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Carbohydrate
RESEARCH

Carbohydrate Research Vol. 339, No. 8, 2004

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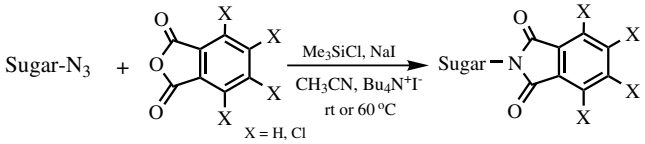
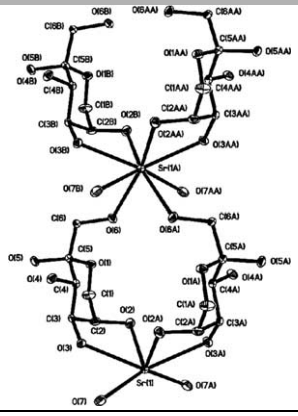
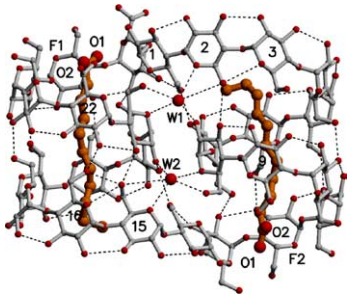
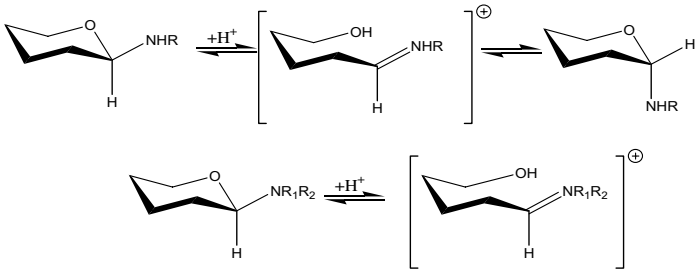
RAPID COMMUNICATION

