Category

Synthesis of Natural Products and Potential Drugs

Key words

(+)-dictyosphaeric acid A

intramolecular Michael addition

alkene migration

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Total Synthesis and Structural Reassignment of (+)-Dictyosphaeric Acid A: A Tandem Intramolecular Michael Addition/Alkene Migration Approach

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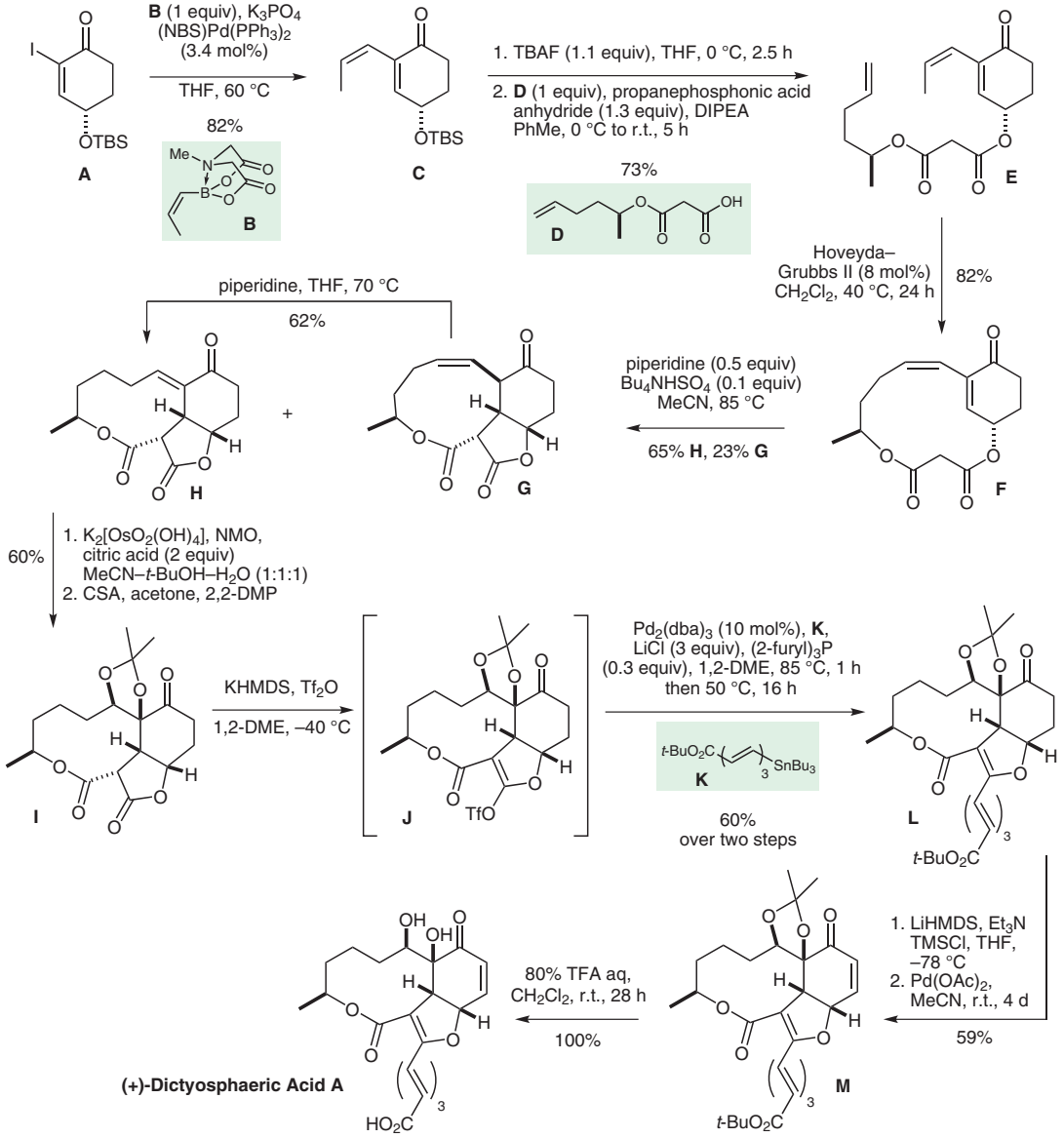
Synthesis of (+)-Dictyosphaeric Acid A



Significance: (+)-Dictyosphaeric acid A was isolated by Ireland and co-workers in 2004 from the green alga *Dictyosphaeria versluyii*. It was found to exhibit antibacterial activity against MRSA, *Enterococcus faecium*, and *Candida albicans*.

Comment: The key step of the synthesis is an intramolecular Michael addition followed by alkene migration to give **H**. The total synthesis allowed for the structural reassignment of the natural product and confirmation of the absolute configuration.

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