Triethylborane, BEt₃, can act as a 1,2-hydroborating reagent towards alkyn-1-ylsilanes, depending on the nature of the silane. A mechanism is proposed invoking hydrogen transfer from the β-carbon of one ethyl group, quite different from the 1,2-hydroboration mechanism using tri-n-propylborane, B'nPr₃. The structure of the products has been confirmed by comparison with that obtained using 9-borabicyclo[3.3.1]nonane, 9-BBN, as a well established 1,2-hydroborating reagent. All products have been characterized by a consistent set of NMR data (¹H, ¹¹B, ¹³C and ²⁹Si NMR). The molecular structure of (Z)-1-dichlorosilyl-1-[9-(9-borabicyclo[3.3.1]nonyl)]-2-phenylethene has been determined by single crystal X-ray diffraction.

Key words: Alkynes, Alkenes, Triethylborane, 9-BBN, Silanes, Hydroboration, NMR