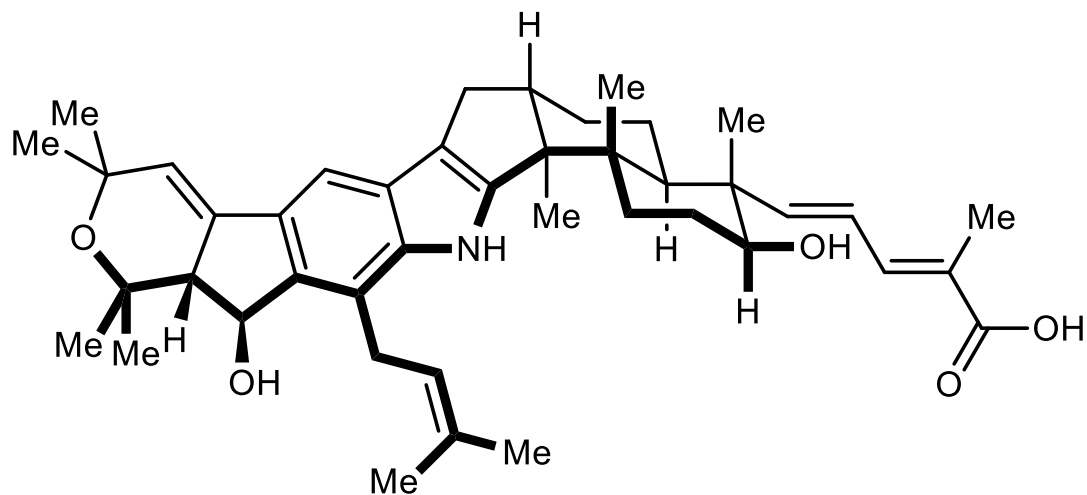


Twelve-Step Asymmetric Synthesis of (–)-Nodulisporic Acid C

Nicole A. Godfrey,[‡] Devon J. Schatz,[‡] and Sergey V. Pronin*^{ID}

Department of Chemistry, University of California, Irvine, Irvine, California 92697-2025, United States

