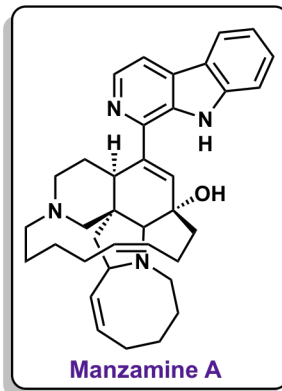
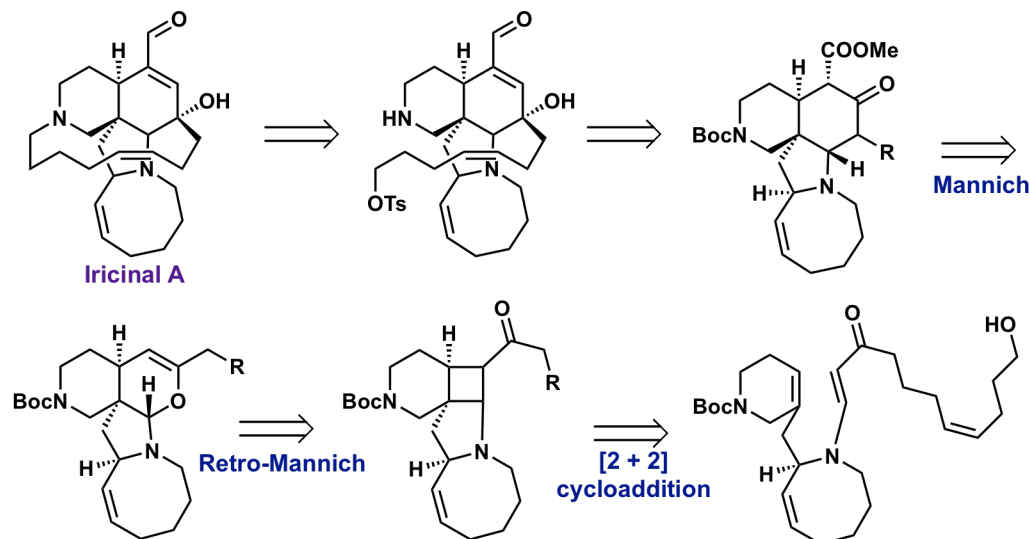


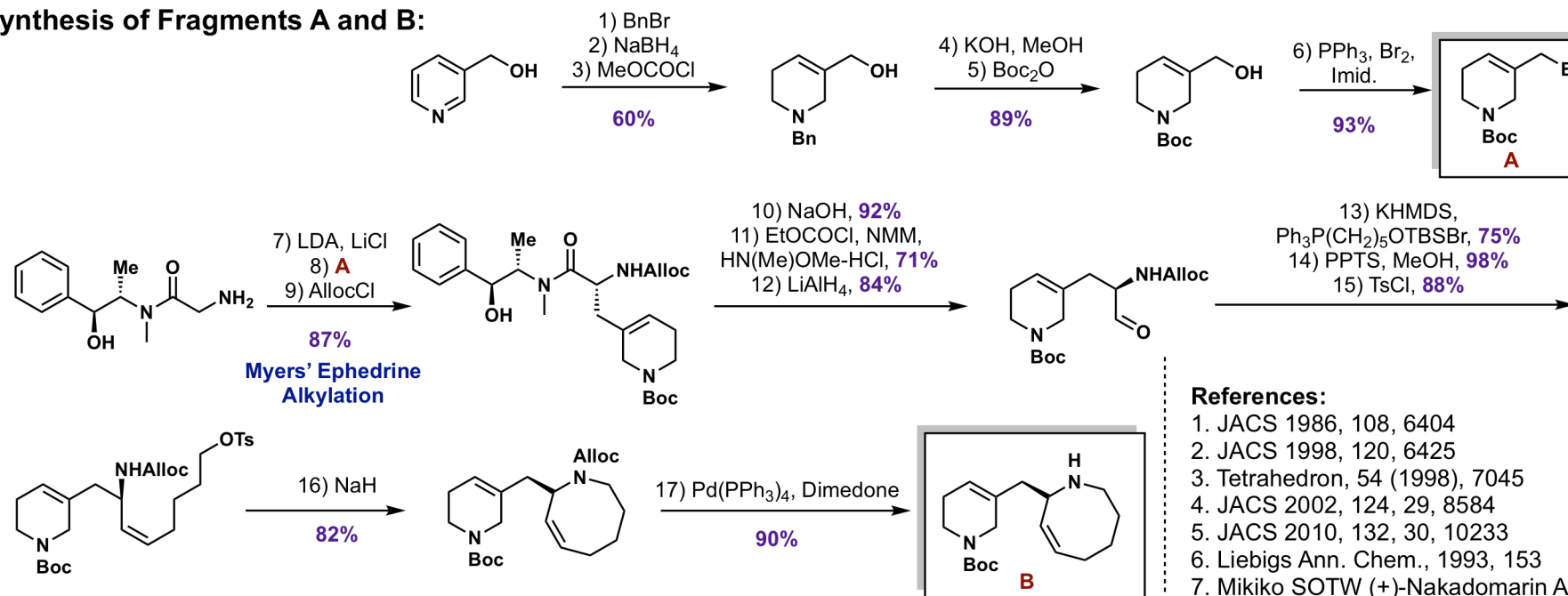
Background and Retrosynthesis:



- Isolated in 1986 from a marine sponge off the coast of Okinawa
- Beta-carboline heterocycle appended to eight- and thirteen-membered rings.
- First synthesis by Winkler in 1998^{2,3}.
- Martin (2002)⁴
- Fukuyama (2010)⁵



Synthesis of Fragments A and B:



References:

1. JACS 1986, 108, 6404
2. JACS 1998, 120, 6425
3. Tetrahedron, 54 (1998), 7045
4. JACS 2002, 124, 29, 8584
5. JACS 2010, 132, 30, 10233
6. Liebigs Ann. Chem., 1993, 153
7. Mikiko SOTW (+)-Nakadomarin A

Forward Synthesis:

