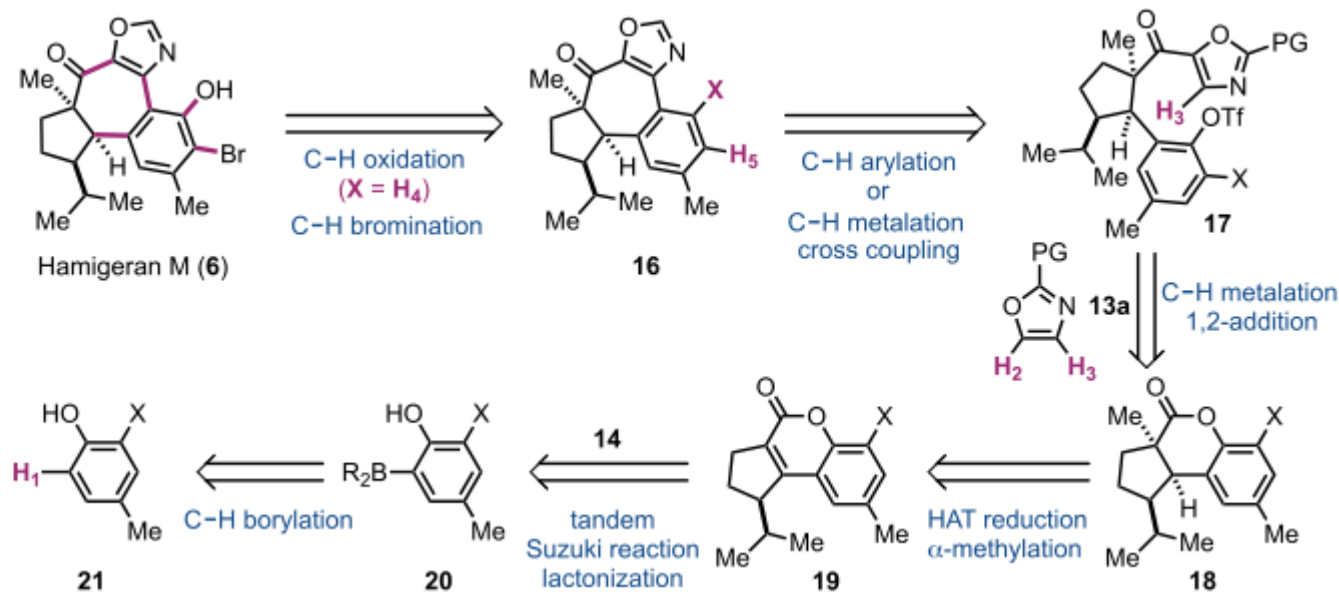
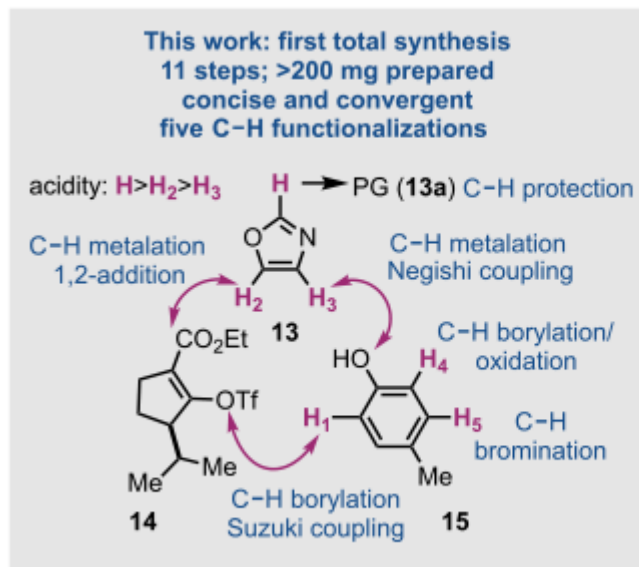