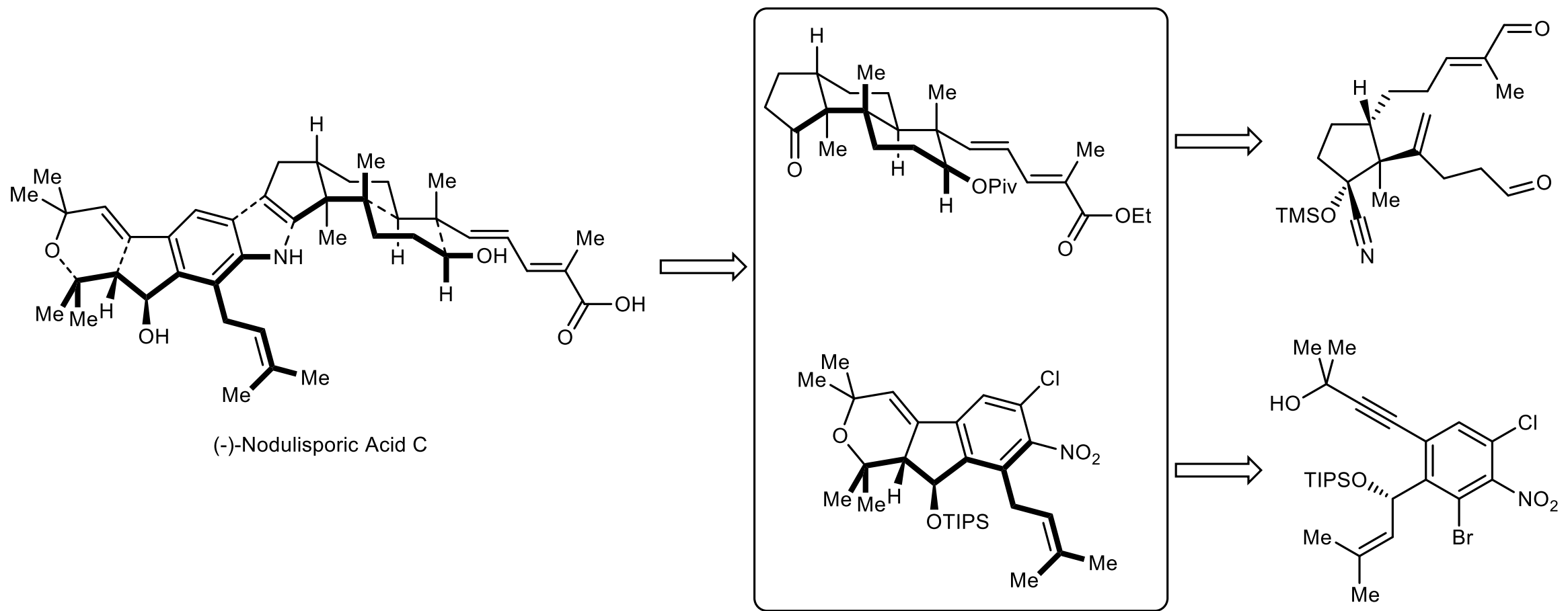


(–)-Nodulisporic Acid C

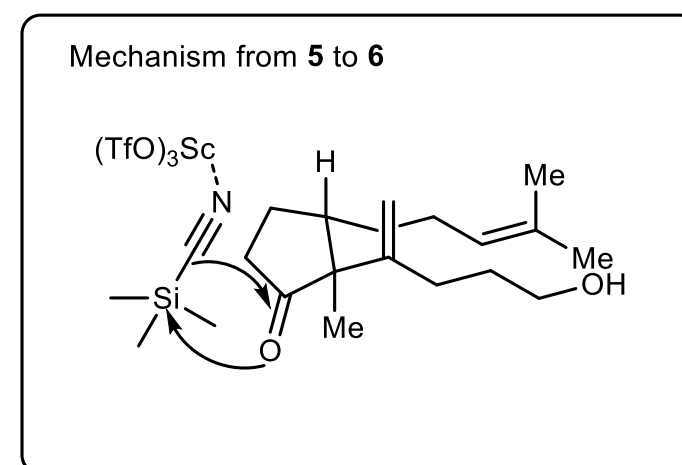
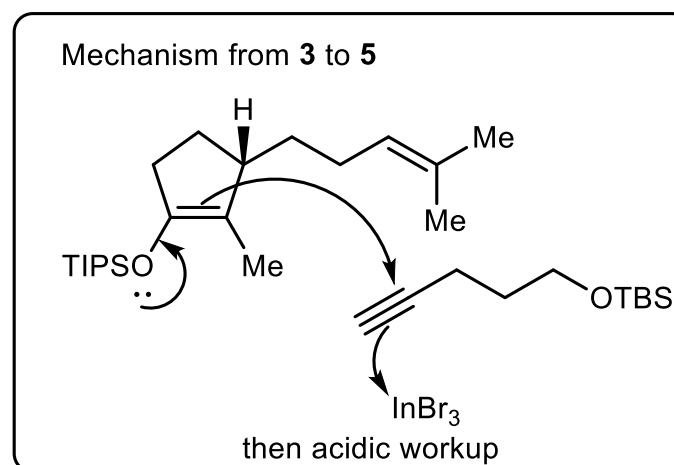
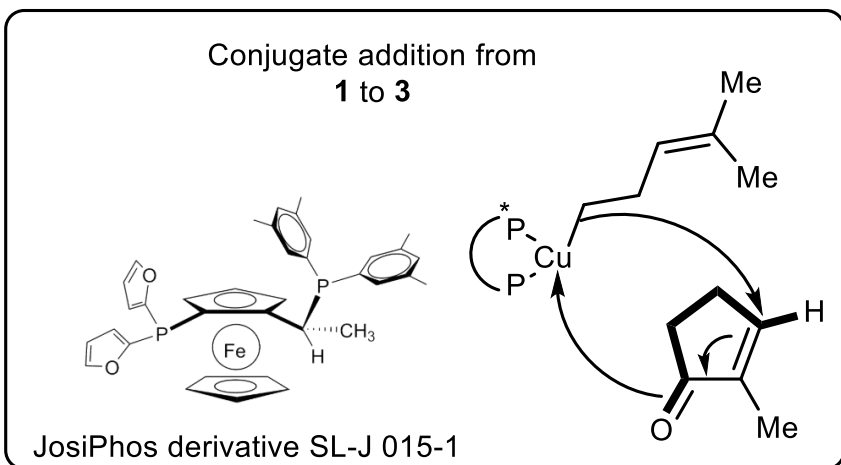
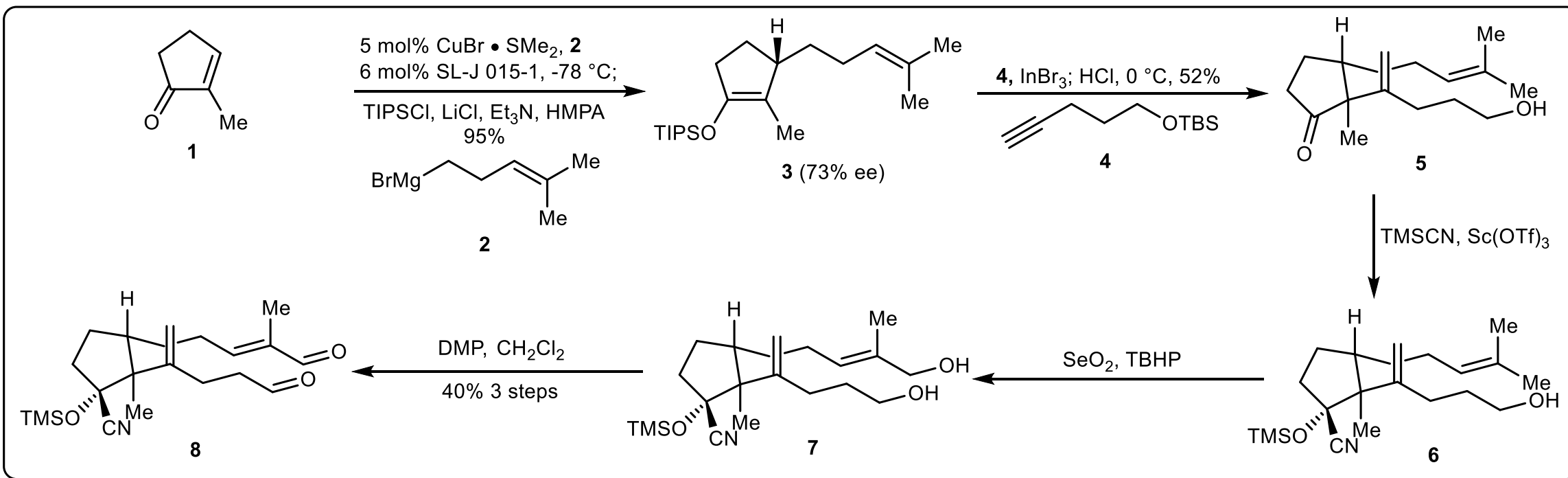
- isolated from the endophytic fungus *Hypoxylon pulicicidum*
- potent insecticidal activities
- biological effects arise from the specific activation of a subset of ligand-gated chloride ion channels

