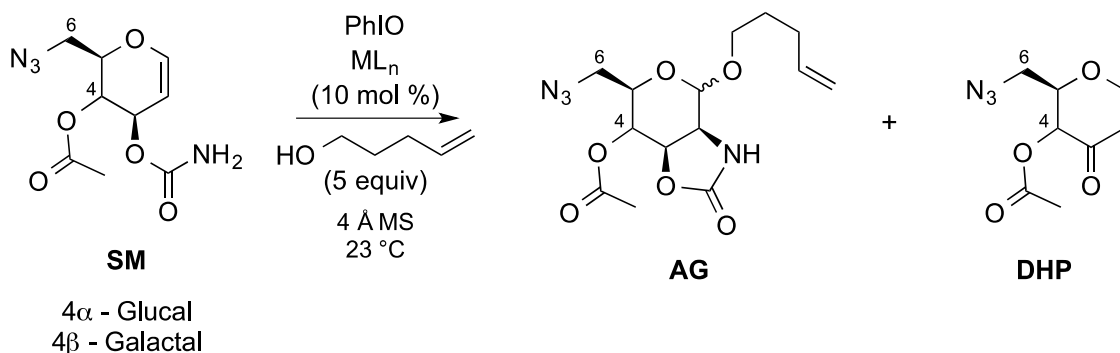


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Preparation of 2-Amido Sugars from D-Glycals for Glycodiversification Studies



Glycal 3-carbamates possessing acetate and azide functional groups at the C4 and C6 positions, respectively, were prepared via a seven-step synthetic route and subsequently used in a metal-catalyzed amidoglycosylation reaction. The resulting amidoglycosylation (AG) product to dihydropyranone (DHP) byproduct ratios obtained under different reaction conditions were compared to assess the combined effects of the azide and the catalyst on chemoselectivity. The conversion of the starting material to the desired AG product was also measured. The reaction of the glucal 3-carbamate with $Rh_2(OAc)_4$ as the catalyst provided a good yield (58%) and proved to be both chemoselective for the AG product as opposed to (DHP) formation and selective for the α -AG. Further experimentation is required to determine the AG:DHP ratio and stereoselectivity for the galactal 3-carbamate with either $Rh_2(OAc)_4$ or $[Cu_2(pyr)_4](X)_2$ catalysts.

