

Introduction

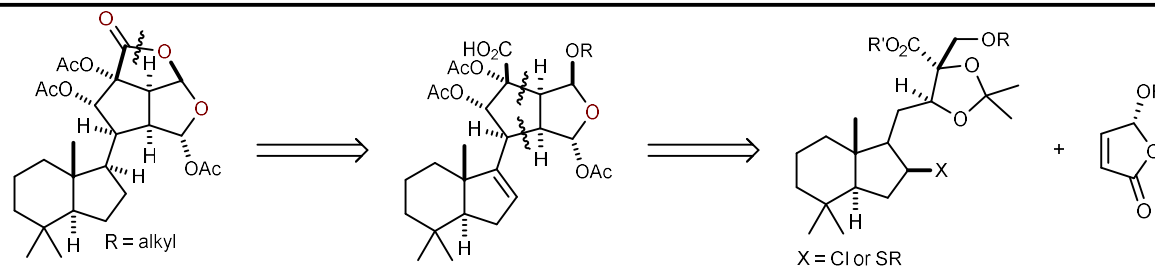
- Chromodorolide B, is a rearranged spongian diterpene isolated from the shell-less mollusc *Chromodoris cavae* (right).
- While biological data pertaining to Chromodorolide B is scarce due to lack of material, members of the chromodorolides have been reported to exhibit modest *in-vitro* antitumor, nematocidal, and antimicrobial activities.
- Based on structural similarities to compounds known to effect the Golgi apparatus, it is theorized that the Chromodorolides may be active in Golgi modulation as well.



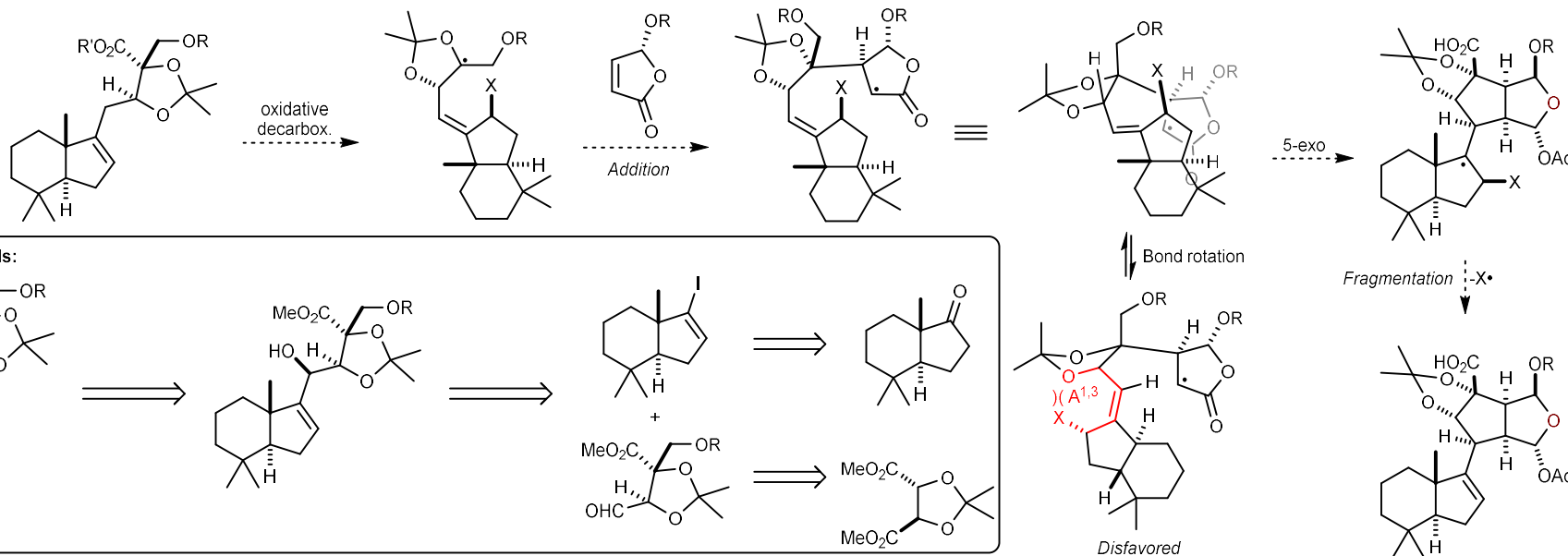
Chromodoris cavae.

