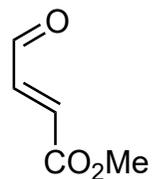
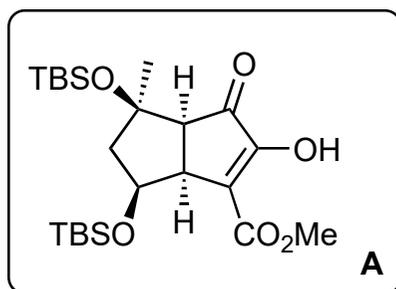


## Short, Enantioselective Total Synthesis of (+)-Ineleganolide

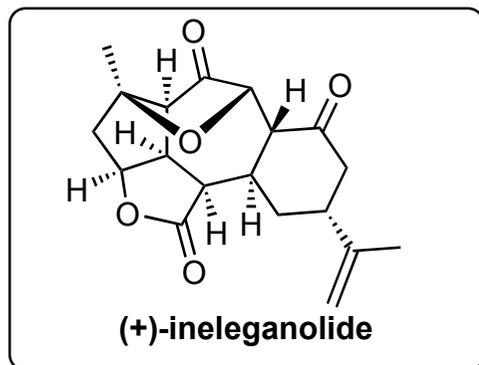
K. Yu, A. Gorou, D. Huang and T. J. Maimone  
*J. Am. Chem. Soc.* **2025**, *147*, 44727–44732.



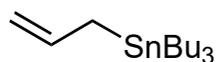
1-5



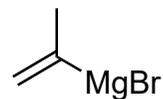
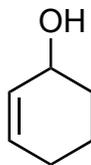
6-10



- 1) (S)-BINOL, Ti(OiPr)<sub>4</sub>, **1**
- 2) Pd[(-)-sparteine]Cl<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>O
- 3) LiHMDS, TBSCl then **2**
- 4) Co<sub>2</sub>(CO)<sub>8</sub>
- 5) TBSOTf, 2,6-lutidine then HCl, HF•Py



- 6) **3**, *hν* (300 nm) then HCl
- 7) SO<sub>2</sub>Cl<sub>2</sub>, Et<sub>3</sub>N, DMAP
- 8) SmI<sub>2</sub>, MeOH
- 9) (PhSeO)<sub>2</sub>O, pyridine
- 10) **4**, CuBr•DMS



1) Name of reaction?

*Keck Asymmetric Allylation*

2) Name of reaction?

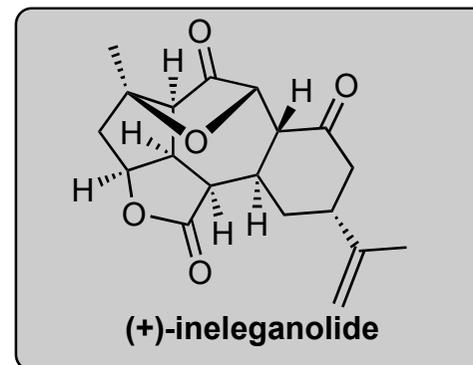
*Wacker Oxidation*

4) Name of reaction?

*Pausen-Khand [2+2+1] cycloaddition*

6) Show mechanism. *Hint: ~4 transformations and complete scaffold construction.*

*(see later)*



**Mechanism:**

