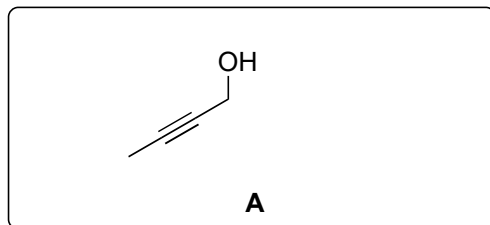


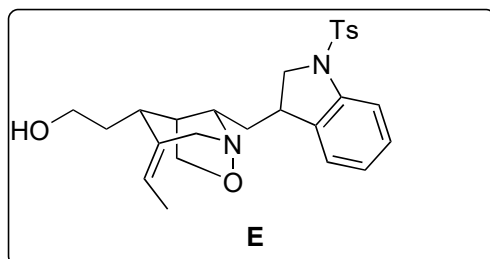
Total Synthesis of Isodihydrokoumine

Jeff K. Kerkovius and Michael A. Kerr

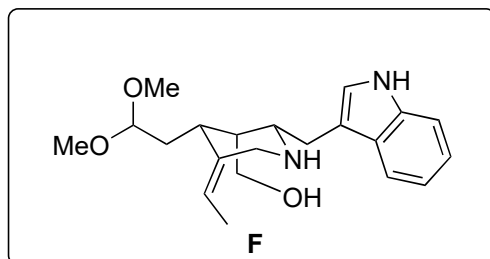
J. Am. Chem. Soc. **2018**, *140*, 8415



1-6



7-9



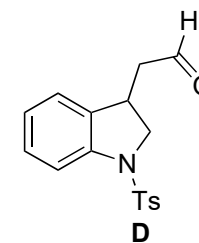
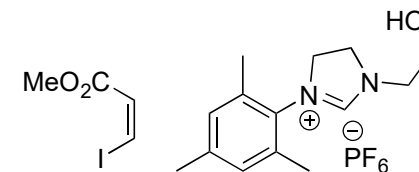
- 1) *n*-Bu₃SnH, Pd(PPh₃)₄, then **B**
- 2) vinylmagnesiumbromide, Cu(OTf)₂, **C**, DMPU, TMSCl
- 3) LAH
- 4) PPh₃, DIAD, Boc-NH-OBoc
- 5) THF, then NEt₃, Na₂SO₄, **D**
- 6) PhMe, reflux

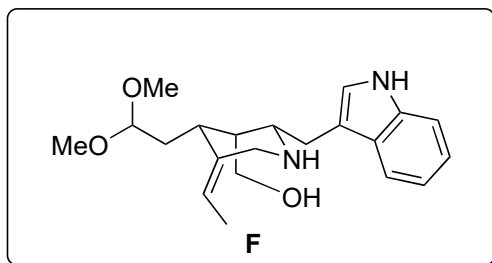
- 7) Mg, MeOH
- 8) (COCl)₂, DMSO, DCM, then NEt₃, then (MeO)₃CH, PPTS, MeOH
- 9) Sml₂

- 1) Name? Stille coupling

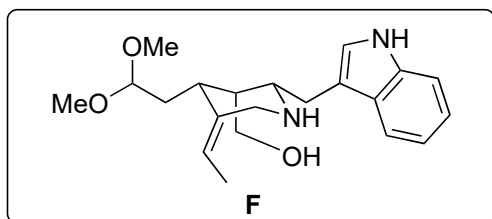
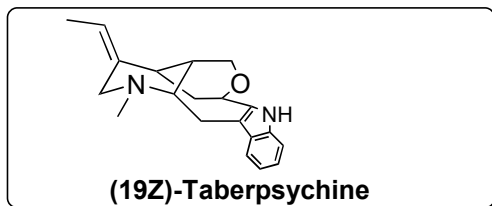
- 4) Name? Mitsunobu
- 5) Which functional group is formed? Nitrone
- 6) Name? Huisgen Cycloaddition

- 8) Name? Swern

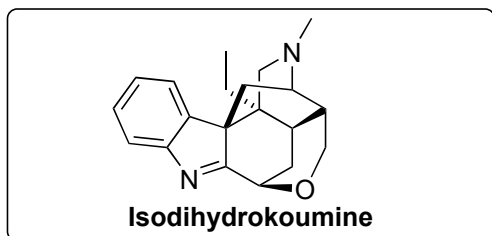




10–11



12–13



10) $\text{BF}_3 \cdot \text{OEt}_2$, MeCN
11) CH_2O , NaBH_3CN

10) Mechanism?

10') NaI, TMSCl
11') CH_2O , NaBH_3CN

10') Mechanism?