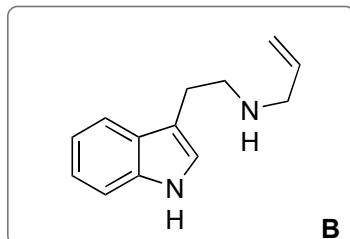
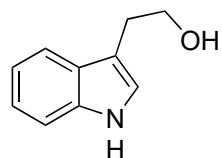
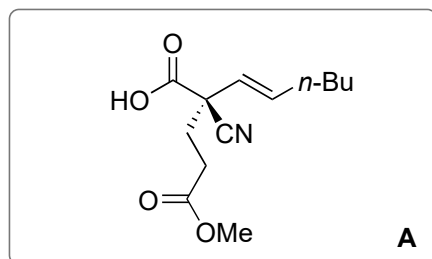
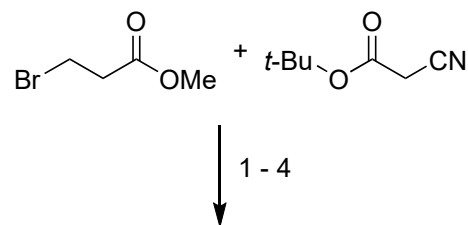
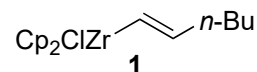
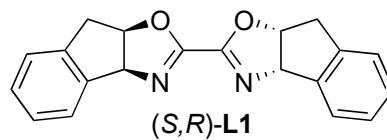


Enantioselective Total Syntheses of Vallesamidine and Schizozygane Alkaloids

G. V. Ramakrishna, Z. Latif and F. Romiti *J. Am. Chem. Soc.* **2025**, *147*, 4613-4623.

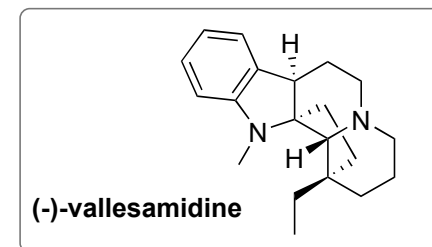


- 1) TBAB, K_2CO_3
- 2) TMSOTf, Et_3N , then NCS
- 3) (S,R)-L1, $NiCl_2 \cdot glyme$, ZnF_2 , **1**
- 4) TFA/DCM (1:2)



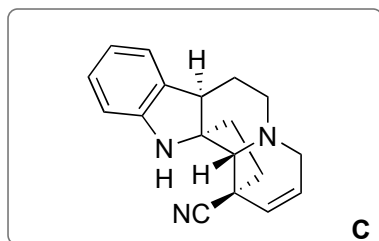
- 5) NBS, PPh_3
- 6) K_2CO_3 , allylamine

5) Name of the reaction: *Appel reaction*

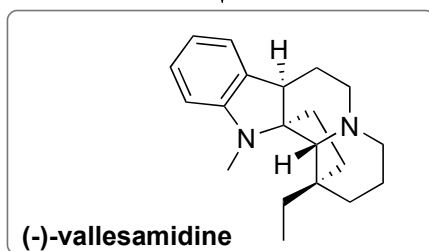


A + B

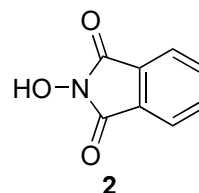
7 - 12



13 - 16

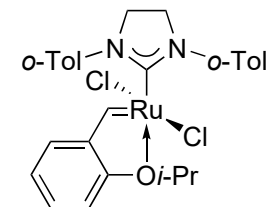


- 7) I_2 , PPh_3 , $i\text{-Pr}_2\text{NEt}$
- 8) Stewart - Grubbs complex, DCE
- 9) 2-fluoropyridine, Tf_2O , then $NaBH_4$, MeOH
- 10) TMSOK
- 11) **2**, DIC, DMAP
- 12) $(n\text{-Bu})_3\text{SnH}$, AIBN



- 13) Cp_2ZrHCl
- 14) $[Ph_3PCH_3]Br$, $n\text{-BuLi}$
- 15) $NaBH_3CN$, 37% aq. $HCOH$, MeCN/AcOH (10:1)
- 16) 20 mol% Pd/C, H_2

8) Structure of Stewart - Grubbs catalyst:



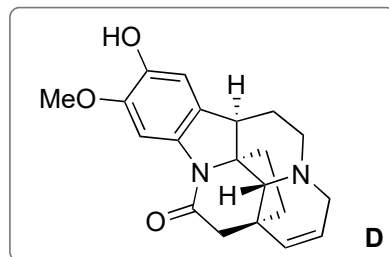
9) Name of the reaction: *Bischler -Napieralski cyclization*

12) Hint: ring formation

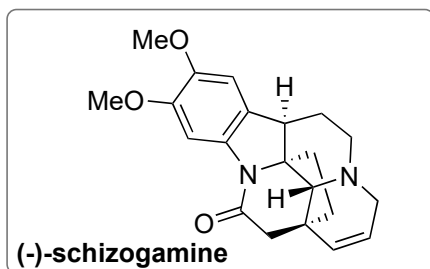
13) Name of the reagent: *Schwartz's reagent*

C

17 - 22

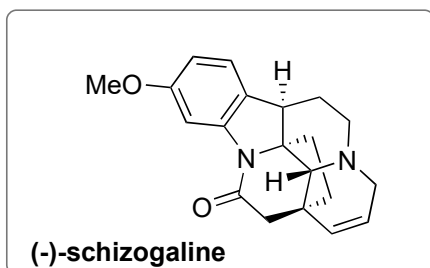


23



D

24 - 25



- 17) NBS
- 18) Cp_2ZrHCl
- 19) TosMIC, $\text{KO}^t\text{-Bu}$, then MeOH, then 6M HCl
- 20) 5 mol% $(\text{dppf})\text{PdCl}_2$, $\text{B}_2(\text{pin})_2$, KOAc, then 30% aq. H_2O_2 , 1M NaOH
- 21) NBS, TFA
- 22) NaOMe, CuI

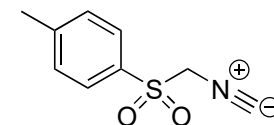
23) Me_2SO_4 , 1M NaOH

- 24) Tf_2O , pyridine
- 25) 10 mol% $\text{Pd}(\text{PPh}_3)_4$, HCOOH, Et_3N

19) Name of the reaction: *Van Leusen type reaction*

Hint: ring formation

Structure of TosMIC:



20) Name of the reaction: *Miyaura borylation*