Source: <http://www.seaslugforum.net/find/19883>

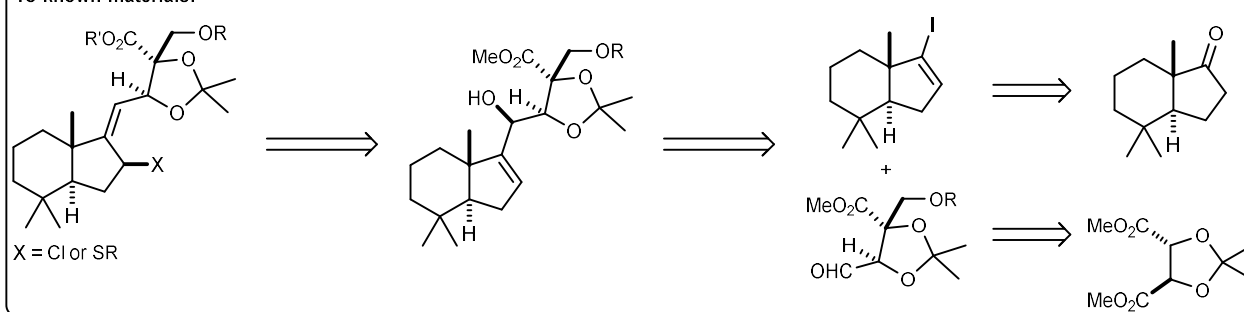
Retrosynthesis:



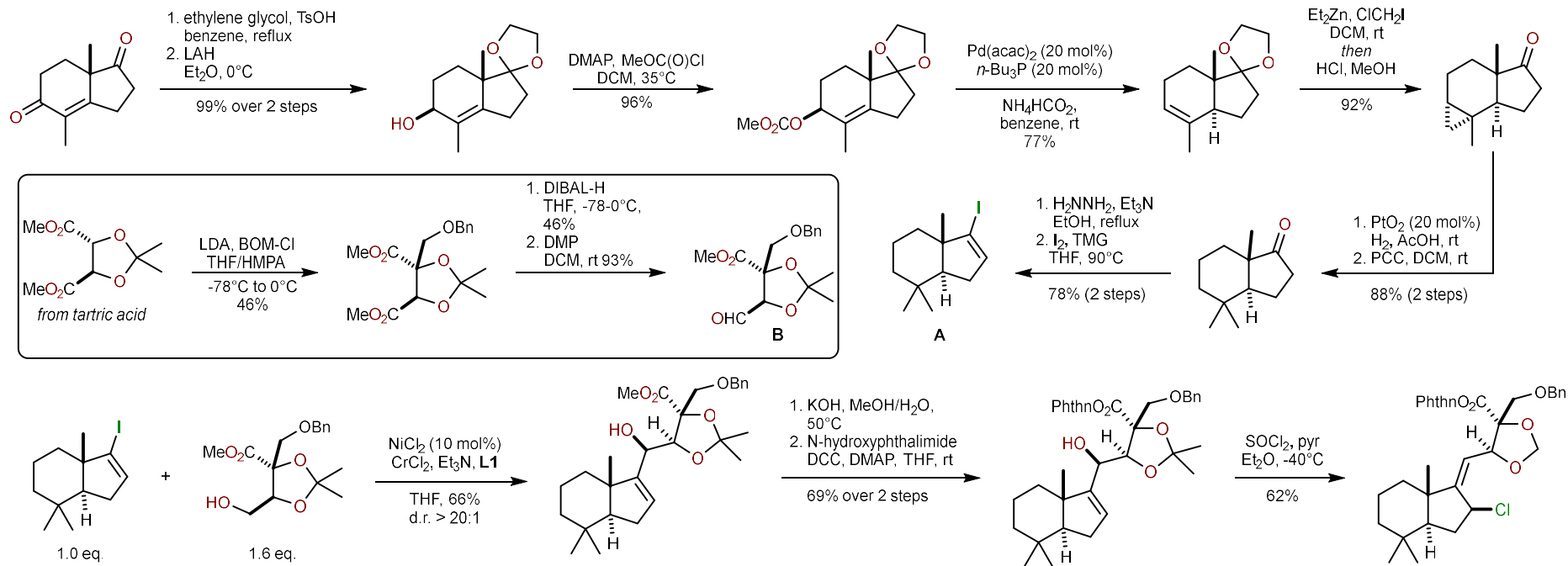
Via:



