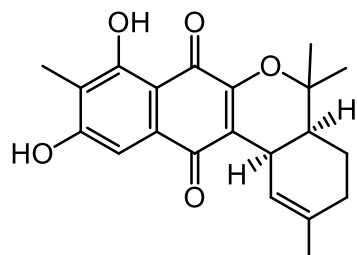


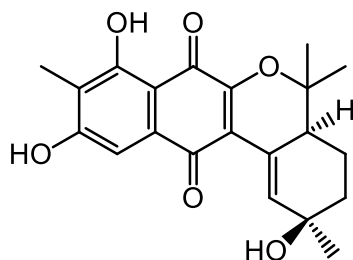
Total Synthesis of Naphterpin and Marinone Natural Products

Lauren A. M. Murray, Thomas Fallon, Christopher J. Sumbly,[†] and Jonathan H. George^{*†}

Department of Chemistry, University of Adelaide, Adelaide, South Australia 5005, Australia

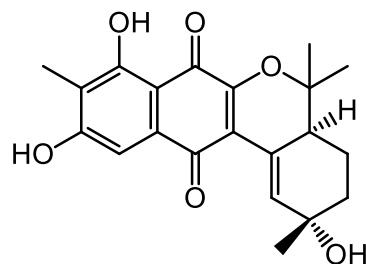


1: Naphterpin

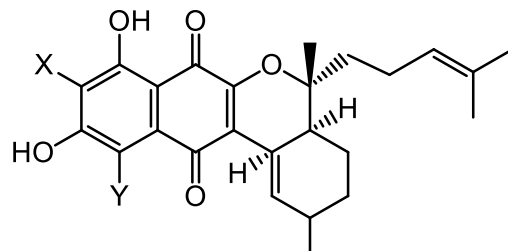


2: Naphterpin B

- Naphterpin and Marinone are families of marine merotepenoids
- Naphterpin was the first natural product discovered in this family, isolated by Seto et al. in 1990
- Marinone was isolated by Fenical and coworkers in 1992 and isomarinone reported in 2000



