Carbohydr. Res. **2002,** *337*, 569

Synthesis of GD3-lactam: a potential ligand for the development of an anti-melanoma vaccine

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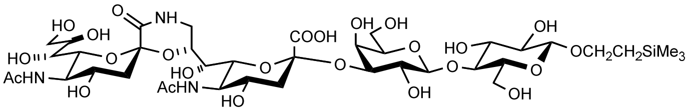
A novel 3-thiophenyl-substituted *N*,*N*-diacetyl sialyl donor was the key step in the synthesis of a lactam analog of the potent human melanoma antigen GD3 tetrasaccharide 1‴–9″-lactone.

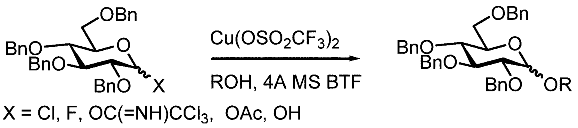


Carbohydr. Res. **2002,** *337*, 581

A substrate-unspecified glycosylation reaction promoted by copper(II) trifluoromethanesulfonate in benzotrifluoride

Hidetoshi Yamada, Tomomi Hayashi

School of Science, Kwansei Gakuin University, 2-1 Gakuen, Sanda 669-1337, Japan



Carbohydr. Res. **2002,** *337*, 587

Molecular ordering of cellulose after extraction of polysaccharides from primary cell walls of *Arabidopsis thaliana*: a solid-state CP/MAS ^{13}C NMR study

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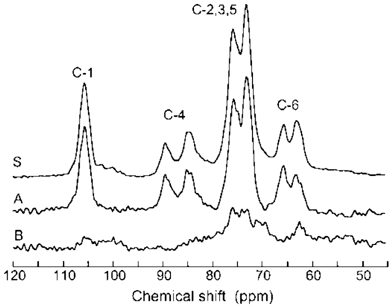
[b]*Industrial Research Limited, PO Box 31-310, Lower Hutt, New Zealand*



Carbohydr. Res. **2002,** *337*, 595

Disentangling α from β mechanical relaxations in the rubber-to-glass transition of high-sugar–chitosan mixtures

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[b]*CERMAV-CNRS, BP 53, 38041 Grenoble Cedex 9, Grenoble, France*

Chitosan molecules were substituted with alkyl chains to prove the hypothesis that in addition to glass transitions (α mechanisms), β mechanical relaxations due to molecular motions of the side chains can occur in high sugar/polysaccharide glasses.

Carbohydr. Res. **2002,** *337*, 607

Synthesis of D-mannitol and L-iditol derivatives as monomers for the preparation of new regioregular AABB-type polyamides

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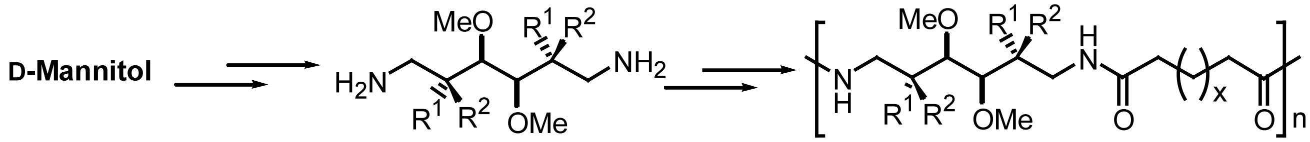
Departamento de Química Orgánica y Farmacéutica, Facultad de Farmacia, Universidad de Sevilla, E-41071 Seville, Spain



9 R^1 = OMe, R^2 = H
10 R^1 = H, R^2 = OMe

x = 4, 8

Carbohydr. Res. **2002,** *337*, 613

Direct regioselective 2-*O*-(*p*-toluenesulfonylation) of sucrose

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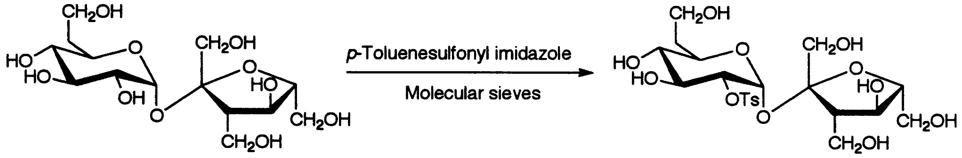

Carbohydr. Res. **2002,** *337*, 621

Synthesis of a potential tetrasaccharide ligand for E-selectin

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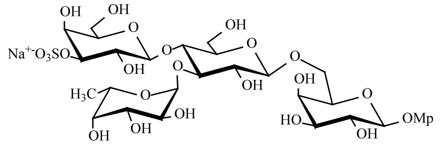
A potential tetrasaccharide ligand for E-selectin, ($Na^+ {}^-O_3SO$-3)-Galβ-(1 → 4)[Fucα-(1 → 3)]Glcβ-(1 → 6)Gal, which is an analogue of the ovarian cystadenoma glycoprotein tetrasaccharide fragment, was synthesized in a highly practical way.



