Graphical Abstracts

Carbohydr. Res. **2002,** *337*, 2377

Regioselective sulfonylation of 6,1′,6′-tri-O-tritylsucrose through dibutylstannylation: synthesis of 4′-O-sulfonyl derivatives of sucrose

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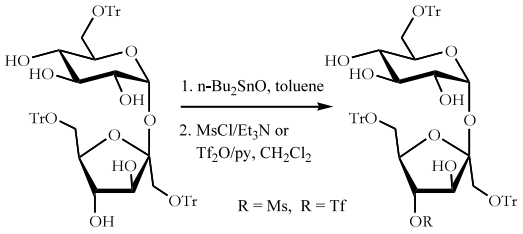
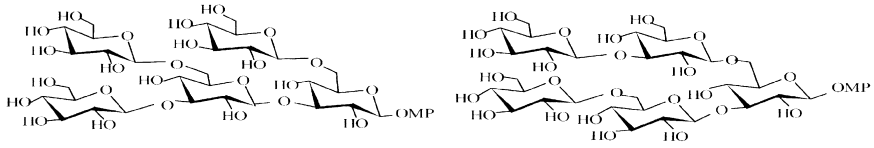


Carbohydr. Res. **2002,** *337*, 2383

Synthesis of two isomeric pentasaccharides, the possible repeating unit of the β-glucan from the micro fungus *Epicoccum nigrum* Ehrenb. ex Schlecht

Ying Zeng, Wenhui Zhang, Jun Ning, Fanzuo Kong

Research Center for Eco-Environmental Sciences, Academia Sinica, PO Box 2871, Beijing 100085, China



Carbohydr. Res. **2002,** *337*, 2393

Facile preparation of mono-2-*O*-modified eicosa-*O*-methylcyclomaltoheptaoses (-β-cyclodextrins)

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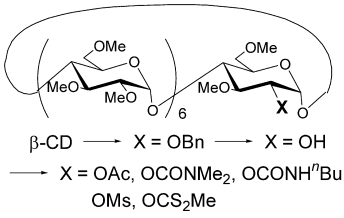

Carbohydr. Res. **2002,** *337*, 2399

Sulfonate protecting groups. Regioselective sulfonylation of *myo*-inositol orthoesters—improved synthesis of precursors of D- and L-*myo*-inositol 1,3,4,5-tetrakisphosphate, *myo*-inositol 1,3,4,5,6-pentakisphosphate and related derivatives

Kana M. Sureshan,[a] Mysore S. Shashidhar,[a] Thoniyot Praveen,[a] Rajesh G. Gonnade,[b] Mohan M. Bhadbhade[b]

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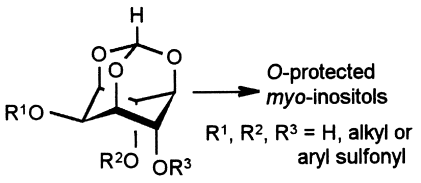

Carbohydr. Res. **2002,** *337*, 2411

Novel amphiphilic fluoroalkylated derivatives of xylitol, D-glucose and D-galactose for medical applications: hemocompatibility and co-emulsifying properties

Oldřich Paleta,[a] Ivona Dlouhá,[a] Robert Kaplánek,[a] Karel Kefurt,[b] Milan Kodíček[c]

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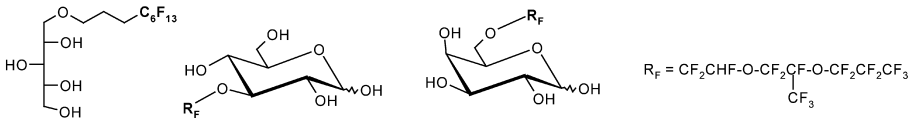

Carbohydr. Res. **2002,** *337*, 2419

Synthesis, high-resolution NMR spectroscopic analysis, and single-crystal X-ray diffraction of isoxazoline tetracycles

Mirta L. Fascio,[a] Angel Alvarez-Larena,[b] Norma B. D'Accorso[a]

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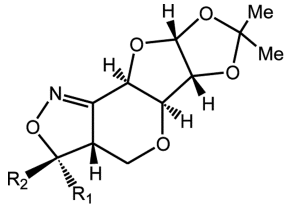

4 R_1 = H; R_2 = CH_3

5 R_1= H; R_2 = Ph

6 R_1 = CH_3; R_2 = CH_3

Carbohydr. Res. **2002,** *337*, 2427

Synthesis of acarbose analogues by transglycosylation reactions of *Leuconostoc mesenteroides* B-512FMC and B-742CB dextransucrases

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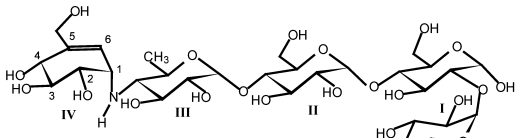
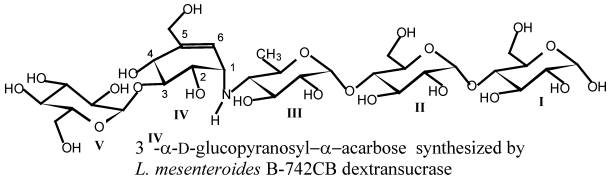
Laboratory of Carbohydrate Chemistry and Enzymology, 4252 Molecular Biology BLDG, Iowa State University, Ames, IA 50011, USA



