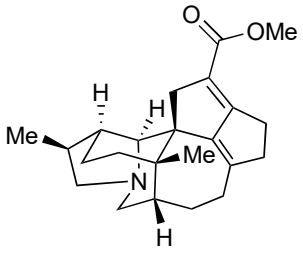
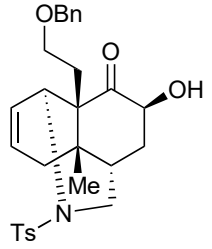
(+)-Caldaphnidine J



Yuzurimine type of alkaloids

Guo, L.-D.; Zhang, Y.; Hu, J.; Ning, C.; Fu, H.; Chen, Y.; Xu, J. Nat Commun **2020**, *11* (1), 3538. https://doi.org/10.1038/s41467-020-17350-x.

Genus Daphniphyllum



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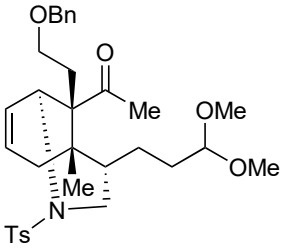
4 Steps



1

$PhNTf_2$, KHMDS
then Pyridine

2

n-BuLi,
Di-*p*-tolyl disulfite, MeI

Bromoethene,
$Pd(PPh_3)_2Cl_2$, CuI, NEt_3

3

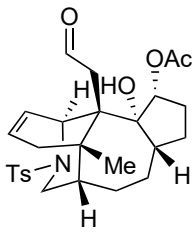
TFA ***Mechanism***

4

5

HCOOH ***Mechanism***

6



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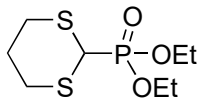


n-BuLi

8

DIBAL-H

9

TFAA, DMSO
then NEt_3

Mechanism

I_2, $NaHCO_3$, MeOH

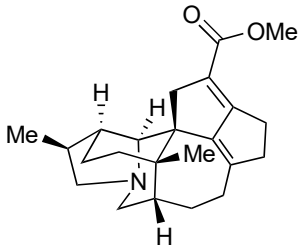
10

$SOCl_2$, Pyridine
then DBU

11

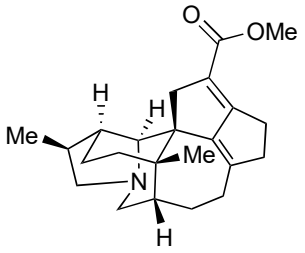
12

3 pots
5 steps



Caldaphnidine J

(+)-Caldaphnidine J



Yuzurimine type of alkaloids

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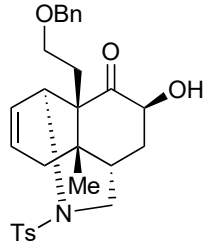
Genus Daphniphyllum



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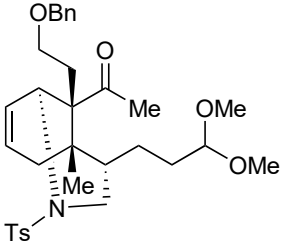
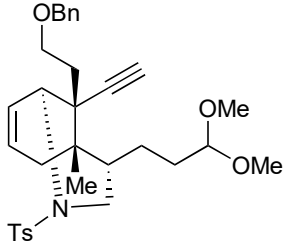
4 Steps



1

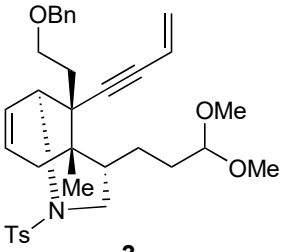
$PhNTf_2$, KHMDS
then Pyridine 70 °C



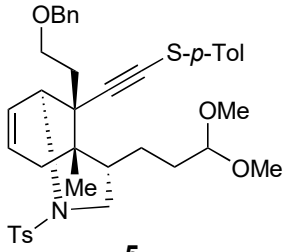
2

Bromoethene,
$Pd(PPh_3)_2Cl_2$, CuI, NEt_3

n-BuLi,
Di-*p*-tolyl disulfite, MeI



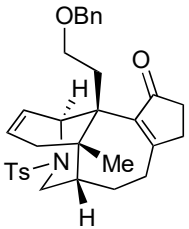
3



5

TFA

HCOOH



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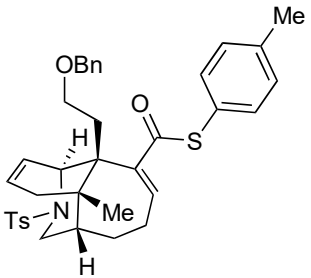

