



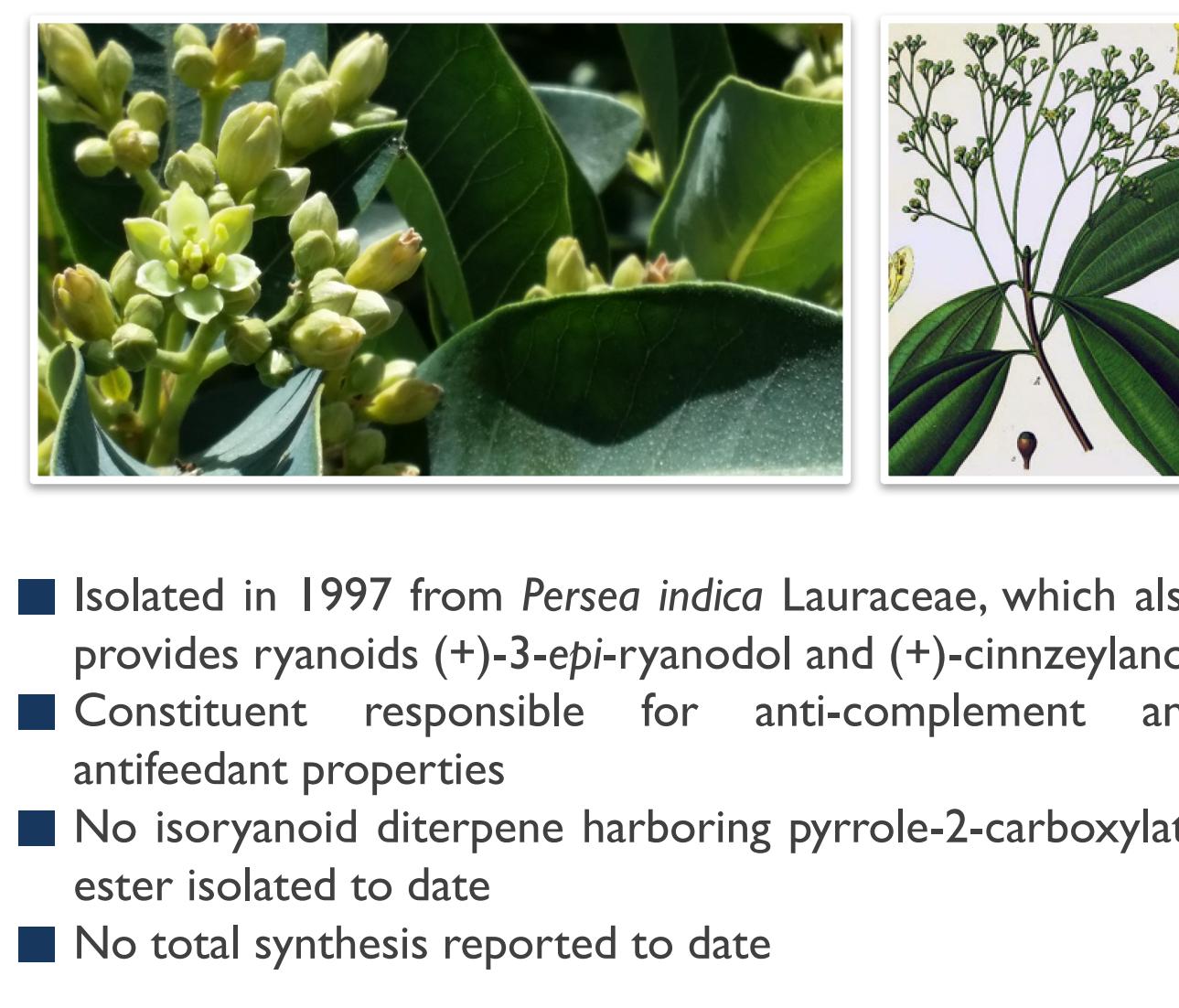
# 16 Steps Total Synthesis of the Isoryanoid Diterpene (+)-Perseanol

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## I. The Isoryanoid Diterpenes



Nohara, T.; Kashiwada; Tomimatsu. *Tetrahedron Lett.* **1980**, *21*, 2647.

Fraga, B. M. and coworkers. *J. Nat. Prod.* **1997**, *60*, 880.

Fraga, B. M. and coworkers. *Tetrahedron Lett.* **2017**, *58*, 2261.

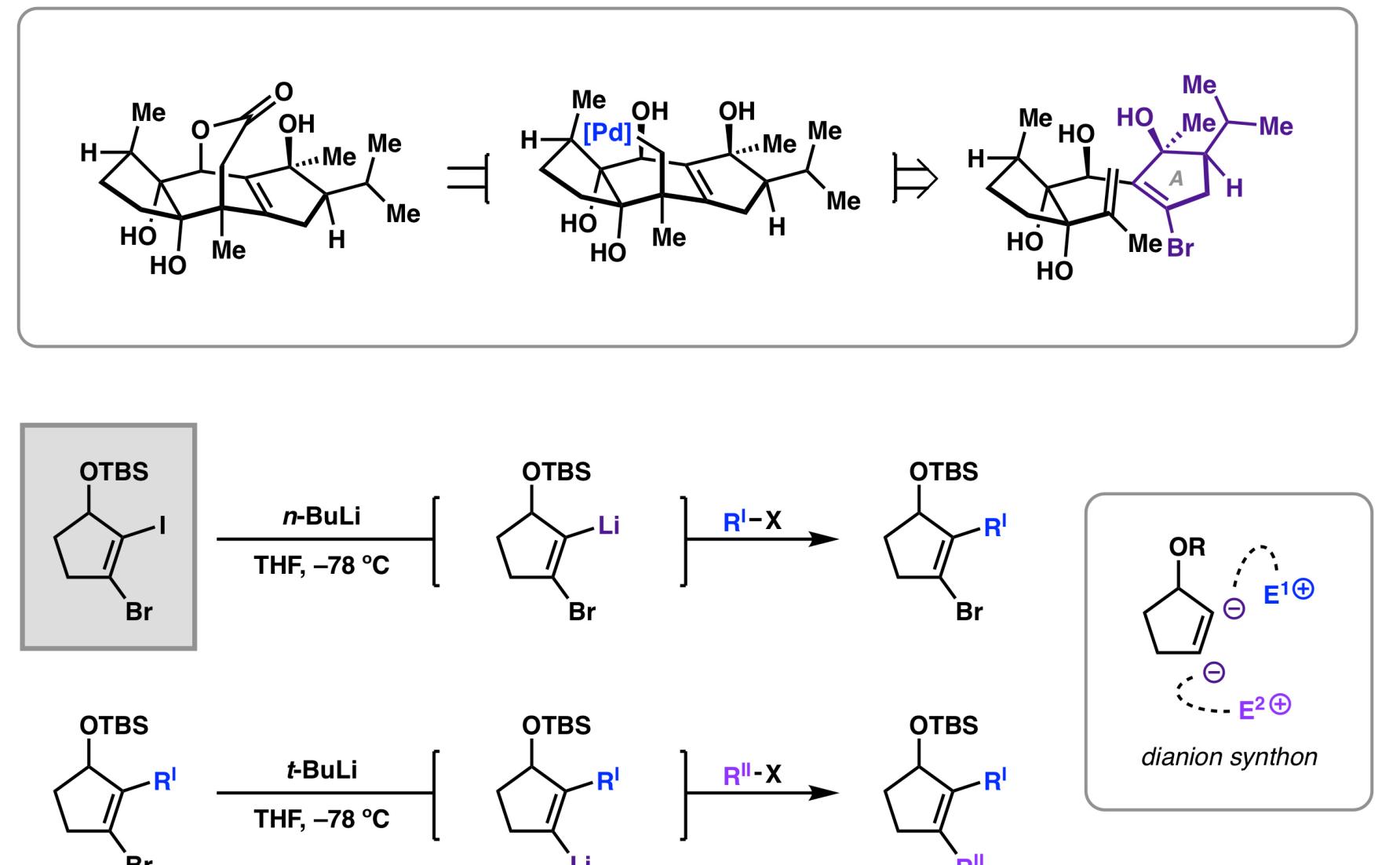
Tu, P. and coworkers. *Tetrahedron* **2008**, *64*, 5743.