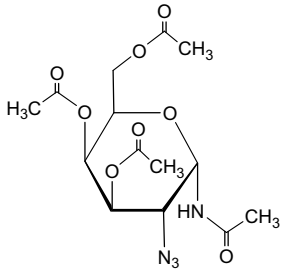


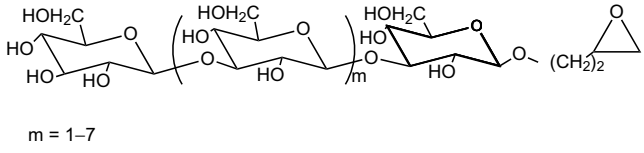
FULL PAPERS

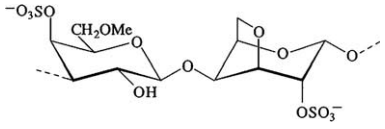


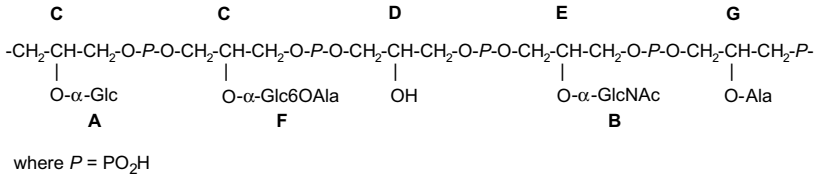


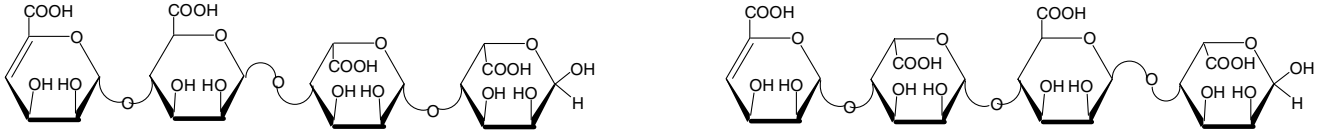


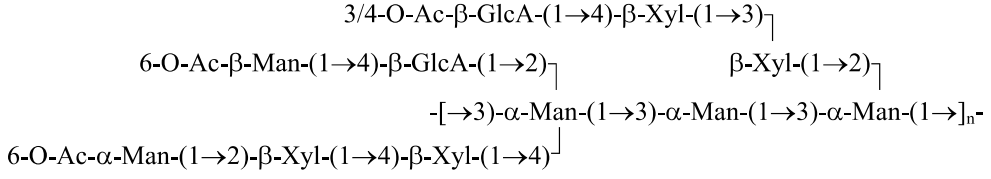


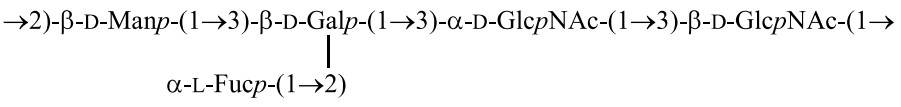


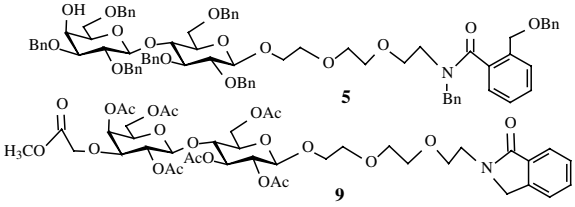




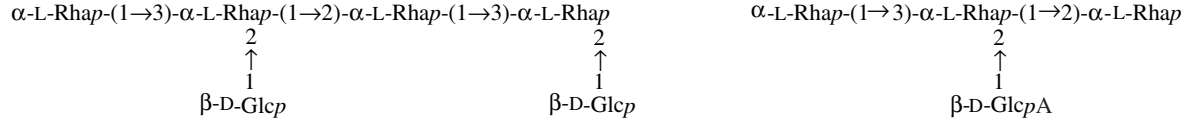


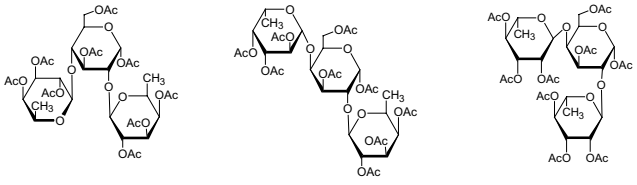


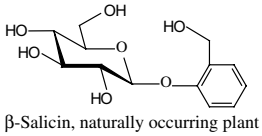




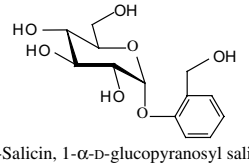
An unusual reductive ring-opening reaction, in the title compounds, of the phthalimide group with sodium hydride in anhydrous DMF is observed for the first time and the presumed mechanism is described in detail. An unexpected hydrogenation of the phthalimide group was also observed.



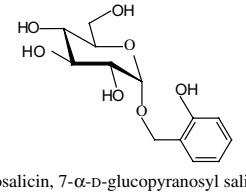




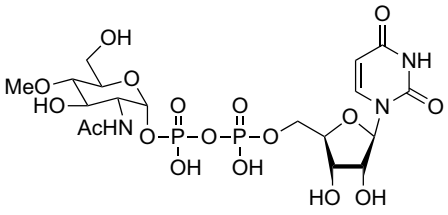
β-Salicin, naturally occurring plant glycoside,1-β-D-glucopyranosyl salicyl alcohol

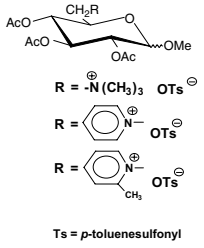


α-Salicin, 1-α-D-glucopyranosyl salicyl alcohol, major product by *B. macerans* cyclomaltodextrin glucanyltransferase

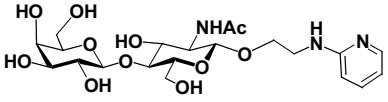


α-Isosalicin, 7-α-D-glucopyranosyl salicyl alcohol, major product by *L. mesenteroides* B-742CB dextransucrase





The synthesis and structures of selected quaternary *N*-(methyl 2,3,4-tri-*O*-acetyl-6-deoxy-α- and -β-D-glucopyranoside-6-yl)-ammonium salts are described.



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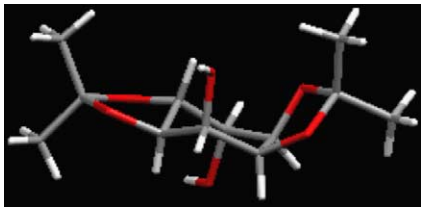

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

COVER

Well-defined glycoforms of glycoproteins can easily be obtained by oxidative coupling of synthetic thioaldoses with proteins that have a cysteine moiety in lieu of an asparagine residue carrying natural N-linked oligosaccharides. In vitro glycosylation offers several advantages such as quantitative conjugation, incorporation of oligosaccharides that display high bioactivities and the possibility of using convenient bacterial or yeast protein expression systems. The figure is related to Geert-Jan Boons' *Carbohydrate Research Award* paper, Carbohydr. Res., **2004**, *339*, 181–193.

Indexed/Abstracted in: Chem. Abstr.: Curr. Contents: Phys., Chem. & Earth Sci. Life Sci. Current Awareness in Bio. Sci (CABS). Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database which is availabe on STN® International.

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ISSN 0008-6215