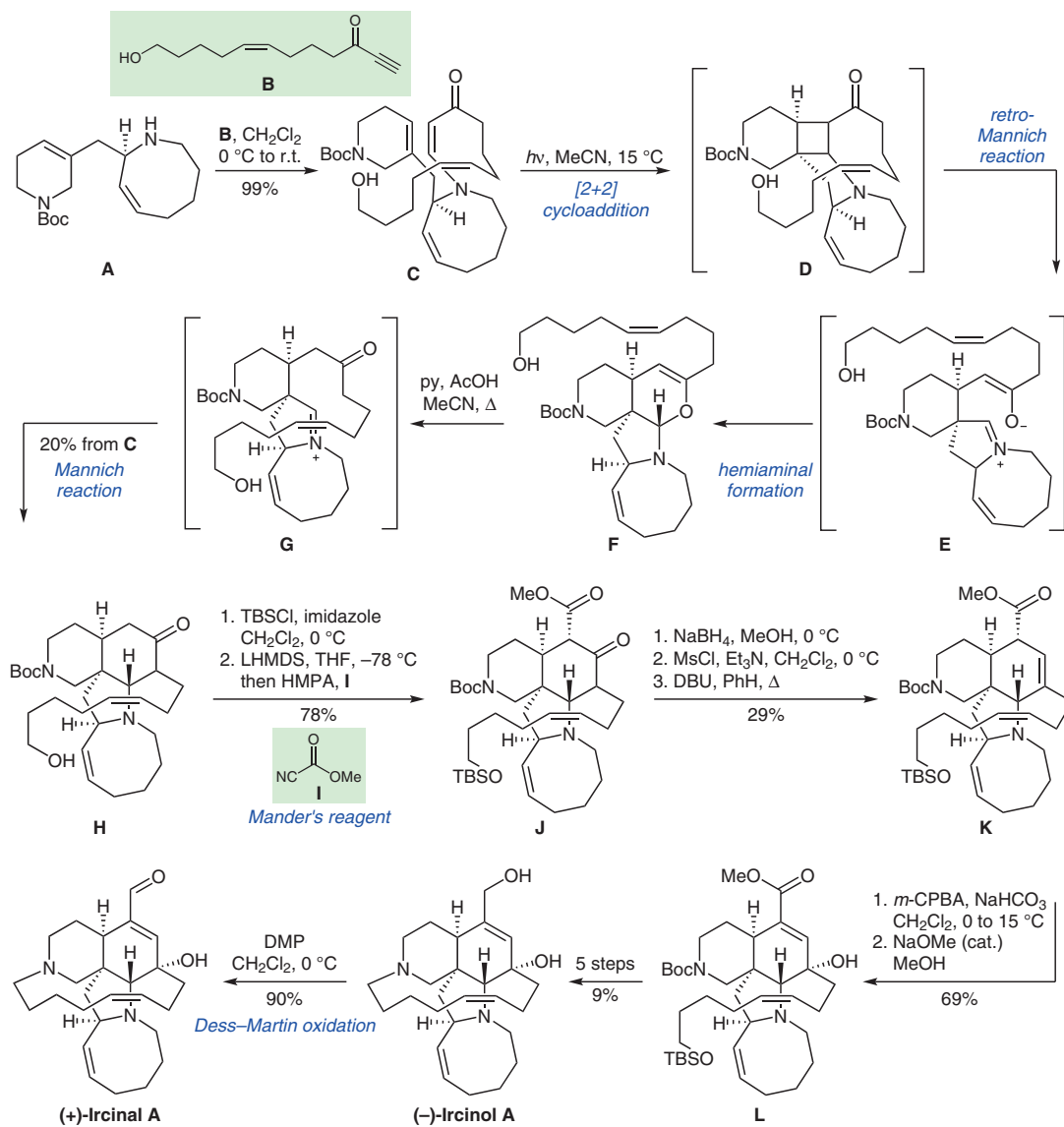


Total Synthesis of (–)-Ircinol A, (+)-Ircinal A



Significance: In 1998, Winkler and co-workers reported the first total synthesis of (–)-ircinol A and (+)-ircinal A, two manzamine-related alkaloids from the marine sponge *Ircinia*. Their work also constitutes a formal synthesis of (+)-Manzamines A and D from the latter (*J. Org. Chem.* **1992**, *57*, 2480).

Comment: An efficient [2+2] cycloaddition, retro-Mannich fragmentation, and Mannich reaction sequence gives rapid access to advanced, tetracyclic intermediate **H**. Further functional group manipulations and macrocyclization to form the 13-membered ring yield (–)-ircinol A and (+)-ircinal A.