2 ^{I}-α-D-glucopyranosyl–α–acarbose synthesized by *L. mesenteroides* B-512FMC & B-742CB dextransucrases



3 ^{IV}-α-D-glucopyranosyl–α–acarbose synthesized by *L. mesenteroides* B-742CB dextransucrase

Carbohydr. Res. **2002,** *337*, 2437

The binding of synthetic analogs of the upstream, terminal residue of the O-polysaccharides (O-PS) of *Vibrio cholerae* O:1 serotypes Ogawa and Inaba to two murine monoclonal antibodies (MAbs) specific for the Ogawa lipopolysaccharide (LPS)

Ximan Liao,[a] Emanuel Poirot,[a] Alex H. C. Chang,[a] Xiaodong Zhang,[a] Jian Zhang,[a] Farida Nato,[b] Jean-Michel Fournier,[b] Pavol Kováč,[a] Cornelis P. J. Glaudemans[a]

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The refined hydrogen-bonding pattern involved in the title antigen–antibody system is reported.

Carbohydr. Res. **2002,** *337*, 2443

Sulfated and pyruvylated disaccharide alditols obtained from a red seaweed galactan: ESIMS and NMR approaches

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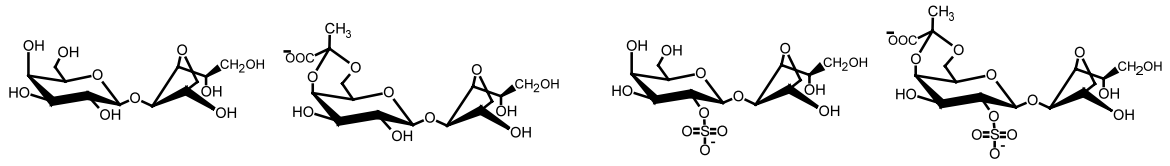

Carbohydr. Res. **2002,** *337*, 2455

Preparation and characterisation of chitosans with oligosaccharide branches

Kristoffer Tømmeraas,[a] Magnus Köping-Höggård,[b] Kjell M. Vårum,[a] Bjørn E. Christensen,[a] Per Artursson,[b] Olav Smidsrød[a]

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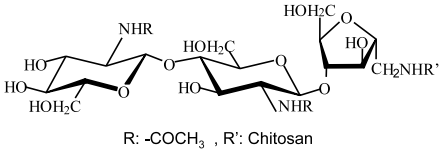
2-Acetamido-2-deoxy-D-glucopyranosyl-β-(1→4)-2-acetamido-2-deoxy-D-glucopyranosyl-β-(1→4)-2,5-anhydro-D-mannofuranose (A–A–M) was reductively *N*-alkylated onto a fully de-*N*-acetylated chitosan ($F_A < 0.001$, $DP_n = 25$) to obtain branched chitosans with degree of substitution (DS) of 0.070, 0.23 and 0.40 which were characterised.



Carbohydr. Res. **2002,** *337*, 2463

Structure of the O-specific polysaccharide of *Proteus vulgaris* O15 containing a novel regioisomer of *N*-acetylmuramic acid, 2-acetamido-4-*O*-[(*R*)-1-carboxyethyl]-2-deoxy-D-glucose

Andrei V. Perepelov,[a] Agnieszka Torzewska,[b] Alexander S. Shashkov,[a] Andrzej Ziolkowski,[c] Sof'ya N. Senchenkova,[a] Antoni Rozalski,[b] Yuriy A. Knirel[a]

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[c]*Centre of Microbiology and Virology, Polish Academy of Sciences, Lodowa 106, 93-232 Lodz, Poland*

The polysaccharide was shown to have the following repeating unit:

→3)-α-D-Glc*p*NAc4(*R*-Lac)6Ac-(1→2)-β-D-Glc*p*A-(1→3)-α-L-6dTal*p*2Ac-(1→3)-β-D-Glc*p*NAc-(1→

where L-6dTal and D-GlcNAc4(*R*-Lac) are 6-deoxy-L-talose and 2-acetamido-4-*O*-[(*R*)-1-carboxyethyl]-2-deoxy-D-glucose, respectively.

Carbohydr. Res. **2002,** *337*, 2469

Extracellular polysaccharides of *Erwinia futululu*, a bacterium associated with a fungal canker disease of *Eucalyptus* spp.

Byung Yun Yang, Qiong Ding, Rex Montgomery

Department of Biochemistry, College of Medicine, University of Iowa, Iowa City, IA 52242, USA

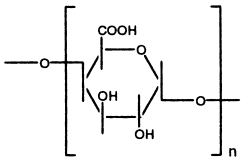
Extracellular polysaccharides (EPSs) produced by an *Erwinia* spp. associated with a fungal canker disease of *Eucalyptus* were fractionated into two polysaccharides, one (**1**) that was identified with that produced by *Erwinia stewartii*. The other (**2**) has a similar structure, but with one terminal Glc residue replaced by pyruvic acid to give 4,6-*O*-(1-carboxyethylidene)-Gal*p*.