# 11-Step and Scalable Total Synthesis of Hamigeran M Enabled by Five C–H Functionalizations

Baiyang Jiang and Mingji Dai\*

*J. Am. Chem. Soc.* 2021, 143, 20084–20089

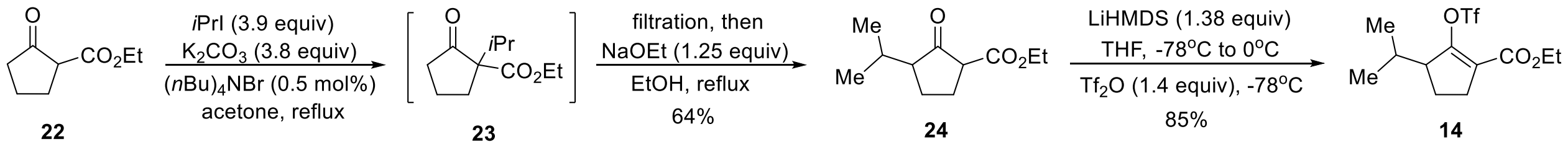


The hamigerans are a family of diterpenoids with remarkable structural diversity and biological activities.

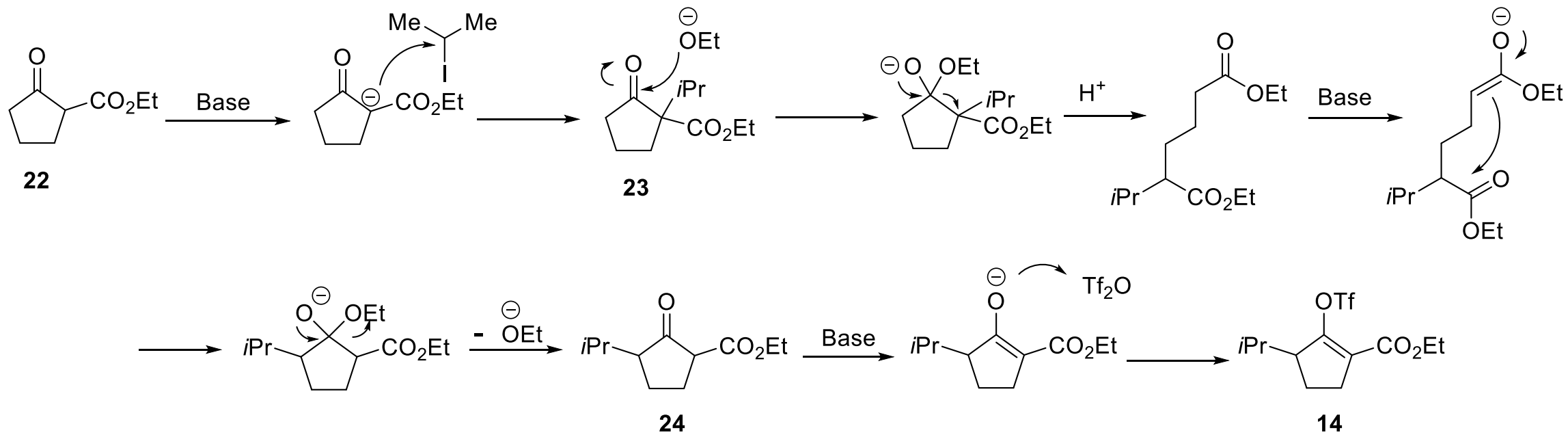
The first family member of hamigerans was discovered by Cambie and co-workers in 2000.