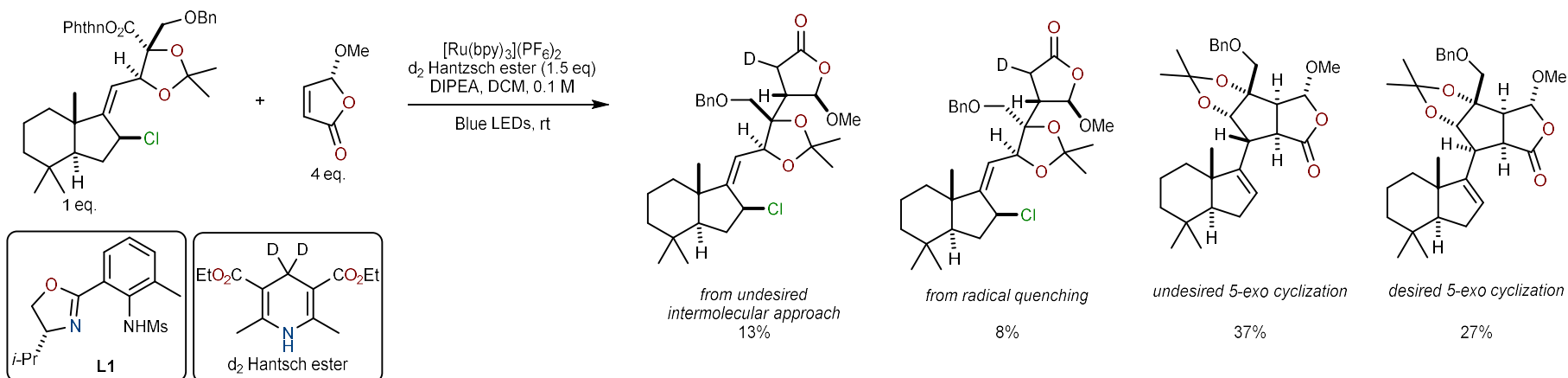
To known materials:



Overman, L. J. *Am. Chem. Soc.* **2018**, *140*, 3091. <https://doi.org/10.1021/jacs.7b13799>