Carbohydr. Res. **2002,** *337*, 629

Glycon specificity profiling of α-glucosidases using monodeoxy and mono-*O*-methyl derivatives of *p*-nitrophenyl α-D-glucopyranoside

Toshiyuki Nishio,[a] Wataru Hakamata,[b] Atsuo Kimura,[c] Seiya Chiba,[c] Akira Takatsuki,[b] Ryu Kawachi,[a] Tadatake Oku[a]

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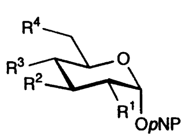
[c]*Division of Applied Bioscience, Graduate School of Agriculture, Hokkaido University, Nishi-9, Kita-9, Kita-ku, Sapporo, Hokkaido 060-8589, Japan*



Using mono-deoxy and -methoxy derivatives of *p*-nitrophenyl α-D-glucoside, glycon specificities of α-glucosidases from various sources were investigated.

1 R^1=R^2=R^3=R^4=OH
2 R^1=H, R^2=R^3=R^4=OH
3 R^1=R^3=R^4=OH, R^2=H
4 R^1=R^2=R^4=OH, R^3=H
5 R^1=R^2=R^3=OH, R^4=H
6 R^1=OMe, R^2=R^3=R^4=OH
7 R^1=R^3=R^4=OH, R^2=OMe
8 R^1=R^2=R^4=OH, R^3=OMe
9 R^1=R^2=R^3=OH, R^4=OMe

Using monodeoxy and -methoxy derivatives of *p*-nitrophenyl α-D-glucoside, glycon specificities of α-glucosidases from various sources were investigated.

Carbohydr. Res. **2002,** *337*, 635

1-*O*-Acetyl-β-D-galactopyranose: a novel substrate for the transglycosylation reaction catalyzed by the β-galactosidase from *Penicillium* sp.

Alexander I. Zinin,[a] Elena V. Eneyskaya,[b] Konstantin A. Shabalin,[b] Anna A. Kulminskaya,[b] Sergei M. Shishlyannikov,[b] Kirill N. Neustroev[b]

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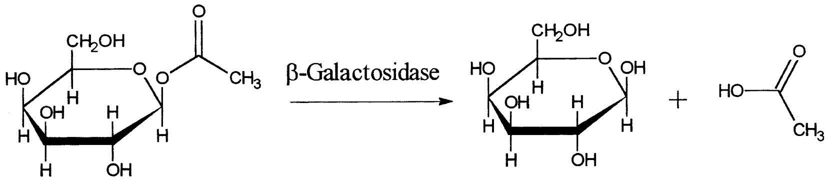

Carbohydr. Res. **2002,** *337*, 643

Structure of the core part of the lipopolysaccharides from *Proteus penneri* strains 7, 8, 14, 15, and 21

Evgeny Vinogradov,[a] Zygmunt Sidorczyk,[b] Yuriy A. Knirel[c]

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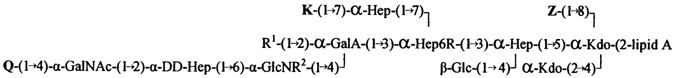
[c]*N.D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, 119991 Moscow, Russia*



K-(1→7)-α-Hep-(1→7)┐ Z-(1→8)┐
R^1-(1→2)-α-GalA-(1→3)-α-Hep6R-(1→3)-α-Hep-(1→5)-α-Kdo-(2-lipid A
Q-(1→4)-α-GalNAc-(1→2)-α-DD-Hep-(1→6)-α-GlcNR^2-(1→4)┘ β-Glc-(1→4)┘ α-Kdo-(2→4)┘

Strain	R	R^2	Q	R^1	K
8	PEtN	H or Gly (~10%)	H	α-Hep-(1→2)-α-DDHep-	H
7, 14, 15, and 21	PEtN	H or Gly (~30%)	α-Glc	α-Hep-(1→2)-α-DDHep-	H
14	H	H	α-Glc or H	α-Hep-(1→2)-α-DDHep-	*
14	PEtN	H	α-Glc or H		*

K = amide of β-GalA with putrescine -HN(CH$_2$)$_4$NH$_2$, spermidine -HN(CH$_2$)$_3$NH(CH$_2$)$_4$NH$_2$ or 3-N-(3-aminopropyl)-1,3-propanediamine -HN(CH$_2$)$_3$NH(CH$_2$)$_3$NH$_2$.

Carbohydr. Res. **2002,** *337*, 651

Chiral induction based on carbohydrate ligands in olefin platinum(0) complexes

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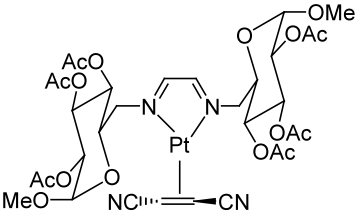
[b]*Dipartimento di Chimica, Università di Napoli Federico II, Complesso Universitario Monte S. Angelo, via Cintia, I-80126 Napoli, Italy*



Carbohydr. Res. **2002,** *337*, 657

Preparation of (1→4)-β-D-xylooligosaccharides from an acid hydrolysate of cotton-seed xylan: suitability of cotton-seed xylan as a starting material for the preparation of (1→4)-β-D-xylooligosaccharides

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Xylan preparation from cotton seed was hydrolyzed with 0.125 M sulfuric acid. Xylooligosaccharides were separated from the resultant hydrolysis products by gel-permeation chromatography on BioGel P-4 and Toyopearl HW-40F columns connected in series.