Reaction Condensation of p-Aminobenzoic Acid Ethyl Esters from Sugars

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Synthesis of carbohydrate derivatives and studyof their biological activityis an important process for disease prevention.

Especially, carbohydrate scontaining nitrosogroup, because they have an effect of vasodilator; They play an important role in the process of apoptosis and cell proliferation. Also, carbohydrate derivatives containing nitrosogroup participates in the functioning of the immune system and nervous system.

The goal of present investigation consist in synthesis of N-glycosilamines containing in a Molecule nitrosogroup (N=O). As an initial substance in the given work has been used the products of condensation of D-glucose (1), D-galactose (2) and D-mannose (3) from p-aminobensoic acids ethylesters - β - N-(p-aminobenzoic acids ethylesteryl)-D-gluco-pyranozylamine, (4), β -N-(p-aminobenzoic acids ethylesteryl)-D-galactopyranozylamine (5) and β -N-(p-aminobenzoic acids ethylesteryl)-D-mannopyranozylamine (6). By interaction of compounds (4, 5, 6) with sodium nitrite corresponding nitrosoderivatives (7, 8, 9) has been received.

The structures of obtained compounds were established by physical-chemical methods of analysis.

Key Words: carbohydrates, biological activitys, nitroso (N=O) group, condensation