

Hydrosilylation Reaction of Acetylated Allylglucopyranose with Triethoxysilane

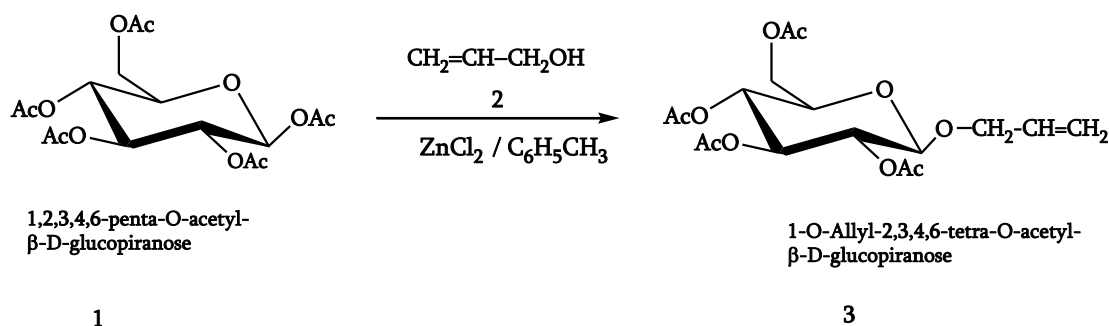
Barbare Lataria

E-mail: barbare.lataria903@ens.tsu.edu.ge

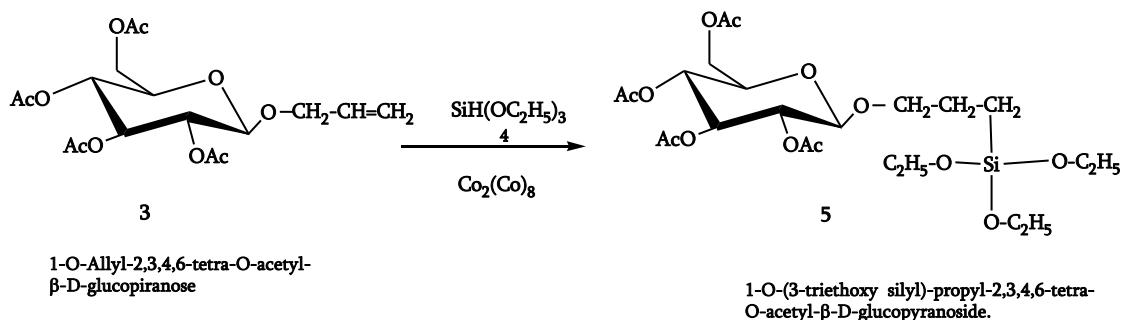
Department of Chemistry, Faculty of Exact and Natural Sciences Ivane Javakhishvili
Tbilisi State University 3, I. Chavchavadze Avenue, Tbilisi, 0179, Georgia

For the development of a living organism, silicon compounds perform important functions. In addition, the introduction of a silicon atom into known medicinal preparations may significantly change the nature of the drug's action, and in some cases add new properties to them.

We carried out the allylation reaction of 1,2,3,4,6-penta-O-acetyl- β -D-glucopyranose with allyl alcohol using pyridine in the presence of ZnCl_2 as a catalyst. After the reaction, 1-O-allyl-2,3,4,6-tetra-O-acetyl- β -D-glucopyranoside (3) was obtained (3)



The Addition reaction of 1-O-Allyl-2,3,4,6-tetra-O-acetyl- β -D-glucopyranoside (3) with Triethoxysilane (4) in the presence of a $\text{Co}_2(\text{CO})_8$ catalyst, gave 1-O-(3-triethoxy silyl)-propyl-2,3,4,6-tetra-O-acetyl- β -D-glucopyranoside (5). The reaction basically proceeds according to Anti-Markovnikov's rule. The reaction proceeds according to the following scheme:



The structure of the synthesized compounds was determined by physico-chemical research methods.