Xu, H. and coworkers. *Fitteropria* **2009**, *80*, 286.

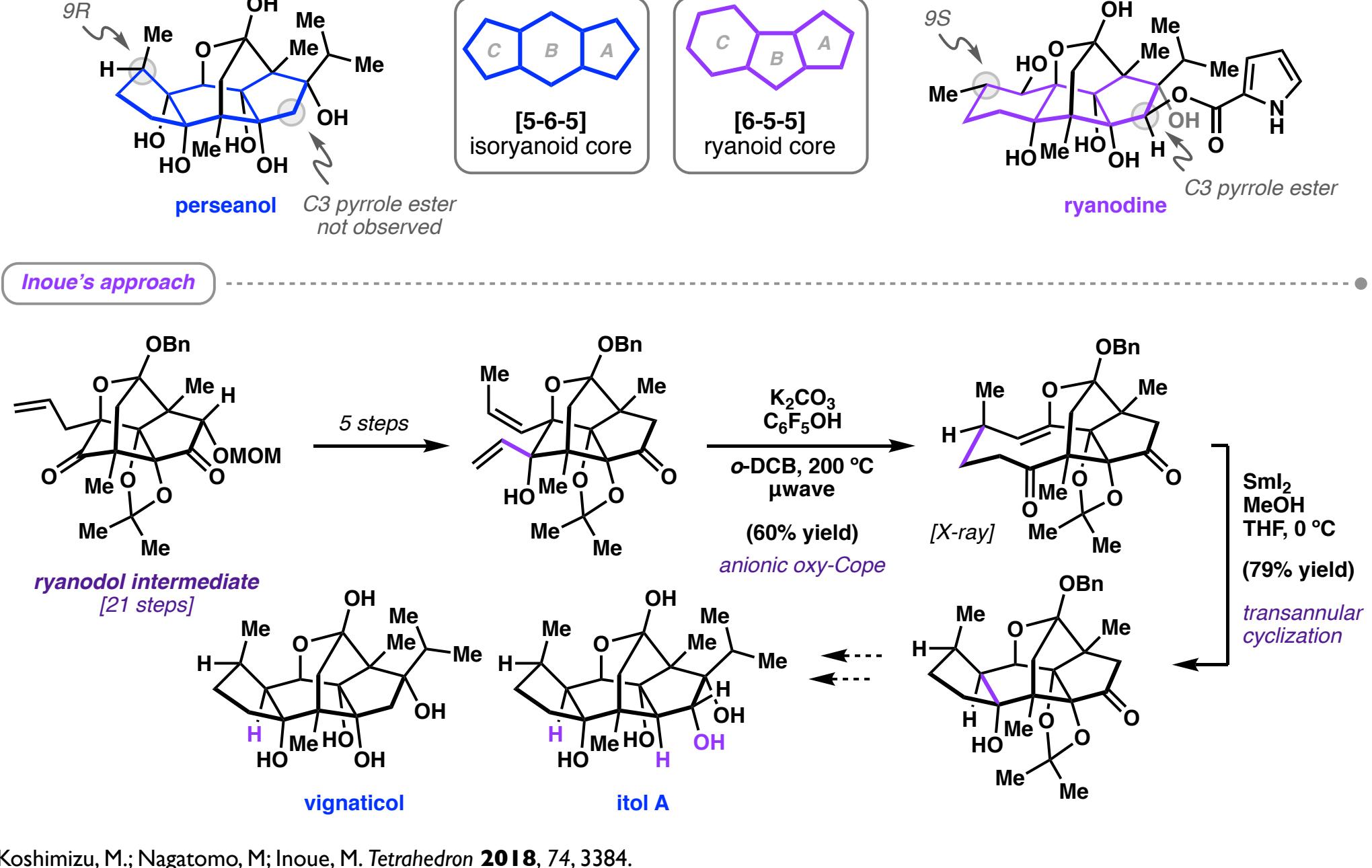
Zhang, Y. and coworkers. *J. Nat. Prod.* **2014**, *77*, 1948.

Luparia, M.; Vadalà, A.; Zanoni, G.; Vidari, G. *Org. Lett.* **2006**, *8*, 2147.

