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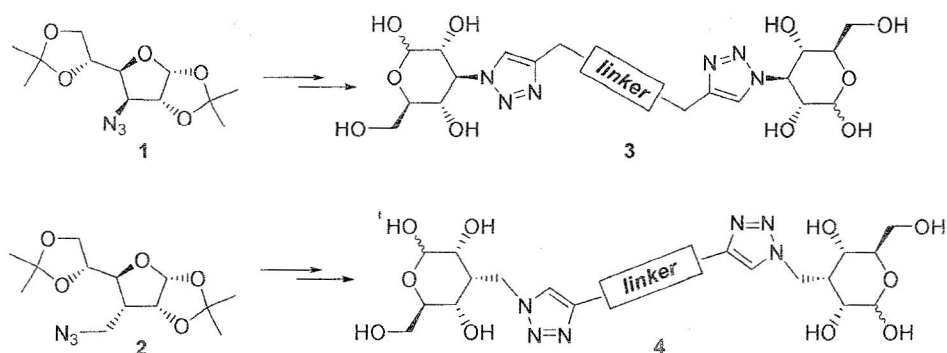
## SYNTHESIS OF NOVEL BIS-TRIAZOLE-TETHERED DISACCHARIDES

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Among other azoles, 1,2,3-triazole moiety has gained an undivided interest in recent years. That can be explained by its presence in many biologically active (drug like) substances [1]. Moreover, since the discovery of efficient catalysis of the Huisgen dipolar cycloadditions between alkynes and azides, this reaction has become important in the field of derivatization of different molecular scaffolds [2]. So far triazole-carbohydrate conjugates have shown inhibitory effects on the proliferation of leukemia cells [3] and glycosidases [4]. On the other hand, such adducts have been also studied as antiviral [5] and antitubercular agents [6].

Hence, we report here Cu(I)-catalyzed synthesis of novel disaccharides with extended alkylene-bis-triazole-linker. The products were obtained over two steps in good to excellent isolated yields starting from diacetone-D-glucose derived azides **1** and **2**. The reactions between corresponding azides and 1,*n*-diynes proceeded in 16-36 h at ambient temperature in acetone/water mixture with copper (II) sulfate pentahydrate and sodium ascorbate as the catalytic system. On the other hand, higher reaction temperatures or a change to CuI/DIPEA system gave shorter reaction times. Following deprotection proceeded in aqueous acetic or trifluoroacetic acid yielding a mixture of  $\alpha$ - and  $\beta$ -anomers of fully deprotected derivatives **3** and **4**. The latter are fully soluble in water and their biological activity will be discussed elsewhere.



### References:

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