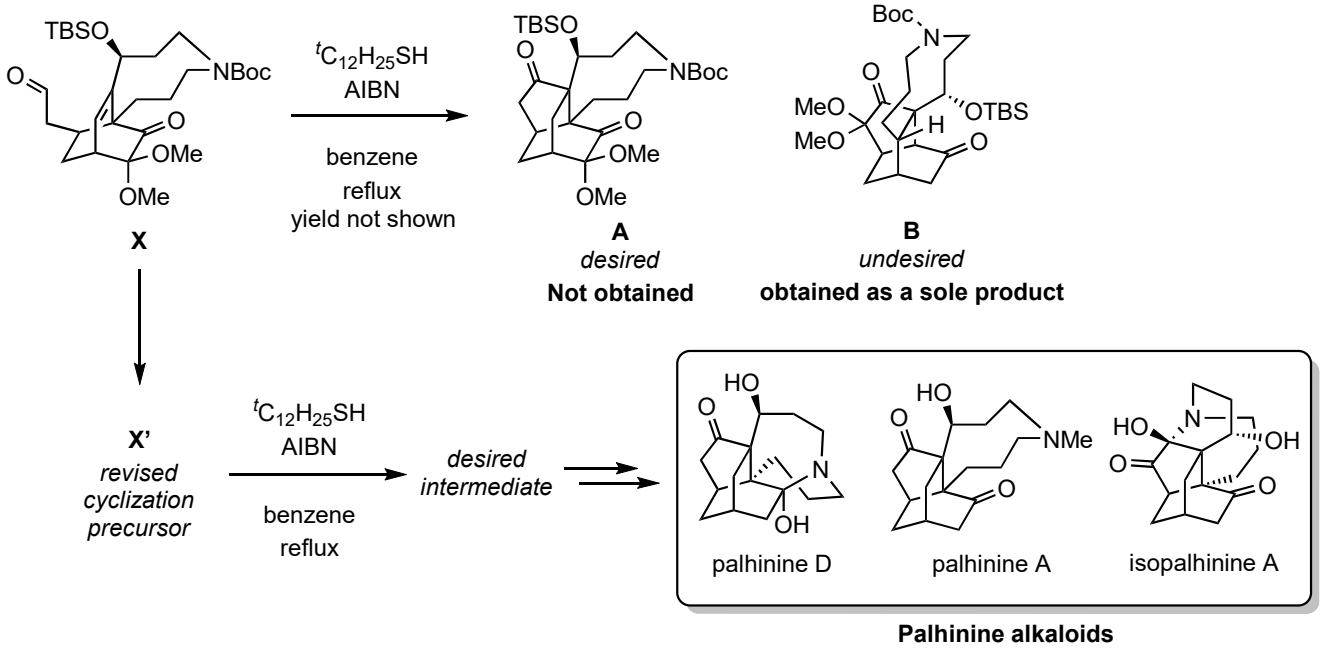
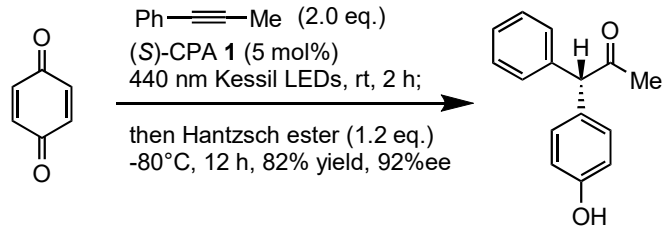
The authors conducted a reaction to obtain **A** from **X** for total synteses of palhinine alkaloids.
However, desired cyclization did not proceed and undesired **B** was unexpectedly obtained as a sole product.

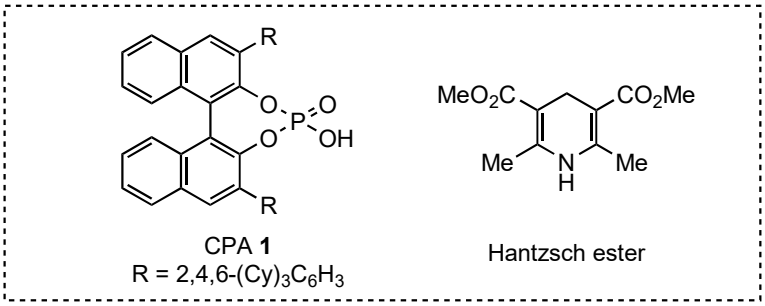
Q1: Explain a (ideal) mechanisms to give **A** and **B** from **X**, respectively
Q2: To avoid the formation of **B**, the authors revised the precursur **X** to **X'** and they accomplished the desired reaction and total syntheses. Propose a plausible structure of **X'**.



H.-P. Hsieh *et al.*
Angew. Chem. Int. Ed. **2018,** *57,* 15572.
Org. Lett. ASAPs, 10.1021/acs.orglett.3c02374

Propose a reaction mechanism, and show the transition state that determines stereoselectivity.





Zhou, X.; Huang, Q.; Guo, J.; Dai, L.; Lu, Y.
Angew. Chem. Int. Ed. **2023**, *62*, e202310078.
https://doi.org/10.1002/anie.202310078.