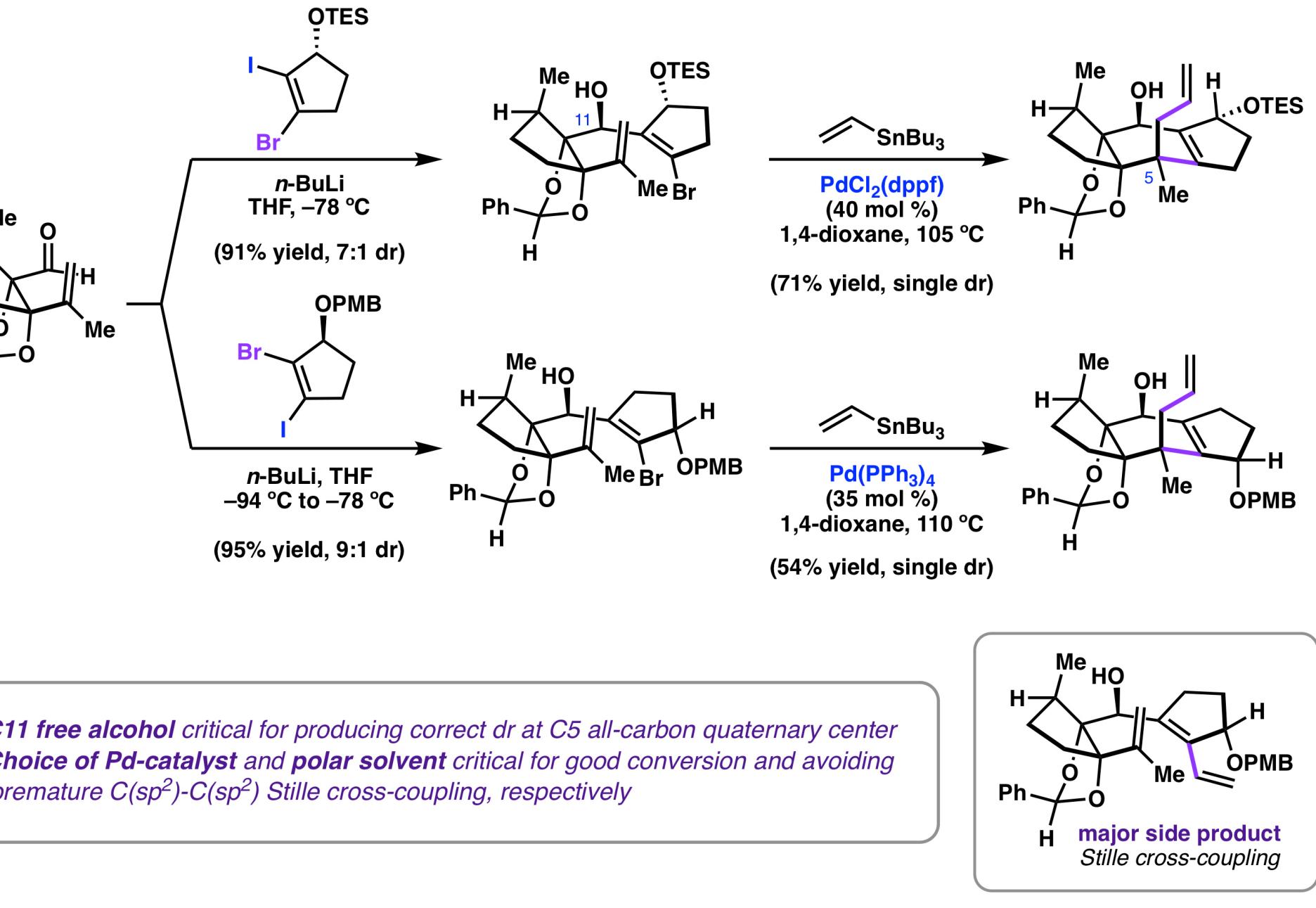
## 5. A-Ring Inspiration



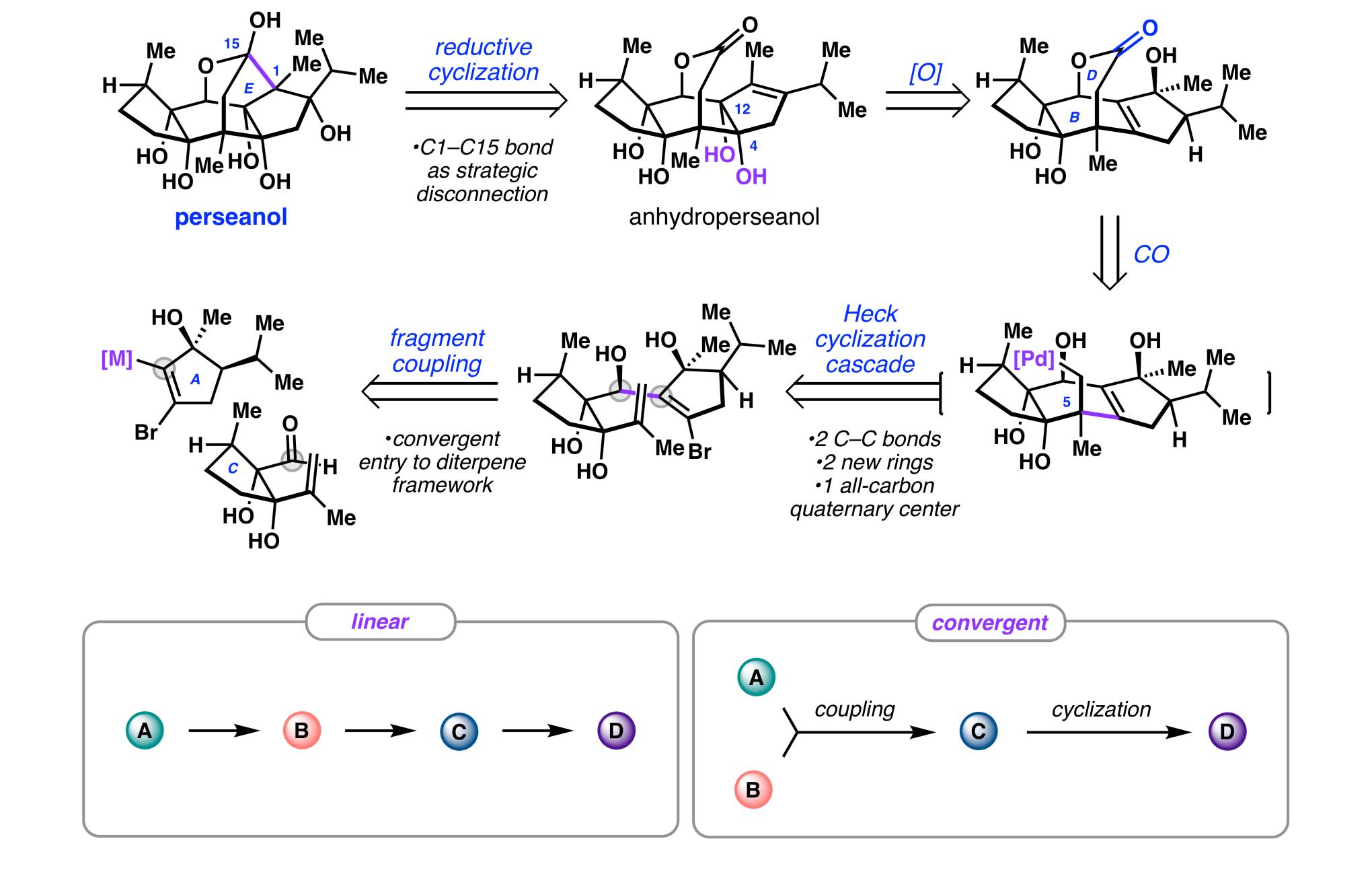
## 2. Key Structural Differences and Prior Art



