

SYNFACTS Highlights in Current Synthetic Organic Chemistry

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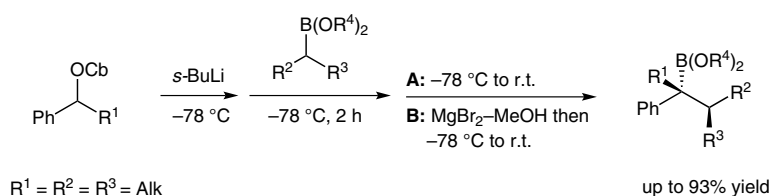
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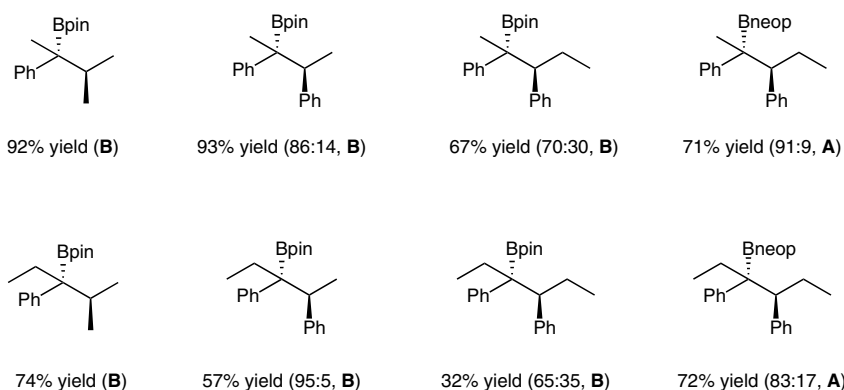
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S. ROESNER, D. J. BLAIR, V. K. AGGARWAL* (UNIVERSITY OF BRISTOL, UK)
 Enantioselective Installation of Adjacent Tertiary Benzylic Stereocenters using Lithiation–Borylation–Protodeboronation Methodology. Application to the Synthesis of Bifluranol and Fluorohexestrol
Chem. Sci. **2015**, *6*, 3718–3723.

Lithiation–Borylation–Protodeboronation Methodology



Selected examples:



Significance: Aggarwal and co-workers report a method for the enantioselective installation of adjacent tertiary benzylic stereocenters using a lithiation–borylation–protodeboronation methodology. The cross-coupling of an enantioenriched benzylic lithiated carbamate with an enantioenriched benzylic secondary pinacol boronic ester gave the desired products with complete diastereo- and enantiocontrol.

Comment: It was mandatory to use $\text{MgBr}_2/\text{MeOH}$ after the formation of the boronate complex to both trap the lithiated carbamate/benzylic anion and to promote the 1,2-migration. Protodeboronation of the obtained products with TBAF gave the desired 1,2-diaryl ethanes bearing 1,2-stereogenic centers.

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