

**Category**

**Synthesis of Natural Products and Potential Drugs**

**Key words**

(+)-dictyosphaeric acid A

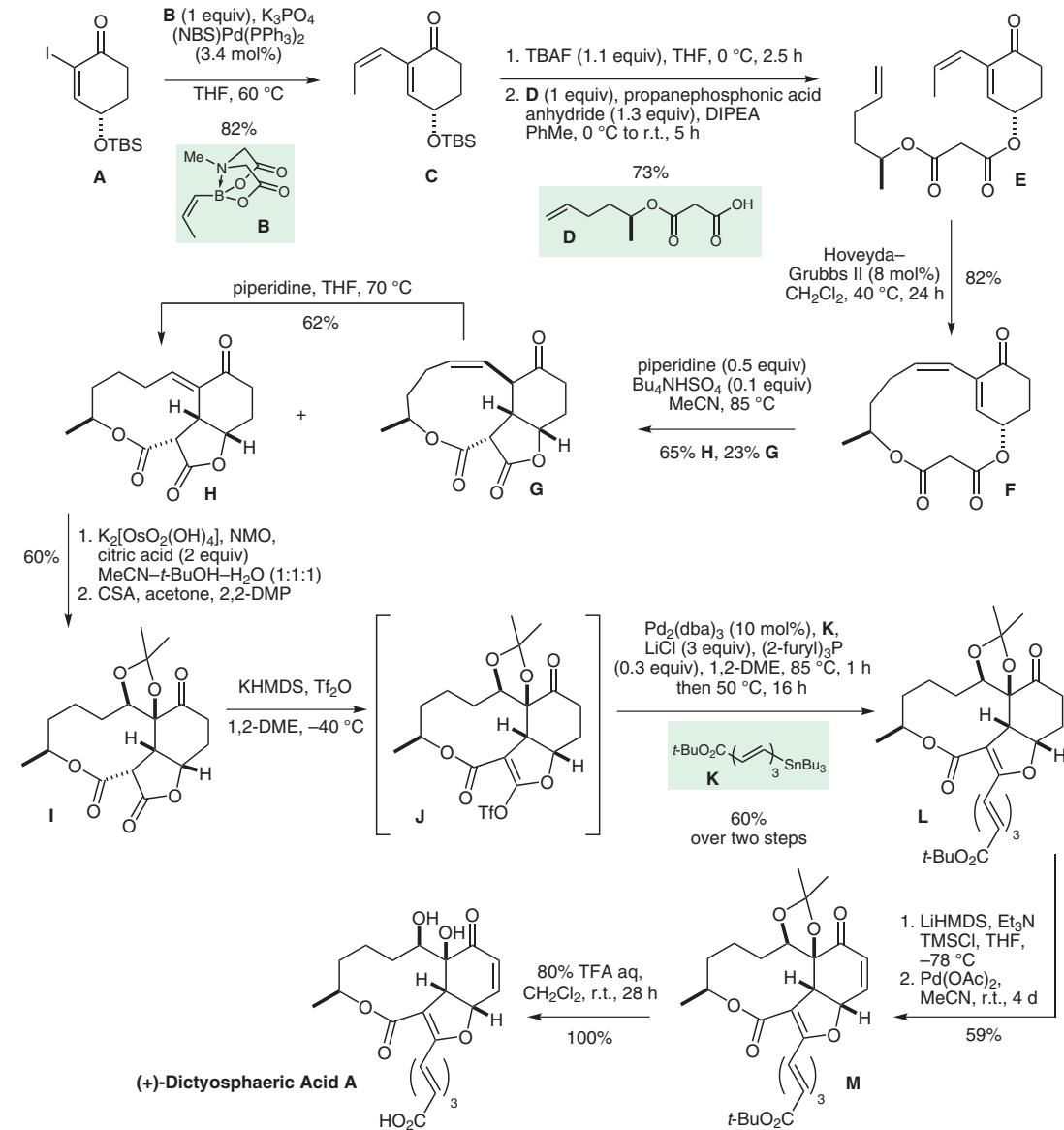
intramolecular Michael addition

alkene migration

**SYNFACT**  
of the month

A. R. BURNS, G. D. MCALLISTER, S. E. SHANAHAN, R. J. K. TAYLOR\* (UNIVERSITY OF YORK AND GLAXOSMITHKLINE, TONBRIDGE, UK)  
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*.

**SYNFACTS Contributors:** Steven V. Ley, Catherine F. Carter  
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**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.