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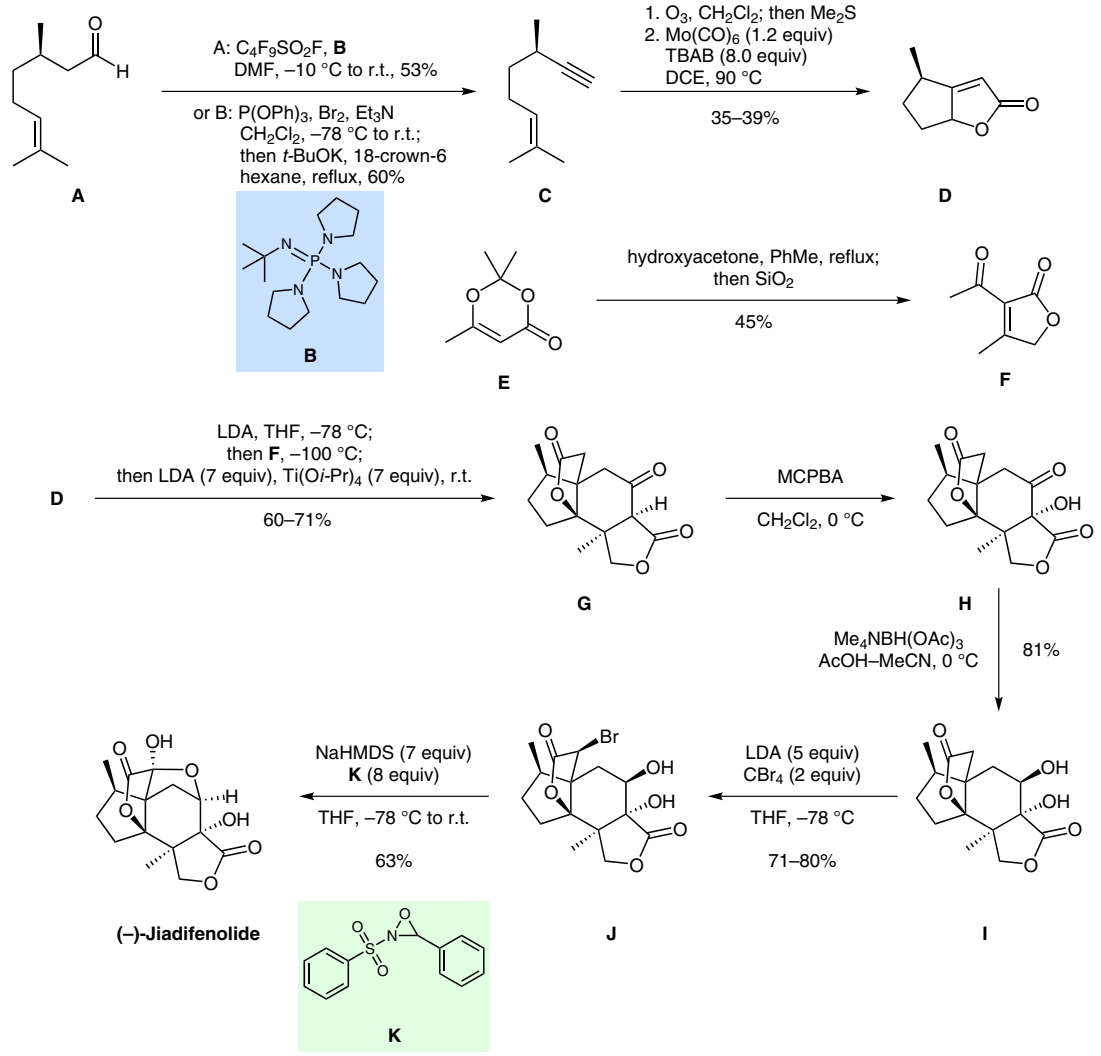
An Eight-Step Gram-Scale Synthesis of (–)-Jiadifenolide
Nat. Chem. **2015**, *7*, 604–607.

Total Synthesis of (–)-Jiadifenolide



Significance: Jiadifenolide is one of a number of secondary metabolites with neurotrophic activity isolated from the *Illicium* genus. The authors present a short route towards this natural product relying on a diastereoselective coupling of two butenolides. The strategy might allow for the synthesis of structurally related neurotrophic natural products.

Comment: Chiral bicycle **D** was prepared from (+)-citronellal via a short dehydration–ozonolysis–hetero-Pauson–Khand sequence. The lithium dienolate derived from **D** was diastereoselectively coupled with building block **F** to give the entire carbon skeleton **G** upon treatment with excess LDA and $Ti(O\textit{i}\text{-}Pr)_4$. Four more steps allowed the isolation of considerable amounts of jiadifenolide.

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