Liu Research Group
 Total Synthesis Presentation
 Ziyong Wang
 11/1/2018

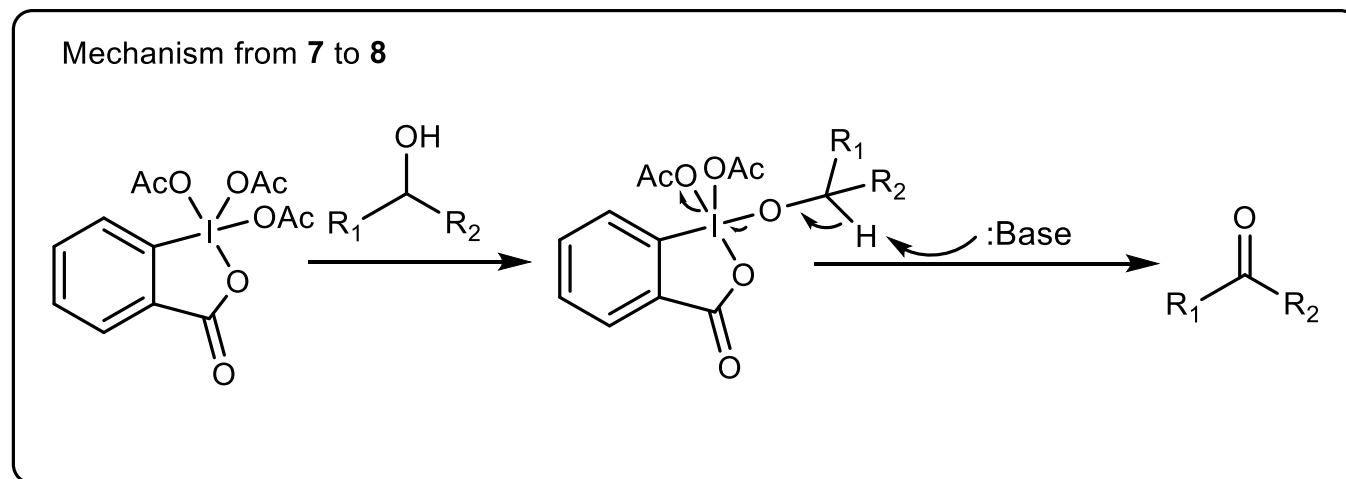
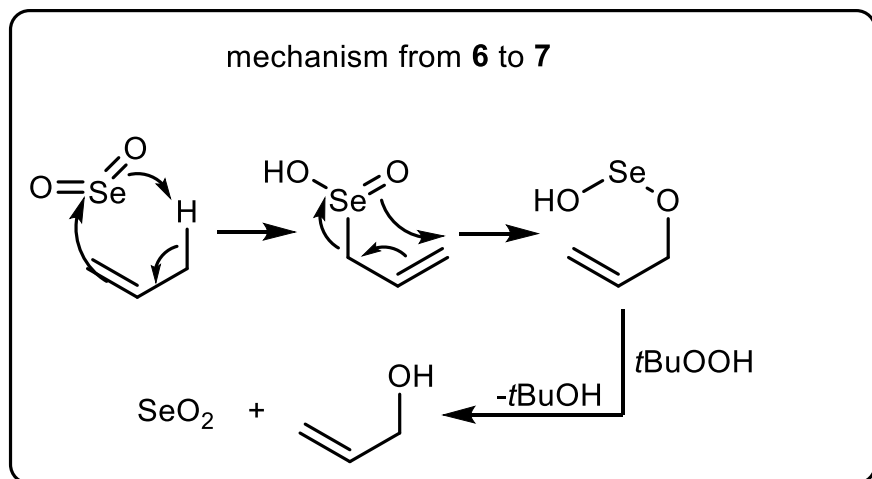
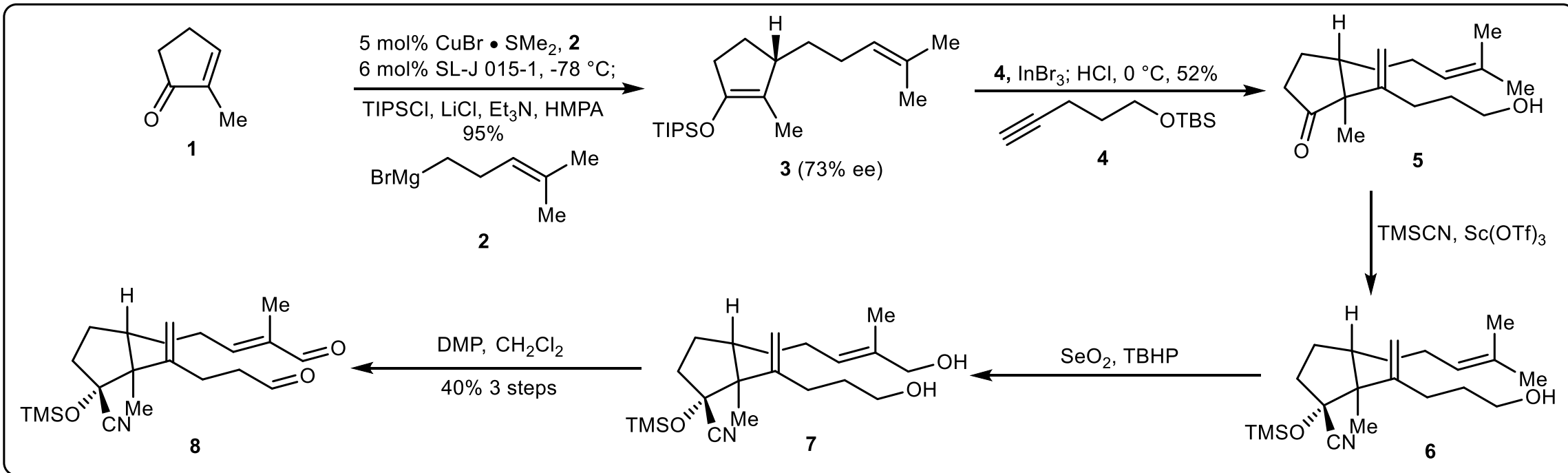
Retrosynthetic Analysis:



