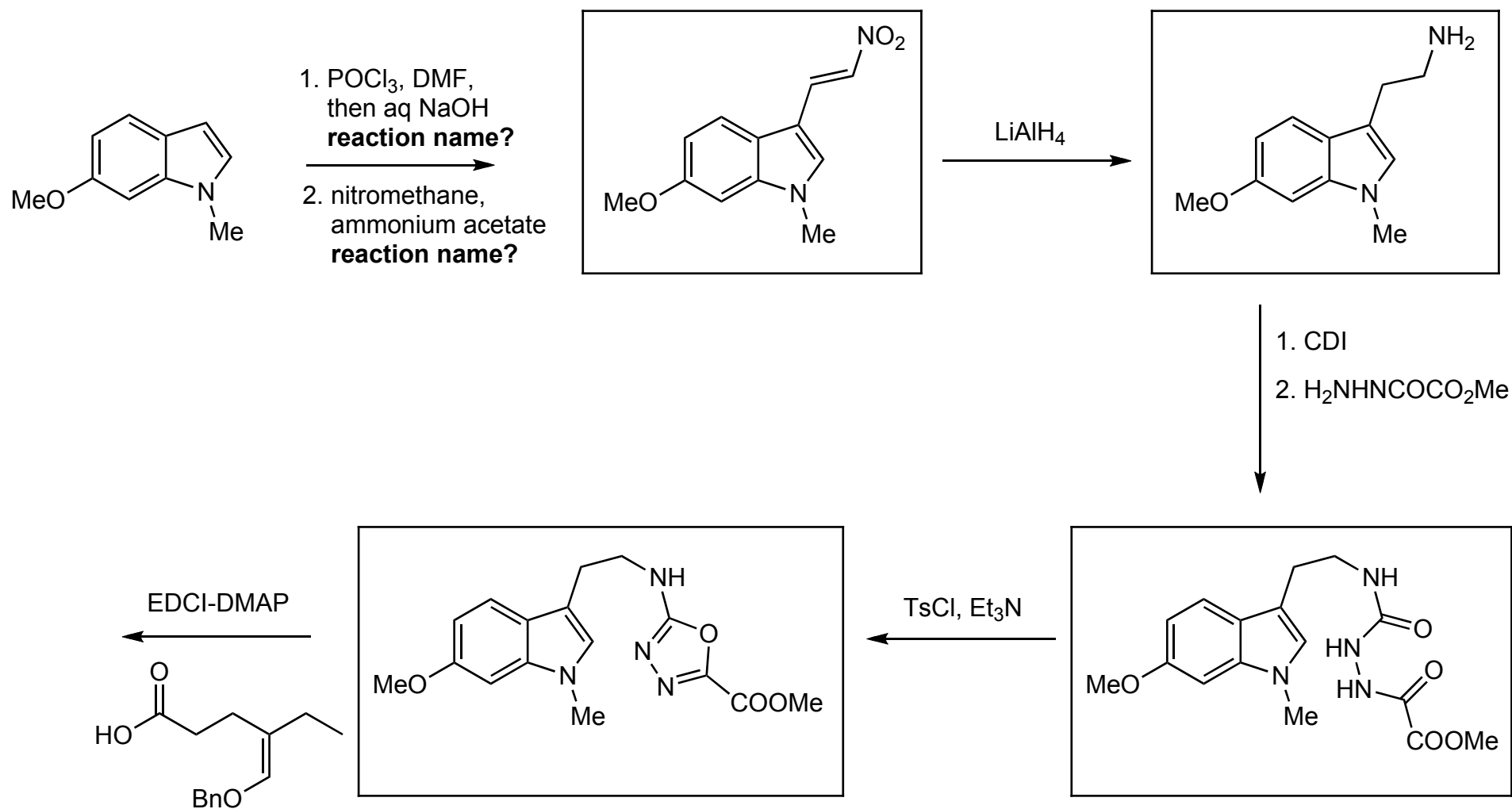


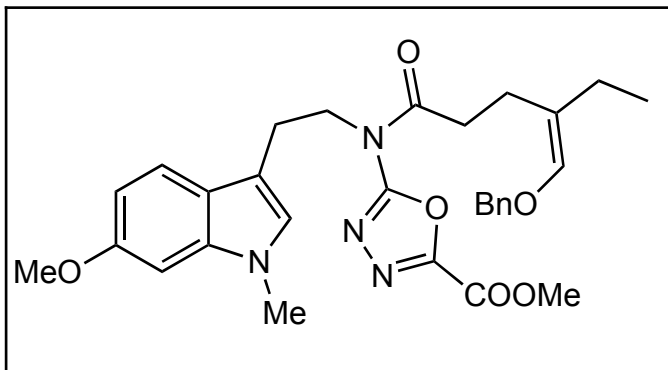
Total Synthesis of Vindoline

D. L. Boger et al., *Org. Lett.* **2005**, 7, 4539-4542

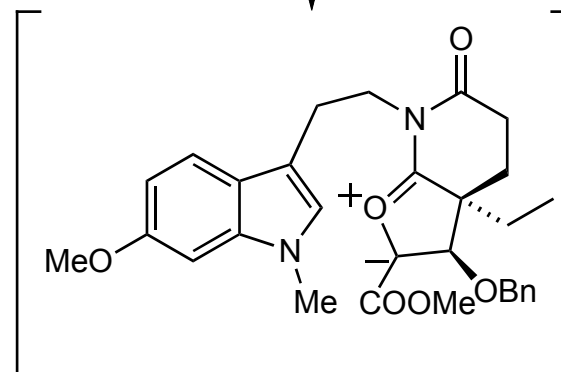
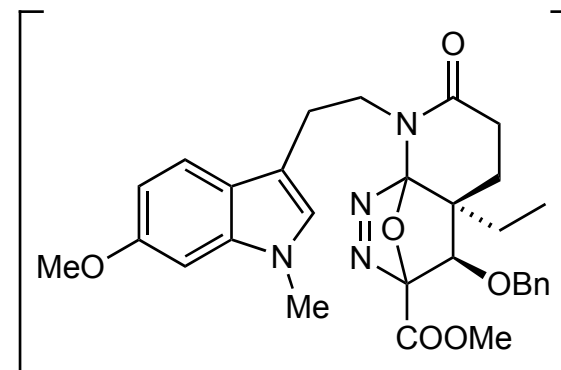
D. L. Boger et al., *JACS* **2006**, 128, 10596-10612



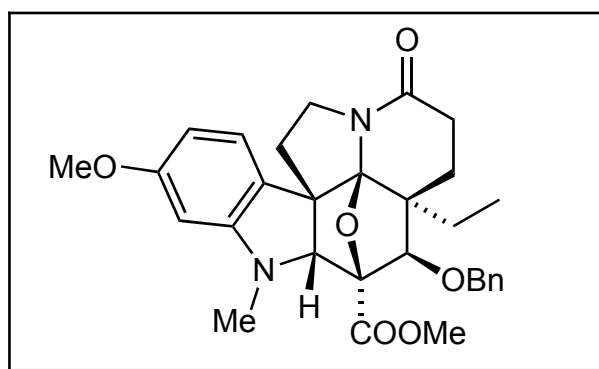
CDI = carbonyl diimidazole



