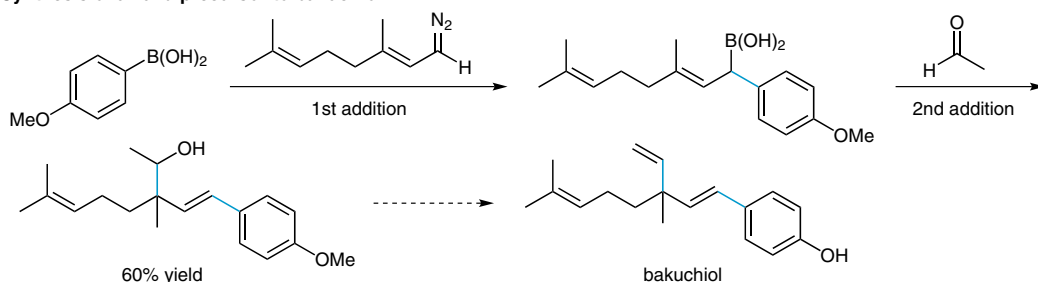


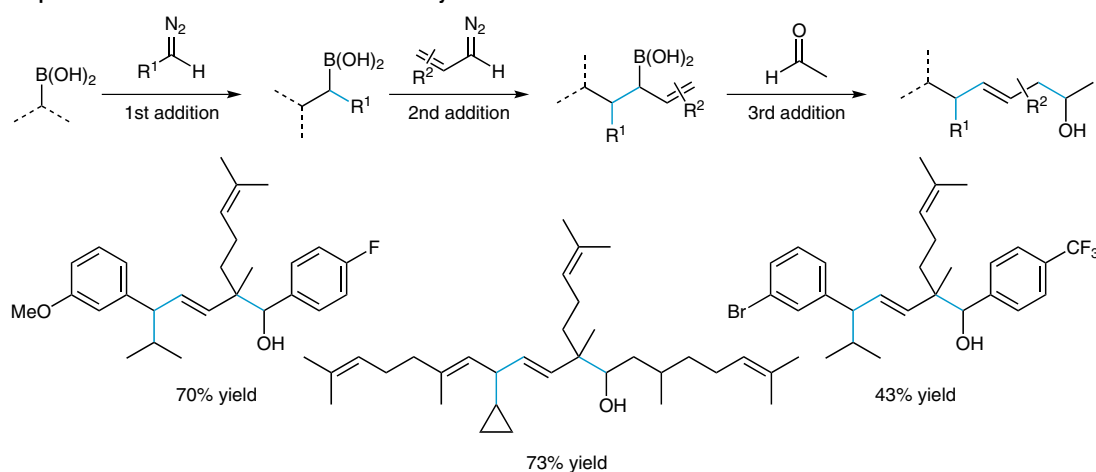
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Iterative Reactions of Transient Boronic Acids Enable Sequential C–C Bond Formation
Nature Chem. **2016**, *8*, 360–367.

Sequential C–C Bond Formation via Allylic and Benzylic Boronic Acids

Synthesis of a valid precursor to bakuchiol:



Sequential reaction and final reaction with aldehydes:



Significance: Allylic and benzylic boronic acids, prepared in situ from flow-generated diazo compounds and stable boronic acids, were used in sequential C–C bond formation reactions. For example, the sequential reaction of (4-methoxyphenyl)boronic acid with a flow-generated diazo compound and acetaldehyde gave a precursor of the natural product bakuchiol in 60% yield from a single operation.

Comment: The authors have recently reported the reaction of arylboronic acids with flow-generated diazo compounds (*Chem. Sci.* **2015**, *6*, 1120). The current paper describes the sequential formation of up to three C–C bonds.

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Category

Polymer-Supported
Synthesis

Key words

flow chemistry
C–C bond formation
boronic acids
diazo compounds
iterative synthesis
cascade reaction

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