3: Naphterpin C

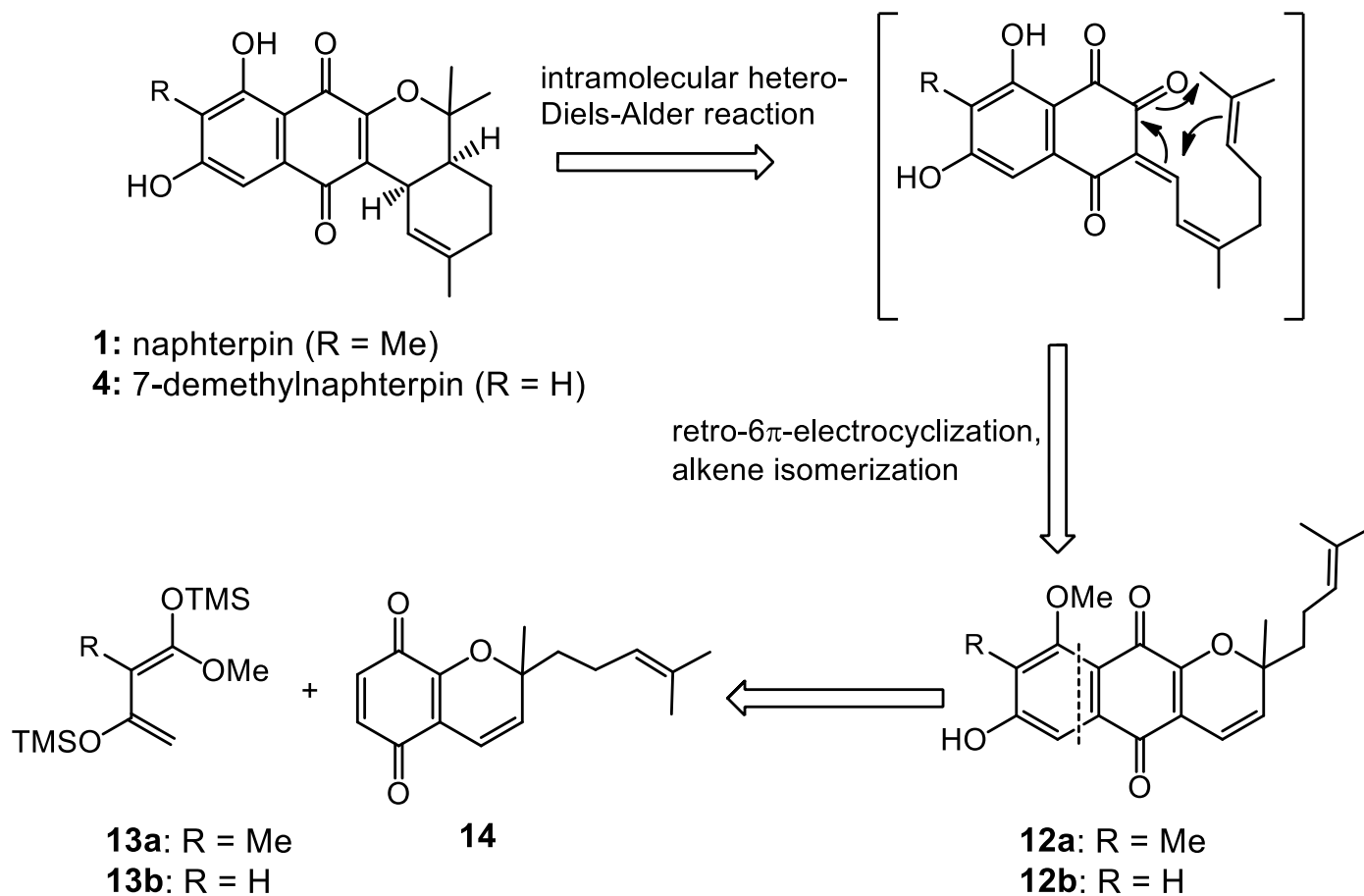


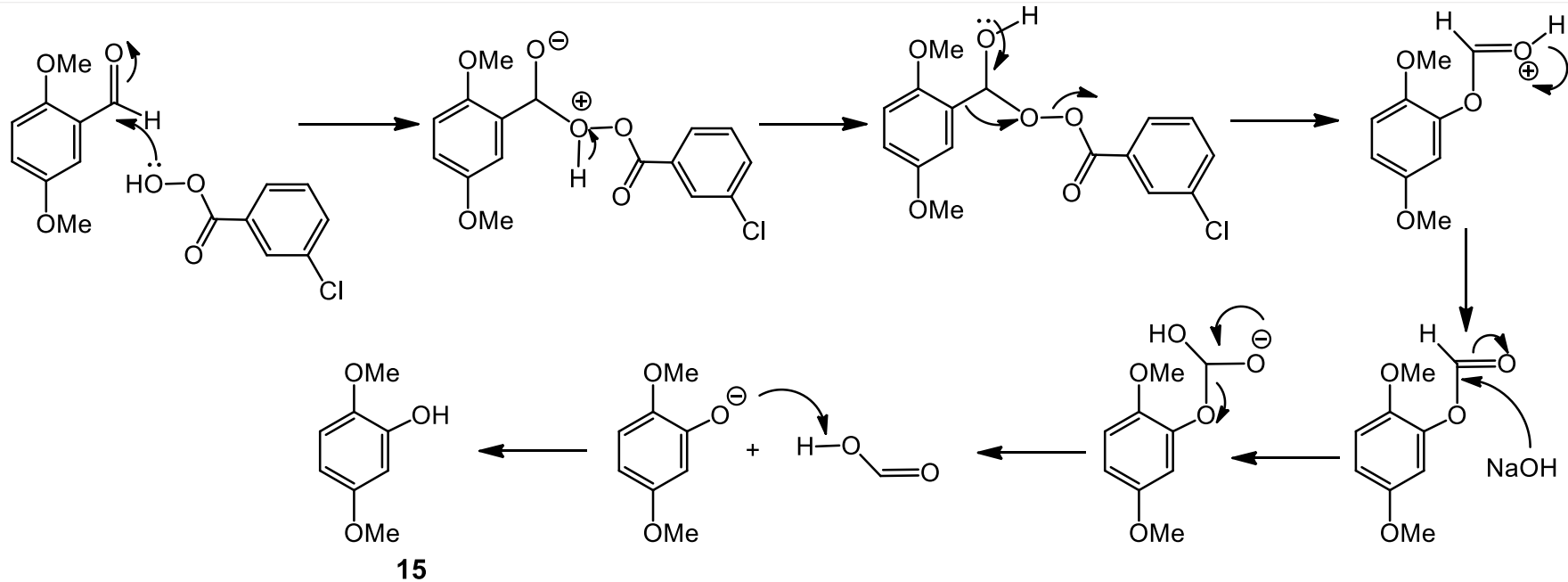