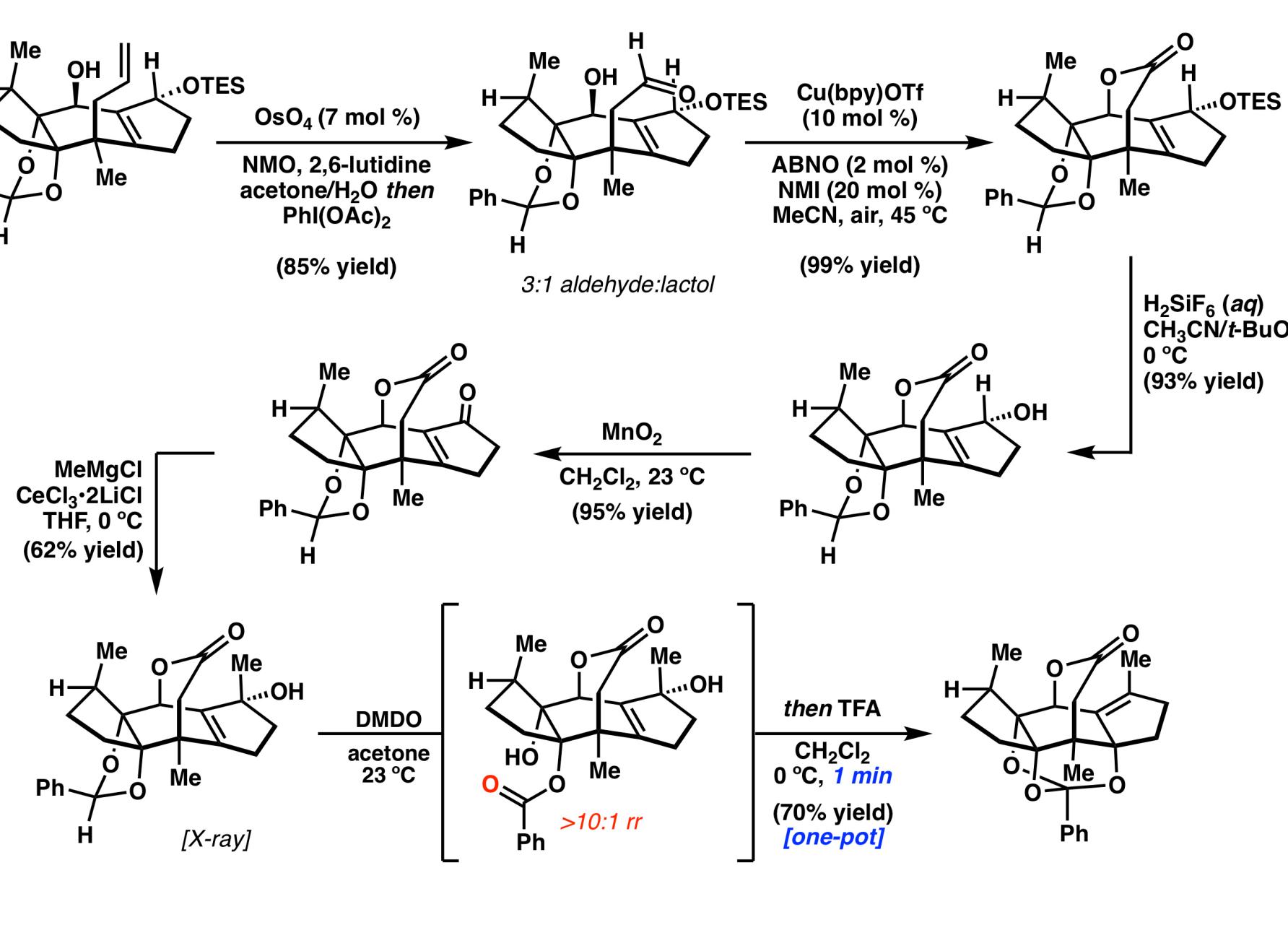
## 6. Cascade Model Studies



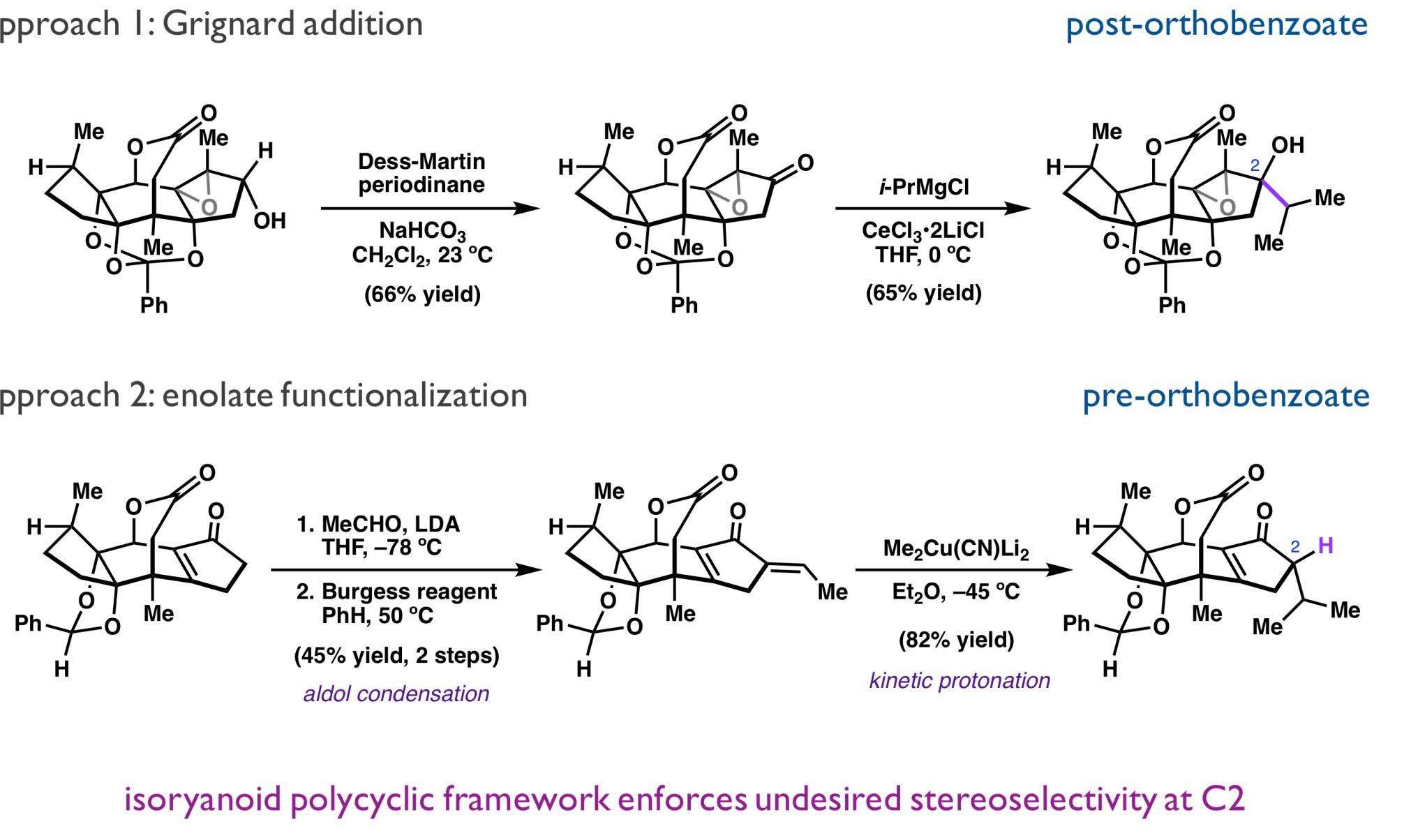
## 3. Retrosynthetic