

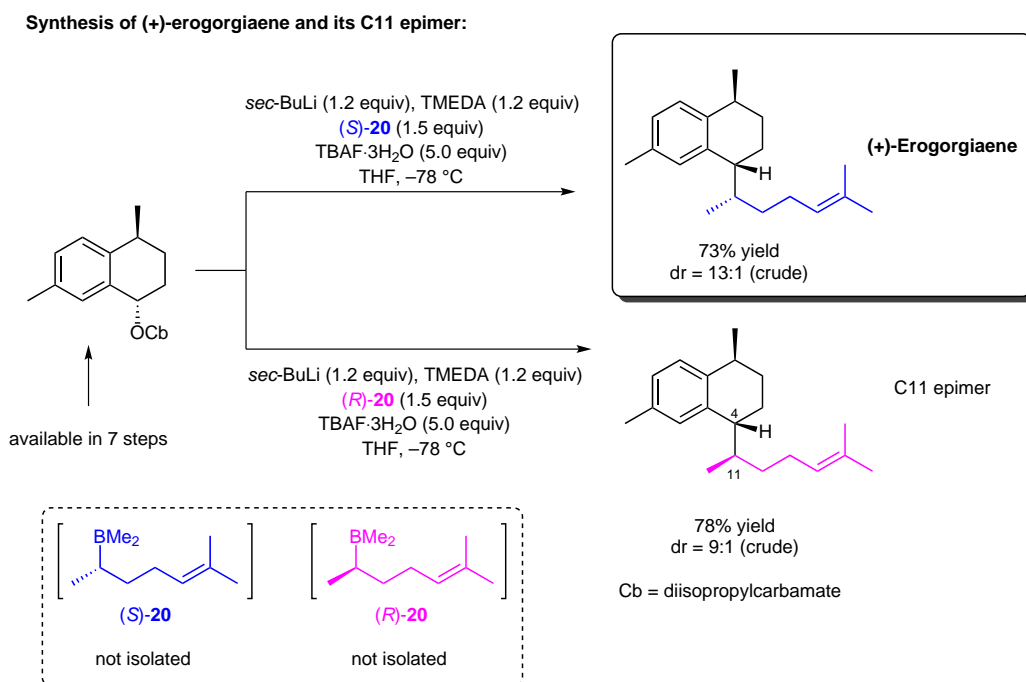
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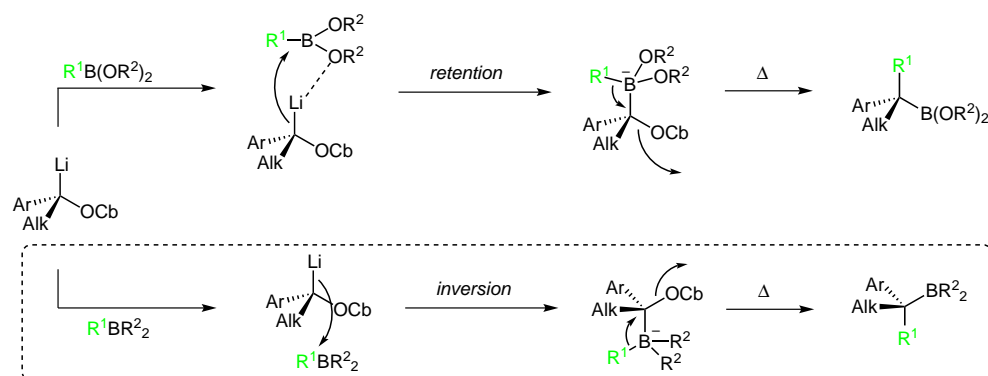
Total Synthesis of (+)-Erogorgiaene Using Lithiation–Borylation Methodology, and Stereoselective Synthesis of Each of Its Diastereoisomers

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## Total Synthesis of (+)-Erogorgiaene Using Lithiation–Borylation Methodology



### Lithiation–borylation–protodeboronation key step:



**Significance:** Herein, the authors report a short total synthesis of (+)-erogorgiaene in an overall yield of 44%. Starting from *para*-methylacetophenone, (+)-erogorgiaene and its diastereoisomers are readily available in eight steps.

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**Comment:** The key step includes a lithiation–borylation–protodeboronation reaction with in situ generated chiral boranes, leading to inversion of the configuration at C4. Depending on the boranes used, (+)-erogorgiaene or its C11 epimer is obtained.