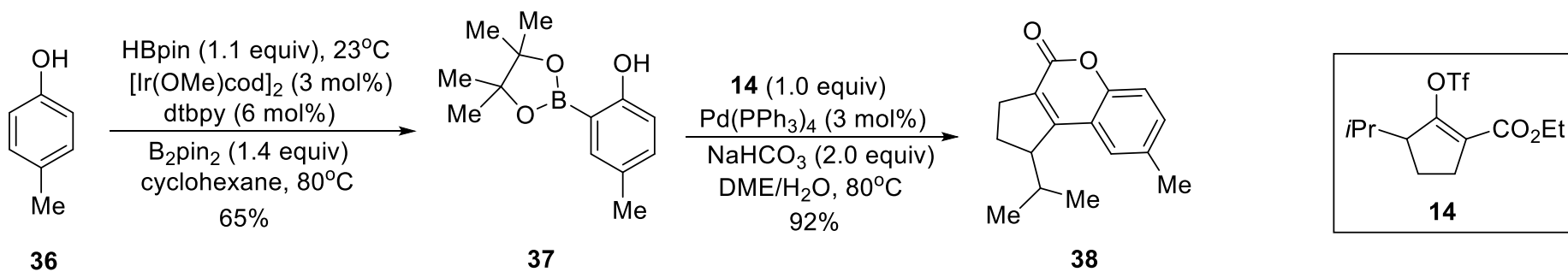
The convergent total synthesis of ( $\pm$ )-hamigeran M was enabled by five C–H functionalization reactions and proceeding in 11 steps in 3.9% overall yield.

Chen Zhang  
Liu group  
12/10/2021

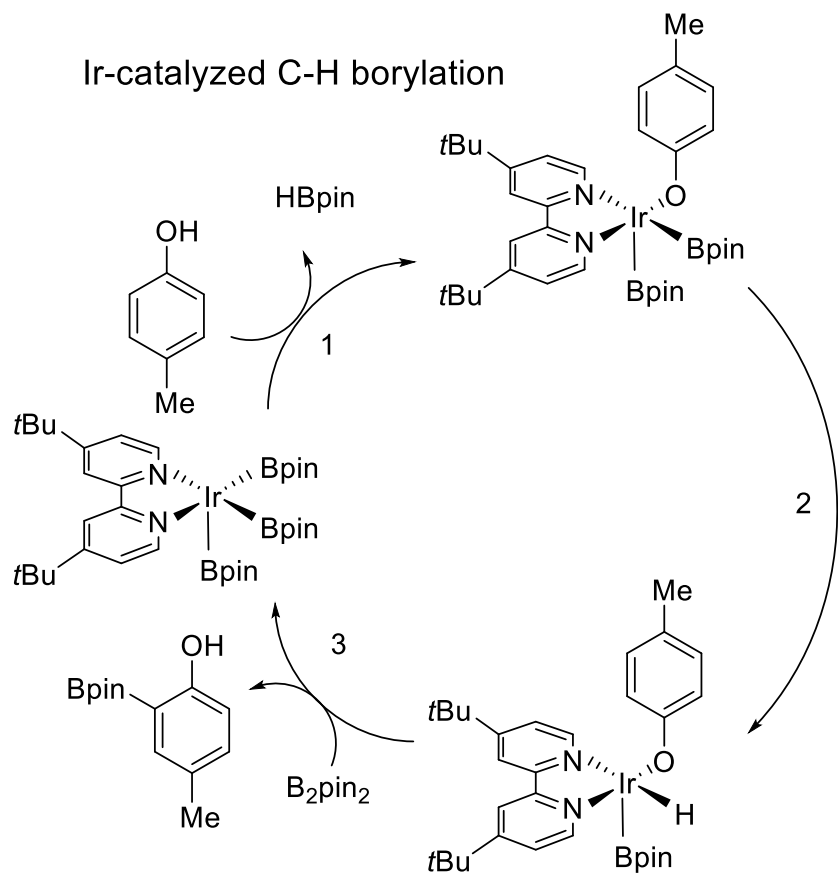


retro-Dieckmann and Dieckmann condensation (from **23** to **24**)