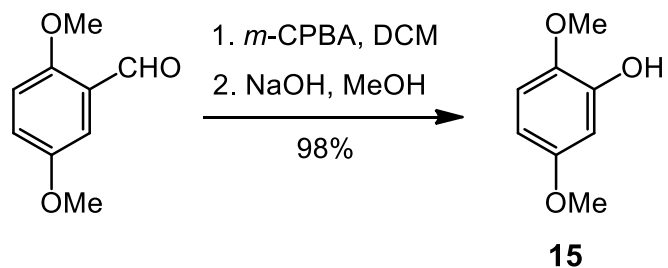
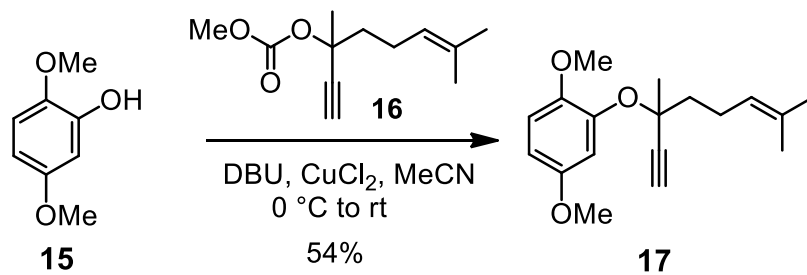
8: Marinone (X = H, Y = Br)

