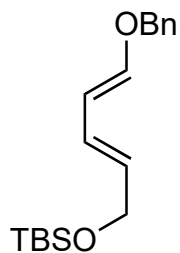
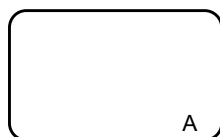


**A divergent approach to the synthesis of the yohimbinoid
alkaloids venenatine and alstovenine**

Terry P. Lebold, Jessica L. Wood, Josh Deitch, Michael W. Lodewyk,
Dean J. Tantillo & Richmond Sarpong
Nature Chem **2013**, 126–131



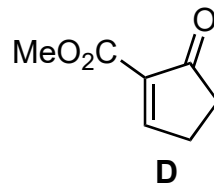
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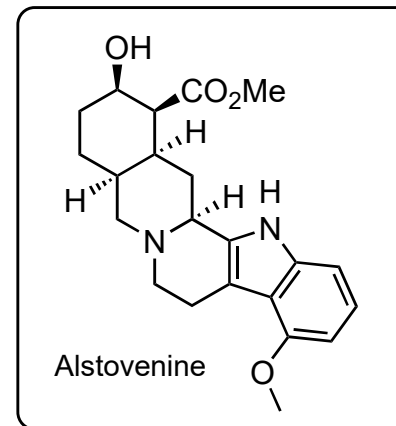
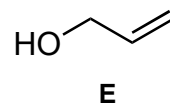
5-8



1. **D**, Toluene 100 °C
2. Pd/C, H₂
3. 1% HCl, MeOH
4. BsCl, Pyridine, DMAP



5. TBSOTf, Et₃N
6. Oxone, NaHCO₃
7. 1% HCl/MeOH
8. **E**, Pb(OAc)₄



6. Name of the reaction?

10. Hint: Cyclization
Name of the reaction?

9-12
↓

Alstovenine

- 9. KCN, **F**, MeCN
- 10. 160 °C, MeCN
- 11. Pd₂dba₃, pyrrolidine
- 12. BBr₃, -78 °C

