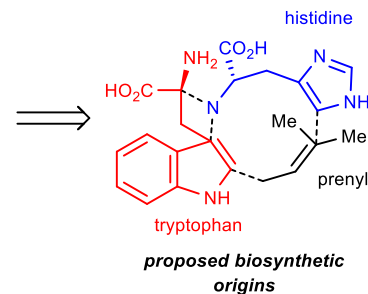
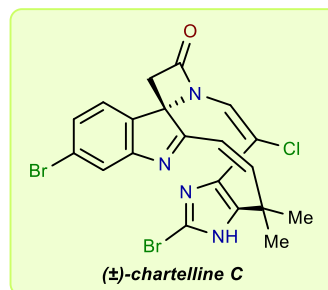


## Background

- First isolated in 1987 from a marine Bryozoan
- Baran and Shenvi published the only successful total synthesis to date
- No known biological activity, but fascinating molecular architecture
- Contains three halogens, a  $\beta$ -lactam, a 10-membered macrocycle, and  $\pi$ -stacked imidazole and indolenine heterocycles

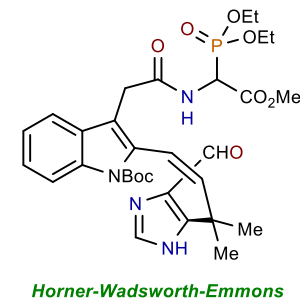
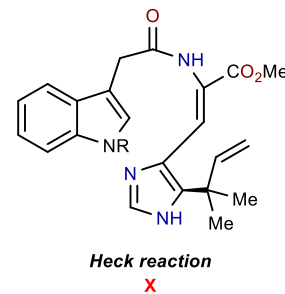
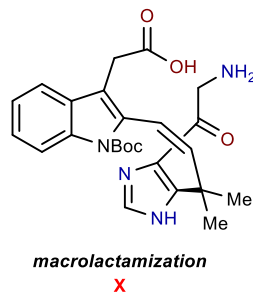
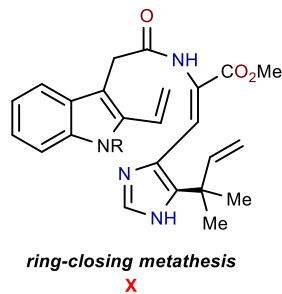


chartella papyracea

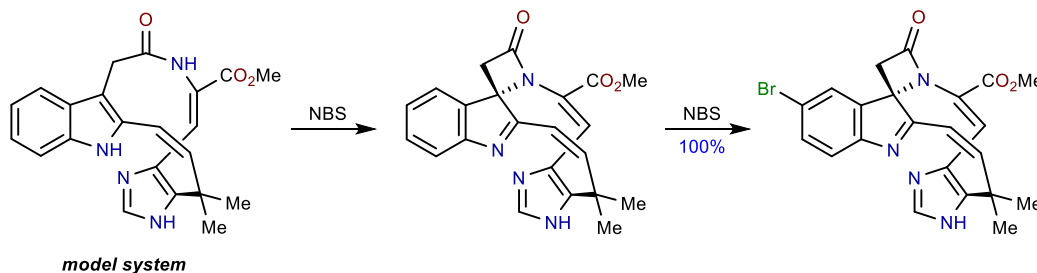
Christophersen, C. J. *Org. Chem.* **1987**, 52, 4709. <https://doi.org/10.1021/jo00230a010>

## Strategy and Obstacles

- Macrocyclizations

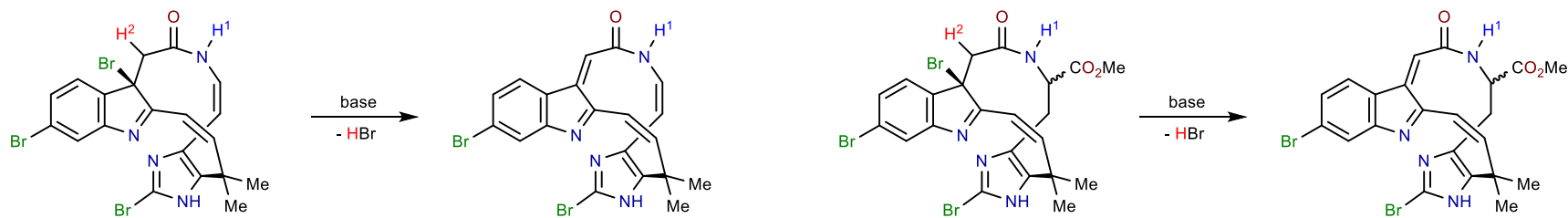


- Model System Ring Contraction

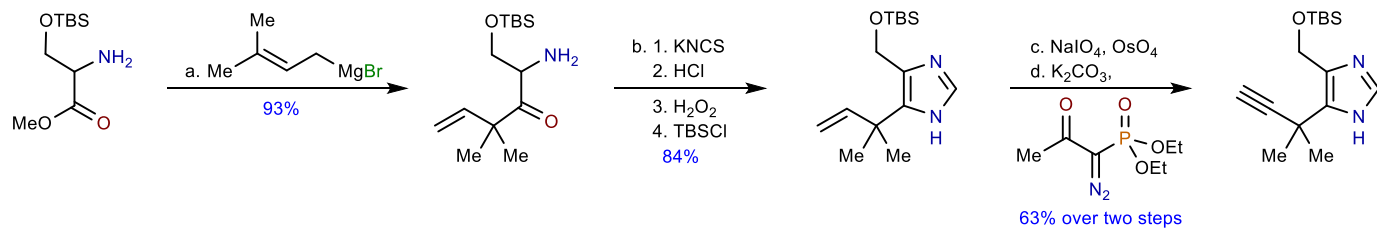
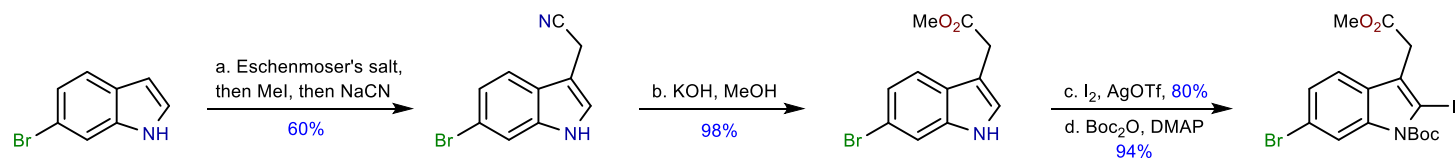


Baran, P. S. *Angew. Chem. Int. Ed.* **2005**, 44, 3714. <https://doi.org/10.1002/anie.200500522>

- Failed Attempts at Implementation



**Starting Material Syntheses**



**Final Synthesis**

