

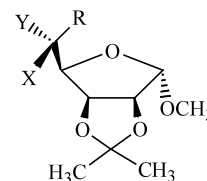
Some amino sugars structurally related to 6-deoxymannojirimycin precursors prepared from methyl 6-deoxy-2,3-*O*-isopropylidene- α -D-lyxo-hexofuranosid-5-ulose and methyl 2,3-*O*-isopropylidene- α -D-lyxo-pentodialdo-1,4-furanoside

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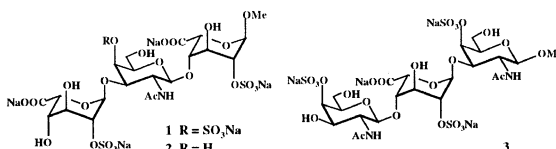


R = Me, H
X, Y = CN, NHR¹, COOEt

An access to various sulfation patterns in dermatan sulfate: chemical syntheses of sulfoforms of trisaccharide methyl glycosides

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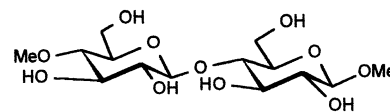


Synthesis of oxidized methyl 4-*O*-methyl- β -D-glucopyranoside and methyl β -D-glucopyranosyl-(1 \rightarrow 4)- β -D-glucopyranoside derivatives as substrates for fluorescence labeling reactions

Jürgen Röhring, Antje Potthast, Thomas Lange, Thomas Rosenau, Immanuel Adorjan,
Andreas Hofinger, Paul Kosma

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The chemical synthesis, oxidation, and fluorescence labelling of mono- and disaccharide derivatives serving as model compounds for oxidized celluloses is described.



Regulation of fructosyltransferase activity by carbohydrates, in solution and immobilized on hydroxyapatite surfaces

Doron Steinberg, Ramona Rozen, Moshe Bromshteym, Batia Zaks, Itzhak Gedalia, Gilad Bachrach
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We tested the effect of several carbohydrates on the activity of cell-free fructosyltransferases (FTF) in solution and immobilized onto hydroxyapatite (HA) and found an inhibitory dose-dependent effect of glucose on FTF activity, both on the surface and in solution.

Characterization of water-soluble hemicelluloses from spruce and aspen employing SEC/MALDI mass spectroscopy

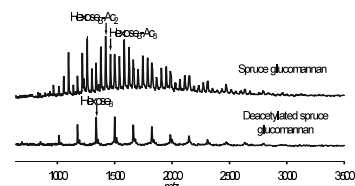
Carbohydr. Res. **2002**, *337*, 711

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Water-soluble hemicelluloses were isolated from spruce and aspen employing microwave treatment. The degree of substitution with acetyl moieties (DS) of the acetylated hemicelluloses was calculated on the basis of the MALDI-MS spectra obtained prior to and following deacetylation.

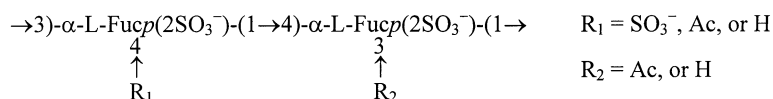


Structure of a fucoidan from the brown seaweed *Fucus evanescens* C.Ag.

Carbohydr. Res. **2002**, *337*, 719

Maria I. Bilan, Alexey A. Grachev, Nadezhda E. Ustuzhanina, Alexander S. Shashkov, Nikolay E. Nifantiev, Anatolii I. Usov

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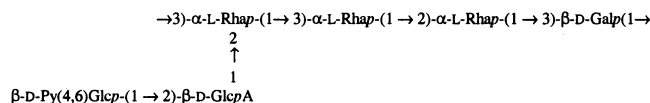
Extracellular polysaccharides of a bacterium associated with a fungal canker disease of *Eucalyptus* sp

Carbohydr. Res. **2002**, *337*, 731

Byung Yun Yang, Qiong Ding, Rex Montgomery

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Extracellular polysaccharides (EPSs) produced by an *Erwinia* sp associated with a fungal canker disease of *Eucalyptus* were fractionated into one polysaccharide that was identified with that produced by *Erwinia chrysanthemi* strains SR260, Ech1, and Ech9, and the other distinctively different from any other EPS produced by *E. chrysanthemi* strains so far studied. Their structures were determined using a combination of chemical and physical techniques including methylation analysis, low pressure gel-filtration and anion-exchange chromatographies, high-pH anion-exchange chromatography, mass spectrometry and 1D and 2D ¹H NMR spectroscopy. The new polysaccharide, identified as EPS Taranera, has the following structure:



The molecular weights of the polysaccharides range from 3.2–6.2 × 10⁵ and their hydrodynamic properties are those of polydisperse, polyanionic biopolymers with pseudoplastic, non-thixotropic flow characteristics in aqueous solutions.

Structural and physicochemical characterization of the inclusion complexes of cyclomaltooligosaccharides (cyclodextrins) with melatonin

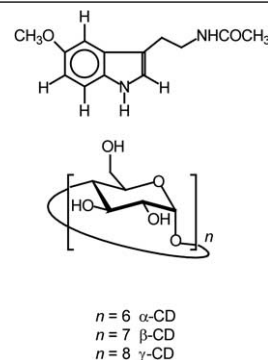
Carbohydr. Res. **2002**, *337*, 743

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5-Azido neuraminic acid thioglycoside as sialylation donor

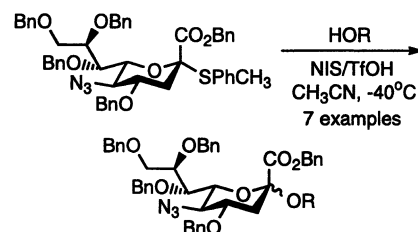
Carbohydr. Res. **2002**, *337*, 755

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Production of *N*-acetyl-D-glucosamine from α -chitin by crude enzymes from *Aeromonas hydrophila* H-2330

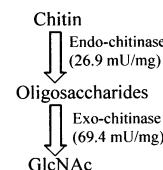
Carbohydr. Res. **2002**, *337*, 761

Hitoshi Sashiwa,^a Shizu Fujishima,^a Naoko Yamano,^a Norioki Kawasaki,^a Atsuyoshi Nakayama,^a Einosuke Muraki,^a Kazumi Hiraga,^b Kohei Oda,^b Sei-ichi Aiba^a

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Efficient (yield = 77%) production of GlcNAc was achieved from flake type of α -chitin by crude enzymes derived from *Aeromonas hydrophila* H-2330.



Can the stereochemical outcome of glycosylation reactions be controlled by the conformational preferences of the glycosyl donor?

Carbohydr. Res. **2002**, *337*, 765

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