Analysis



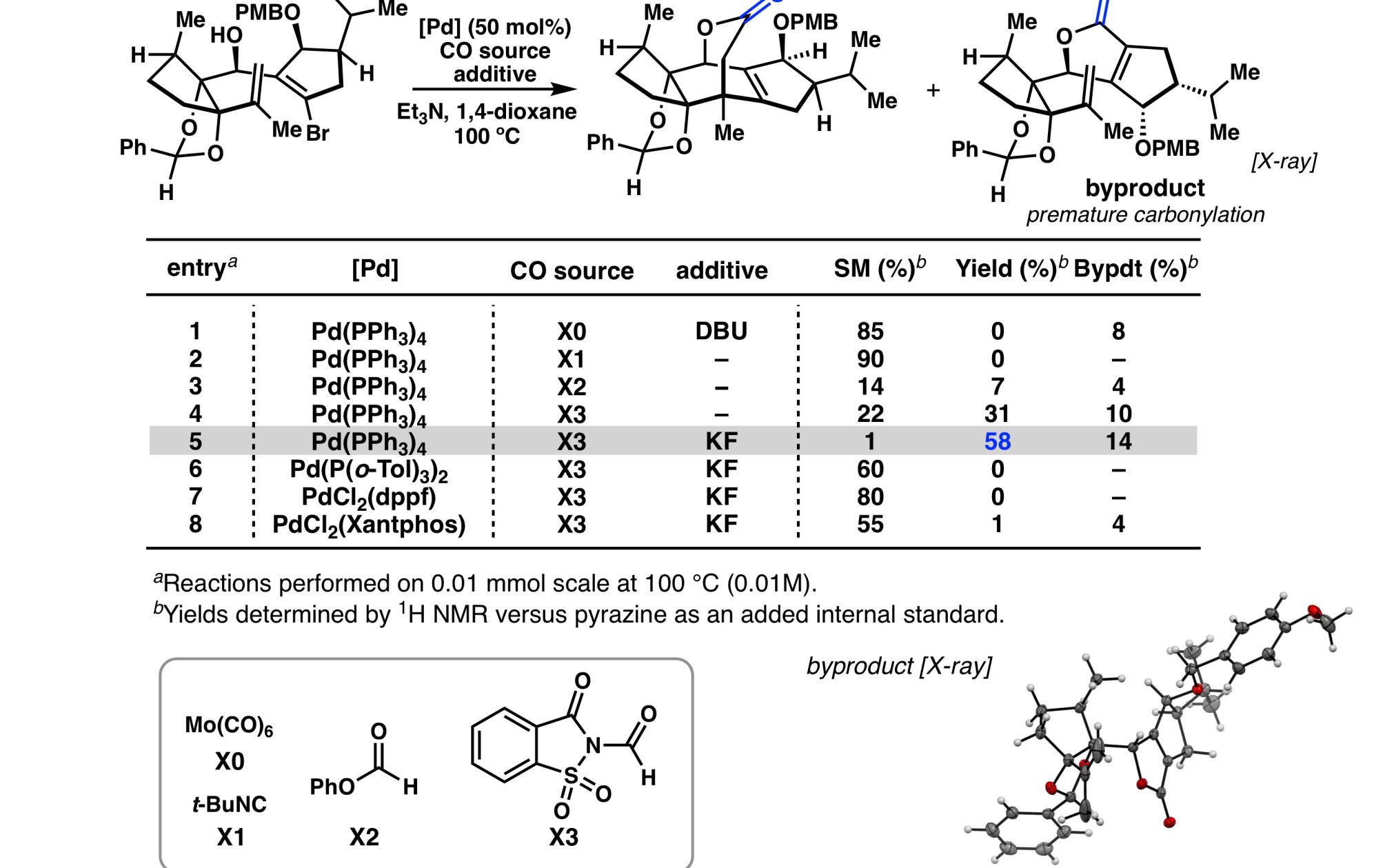
## 7. Establishing ABCD Framework



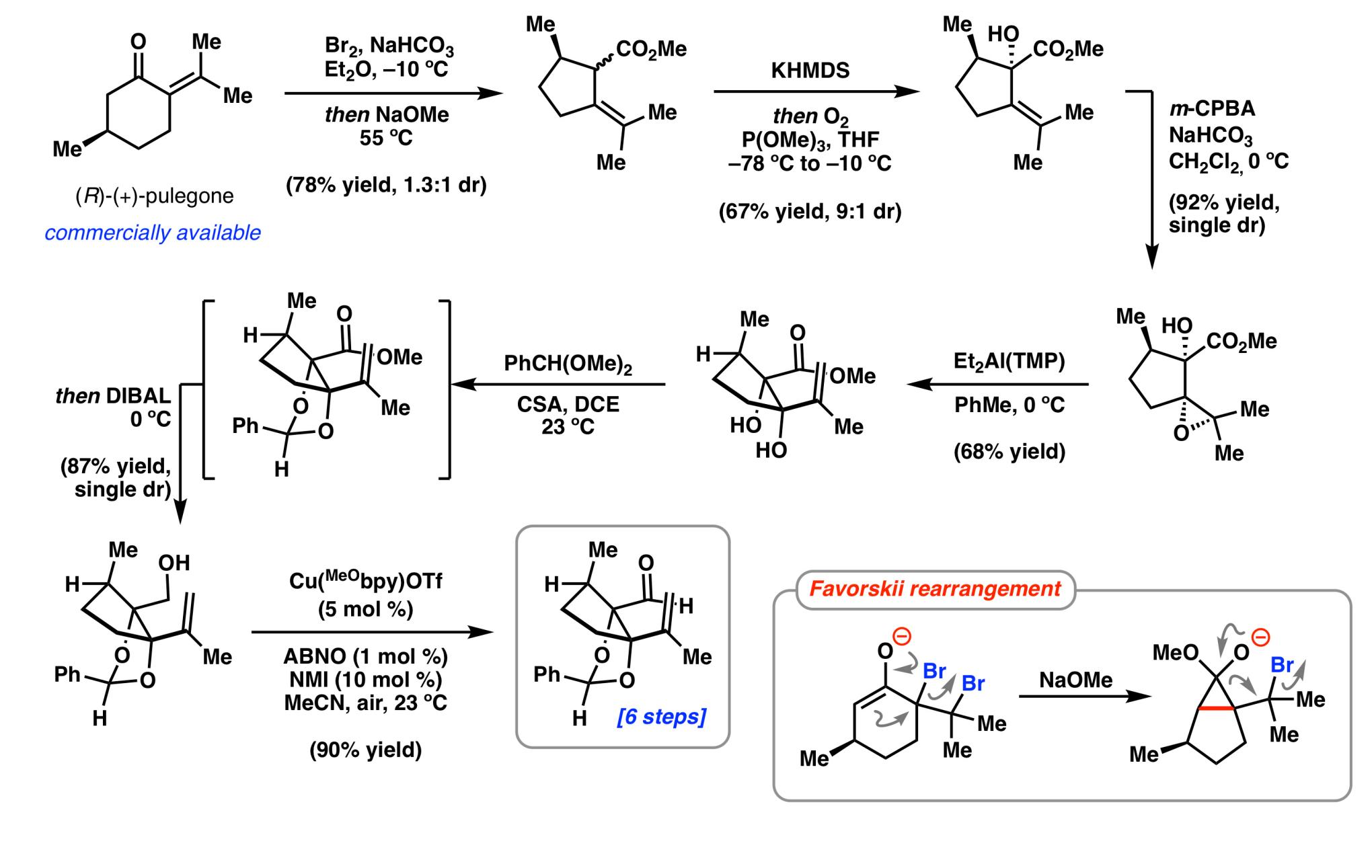