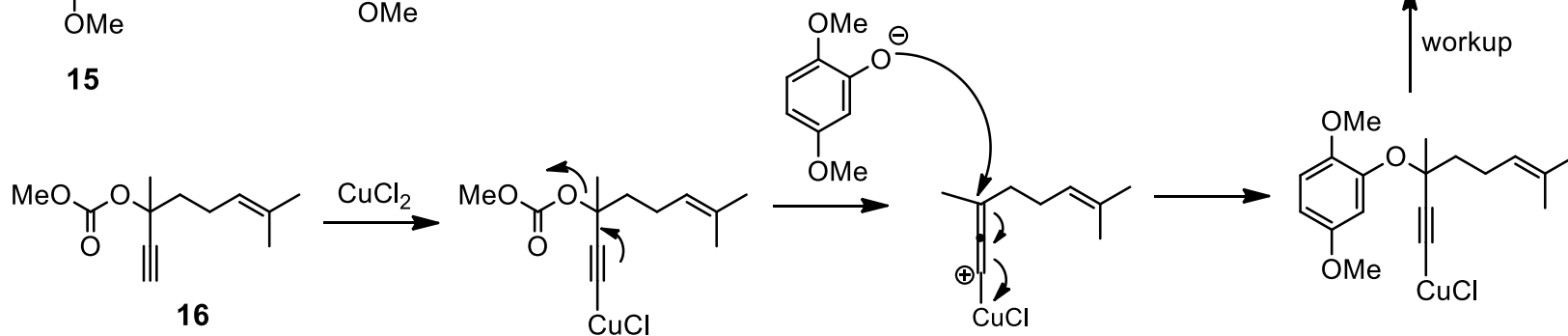
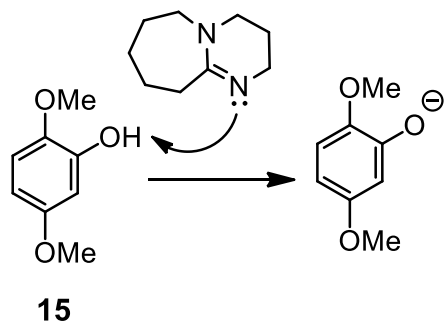
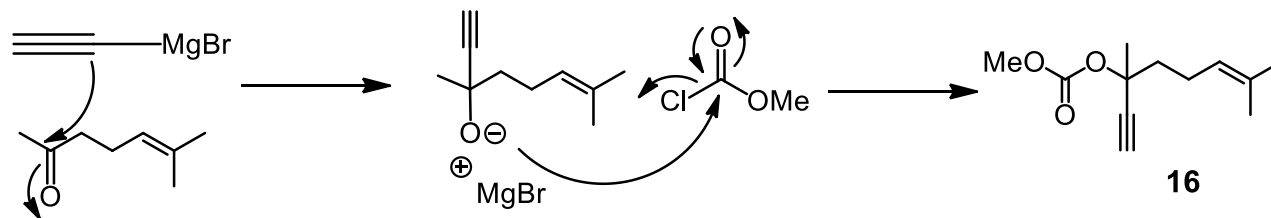
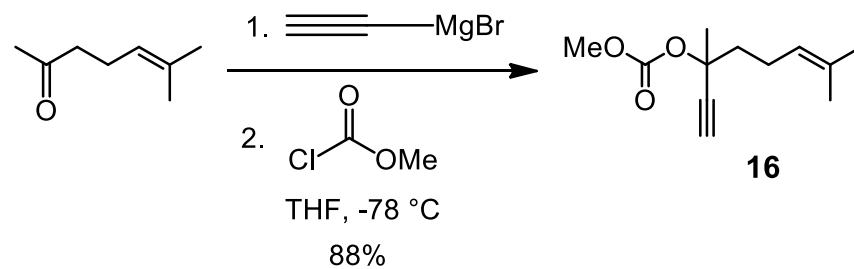
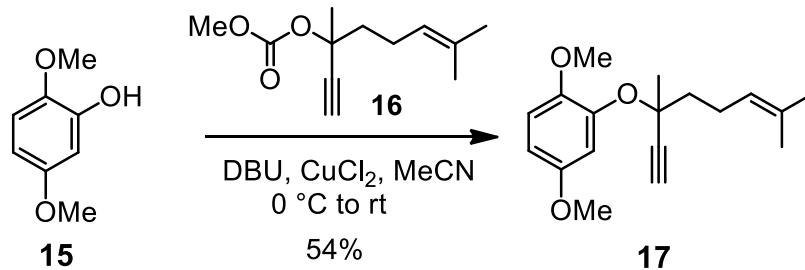
9: Isomarinone (X = Br, Y = H)