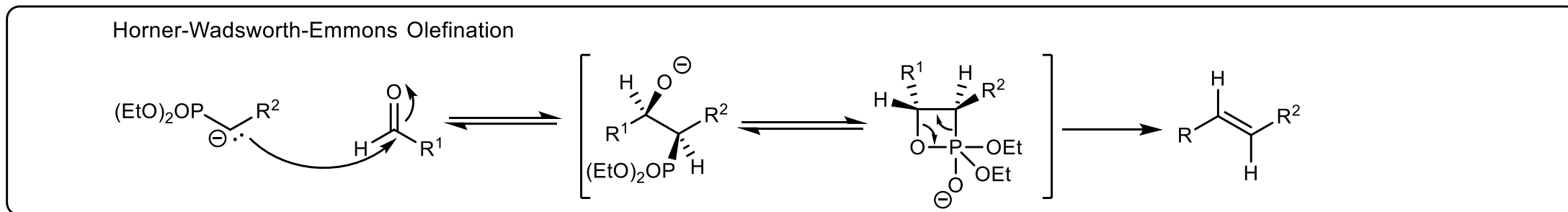
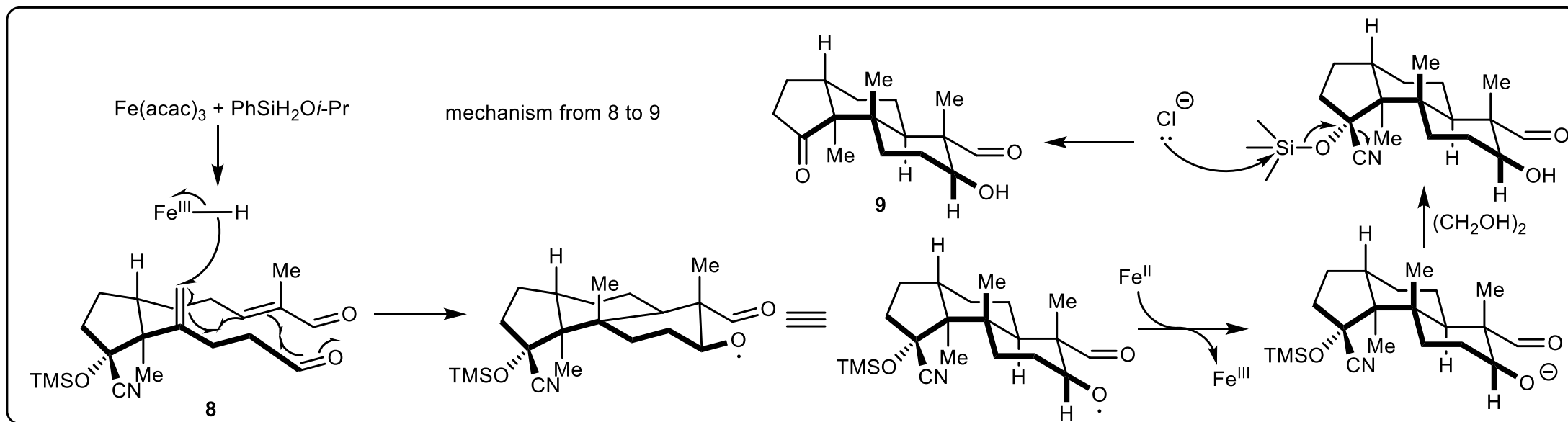
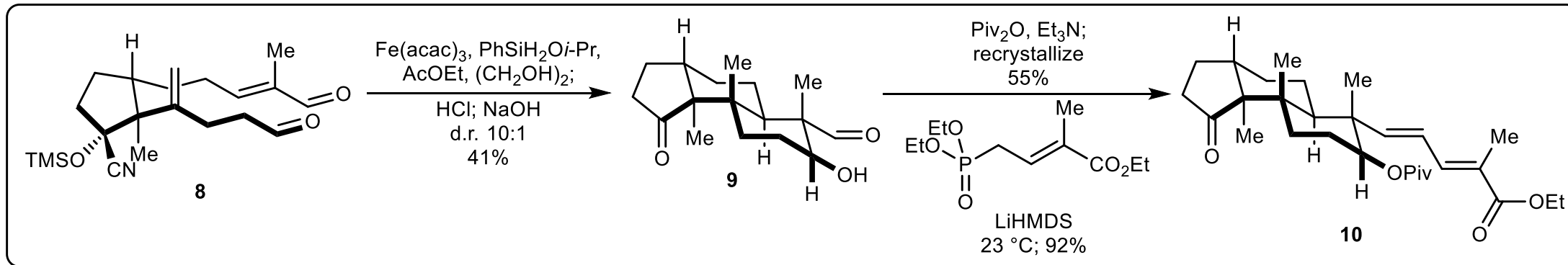
Synthesis of Terpenoid Fragment



