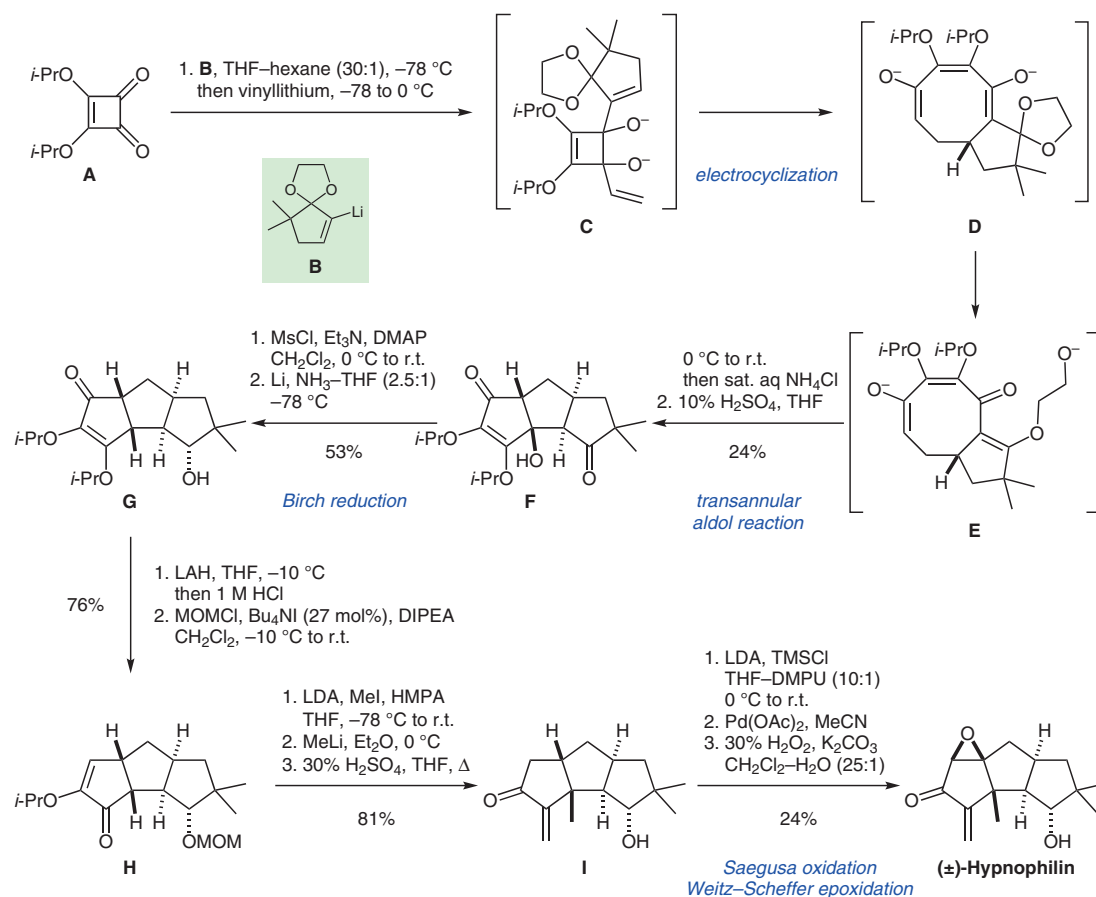


Synthesis of (\pm)-Hypnophilin



Significance: Paquette and Geng present the synthesis of (\pm)-hypnophilin. The linearly fused triquinane was isolated in 1981 from the fungus *Pleurotellus hypnophilus* and exhibits antitumor, antibacterial, and antifungal activity. Key to the reported synthesis is rapid assembly of the triquinane skeleton through a reaction cascade from squarate ester addition product **C**.

Comment: Rearrangement of putative intermediate **C**, followed by transannular aldol reaction and hydrolysis, furnished triquinane **F**. Conversion to the β -chloro carbonyl and subsequent reduction under Birch conditions produced secondary alcohol **G**. Saegusa oxidation of enone **I**, followed by Weitz–Scheffer epoxidation, completed the synthesis of (\pm)-hypnophilin.