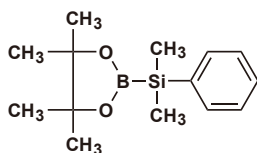


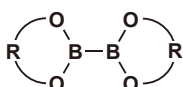
Boration Reagents

Borylation



New

(Dimethylphenylsilyl)boronic Acid Pinacol Ester
1g / 5g [D4357]



Tetrahydroxydiboron 5g / 25g [T2953]

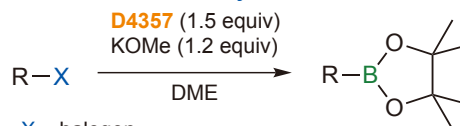
Bis(pinacolato)diboron 1g / 5g / 25g [B1964]

Bis(neopentyl Glycolato)diboron
1g / 5g / 25g [B2254]

Bis(hexylene Glycolato)diboron 1g / 5g [B2906]

Bis(catecholato)diboron 1g / 5g [B3757]

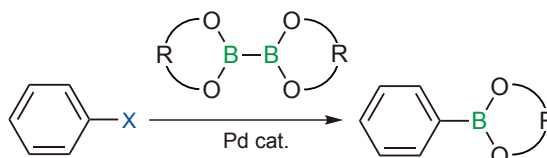
Transition Metal-free Borylation



X = halogen
R = alkyl, alkenyl, aryl

H. Ito et al., *J. Am. Chem. Soc.*, **2012**, 134, 19997.

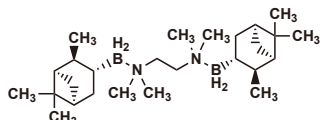
Miyaura-Ishiyama-Hartwig Borylation



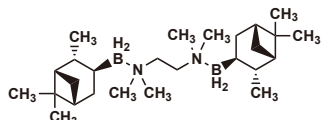
X = halogen

T. Ishiyama, M. Murata, N. Miyaura, *J. Org. Chem.* **1995**, 60, 7508.
G. A. Molander et al., *J. Am. Chem. Soc.* **2010**, 132, 17701

Hydroboration

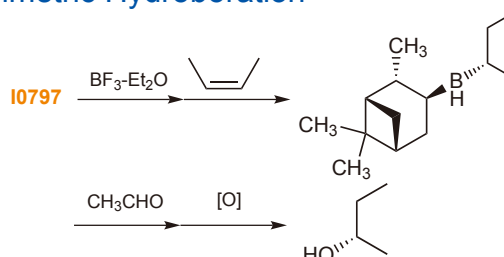


(+)-Isopinocampheylborane TMEDA Complex
5g [I0796]

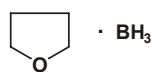


(-)-Isopinocampheylborane TMEDA Complex
5g [I0797]

Asymmetric Hydroboration



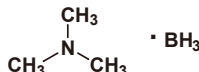
H. C. Brown, et al., *Bull. Chem. Soc. Jpn.* **1988**, 61, 93.
H. C. Brown, et al., *J. Organomet. Chem.* **1995**, 500, 1



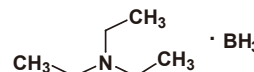
Borane - Tetrahydrofuran Complex
(8.5% in Tetrahydrofuran, ca. 0.9mol/L)
100mL / 500mL
[T2346]



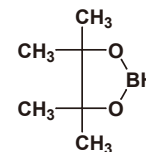
Borane - Pyridine Complex
25mL
[B1569]



Trimethylamine Borane
25g
[T1181]



Triethylamine Borane
25g
[T1180]



Pinacol Borane
5g / 25g
[T2572]

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boration

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