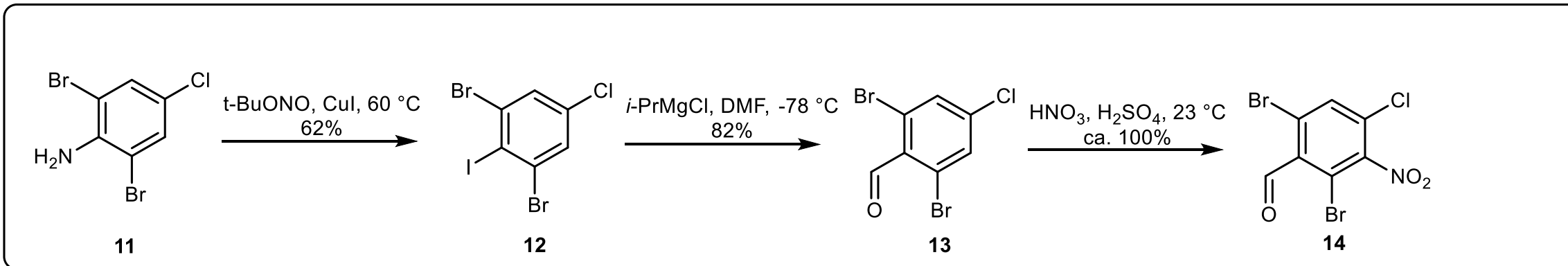
Synthesis of Terpenoid Fragment



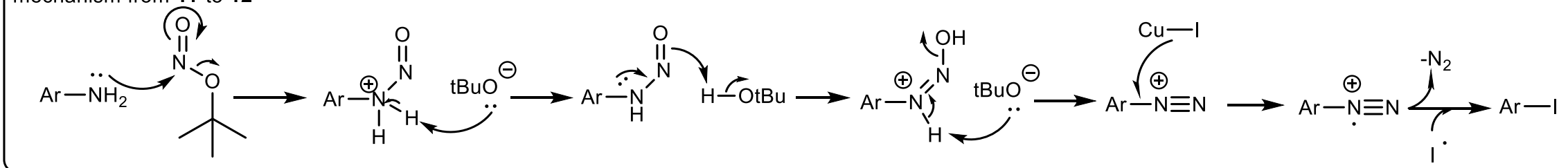
Synthesis of Terpenoid Fragment



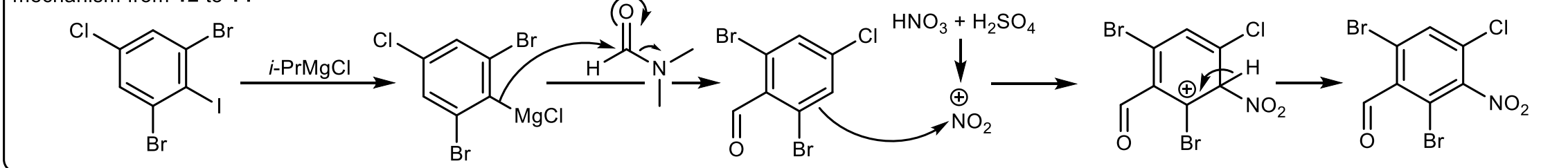
