

Annotation

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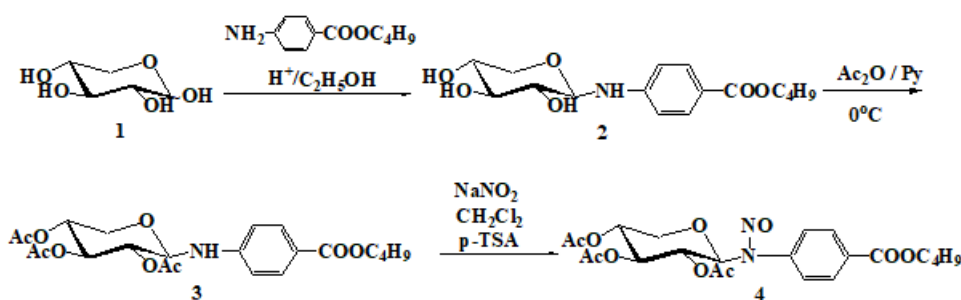
“Reaction of nitrosilation of N-β-Butamben-2,3,4-tri-O-acetyl-D-xylopyranosylamine”

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Nitroso compounds as the nitric oxide generators play a prominent role in organic chemistry, they are actively assayed in the search for biologically active substances. The synthesis and study of new types of nitroso compounds is a promising and rational approach to the search for new potential biologically active compounds. The goal of our present investigation consists in synthesis of nitroso group (N=O) containing N-xylosylamine and Determination of the potential of possible biological activity.

The formation of N-β-butamben-D-xylopyranosylamine (2) by condensation of D-xylose (1) with butamben in ethanol was studied at the first stage. By acetylation and subsequent nitrosation of compound 2 corresponding N-β-Butamben-2,3,4-tri-O acetyl-D-xylopyranosylamine and N-nitroso-N-β-butamben-D-xylopyranosylamine (4) with high percent of yield were obtained. The Reactions proceeds according to the following scheme:



The structures of obtained compounds were established by physical-chemical methods of analysis. With the help of computer program PASS Onlains based on the analysis of structure activity-relationships wide range of possible biological activity and toxic / side effects for synthesized N- xylopyranosylamines (2,3) has been determined.