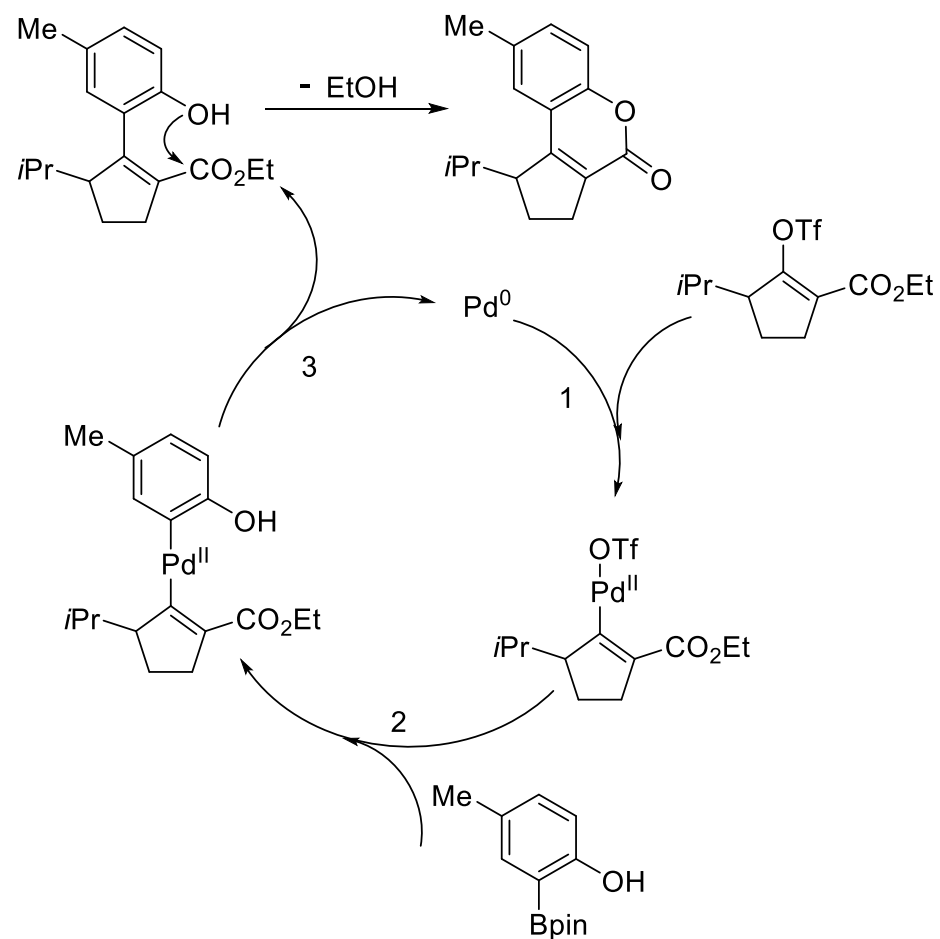


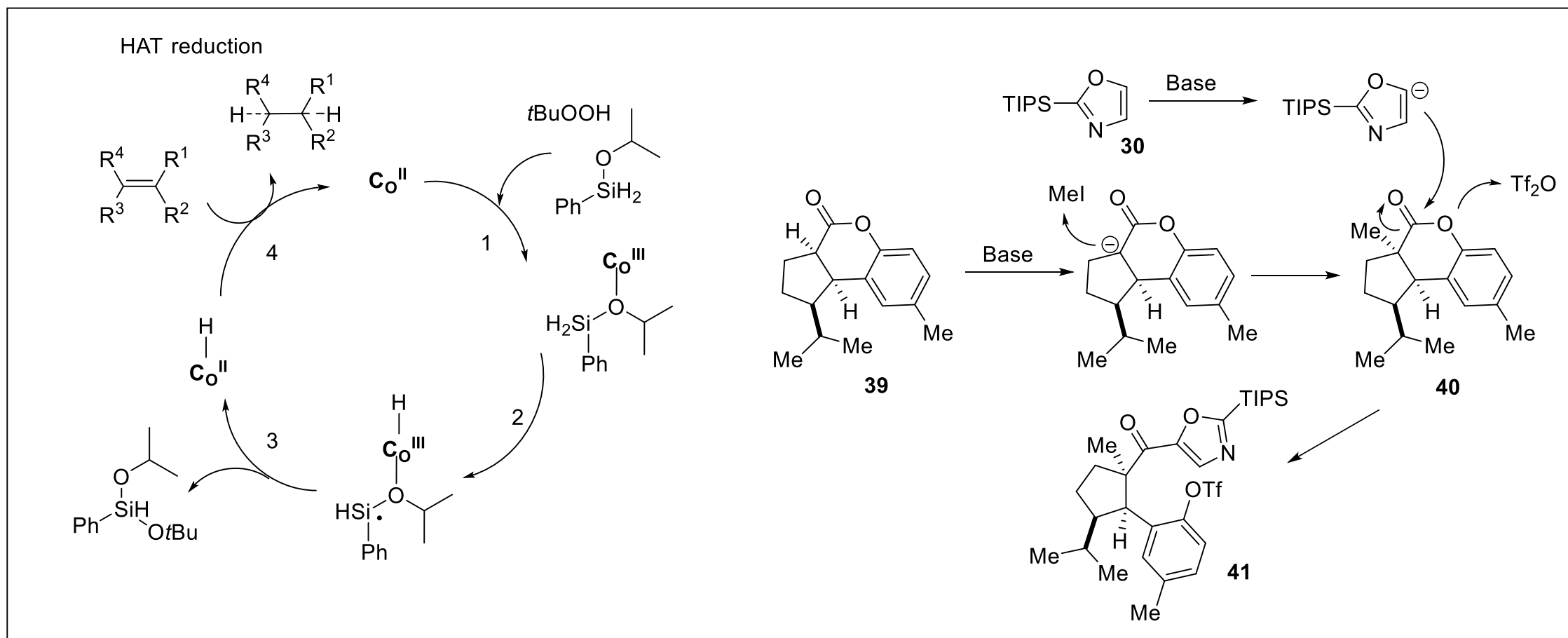
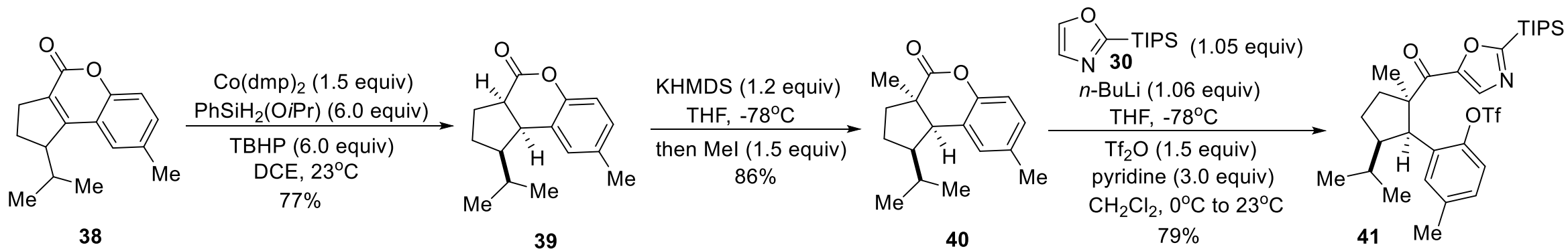