Synthesis of Indenopyran Fragment



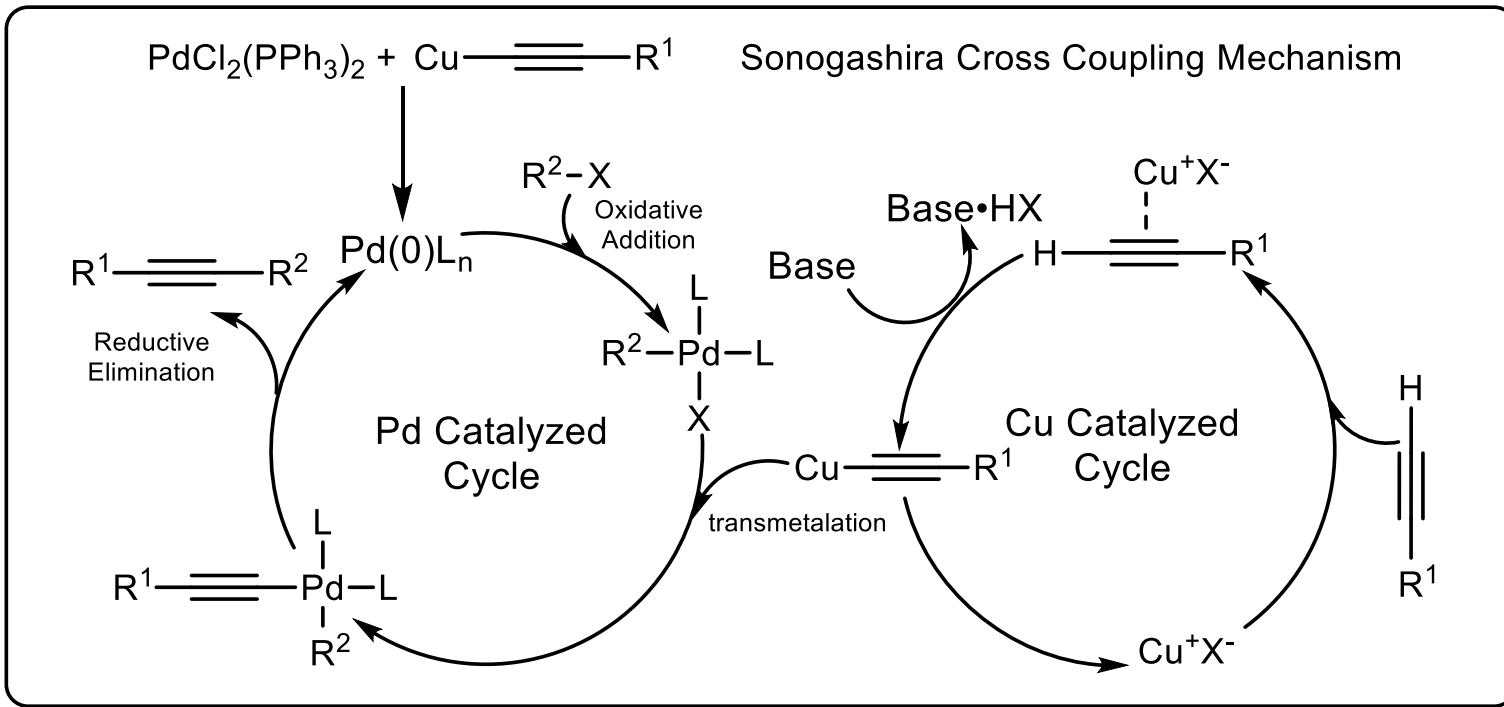
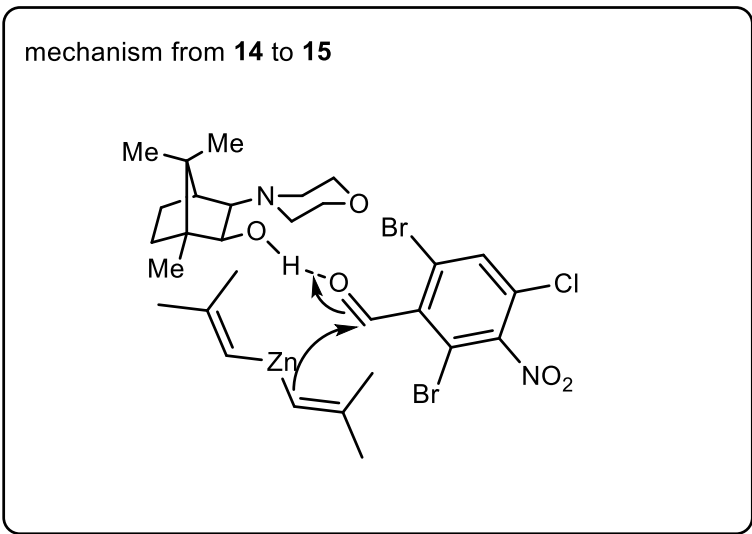
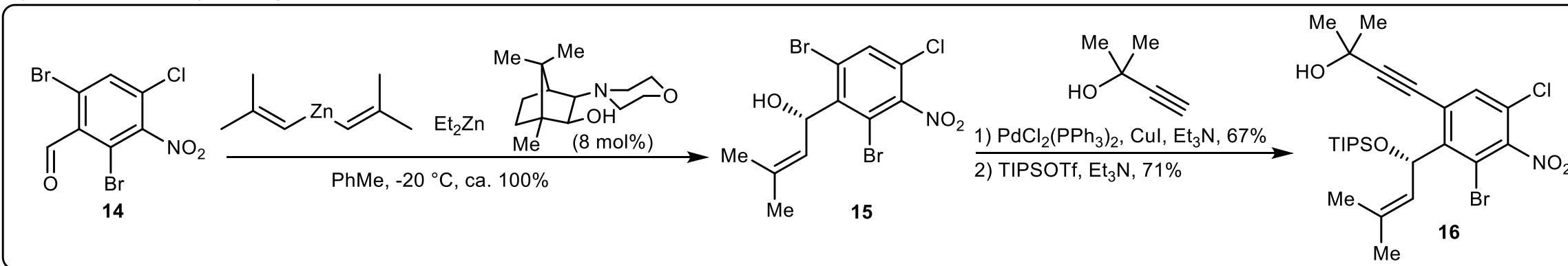
mechanism from **11** to **12**



