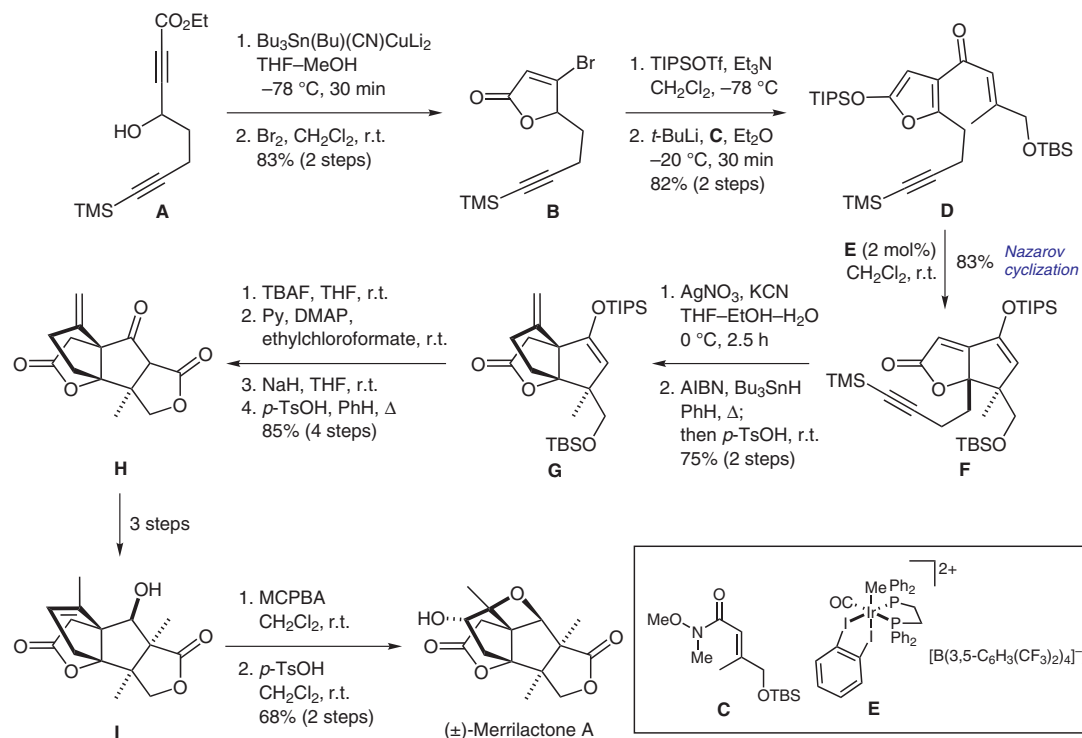


Synthesis of (±)-Merrilactone A



Significance: Merrilactone A is a sesquiterpene dilactone isolated from *Illicium merrillianum*. The complex tricyclic system containing three quaternary centers was synthesized using a Nazarov and radical cyclization.

Review: For a review of Nazarov cyclizations, see: *Some New Nazarov Chemistry* M. A. Tius *Eur. J. Org. Chem.* **2005**, 2193-2206.

Comment: Silyloxyfuran **D** underwent a catalytic Nazarov cyclization, where the cationic intermediate was quenched by the silylenol ether resulting in unsaturated bicyclic lactone **F** and two quaternary centers. A selective deprotection of the TMS group followed by radical cyclization of **F** gave **G** and the third quaternary center in the highly complex core of merrilactone.