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THE USE OF SILYL SULFINATE IN SYNTHESIS AND ANALYSIS OF PERSILYLATED SUGARS

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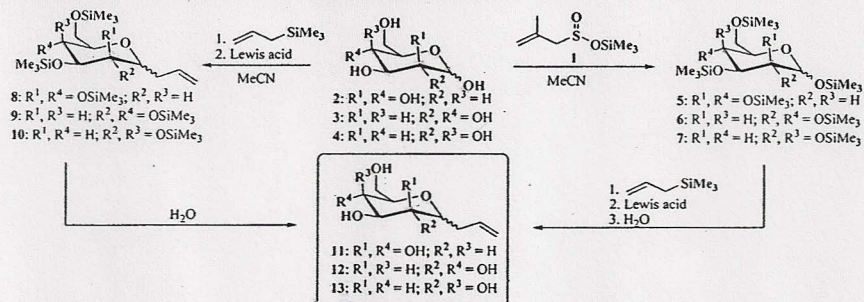
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Highly polar substances with low volatility, e.g. carbohydrates and polyhydroxylated compounds, are not applicable for analysis by gas chromatography. Therefore, usually silylation procedure is used for derivatization of them and later analysis by gas chromatography.

In 2002, trimethylsilyl 2-methylprop-2-ene-1-sulfinate **1** as a new derivatization reagent was produced.[1] We used obtained silylsulfinate **1** in derivatization of various monosaccharides: D(+)-glucose, D(+)-mannose, D(+)-galactose and their mixtures. Obtained persilylated sugars were used in GC-MS analysis.

Persilylated carbohydrates are also excellent starting materials for organic synthesis. The advantages of using them include their distinct absolute configuration.[2] Thus, per-*O*-silylated sugars have been used for synthesis of *C*-allyl glycosides.[3] Therefore, we focus our attention to *in situ* silylation and allylation with new silylating reagent **1** and allylsilane.



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