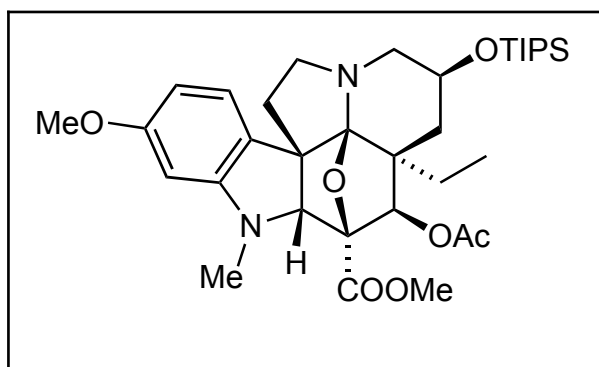
triisopropylbenzene
 $\xrightarrow{230\text{ }^\circ\text{C}}$



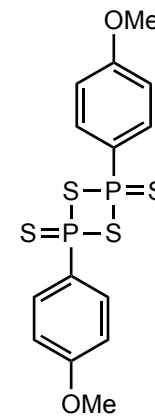
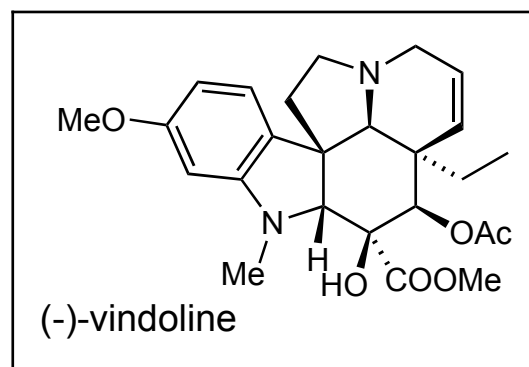
name this type of a reactive intermediate



1. LDA, TMSO-OTMS; then TIPSOTf
2. Lawesson's reagent
3. Ra-Ni
4. Ac₂O, NaOAc



1. H₂, Pt, MeOH-AcOH
2. TBAF
3. PPh₃, DEAD



Lawesson's reagent