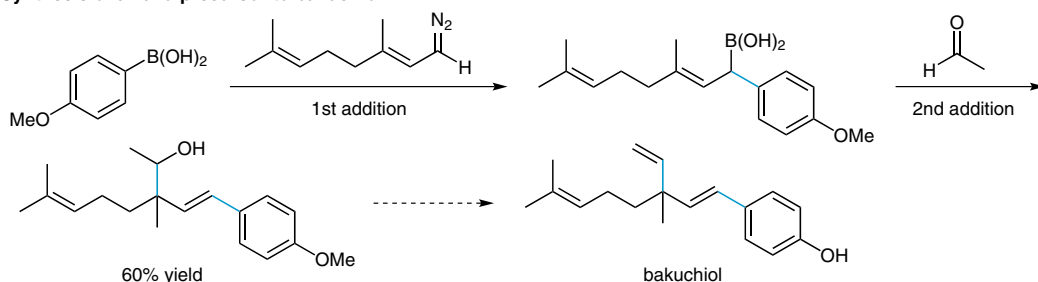


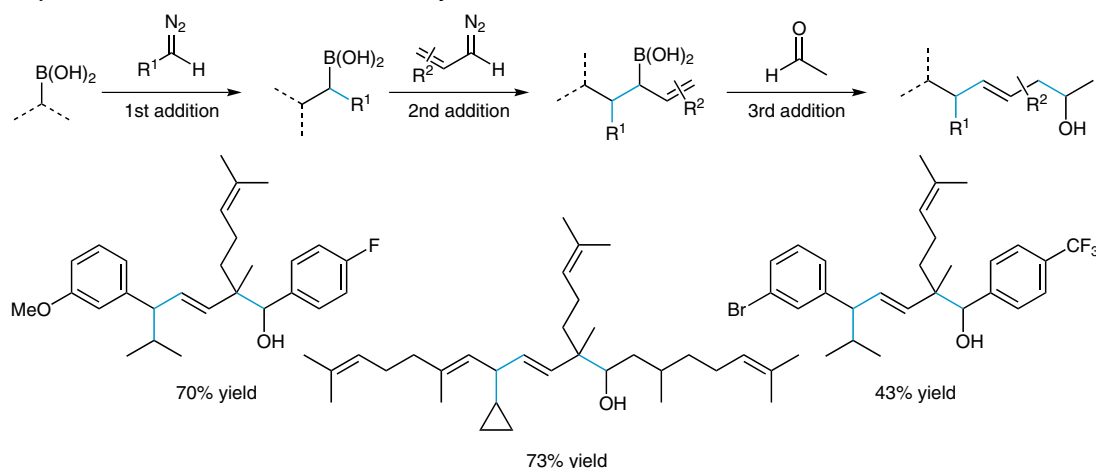
C. BATTILOCCHIO,* F. FEIST, A. HAFNER, M. SIMON, D. N. TRAN, D. M. ALLWOOD, D. C. BLAKEMORE, S. V. LEY* (UNIVERSITY OF CAMBRIDGE AND PFIZER WORLDWIDE MEDICAL CHEMISTRY, CAMBRIDGE, UK)
 Iterative Reactions of Transient Boronic Acids Enable Sequential C–C Bond Formation
Nature Chem. **2016**, 8, 360–367.

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.

SYNFACTS Contributors: Yasuhiro Uozumi, Takuma Sato
 Synfacts 2016, 12(06), 0643 Published online: 17.05.2016
 DOI: 10.1055/s-0035-1562167; Reg-No.: Y05616SF

2016 © THIEME STUTTGART • NEW YORK

Category

Polymer-Supported
Synthesis

Key words

flow chemistry

C–C bond formation

boronic acids

diazo compounds

iterative synthesis

cascade reaction

Synfact
of the month

This document was downloaded for personal use only. Unauthorized distribution is strictly prohibited.