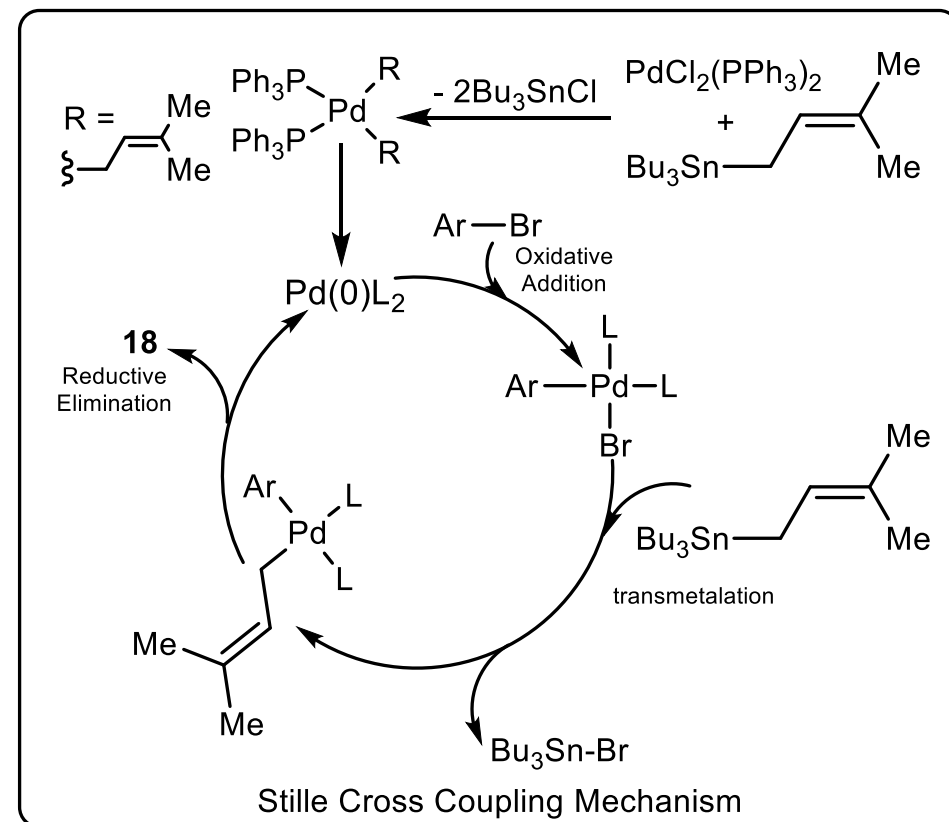
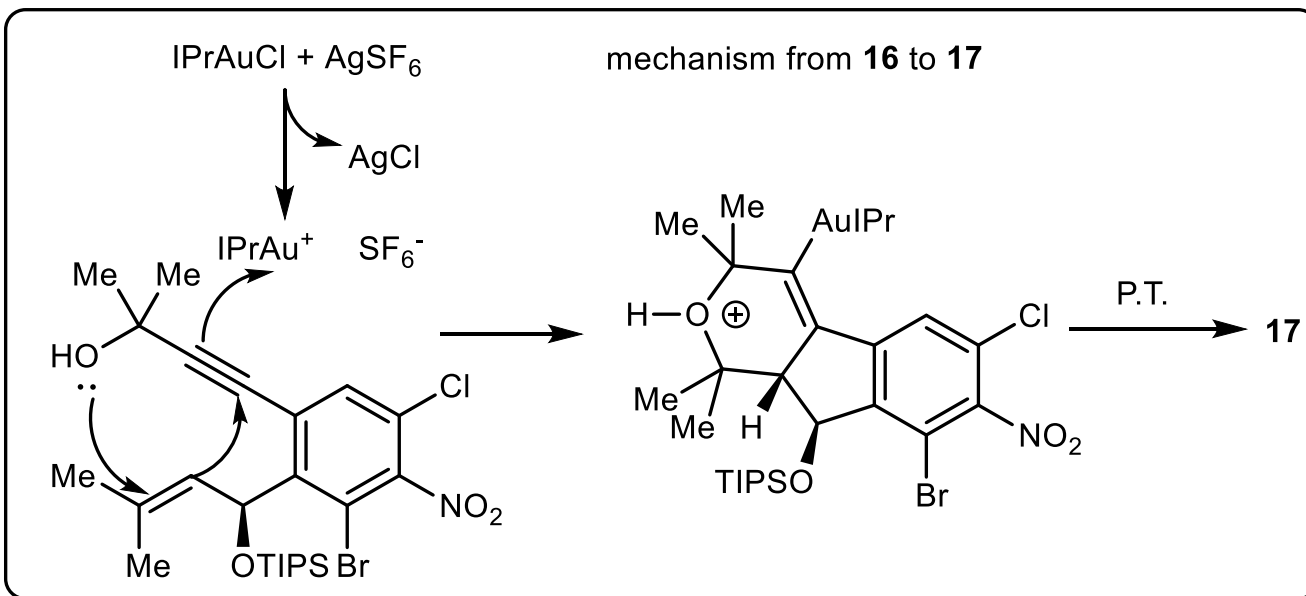
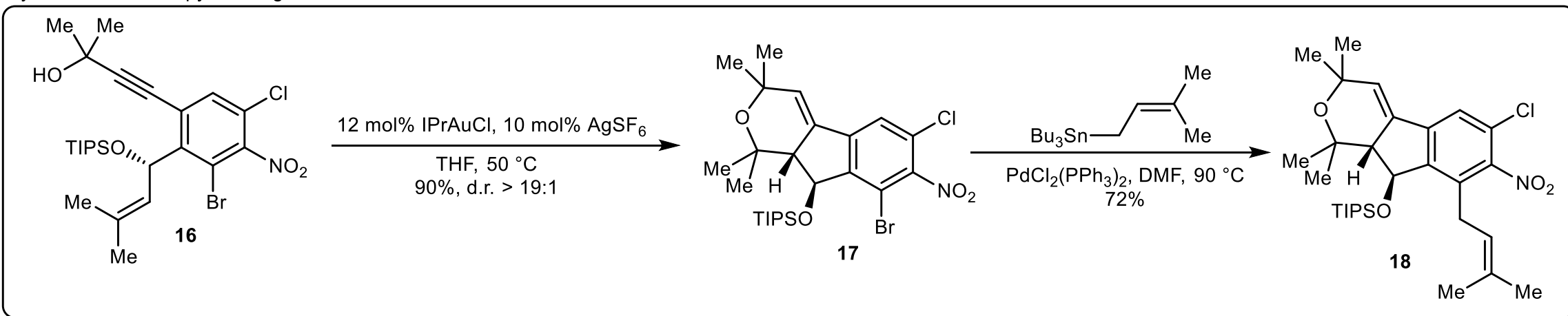
mechanism from **12** to **14**



