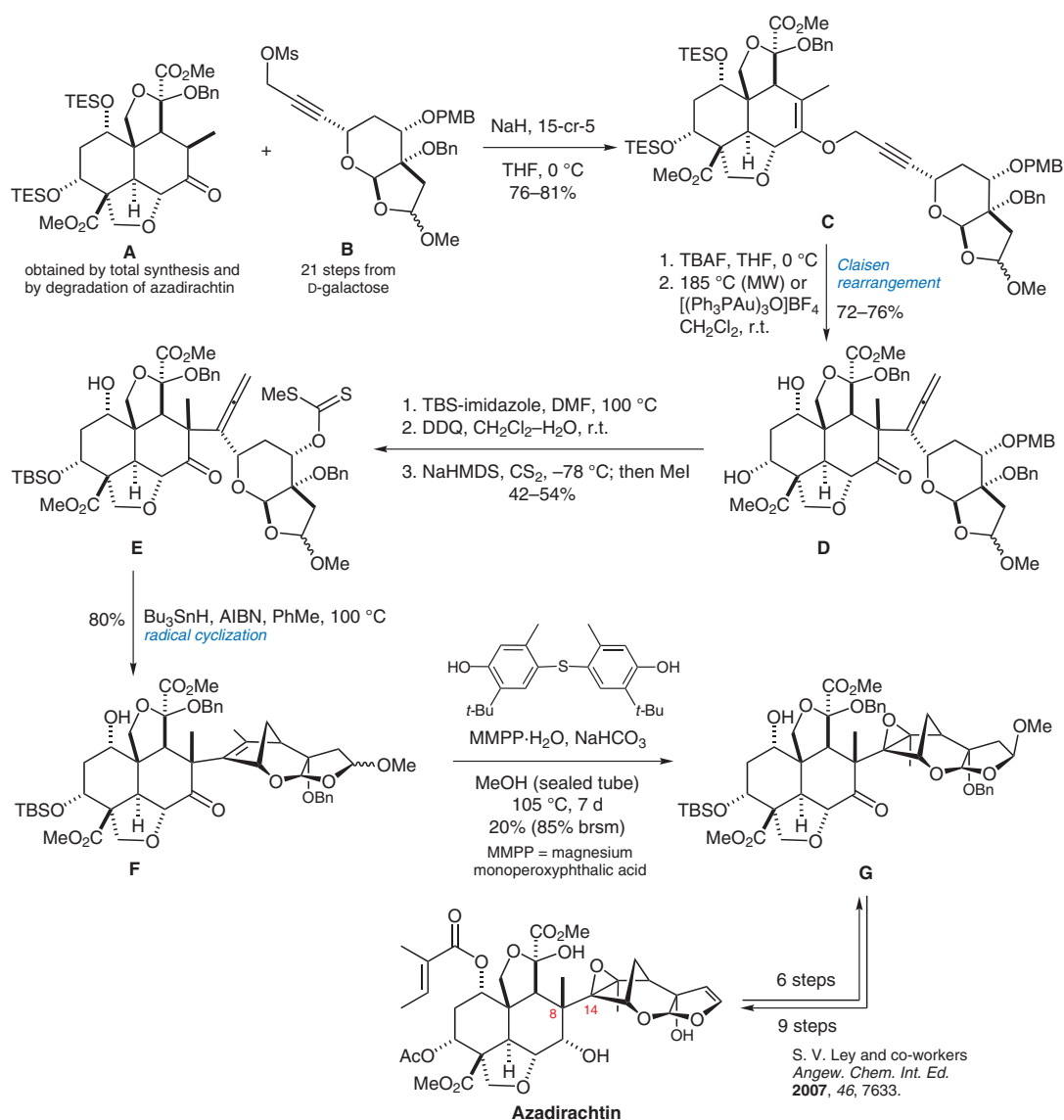


G. E. VEITCH, E. BECKMANN, B. J. BURKE, A. BOYER, S. L. MASLEN, S. V. LEY*
 (UNIVERSITY OF CAMBRIDGE, UK)
 Synthesis of Azadirachtin: A Long but Successful Journey
Angew. Chem. Int. Ed. **2007**, *46*, 7629–7632.

Relay Synthesis of Azadirachtin



Significance: Azadirachtin is an insect antifeedant. A major challenge in this 22-year odyssey was the construction of 16 contiguous stereogenic centers seven of which are quaternary. The excerpt depicted here focuses on the Claisen rearrangement used to construct the congested C8–C14 bond.

Comment: Compounds **A** and **G** were obtained by total synthesis and by degradation of azadirachtin. The degradation route enabled exploration of the difficult closing stages of the synthesis. Note the harsh conditions required to effect the difficult epoxidation **F**→**G**.

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Category

Synthesis of Natural Products and Potential Drugs

Key words

Claisen rearrangement
 radical cyclization
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