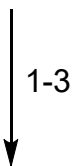
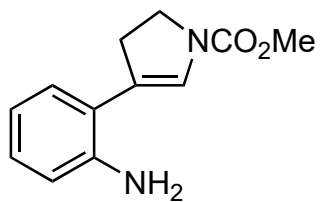


# Total Synthesis of (±)-Meloscine

Y. Hayashi, F. Inagaki, C. Mukai, Organic letters 2011, 13, 1778.  
DOI:10.1021/ol200311y



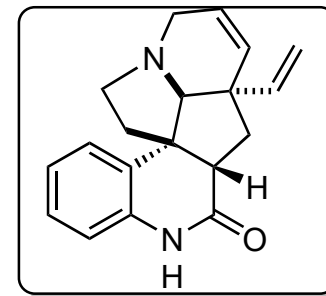
- 1) Propionic acid, EDC•HCl
- 2)  $\text{Co}_2(\text{CO})_8$  then TMANO•2H<sub>2</sub>O
- 3) Pd-C H<sub>2</sub>

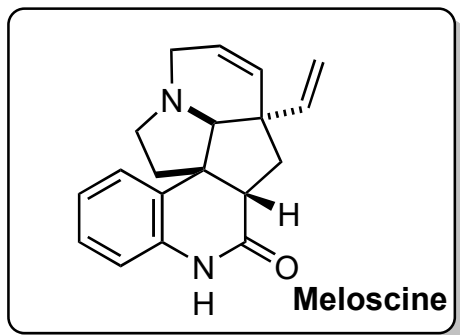


- 4) TMSCl, NaI, reflux
  - 5) allyl bromide, K<sub>2</sub>CO<sub>3</sub>
  - 6) vinylmagnesium chloride
  - 7) H<sub>2</sub>SO<sub>4</sub> conc, AcOH
  - 8) K<sub>2</sub>CO<sub>3</sub>, MeOH
  - 9) MeC(OMe)<sub>3</sub> hydroquinone, 200 °C microwave
- 4) Hint: Deprotection

3) Structure TMANO ?  
What does it do ?

9) Name of this Reaction ?  
Please draw a mechanism





- 10) LAH
- 11) TsCl, NEt<sub>3</sub>
- 12) PhSeSePh, NaBH<sub>4</sub>
- 13) NCS MeOH/CH<sub>2</sub>Cl<sub>2</sub> 13) *Hint: Oxidation*
- 14) benzene 70 °C
- 15) Hoveyda Grubbs-II

15) What is the structure of the catalyst?