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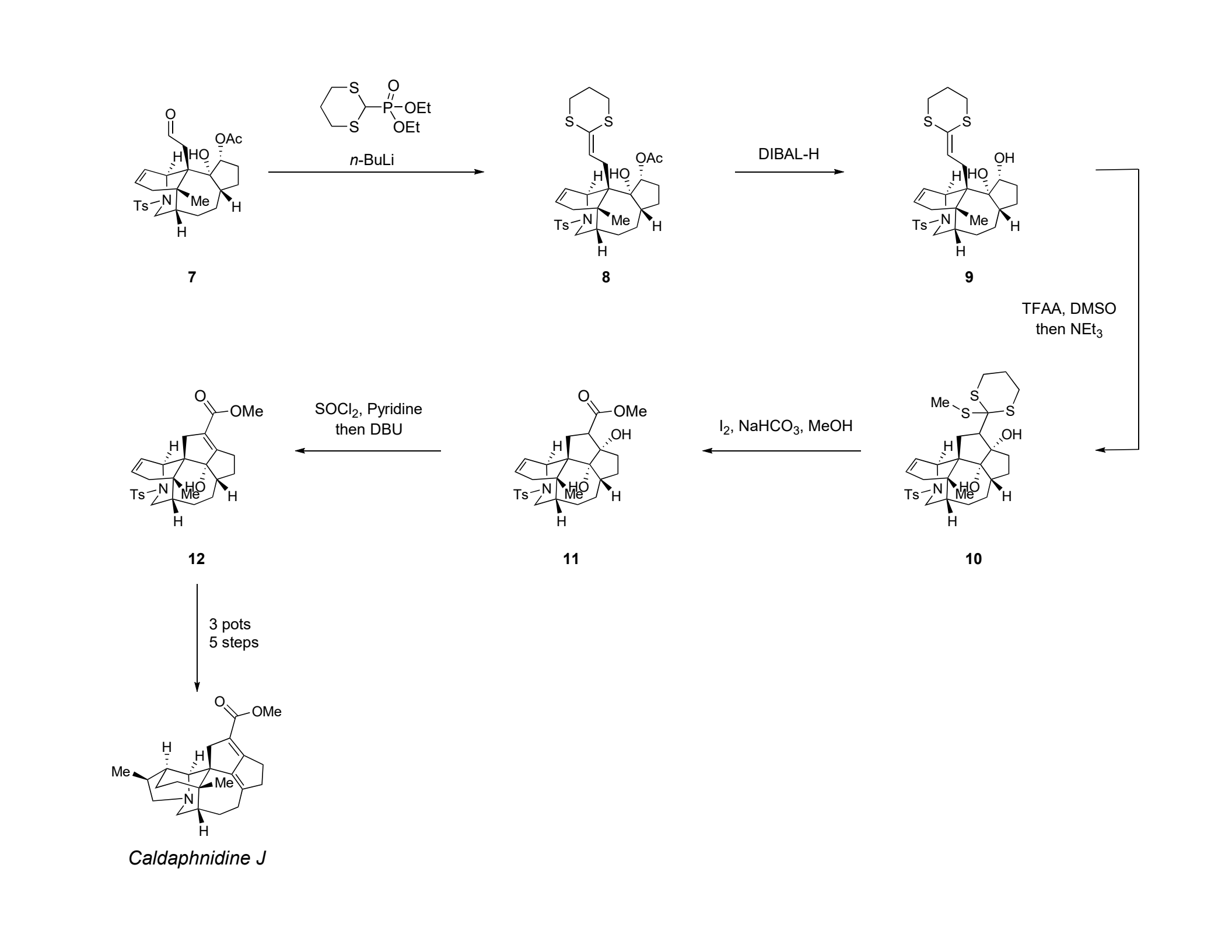
7
n-BuLi
8
DIBAL-H
9
TFAA, DMSO
then NEt3
10
I2, NaHCO3, MeOH
11
SOCl2, Pyridine
then DBU
12
3 pots
5 steps
Caldaphnidine J