

# Total Synthesis of (+)-Rubriflordilactone A

Shermin S. Goh, Guilhem Chaubet, Birgit Gockel, Marie-Caroline A.

Cordonnier, Hannah Baars, Andrew W. Phillips, and Edward A. Anderson\*

Cameron McConnell

Professor S.-Y. Liu

11/24/15

## Introduction

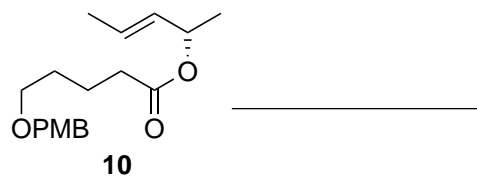
(+)-Rubriflordilactone A and its related family of

## Scheme 1: Retrosynthetic Analysis of Rubriflordilactone A

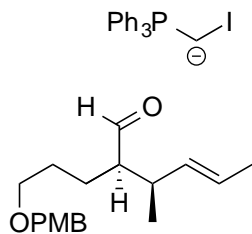
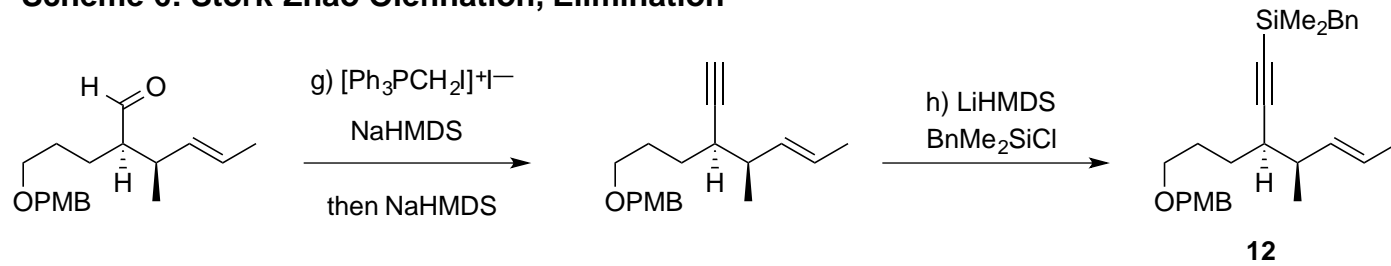
## Scheme 2: Preparation of acid 9

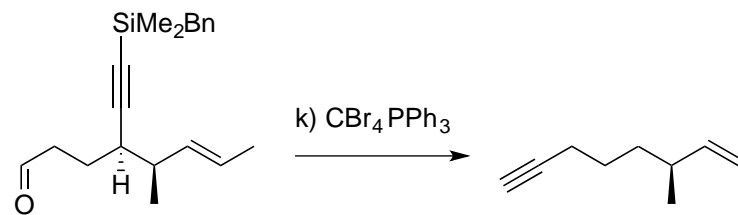


## Scheme 4: Ireland-Claisen Rearrangement

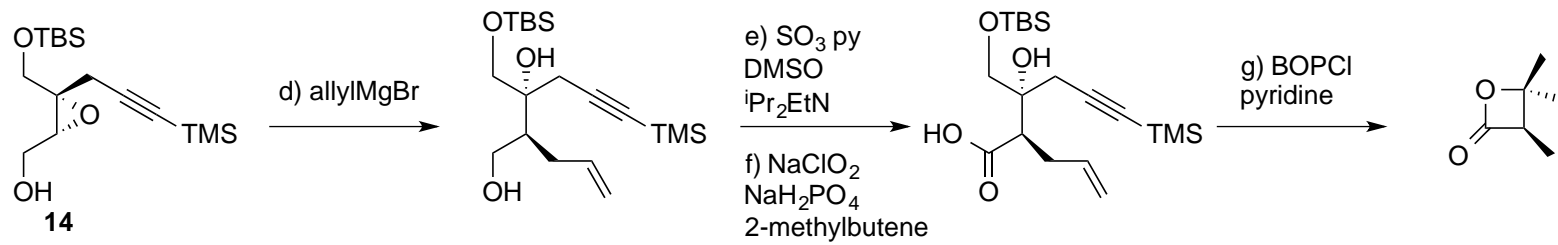


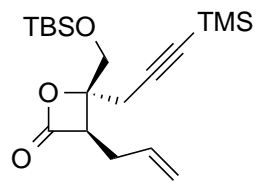
## Scheme 6: Stork-Zhao Olefination, Elimination