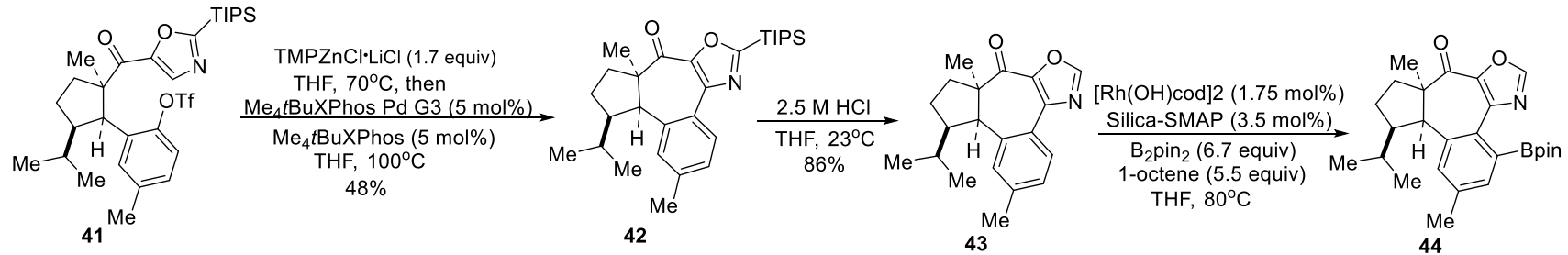
### Ir-catalyzed C-H borylation



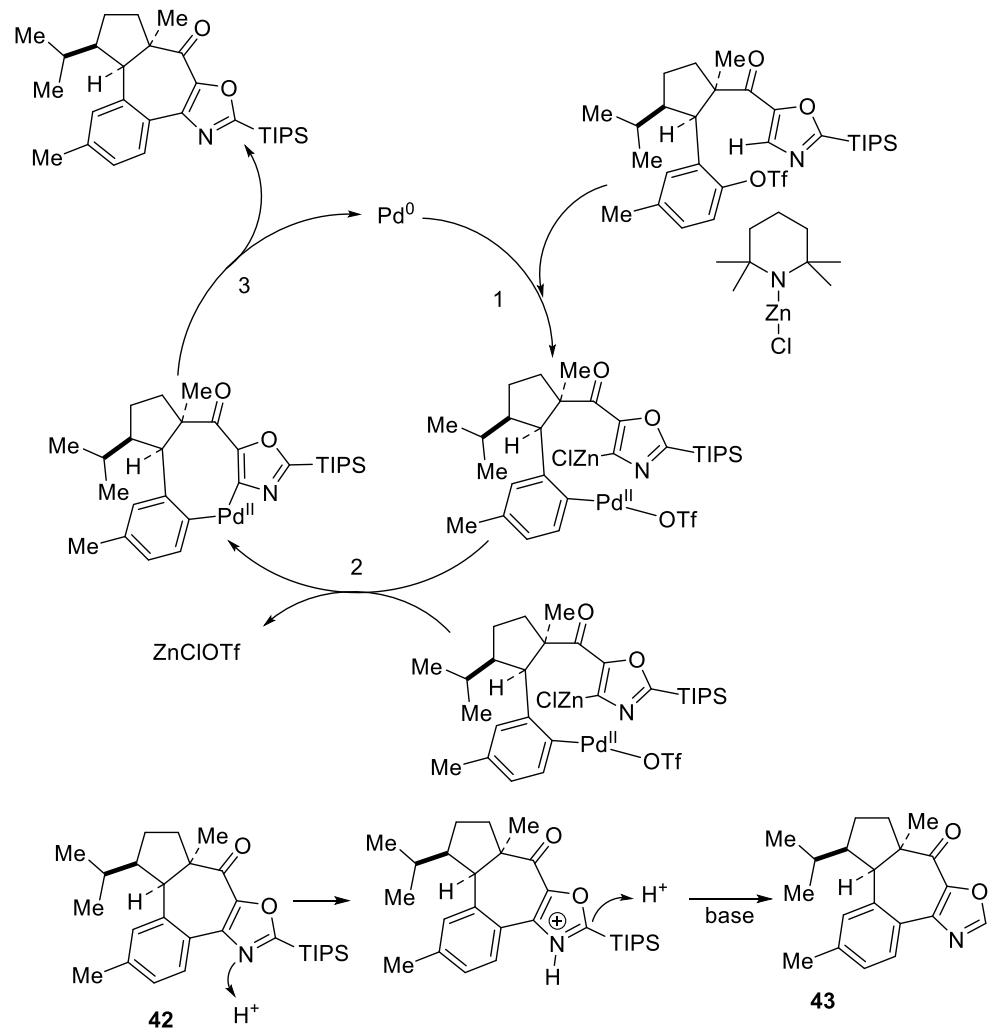
### Tandem Suzuki reaction-lactonization







### C-H metalation-Negishi coupling



### Rh-catalyzed C-H borylation