## 9. i-Pr Introduction



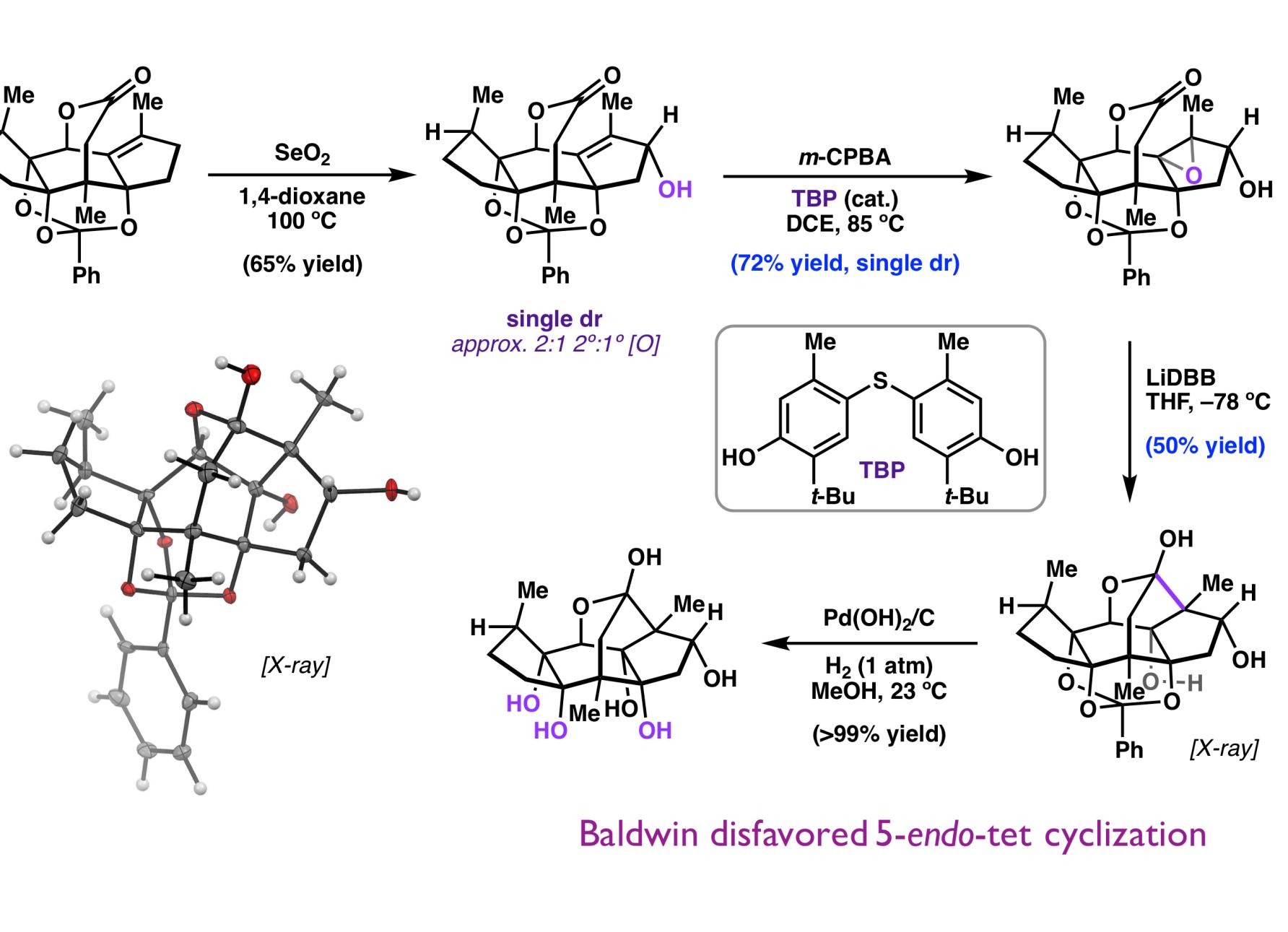
## 13. in situ CO generation



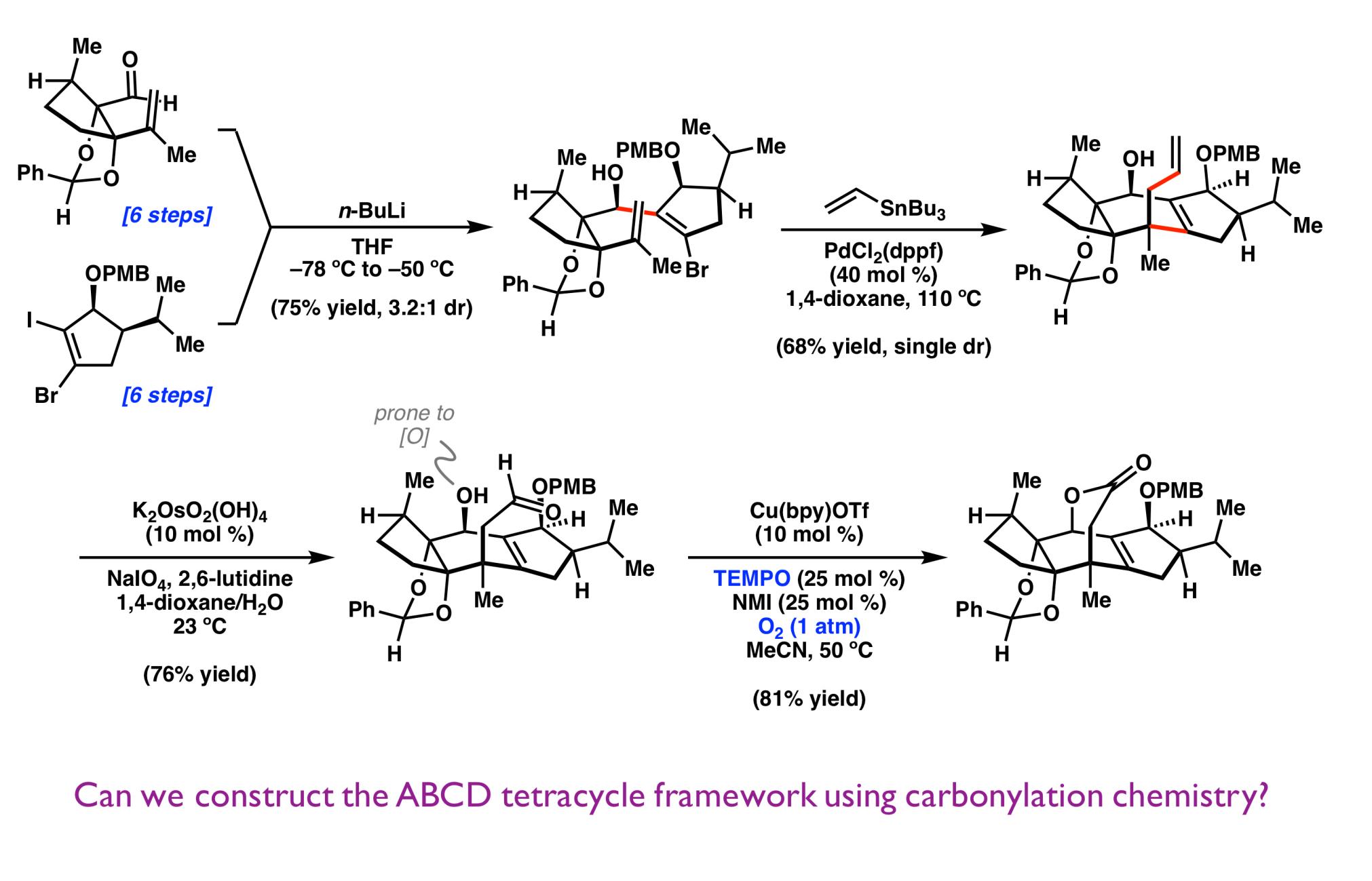
