

# 1,2-Hydroboration of Alkyn-1-yl(chloro)silanes: Alkenes Bearing Chlorosilyl and Dialkylboryl Groups in Geminal Positions

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The 1,2-hydroboration of various alkyn-1-yl(chloro)silanes (**3** – **7**), derived from 1-hexyne (**a**) and ethynylbenzene (**b**), using 9-borabicyclo[3.3.1]nonane, 9-BBN, affords selectively alkene derivatives in which the dialkylboryl and chlorosilyl groups are in geminal positions at the C=C bond. The molecular structure of (*Z*)- $\alpha$ -(9-borabicyclo[3.3.1]non-9-yl)- $\alpha$ -dichloro(phenyl)silyl-styrene (**11b**) was determined by X-ray diffraction. All alkenes were characterised by a consistent set of NMR spectroscopic data ( $^1\text{H}$ ,  $^{11}\text{B}$ ,  $^{13}\text{C}$ ,  $^{29}\text{Si}$  NMR).

*Key words:* Alkynes, Alkenes, Boranes, Silanes, Hydroboration, NMR