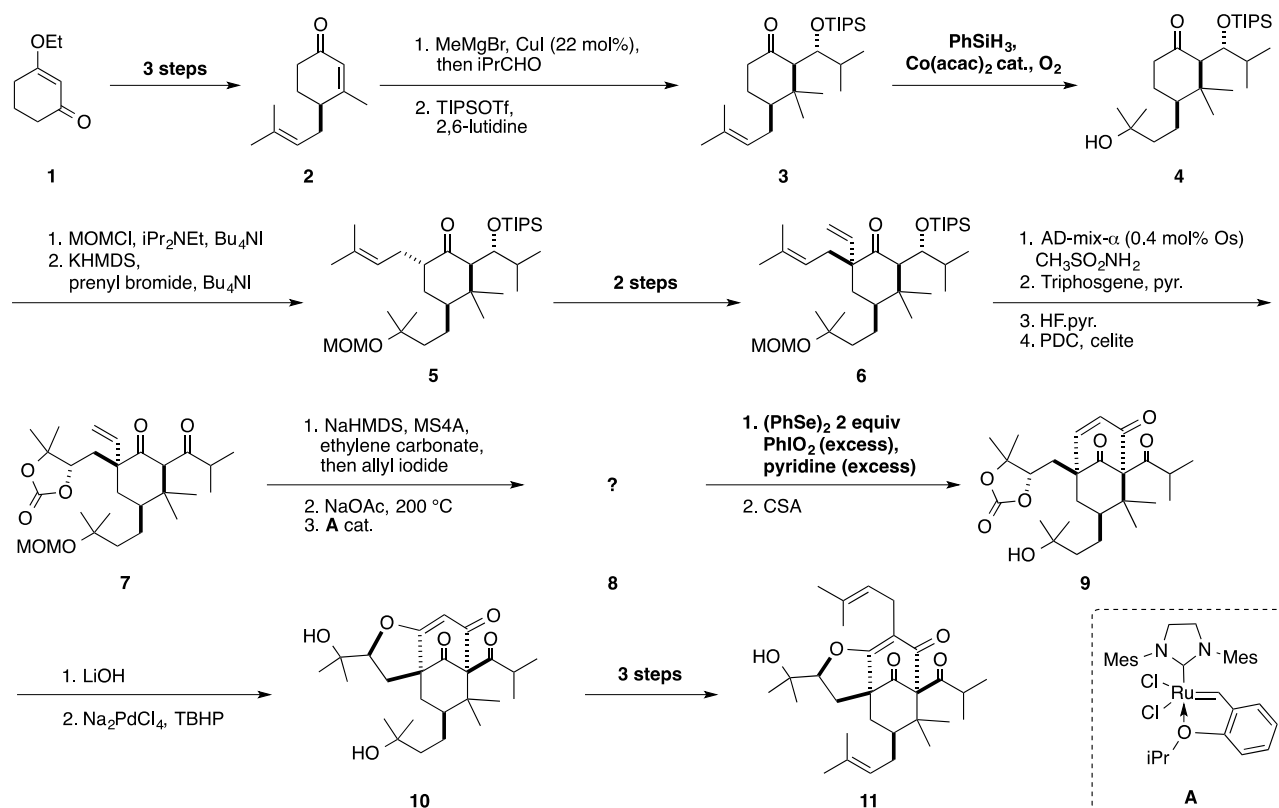


Total Synthesis of (±)-Garsubellin A

31.01.2018

Submitted by Emy



Q1: Give reagents and mechanisms to form **2** from **1** in three steps.

Q2: Give others methods to form **4**.

Q3: Give conditions to form **6** in two steps.

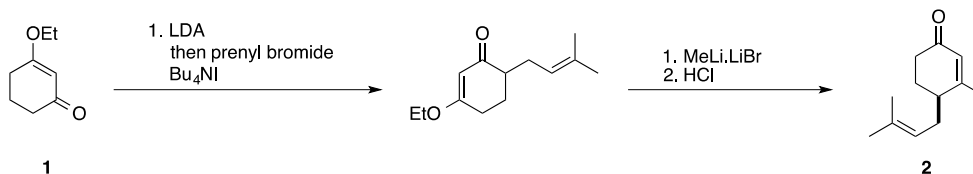
Q4: Give the structure of **8** and name the different steps.

Q5: Explain the formation of **9** from **8** with a mechanism.

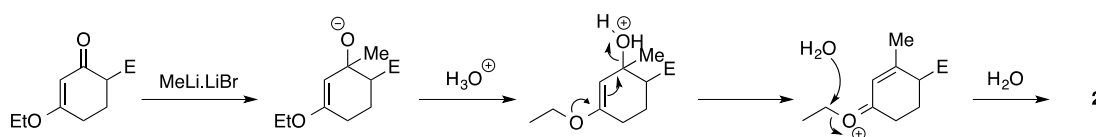
Q6: Give conditions to form **11** in three steps.

Solutions

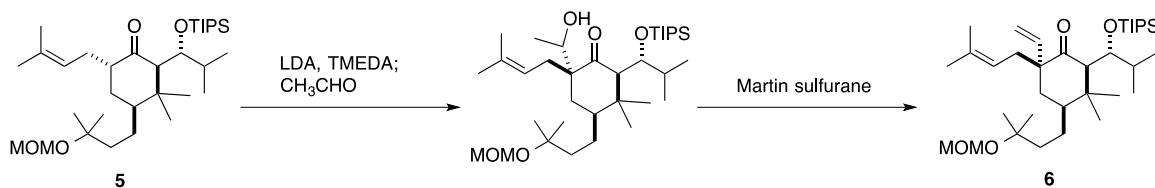
Q1: Give reagents and mechanisms to form 2 from 1 in three steps.



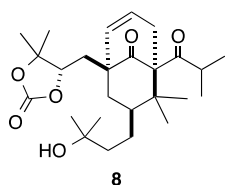
Mechanism:



Q3: Give conditions to form 6 in two steps.

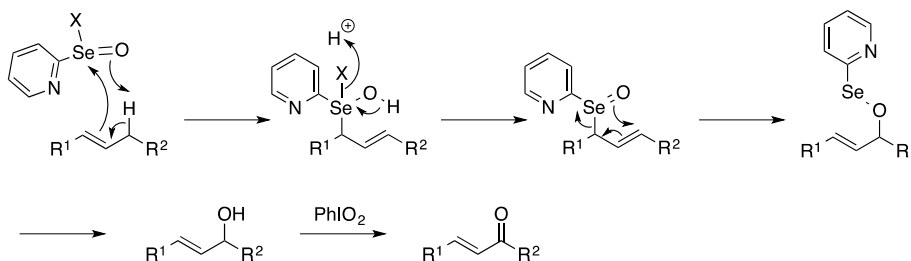


Q4: Give the structure of 8 and name the different steps.



Step 1: O-allylation
Step 2: Claisen rearrangement
Step 3: Ring closing metathesis using Hoveyda Grubbs catalyst

Q5: Explain the formation of 9 from 8 with a mechanism.



Barton, D. H. R.; Crich, D. *Tetrahedron* **1985**, *41*, 4359

Q6: Give conditions to form 11 in three steps.