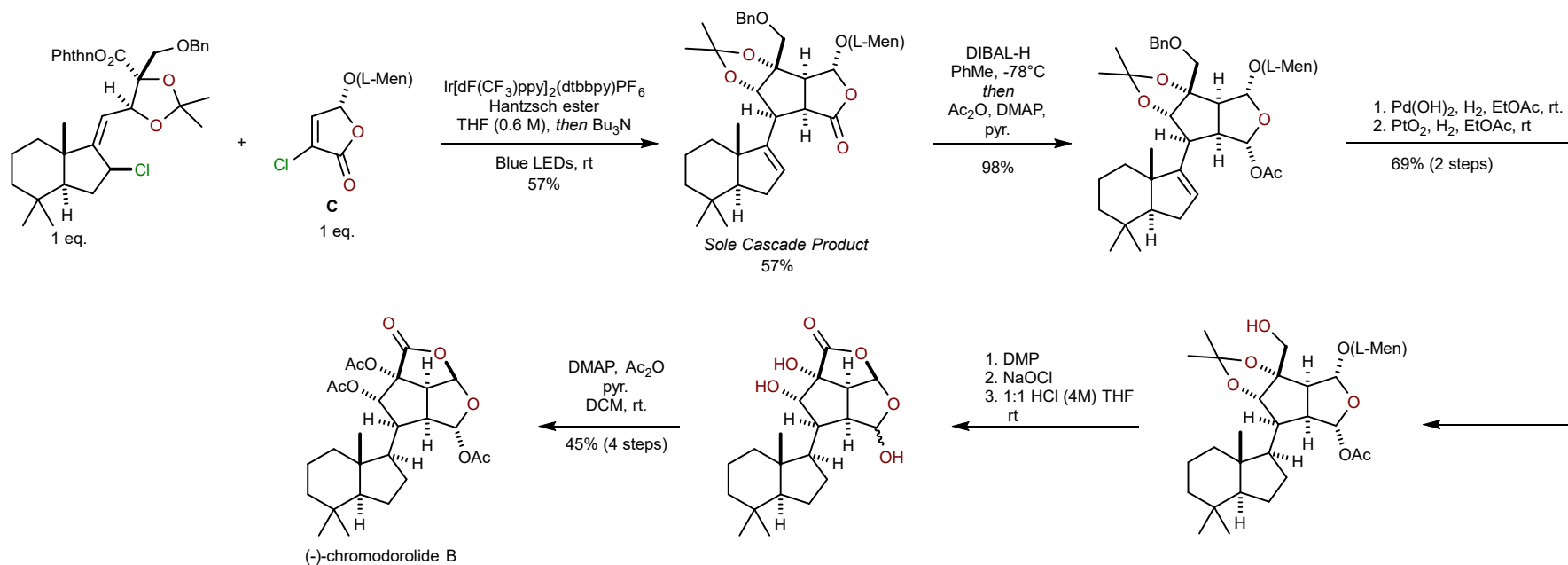


Generation 1 Addition-Cyclization-Fragmentation (ACF) Cascade:

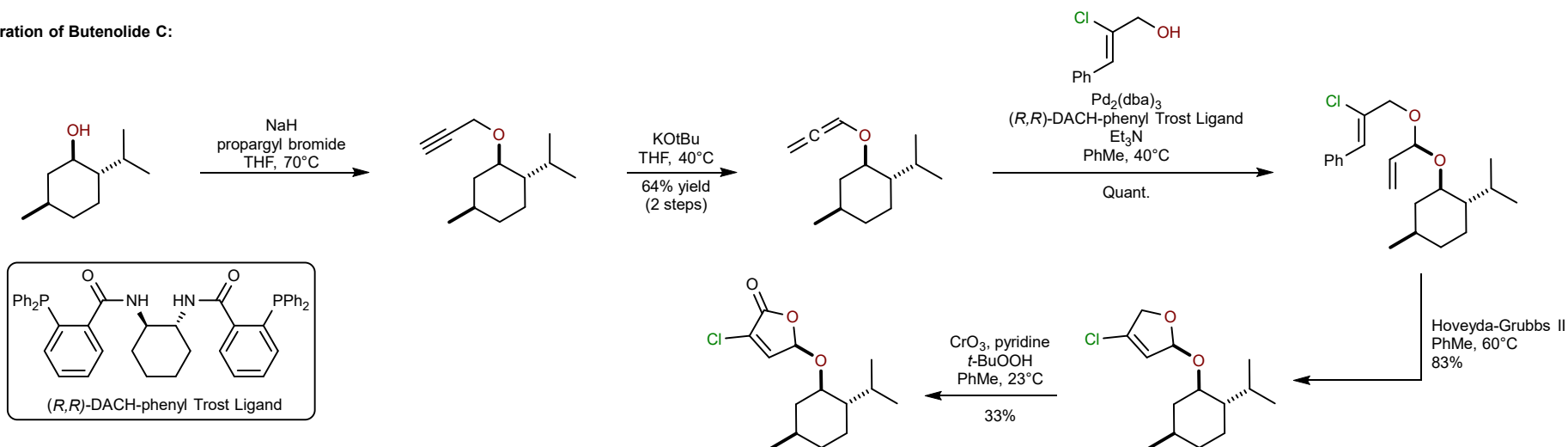


Overman, L. J. *Am. Chem. Soc.* **2018**, *140*, 3091. <https://doi.org/10.1021/jacs.7b13799>

Revised Cascade Approach:



Preparation of Butenolide **C**:



Overman, L. *J. Am. Chem. Soc.* **2018**, *140*, 3091. <https://doi.org/10.1021/jacs.7b13799>

Overman, L. *J. Am. Chem. Soc.* **2017**, *139*, 21, 7192.