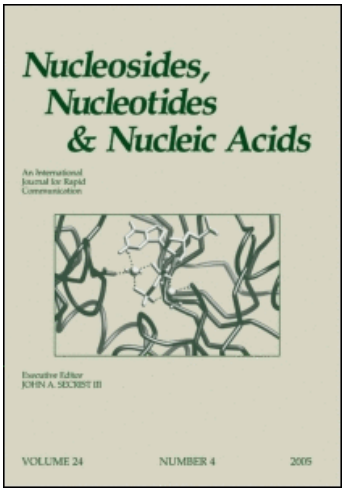

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Synthesis of Glycofuranosyl - formamides, -isocyanides and - isocyanates - Useful synthons for new approaches to nucleosid analogues

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Synthesis of Glycofuranosyl - formamides,-isocyanides and - isocyanates - Useful synthons for new approaches to nucleosid analogues

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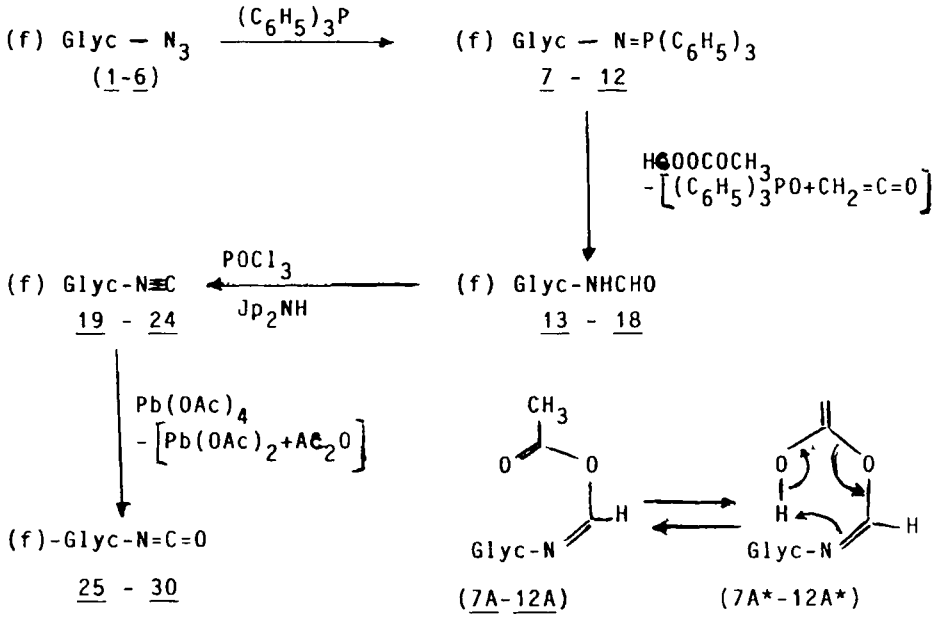
Glycofuranosylazides, 1-6 can be easily prepared by reacting various derivatives of glycofuranosyl-1-acetates with trimethylsilylazide and trimethylsilyl trifluormethyl sulfonate [1]. They are suitable starting materials for the synthesis of various nucleosid analogues. [1-5] In order to find new ways to prepare the title compounds, which represent functionally useful derivatives for further transformations we envisaged a sequence shown in Scheme 1. Staudinger reaction of 1-6 gives the Glycofuranosyl-P-N-glides 7-12 which turned immediately by reacting with formylacetate via the E-iminoacetate intermediates (7A-12A) respectively their enolic tautomers 7A*-12A* (Scheme 1) to the glycofuranosylformamides 13-18. The transformation to the corresponding glycofuranosyl-1-isocyanides 19-24 was performed according the procedure of Ugi [6]. Whereas the glycopyranosylformamides as well as - isocyanides are well known products [7,8], the furanoid analogues are practically unknown. In the last step the glycofuranosylisocyanides are oxidized with lead tetraacetate in an easily practicable way to the corresponding Isocyanates 25-30.



(f)-Glyc: various derivatives of ribo-, xylo-,apio-, 6-deoxy-gluco-, 6-deoxy-D-allo-and 6-Deoxy-L-talofuranose

Scheme 1

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