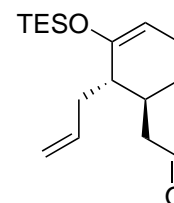


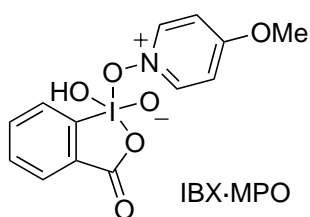
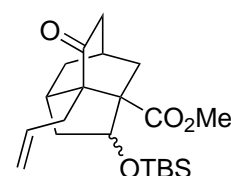
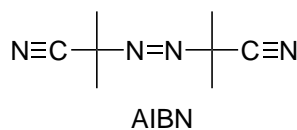
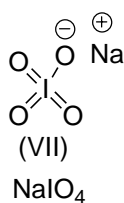
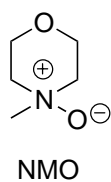
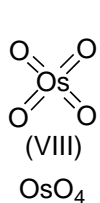
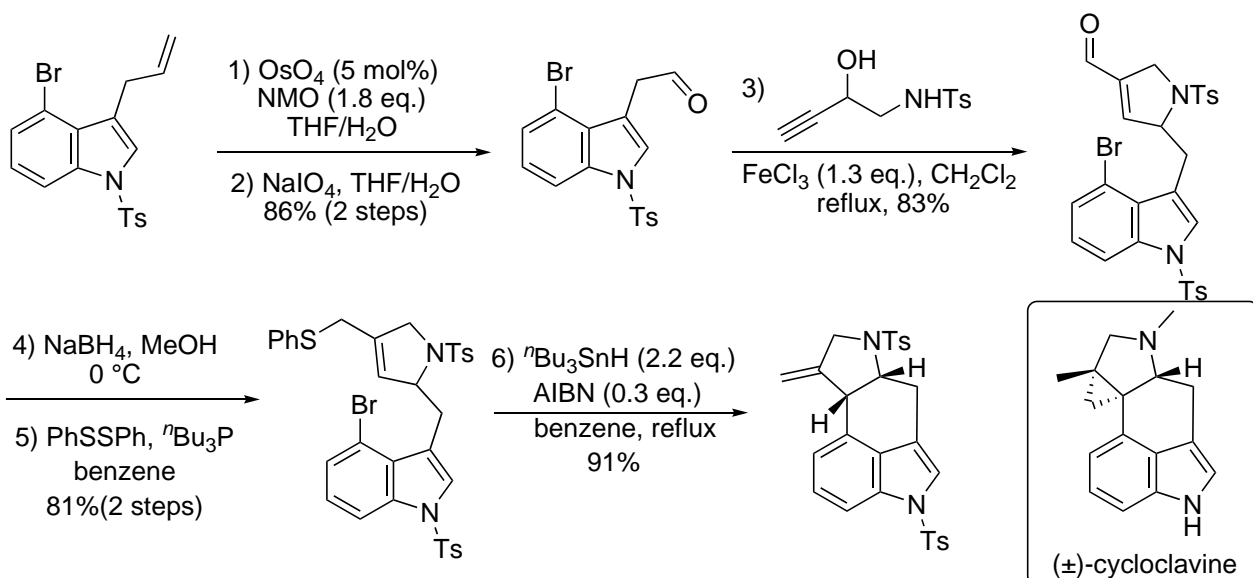
Propose conditions and intermediates.

(In the literature, 5 steps; racemic synthesis)



1. methyl acrylate, MeOH (cat.), quinuclidine (cat.), 77%
2. TBSOTf, Et₃N, CH₂Cl₂, -78 to 0 °C, 93%
3. HF-pyr, Et₃N, THF, 0 °C to rt, 82%

4. TMSOTf, Et₃N, CH₂Cl₂, 0 °C
5. IBX·MPO, DMSO, rt, 51% over 2 steps
6. TMSCl, Et₃N, DMF, 90 °C, 79%

Sizemore, N.; Rychnovsky, S. D. *Org. Lett.* **2014**, *16*, 688.X.-P. Cao et al. *J. Org. Chem.* **2014**, *79*, 122.