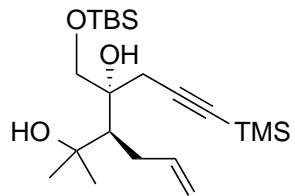
### Scheme 9: Preparation of beta-lactone 15



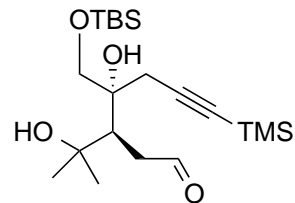


15

h) MeMgBr

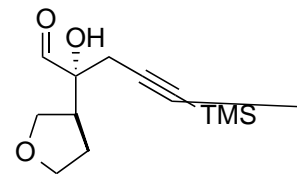


i) OsO<sub>4</sub>,  
NaIO<sub>4</sub>

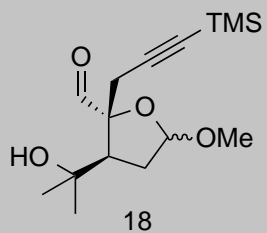
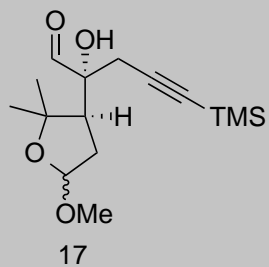


j) CSA  
MeOH

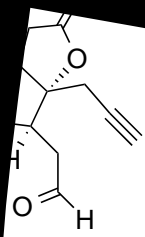
k) SO<sub>3</sub> py  
iPr<sub>2</sub>EtN  
DMSO



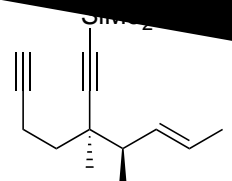
Scheme 11: Convergence of Lactones 17 and 18



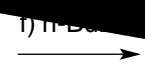


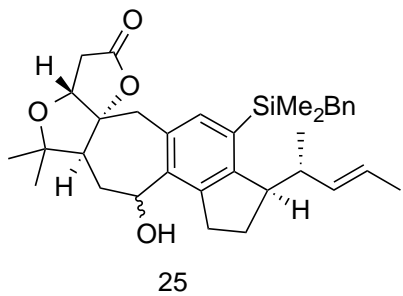


8

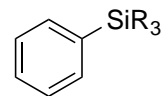
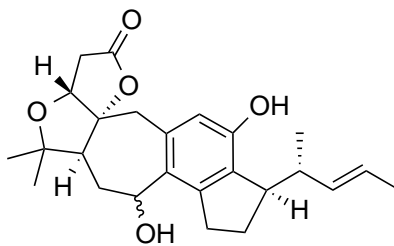


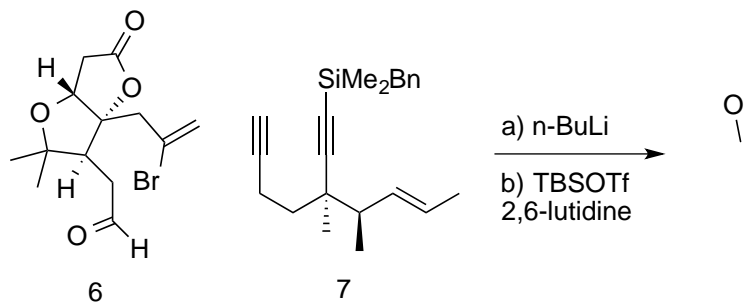
7





h) TBAF  
then H<sub>2</sub>O<sub>2</sub>,  
KHCO<sub>3</sub>, MeOH





Org. Lett. 2014, 16, 4480

