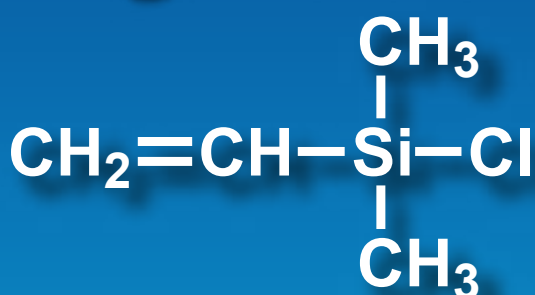


Chlorodimethylvinylsilane: Key Component of Directing Group for Regioselective Hydrosilylation



Chlorodimethylvinylsilane

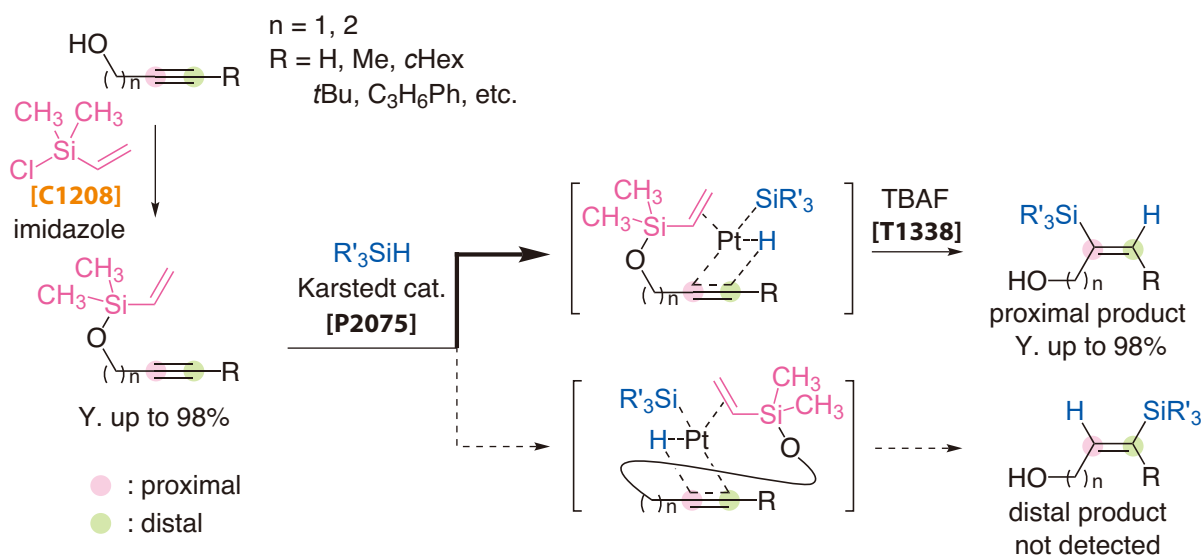
25mL / 100mL

[C1208]

Advantages

- Easy Formation of DMVS-Ether with Propargyl and Homopropargyl Alcohols
- Efficient Regiocontrol of Hydrosilylation of Unsymmetric Alkyne Moiety of the DMVS-Ether

Regioselective Hydrosilylation of Unsymmetric Alkynes

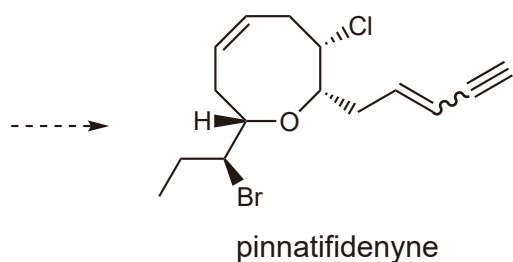
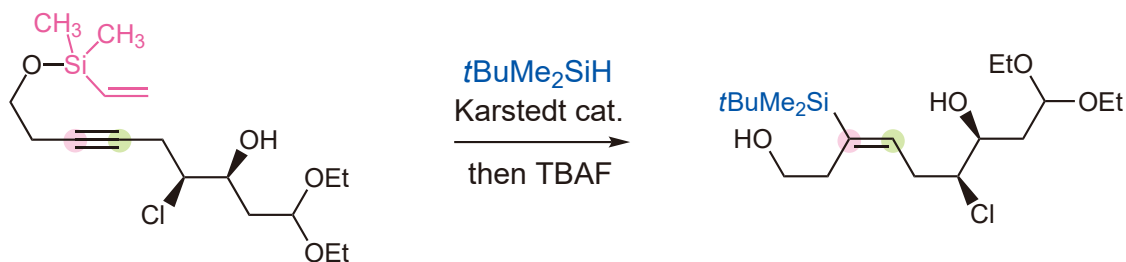


Chlorodimethylvinylsilane (DMVS-Cl) is key component for the regioselective hydrosilylation of unsymmetric alkynes. Hydrosilylation is a well-established reaction that efficiently provides *E*-silylalkenes from a variety of alkynes. The difficulty of regiocontrol in hydrosilylation, however, has prevented its application to unsymmetric alkyne system for obtaining a mixture of regioisomers. To this end, Tomooka *et al.* have developed regioselective hydrosilylation using the dimethylvinylsilyl (DMVS) group as a directing group. The requisite alkyne having DMVS group was prepared from propargylic or homopropargylic alcohols by reaction with DMVS-Cl in the presence of imidazole. Their hydrosilylation proceeded with proximal selectivity. After the reaction, DMVS group can be removed by the treatment with TBAF.

Reference Y. Kawasaki, Y. Ishikawa, K. Igawa, K. Tomooka, *J. Am. Chem. Soc.* **2011**, *133*, 20712.
 DOI: <https://doi.org/10.1021/ja209553f>

Chlorodimethylvinylsilane: Key Component of Directing Group for Regioselective Hydrosilylation

Application to the Total Synthesis of Natural Product



Reference S. A. Snyder, A. P. Brucks, D. S. Treitler, I. Moga, *J. Am. Chem. Soc.* **2012**, *134*, 17714.
DOI: <https://doi.org/10.1021/ja3076988>

Related Products

Karstedt Catalyst

Tetrabutylammonium Fluoride (ca. 1 mol/L in Tetrahydrofuran)

tert-Butyldimethylsilane

1g / 5g [P2075]

25mL / 100mL / 500mL [T1338]

5g [B3565]

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