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Stereoselective Synthesis of 2,6-Disubstituted 3-Piperidinols: Application to the Expedient Synthesis of (+)-Julifloridine
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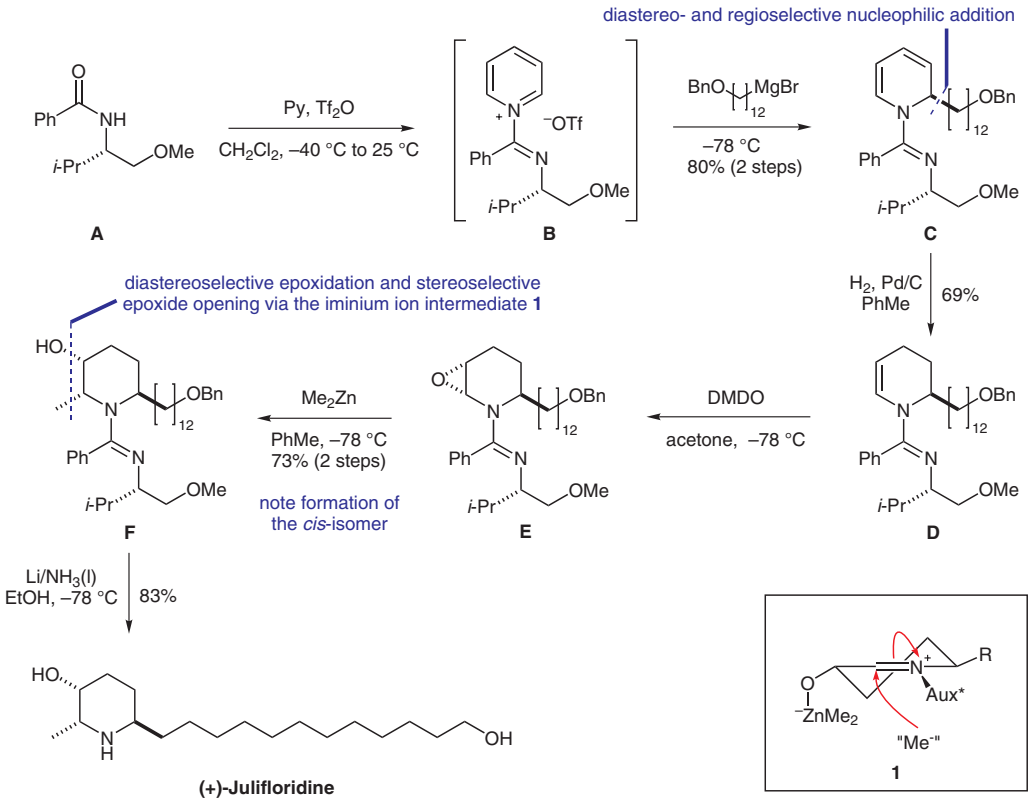
Synthesis of (+)-Julifloridine



Significance: (+)-Julifloridine is an alkaloid isolated from *Prosopis juliflora* that contains a 2,6-disubstituted 3-piperidinol pharmacophore which is present in many biologically active molecules and natural products.

Comment: The short and stereoselective synthesis of scalemic 2,6-disubstituted 3-piperidinols is described including the total synthesis of (+)-Julifloridine. The key steps in the synthesis involve (a) a substrate-controlled stereoselective nucleophilic addition of a Grignard reagent to a chiral pyridinium salt **B**, (b) the regioselective hydrogenation of the resulting adduct **C** and (c) a one-pot, diastereoselective epoxidation–nucleophilic addition reaction of **D**.

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