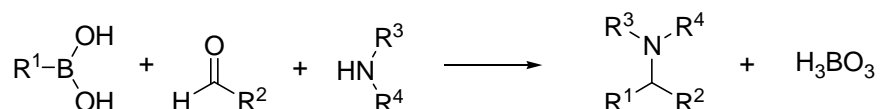


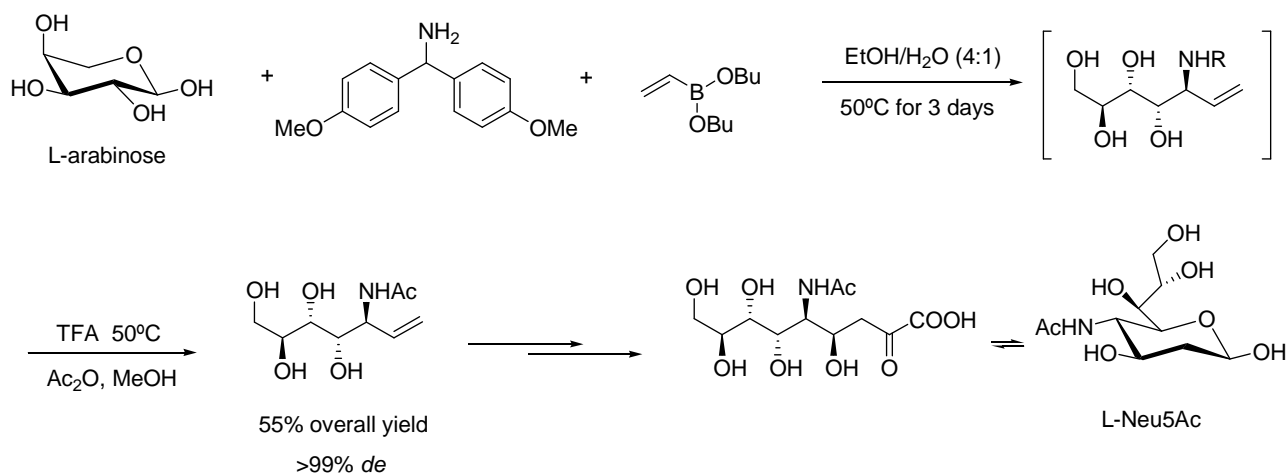
Boronic Acid-Mannich Reaction (Petasis Reaction)

The Petasis Reaction is a three-component variant of the Mannich reaction involving the condensation of an amine, aldehyde and organoboronic acid:



Extension of the original procedure: practical and highly diastereocontrolled approach to a variety of anti- β -amino alcohols (from α -hydroxyaldehydes).

Recent application as key step in a novel route to the synthesis of Sialic Acids and derivatives



References:

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2. Petasis, N.A.; Zavialov, I. A. *J. Am. Chem. Soc.* **1998**, 120, 11798
3. Hong, Z; Liu, L.; Hsu, C.-C.; Wong, C.-H. *Angew. Chem. Int. Ed.* **2006**, 45, 7417