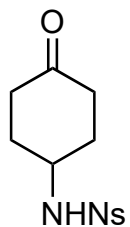


A bridged backbone strategy enables collective synthesis of strychnan alkaloids

Zhou, W., Xi, S., Chen, H. et al. *Nat. Chem.* **2023**, 15, 1074–1082.

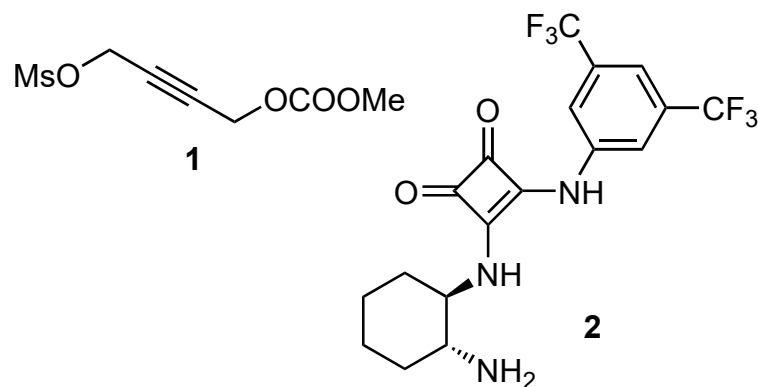


1–8

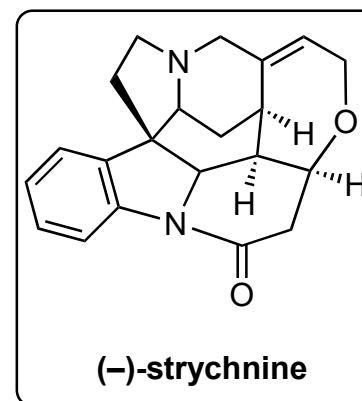


A

- 1) **1**, Cs₂CO₃
- 2) [Rh(cod)Cl]₂, **2**
- 3) NaH, CF₃CO₂CH₂CF₃
- 4) PhN₂.BF₄, NaOAc, THF/H₂O then Cl₃CCOOH, ZnCl₂, 70 °C
- 5) Boc₂O, DMAP
- 6) K₂CO₃, PhSH
- 7) BrCH₂CHO, NaBH(OAc)₃, AcOH
- 8) Sml₂, HMPA



4) Name of the reactions?

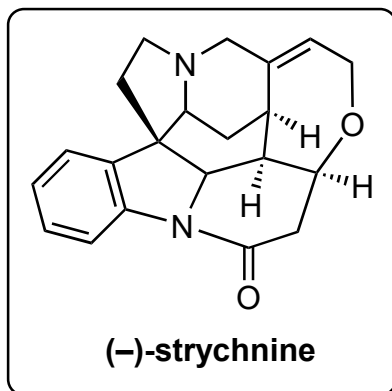


(-)-strychnine

A



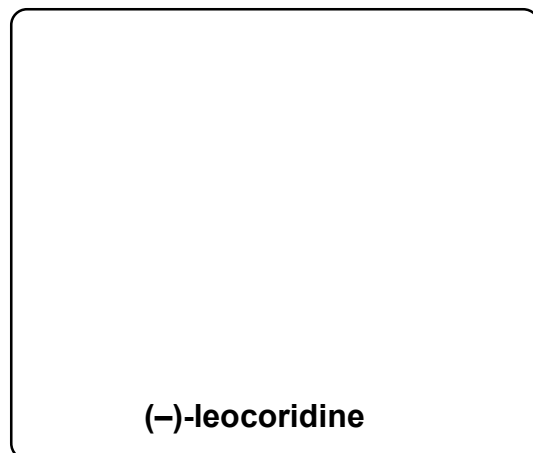
9-13



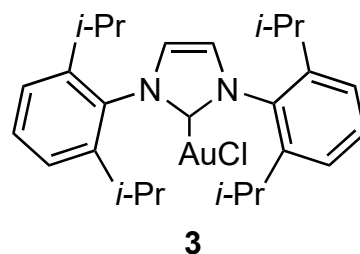
A



14-17



- 9) NaH, Me₃S(O)I, *then* BH₃.THF
10) Mn, Cp₂TiCl₂, 1,4-cyclohexadiene
11) DMSO, (COCl)₂, Et₃N
12) **3**, AgOTf
13) TFA, Ph₃PCCO



- 14) Pd/C, H₂ (10 bar)
15) Ph₃PMeBr, KHMDS
16) HCl
17) PhIO, *then* TFA

9) Name of the reaction?

12) What is the name of this product?

13) Name of the reagent?

17) Propose a structure of leocoridine