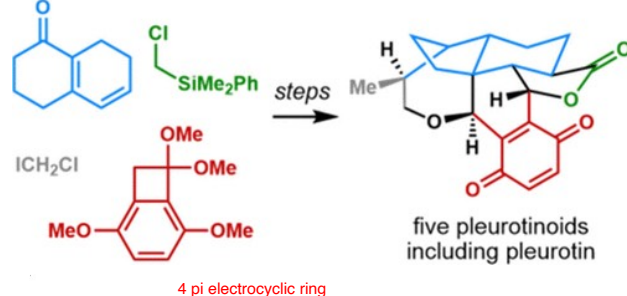
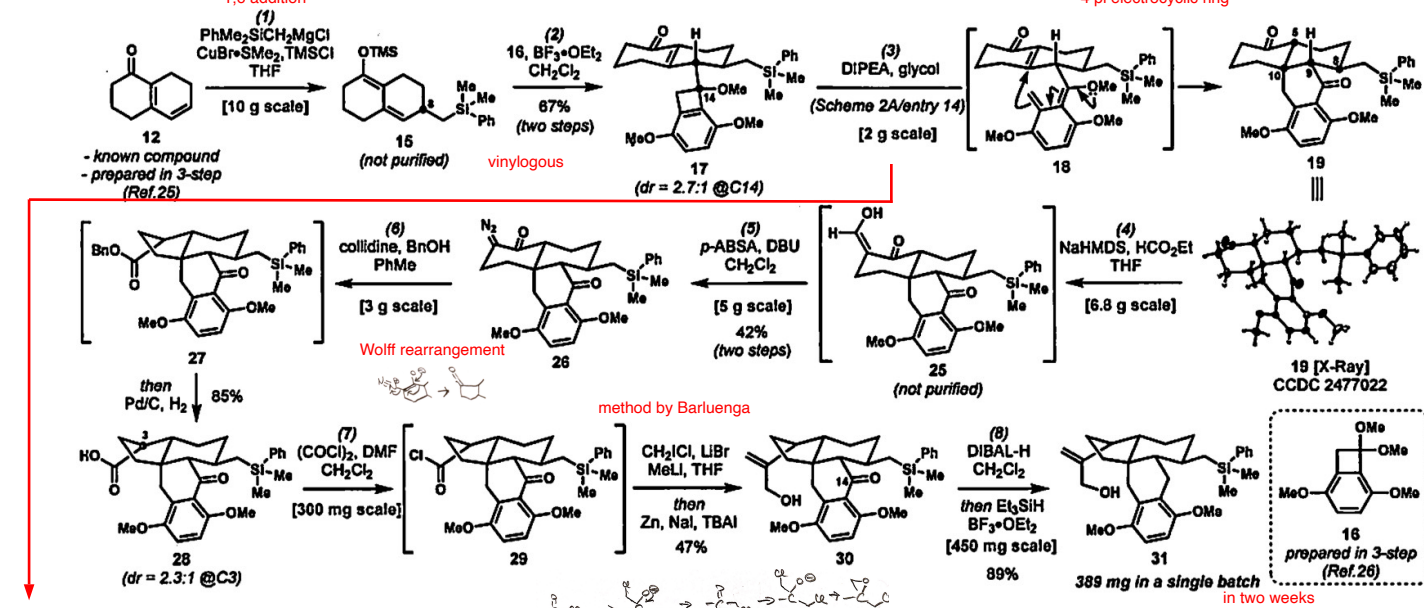
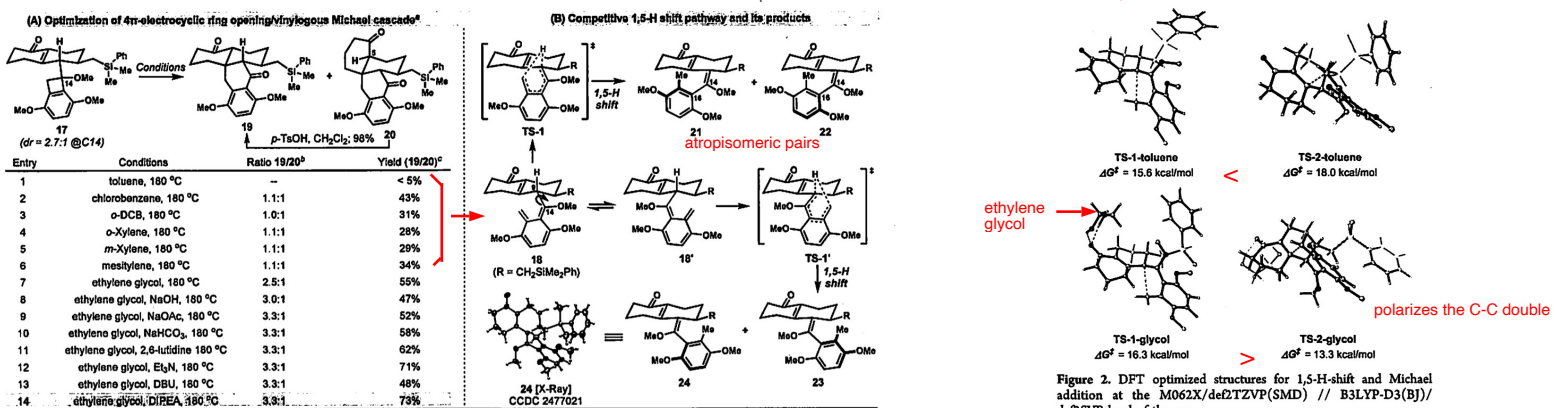


