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The Total Synthesis of (±)-11-*O*-Debenzoyltashironin
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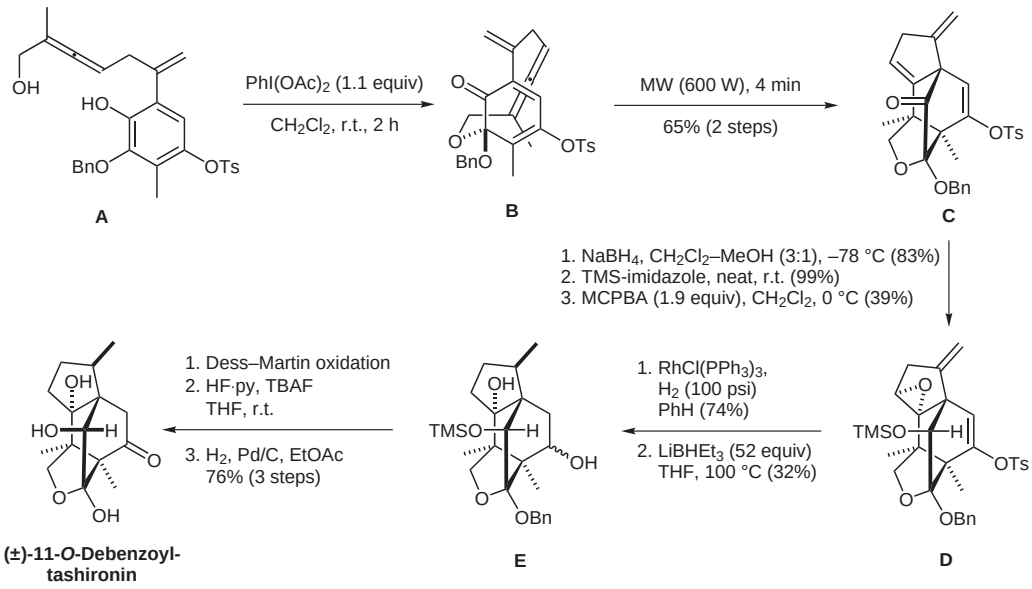
Synthesis of (±)-11-*O*-Debenzoyltashironin



Significance: 11-*O*-Debenzoyltashironin, a metabolite of *Illicium merrillanium*, induces neurite outgrowth in fetal rat cortical neurons. The key step in this biomimetic synthesis is an oxidative dearomatization leading to quinone monoketal **B**, which underwent an intramolecular Diels–Alder reaction to create all four rings of the target.

Comment: Reduction of the ketone in **C** proceeded with a dr > 9:1. After homogeneous hydrogenation of the *exo*-methylene in **D**, the epoxide was reductively cleaved with a large excess of lithium triethylborohydride at 100 °C in a sealed tube. Under these conditions, the enol tosylate was also reductively cleaved but surprisingly, the product was the secondary alcohol rather than the ketone.

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