

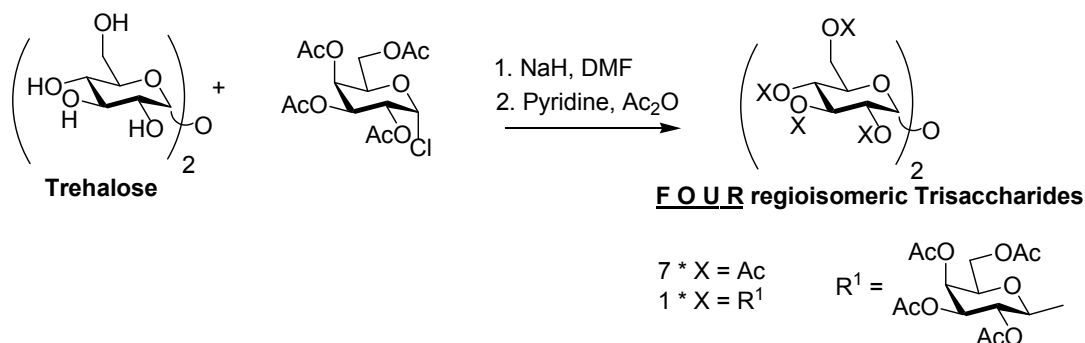
## RANDOM GLYCOSYLATION OF UNPROTECTED DISACCHARIDES AND SYNTHESIS OF HIGHLY BRANCHED OLIGOSACCHARIDES

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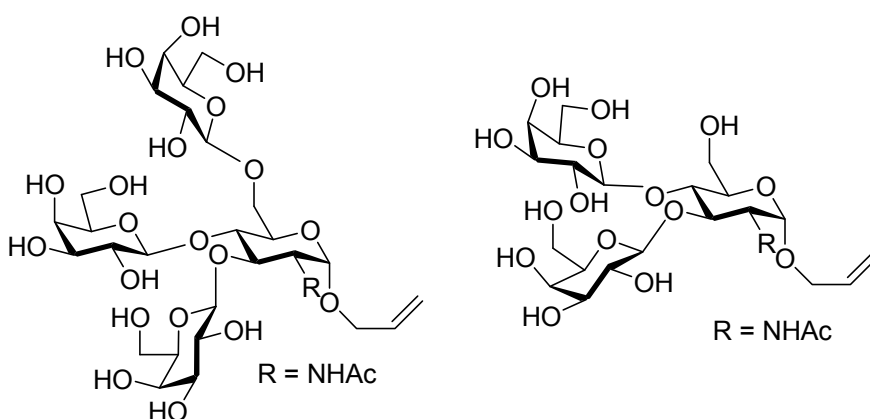
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Combinatorial approaches towards new drugs containing proteins and nucleotides are a common strategy in pharmaceutical industry. However, carbohydrate based drugs are rare, due to the complex synthesis using orthogonal protecting group strategies. Nevertheless, there are few studies of the combinatorial behaviour of carbohydrates [1, 2].

Here we report a novel approach for the random glycosylation of unprotected disaccharides, e. g. trehalose. The analysis of the products was done by MALDI-TOF-spectrometry, NMR-spectroscopy and methylation analysis.



Further we report the synthesis of branched galactosylated N-acetyl-glucosamine derivatives, which might serve as intermediates in an synthetic approach to galactose containing oligosaccharides, e. g. various lactosamines.



### References

- [1] Y. Ding, J. Labbe, O. Kanie, O. Hindsgaul, *Bioorg. Med. Chem.*, 4 (1996) 683.
- [2] Y. Biao, B. Ling, G. Xing, Y. Hui, *J. Comb. Chem.*, 3 (2001) 404 – 406.