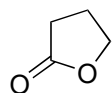


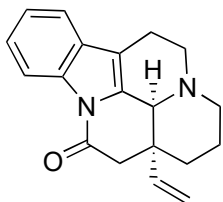
Streamlined Strategy for Scalable and Enantioselective Total Syntheses of the Eburnane Alkaloids

G. V. Ramakrishna, L. P. Pop, Z. Latif, H. K. V. Suryadevara, L. Santo and F. Romiti

J. Am. Chem. Soc. **2023**, 145, 20062-20072

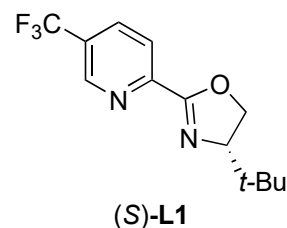
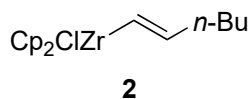
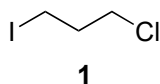


1 - 10

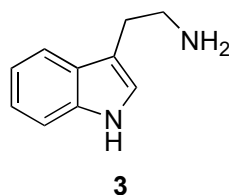


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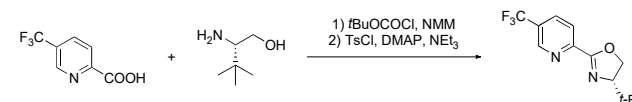
- 1) LDA, HMPA, **1**
- 2) LDA, TMSCl
- 3) NBS
- 4) (S)-**L1**, NiCl₂·glyme, **2**



- 5) HG-II, ethylene
- 6) **3**, NaI, NEt₃
- 7) Ac₂O, pyridine
- 8) 2-Cl-pyridine, Tf₂O, *then* NaBH₄, MeOH
- 9) LiAlH₄
- 10) TPAP, NMO, 4Å MS, MeCN/CH₂Cl₂ (8:1)

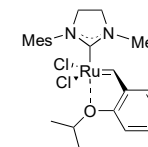


4) Propose a preparation of (S)-**L1**



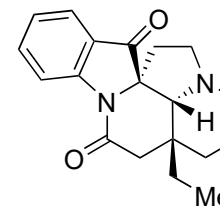
J. Am. Chem. Soc. **2010**, 132, 17471–17482

- 5) Structure of HG-II ?
- 6) Name of **3** ?
Tryptamine



- 7) *Hint*: 1 ring is formed
- 8) Name of the reaction ?
Bischler-Napierlaski

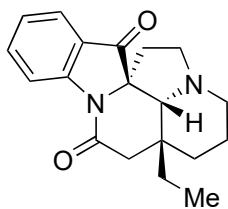
J. Org. Chem. **2015**, 80, 7403–7411



(-)-melokhanine E

ent-A

11-15



(-)-melokhanine E

- 11) KOH, EtOH, 180 °C (microwave)
- 12) TMSCHN₂
- 13) rose bengal, O₂, blue LEDs (456 nm), *then* Na₂SO₃
- 14) NaOMe, MeOH, 70 °C
- 15) H₂, Pd/C

13) *Hint*: a hydroxyl is installed