N. J. SIMS, W. C. BONNET, D. M. LAWSON, J. L. WOOD* (BAYLOR UNIVERSITY, WACO, USA)

Enantioselective Total Synthesis of (+)-Alterbrassicicene C
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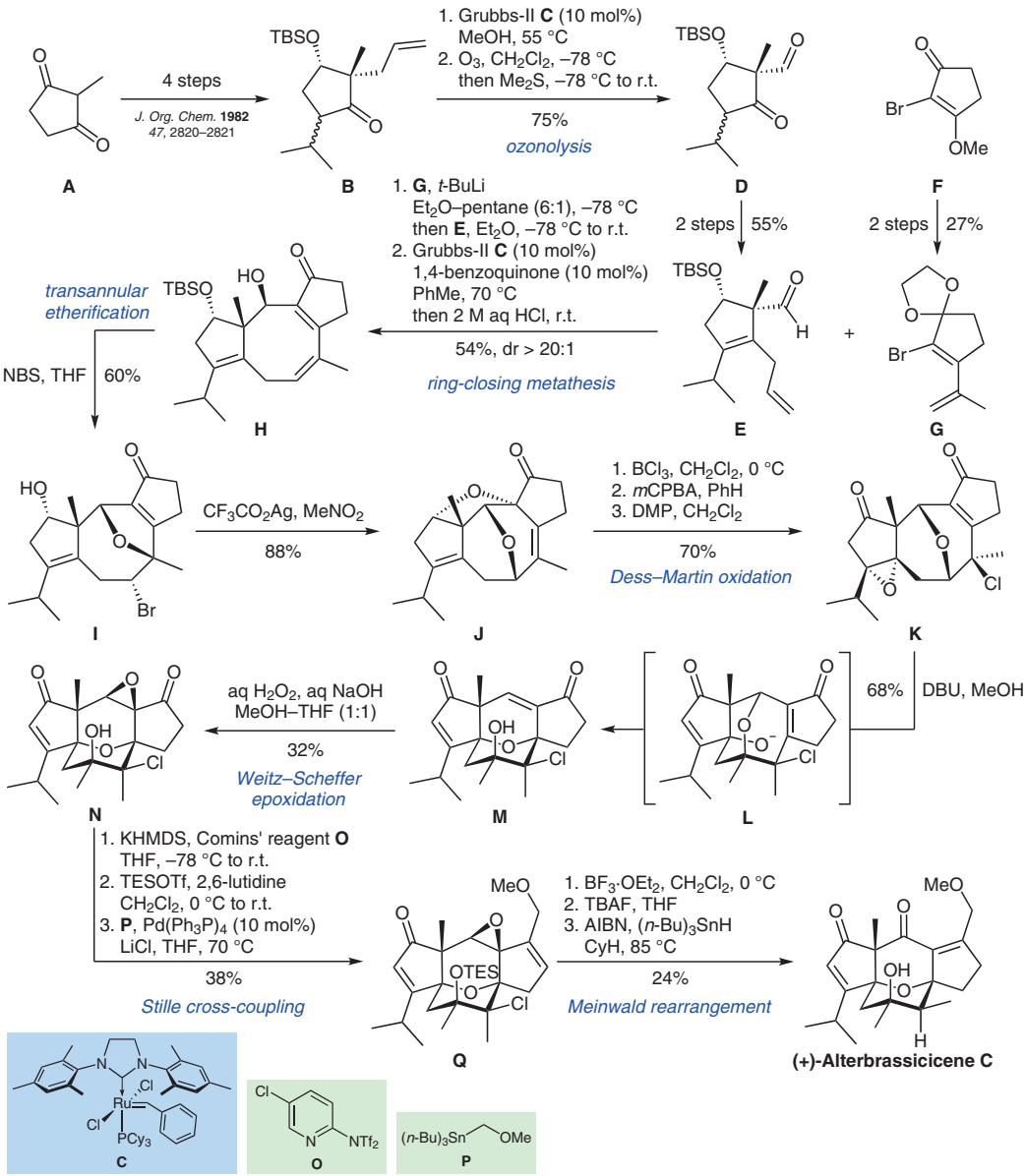
Synthesis of (+)-Alterbrassicicene C



Significance: Wood and co-workers report an asymmetric total synthesis of (+)-alterbrassicicene C, a fusicoccane diterpenoid isolated from the fungal plant pathogen *Alternaria brassicicola*.

Comment: BCl_3-catalyzed diastereoselective opening of tetrahydrofuran **J** in S_N2'-fashion followed by conjugate addition furnishes the unprecedented tetracyclic oxa-bridged ring system of (+)-alterbrassicicene C. BF_3-catalyzed Meinwald rearrangement establishes the second enone functionality, after which the natural product could be obtained in two further steps.

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Synthesis of Natural Products

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ozonolysis
ring-closing metathesis
transannular etherification
Weitz–Scheffer epoxidation
Stille cross-coupling
Meinwald rearrangement

Synfact of the Month

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