β-D-Glc*p*-(1→6)┐
→3)-β-D-Gal*p*-(1→3)-α-D-Gal*p*-(1→6)-β-D-Glc*p*-(1→
β-D-Glc*p*-(1→6)-α-D-Gal*p*-(1→4)-β-D-GlcA*p*-(1→4)┘
1

β-D-Glc*p*-(1→6)┐
→3)-β-D-Gal*p*-(1→3)-α-D-Gal*p*-(1→6)-β-D-Glc*p*-(1→
4,6-*O*-[(*R*)-1-carboxyethylidene]-α-D-Gal*p*-(1→4)-β-D-GlcA*p*-(1→4)┘
2

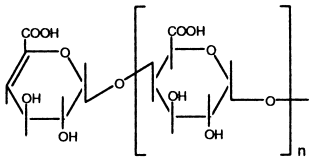
Carbohydr. Res. **2002,** *337*, 2481

High-performance liquid chromatographic separation and on-line mass spectrometric detection of saturated and unsaturated oligogalacturonic acids



Thomas Stoll, Andreas Schieber, Reinhold Carle

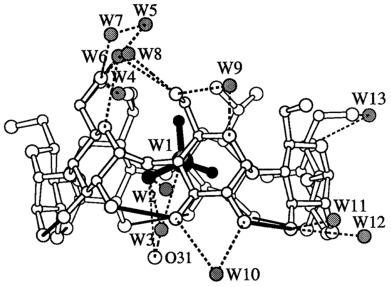
Institute of Food Technology, Section Plant Foodstuff Technology, Hohenheim University, Garbenstraße 25, D-70599 Stuttgart, Germany



An analytical system for the simultaneous separation of saturated and unsaturated oligogalacturonic acids (up to dp 7) is presented allowing on-line mass spectrometric detection without additional desalting.

Carbohydr. Res. **2002,** *337*, 2487

Crystal structure of β-cyclodextrin–dimethylsulfoxide inclusion complex



Thammarat Aree,[a] Narongsak Chaichit[b]

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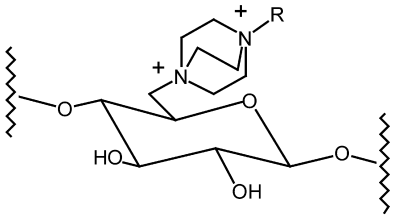
Crystallographic evidence for a β-CD–DMSO inclusion complex is presented. DMSO is entirely embedded in the β-CD cavity and is maintained in position by hydrogen bonding to the water site W-3 and O-31–H group of a symmetry equivalent β-CD.

Carbohydr. Res. **2002,** *337*, 2495

Preparation and investigation of antibacterial carbohydrate-based surfaces



Tanya Abel,[a] JaimeLee Iolani Cohen,[a] Robert Engel,[c] Maya Filshtinskaya,[a] Alice Melkonian,[b] Karin Melkonian[b]

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[c]*Department of Chemistry and Biochemistry, Queens College of CUNY and the Graduate Center of CUNY, 65-30 Kissena Boulevard, Flushing, NY 11367, USA*

Surfaces bearing carbohydrate units have been modified in a two-step process to incorporate functionalities (lipophilic with polycationic units) that bear antibacterial activity. The effectiveness of these modified surfaces for antibacterial action against a series of seven Gram-positive and Gram-negative bacteria are reported.

Carbohydr. Res. **2002,** *337*, 2501

Inclusion of carvone enantiomers in cyclomaltoheptaose (β-cyclodextrin): thermal behaviour and H → D and D → H exchange

Aida M. Moreira da Silva,[a] José M. A. Empis,[b] José J. C. Teixeira-Dias[c]

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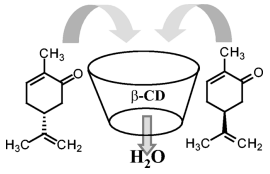
[b]*Department of Chemical Engineering, Instituto Superior Técnico, P-1096 Lisboa, Portugal*
[c]*Department of Chemistry, University of Aveiro, CICECO, P-3810 Aveiro, Portugal*



Carbohydr. Res. **2002,** *337*, 2505

Structure of the oligomers obtained by enzymatic hydrolysis of the glucomannan produced by the plant *Amorphophallus konjac*

Paola Cescutti, Cristiana Campa, Franco Delben, Roberto Rizzo

Dipartimento di Biochimica, Biofisica e Chimica delle Macromolecole, Università di Trieste, via L. Giorgieri 1, I-34127 Trieste, Italy

Dimers and trimers obtained by enzymatic hydrolysis of konjac glucomannan were characterised by means of electrospray mass spectrometry, capillary electrophoresis and NMR. The investigation revealed that the polysaccharidic chain is composed of random sequences of Glc and Man residues.