## 4. C-Ring Fragment Preparation



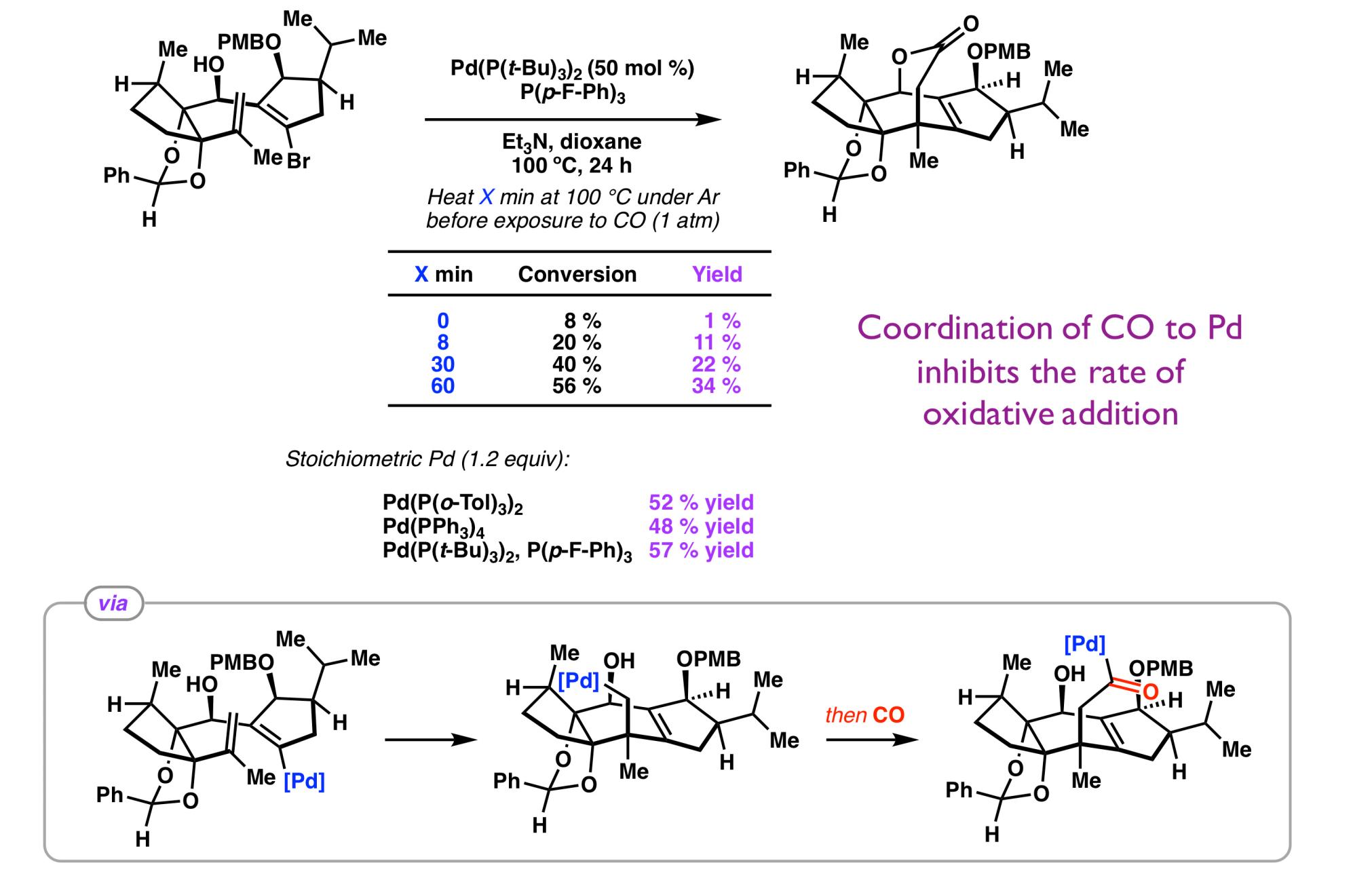
## 8. Endgame Model Studies



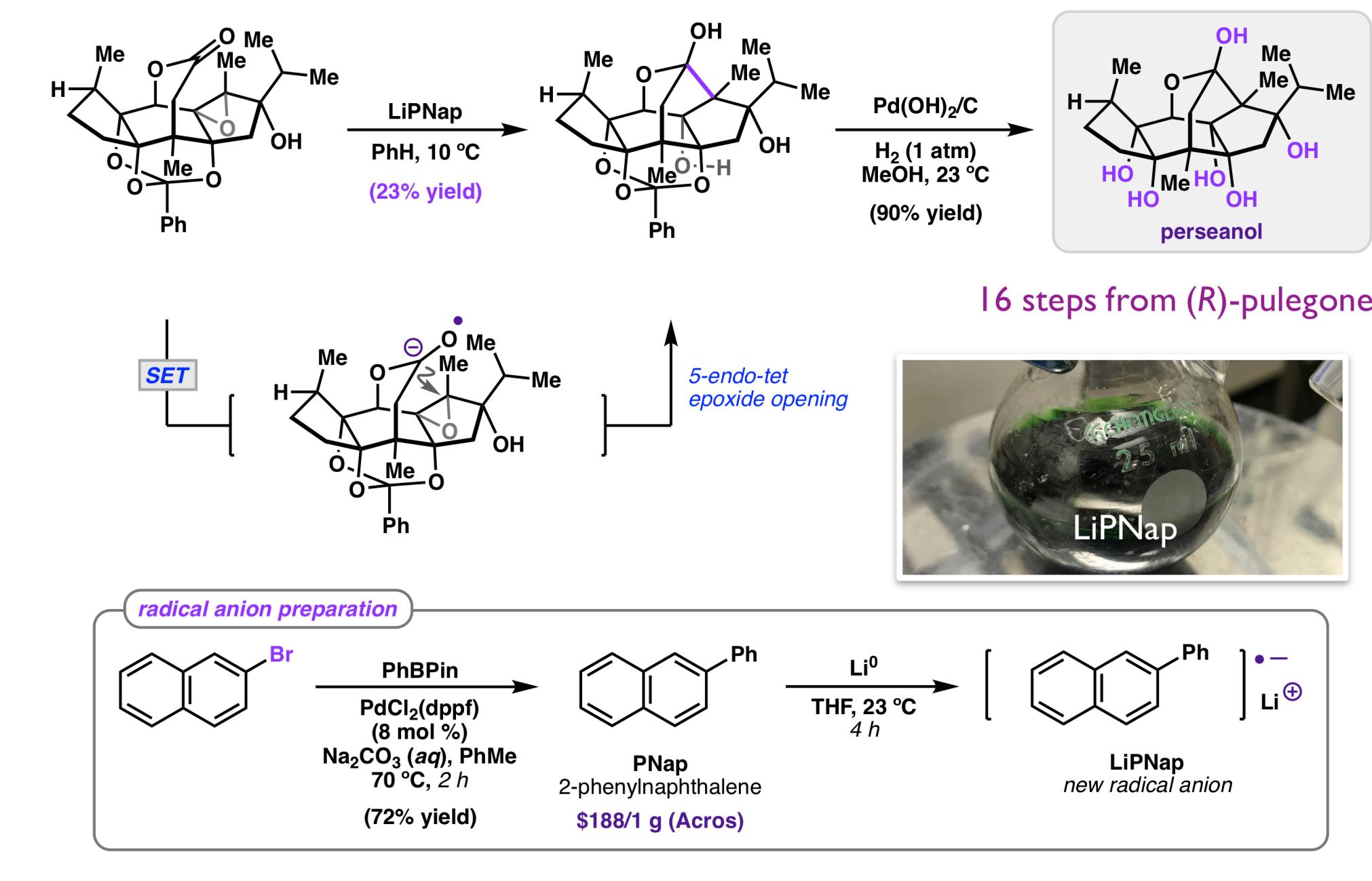
## 11. Maximizing Convergency



## 12. Heck Carbonylation Cascade



## 15. Total Synthesis



## 16. Acknowledgements