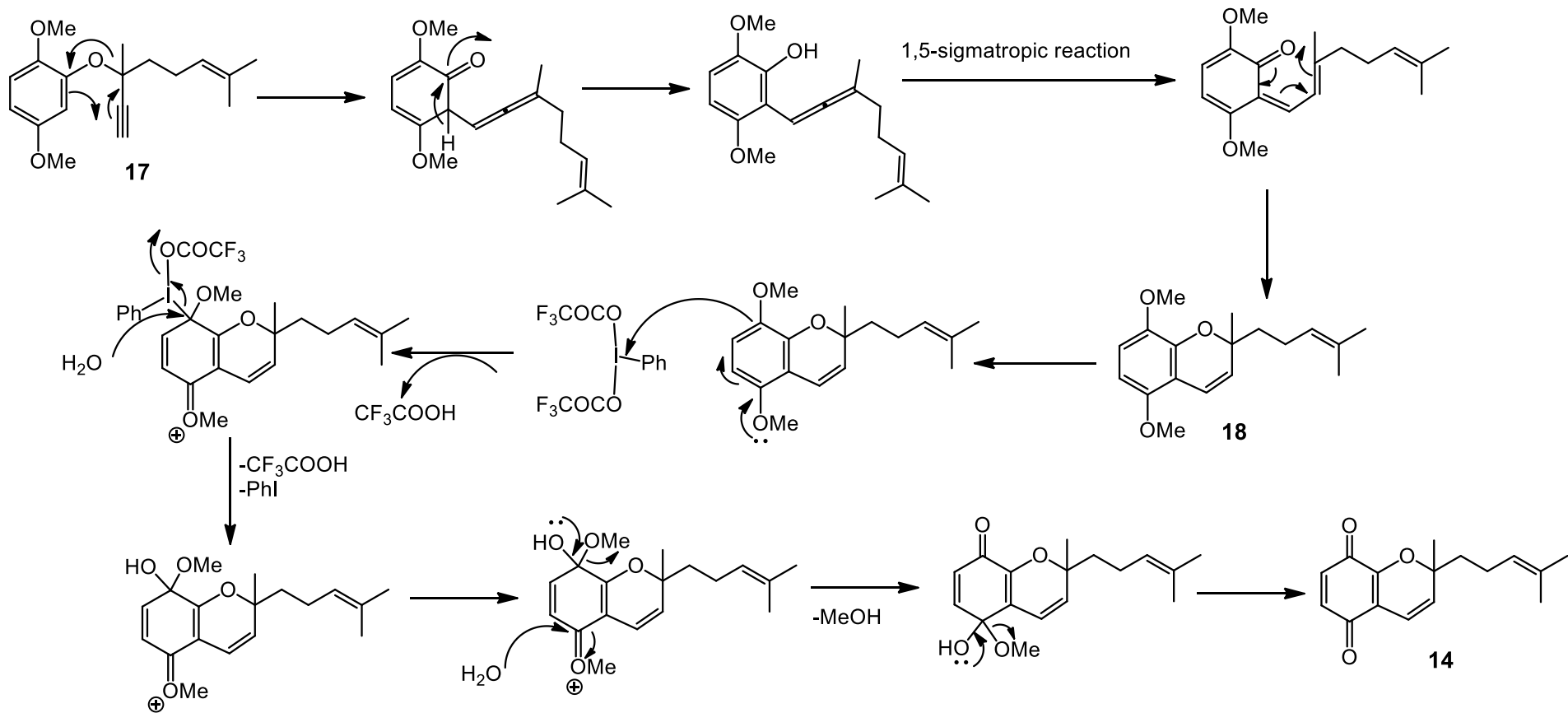
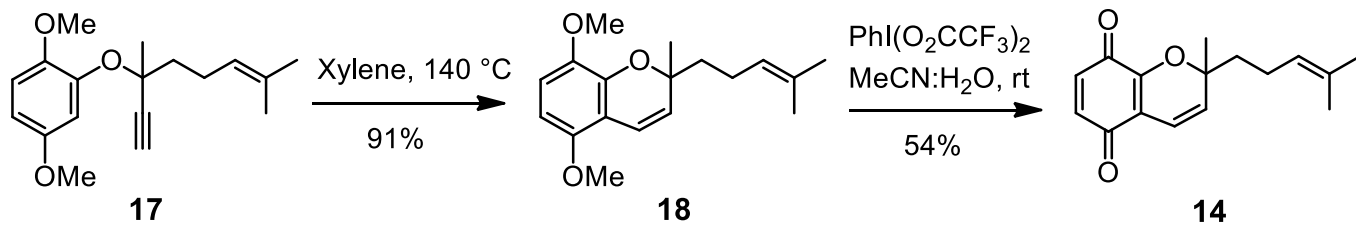
Lakshmi R
Liu Research Group
Total synthesis presentation
21/11/2019