sesquiterpene quinone/hydroquinone-type secondary metabolites

**Scheme 1. Construction of the Tetracyclic Common Intermediate 31**

1,6 addition

4 pi electrocyclic ring

**Scheme 2. Investigation of the Crucial 4π-Electrocyclic Ring Opening/Vinylogous Michael Cascade Reaction**^aReactions were performed on 20 mg scale. ^bRatio determined by crude ¹H NMR. ^cIsolated yield.**Scheme 3. Divergent Total Syntheses of Pleurotin (1), Dihydropleurotinic acid (2), Leucopleurotin (3), Leucopleurotinic acid (4), and Nematostone (5) from the Tetracyclic Common Intermediate 31**

Akiyama's protocol

Fleming-Tamao oxidation

Nematostone (5)

(undesired diastereomer)

(single diastereomer)

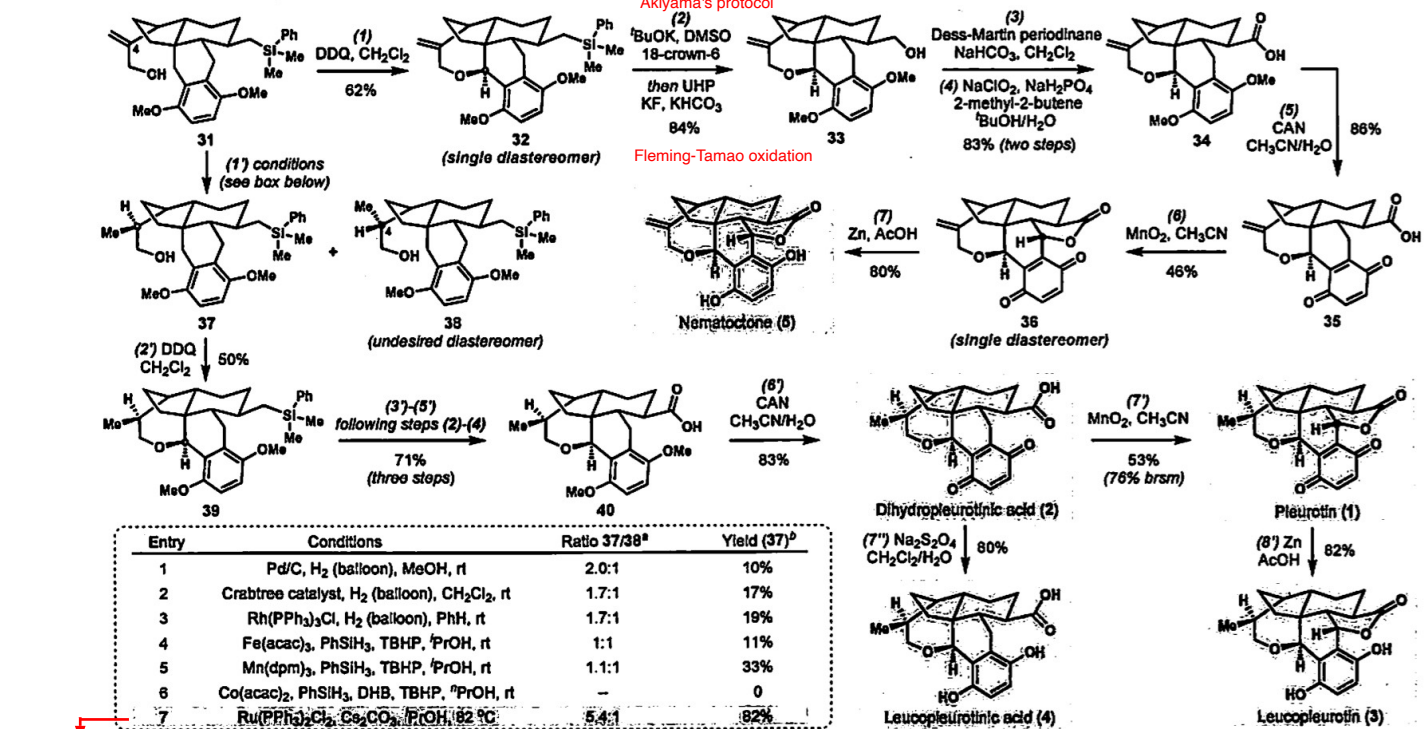
(single diastereomer)

(single diastereomer)

(single diastereomer)

(single diastereomer)

(single diastereomer)



redox isomerization/transfer hydrogenation conditions developed by Caderno

^aRatio determined by crude ¹H NMR. ^bIsolated yields. TBHP = *tert*-butyl hydroperoxide; DHB = 1,4-dihydrobenzene.