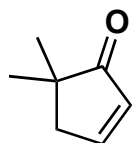
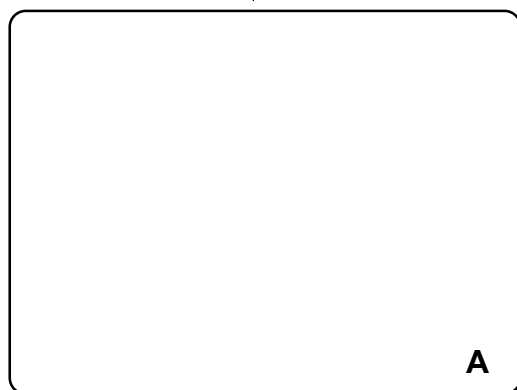


Rapid Assembly of Protoilludane Skeleton through Tandem Catalysis: Total Synthesis of Paesslerin A and its Structural Revision

Org. Lett. 2019, 21, 11, 3954–3958

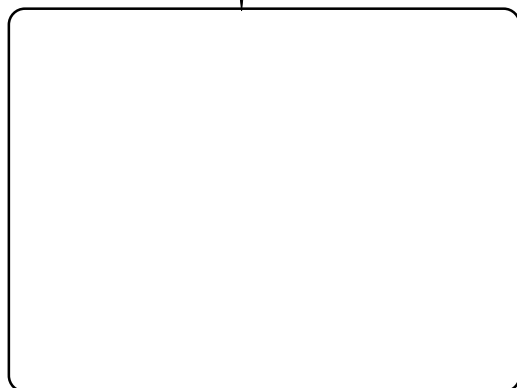


1-6

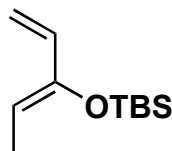


A

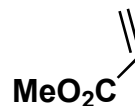
7-11



- 1) TiF_2NH (5 mol%), **1**, -40°C , then **2**
- 2) NaOH , EtOH , H_2O , 60°C
- 3) HOTT, NEt_3 , DMAP, *t*-dodecanethiol, reflux
- 4) DTBMP, TiF_2O
- 5) $\text{Pd}(\text{acac})_2$, Bu_3P , Bu_3N , formic acid
- 6) H_2 , Pd/C



1



2

- 7) TBAF
- 8) $i\text{Pr}_2\text{Si}(\text{OTf})_2$, TsCHN_2 , $i\text{Pr}_2(\text{NEt})$
- 9) $\text{Cu}(\text{acac})_2$
- 10) Li , naphthalene
- 11) KF , K_2CO_3 , H_2O_2
- 12) $o\text{-NO}_2\text{C}_6\text{H}_4\text{SeCN}$, POct_3
- 13) NaIO_4
- 14) KH , $\text{HN}(\text{CH}_2)_3\text{NH}_2$
- 15) Ac_2O , pyr

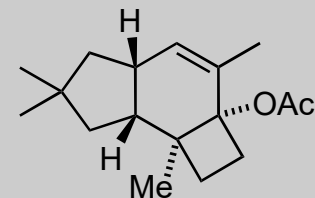
- 1) Name of Reactions (2 steps)

Hint: Thermodynamic isomerization before addition of **2**

- 3) Structure of HOTT? Name of reaction?

- 11) Name of reaction?

- 12)13) Name of reaction?



Paesslerin A