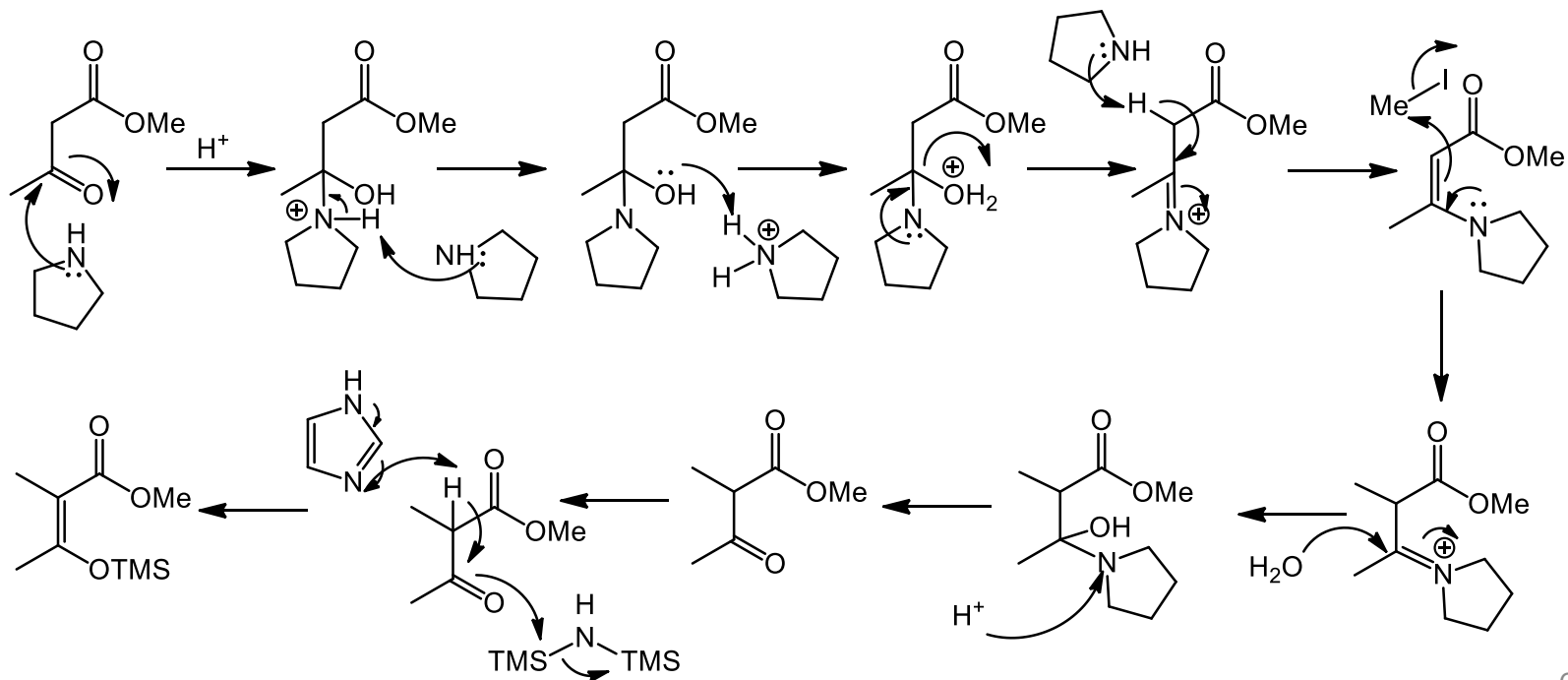
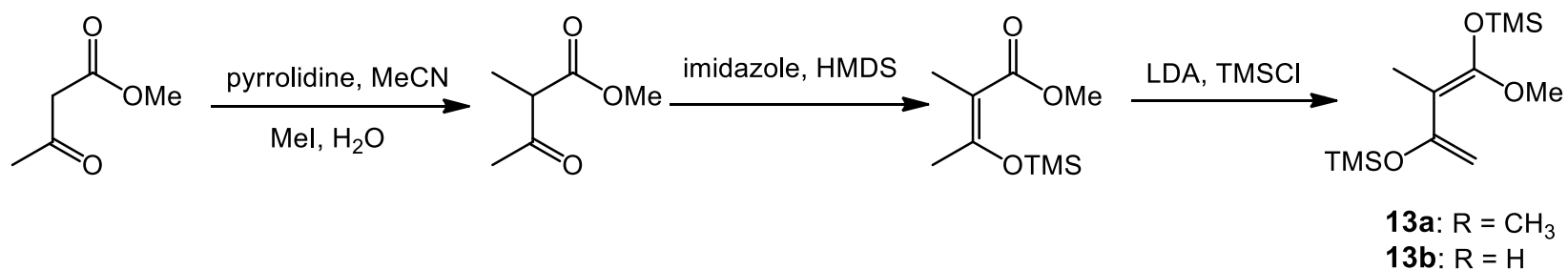
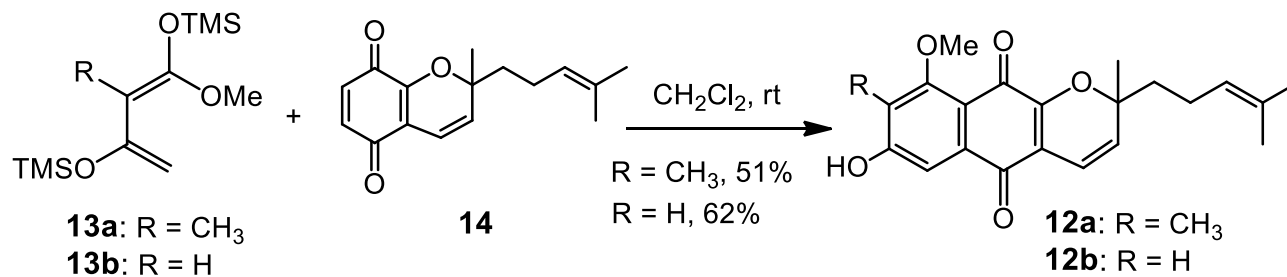
Retrosynthetic Analysis of the Naphterpins