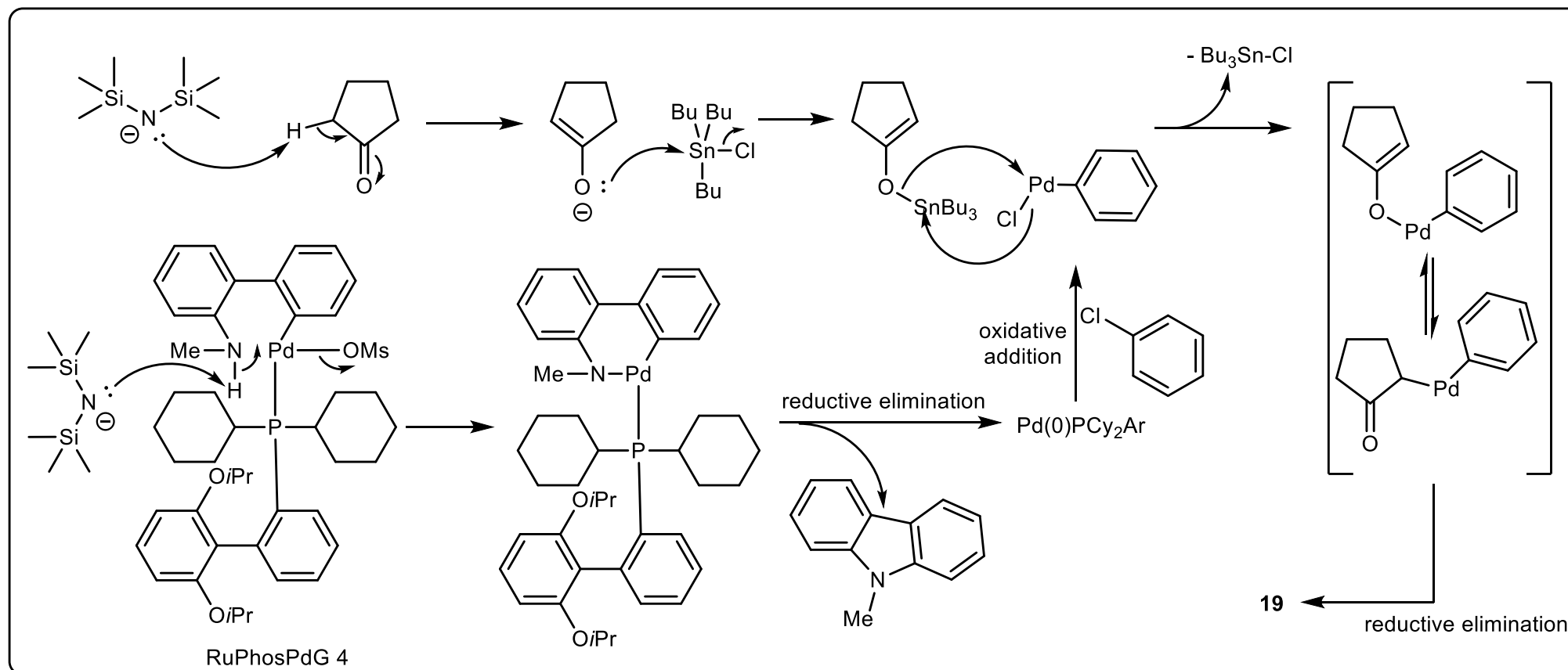
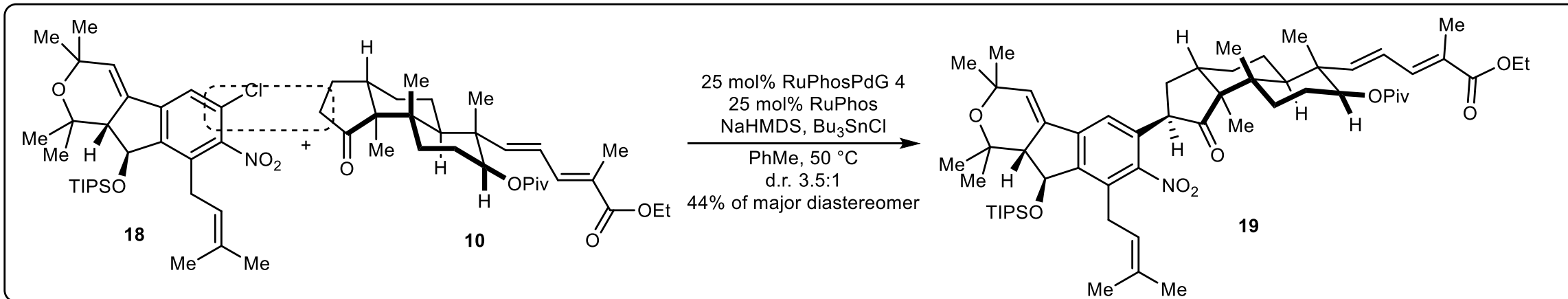
Synthesis of Indenopyran Fragment



Synthesis of Indenopyran Fragment



Synthesis of (-)-Nodulisporic acid C



Synthesis of (-)-Nodulisporic acid C

