

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

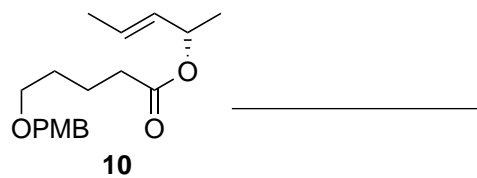
(+)-Rubriflordilactone A and its related family of

Scheme 1: Retrosynthetic Analysis of Rubriflordilactone A

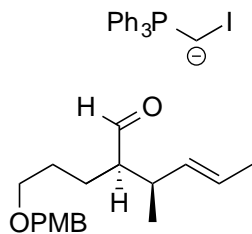
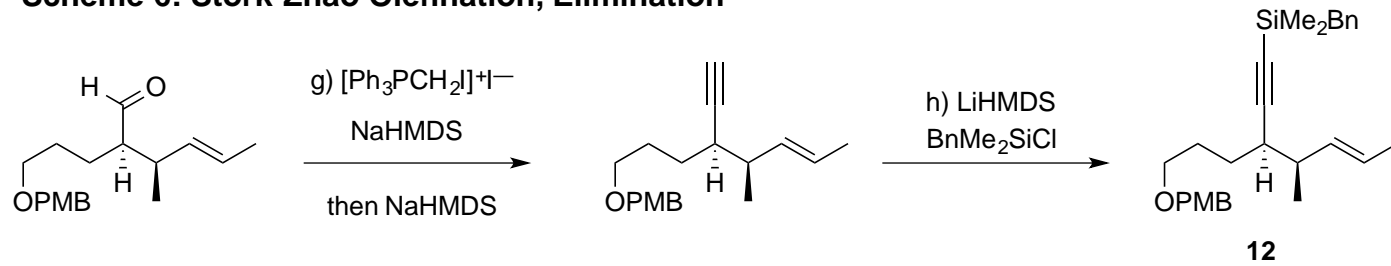
Scheme 2: Preparation of acid 9

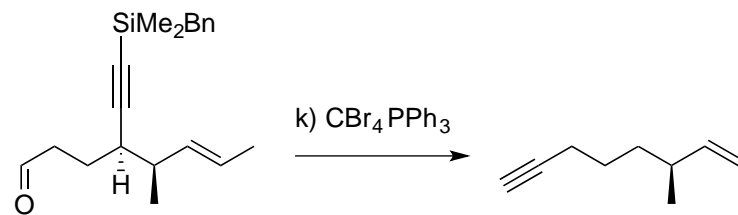


Scheme 4: Ireland-Claisen Rearrangement

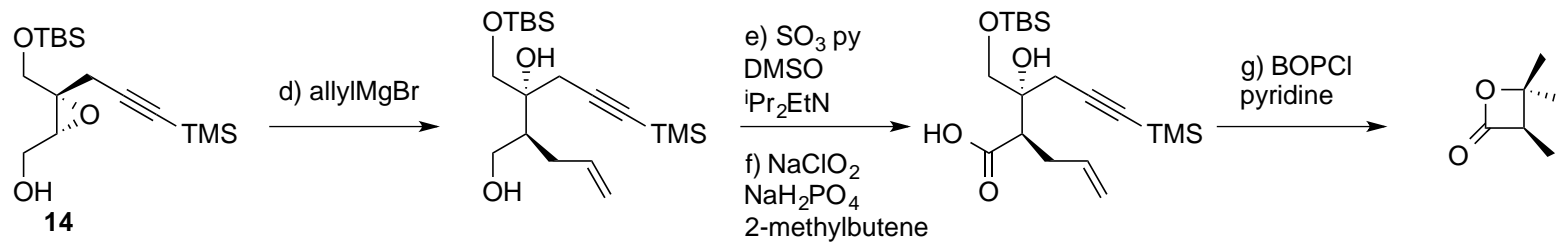


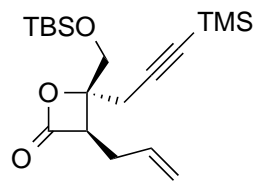
Scheme 6: Stork-Zhao Olefination, Elimination





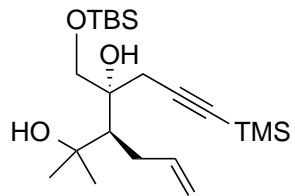
Scheme 9: Preparation of beta-lactone 15



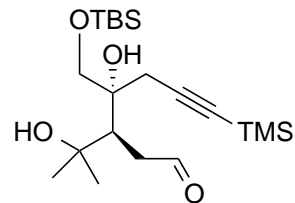


15

h) MeMgBr

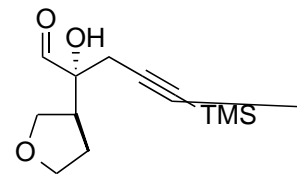


i) OsO₄,
NaIO₄

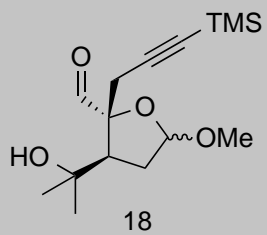
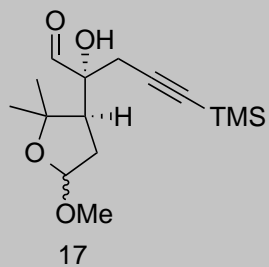


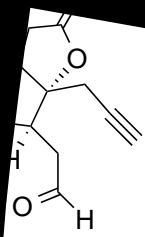
j) CSA
MeOH

k) SO₃ py
iPr₂EtN
DMSO

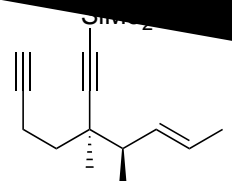


Scheme 11: Convergence of Lactones 17 and 18

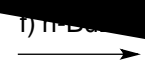


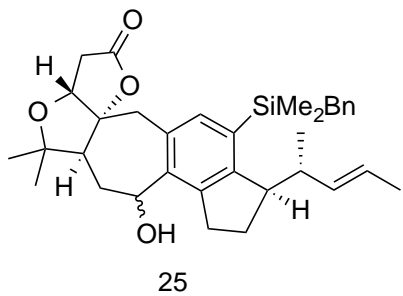


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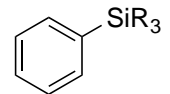
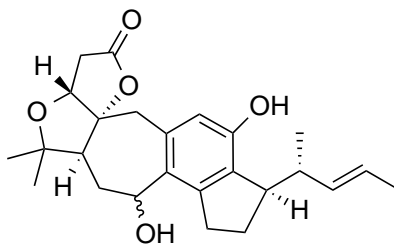


7

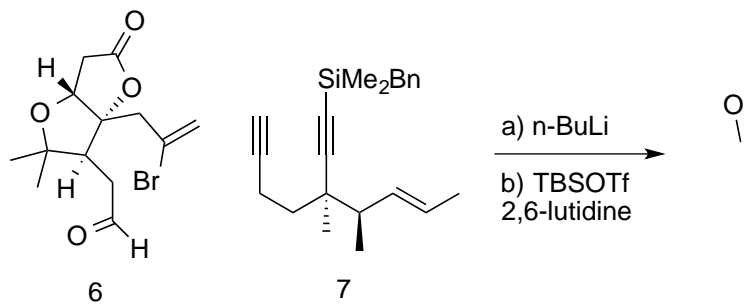




h) TBAF
then H₂O₂,
KHCO₃, MeOH



F



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