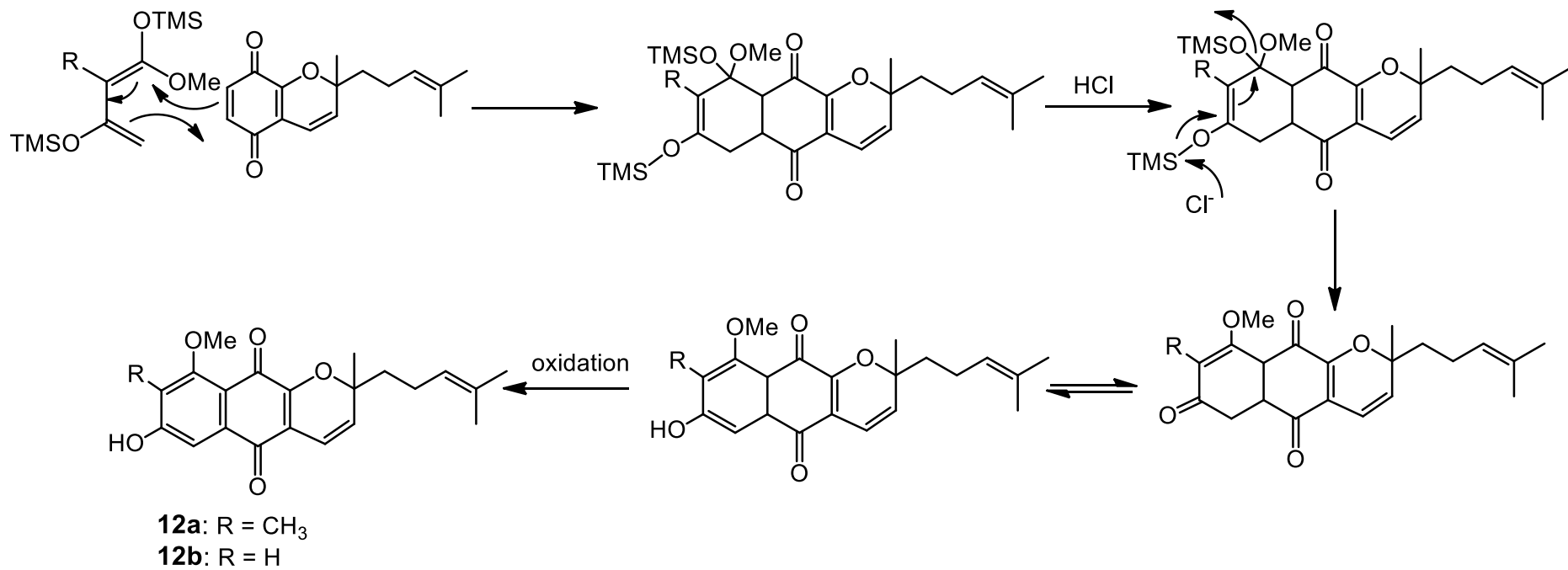
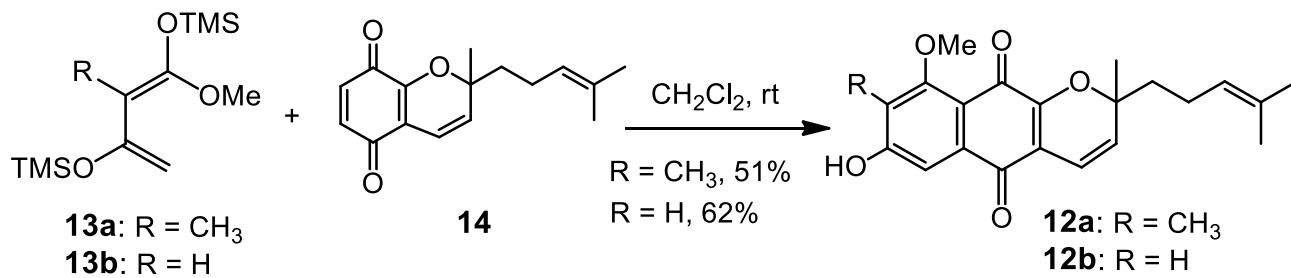
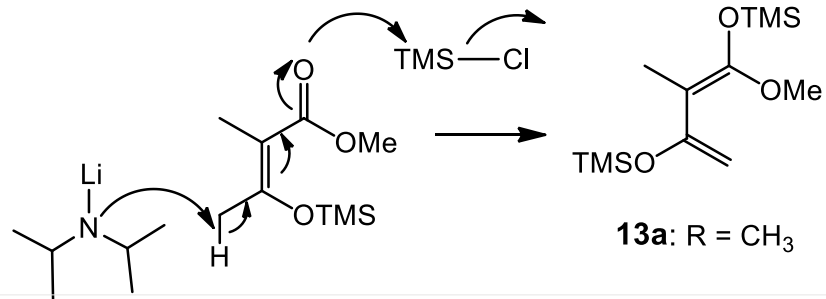


