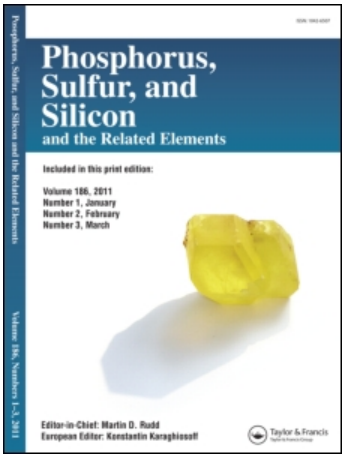

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The Regiochemistry of the Reaction of Dihalotris(hexafluoroisopropoxy)-phosphoranes with 1,2-Epoxy-3-trimethylsiloxypropane

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THE REGIOCHEMISTRY OF THE REACTION OF DIHALOTRIS(HEXAFLUOROISOPROPOXY)-PHOSPHORANES WITH 1,2-EPOXY-3-TRIMETHYLSILOXYPROPANE

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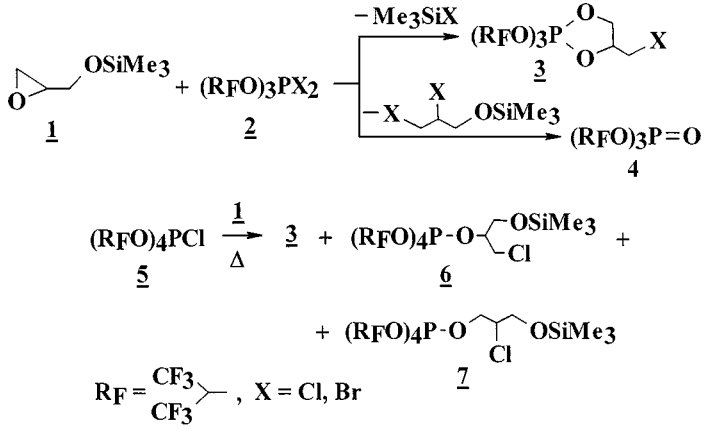
The interaction of trimethylsilylepoxyde **1** with fluorinated halogenophosphoranes is investigated. The reaction of silylepoxyde **1** with phosphorane **2** has been found to give the phospholane 3 (70%, δ_P −60.1 ppm, X = Cl; 27%, δ_P −60.3 ppm, X = Br) or phosphate **4** (15%, X = Cl; 71% X = Br) as the major product depending on the nature of substituent X at low temperature. The initial opening of epoxyde occurs



SCHEME 1

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in reaction between compound **5** and silylepoxyde **1** under heating, phosphorane **6** being the main product. The partial cyclization with eliminating of R_FOSiMe_3 and formation f phosphorane **3** (X = Cl) takes place in this reaction. The structure of compounds **3**, **6**, **7** was confirmed by ^{13}C, ^{31}P NMR.