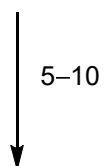
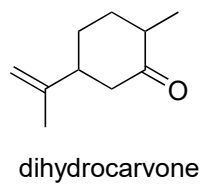
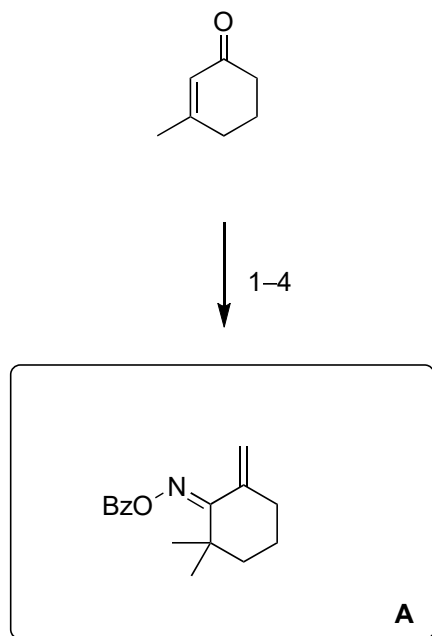


Total Synthesis of (-)-Xylogranatopyridine B via Palladium-Catalyzed Oxidative Stannylation of Enones

A.W. Schuppe, D. Huang, Y. Chen, T. R. Newhouse

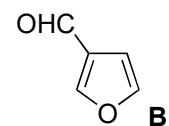
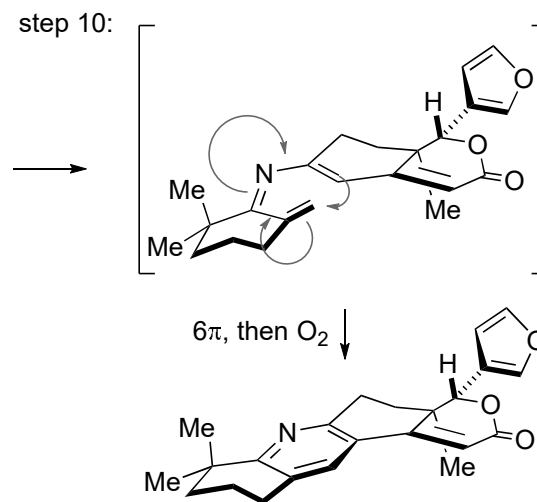
JACS 2018, 140, 2062–2066



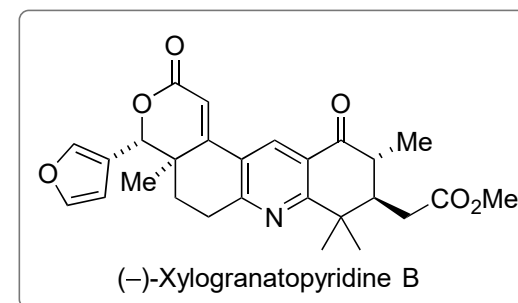
- 1) MeMgBr, CuI, TMSCl
- 2) AgNO₂, TIPSCI
- 3) PPh₃CH₂
- 4) Bz₂O, Et₃N

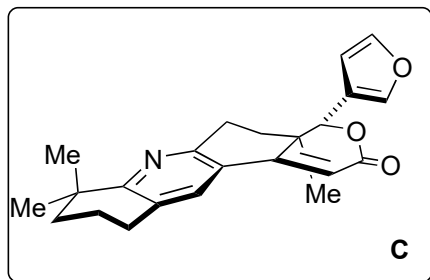
- 5) O₃, then Cu(BF₄)₂, Fe(BF₄)₂
- 6) Bu₃SnLi, [Pd(allyl)Cl]₂, diethyl allyl phosphate
- 7) LDA, then **B**
- 8) Ac₂O, DMAP, py
- 9) LiTMP, then Burgess reagent
- 10) **A**, Cu(OAc)₂, quinuclidine then O₂, 100 °C

reactive species of step 2? TIPS-NO₂
JACS 2011, 133, 13880–13882

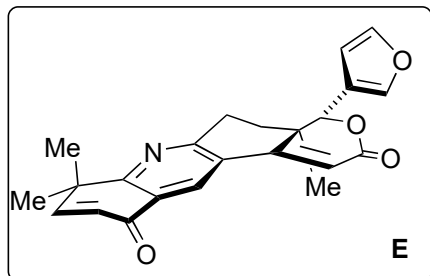


Mechanism of step 10?

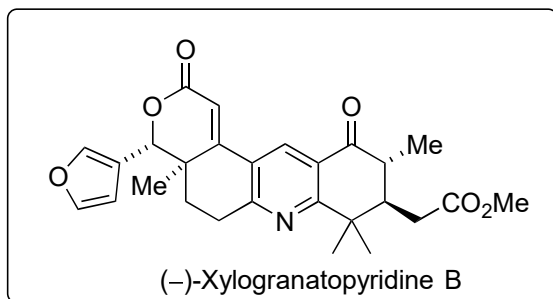




11-12

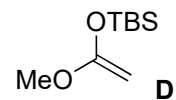


13-15



- 11) $\text{Na}[\text{OCr}(\text{O}_2\text{COC}(\text{CH}_3)\text{C}_2\text{H}_5)_2]$,
15-C-5
12) $\text{Zn}(\text{TMP})_2$, $[\text{Pd}(\text{allyl})\text{Cl}]_2$,
diethyl allyl phosphate

- 13) TBSOTf, **D**
14) Et_2Zn , CH_2I_2 , then TBAT
15) $[\text{PtCl}_2(\text{C}_2\text{H}_4)]_2$



name reaction in step 14?
Simmons-Smith cyclopropanation