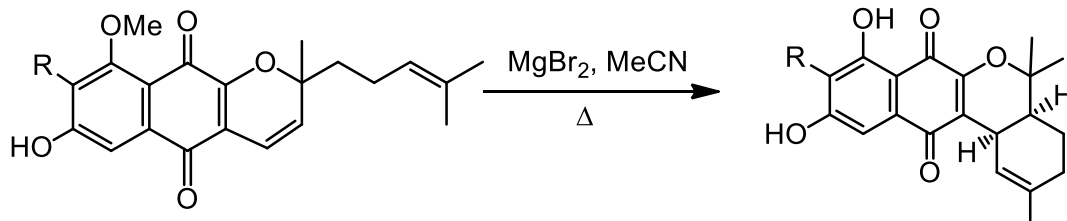










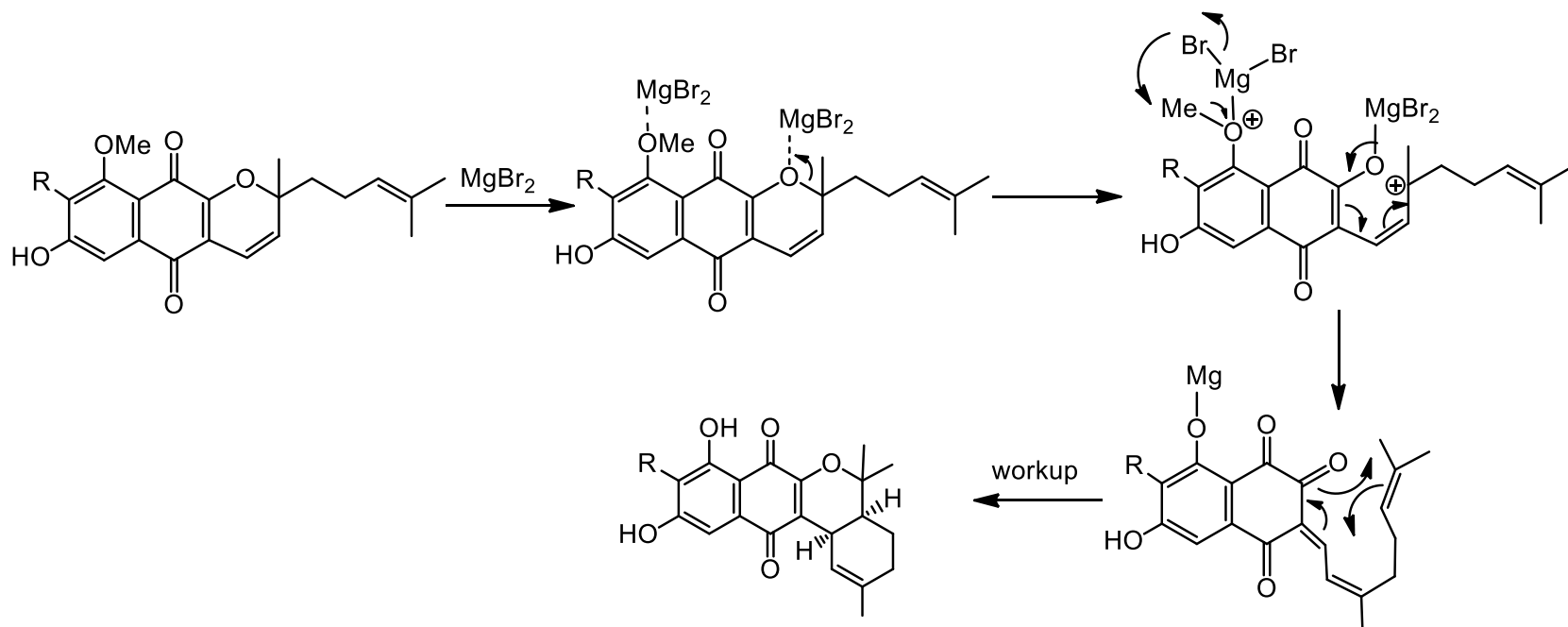


12a: R = CH₃

12b: R = H

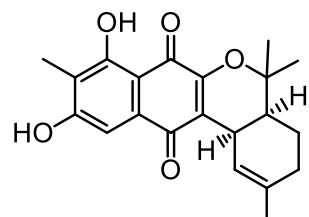
(±)-1: naphterpin (R = CH₃), 39%

(±)-4: 7-demethylnaphterpin (R = H), 59%

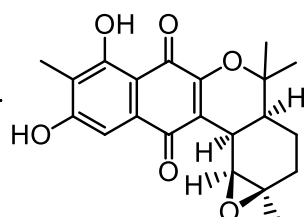
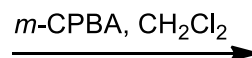


(±)-1: naphterpin (R = CH₃)

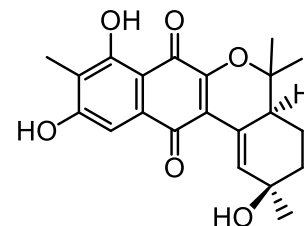
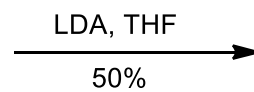
(±)-4: 7-demethylnaphterpin (R = H)



1: naphterpin

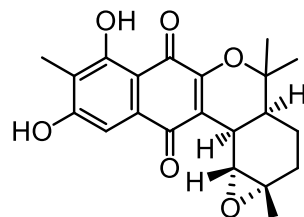


19 (65%)

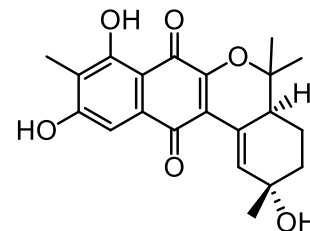
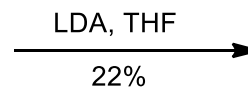


(±)-2: naphterpin B

+



20 (21%)



(±)-3: naphterpin C

