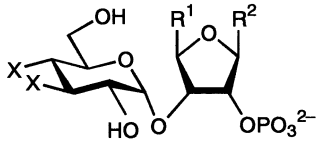
Graphical Abstracts

Synthesis of glucopyranoside-based ligands for D-*myo*-inositol 1,4,5-trisphosphate receptors

Carbohydr. Res. **2002,** *337*, 1067

Andrew M. Riley, David J. Jenkins, Rachel D. Marwood, Barry V.L. Potter

Wolfson Laboratory of Medicinal Chemistry, Department of Pharmacy and Pharmacology, University of Bath, Claverton Down, Bath BA2 7AY, UK



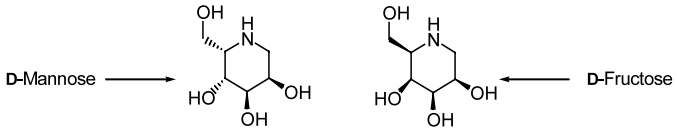
4 X = OPO_3^{2-}, $R^1 = CH_2OH$, $R^2 = OCH_3$
5 X = OPO_3^{2-}, $R^1 = R^2 = H$
6 X = $OP(S)O_2^{2-}$, $R^1 = R^2 = H$

Synthesis of 1-deoxy-L-*gulo*nojirimycin (L-*gulo*DNJ) and 1-deoxy-D-*talo*nojirimycin (D-*talo*DNJ)

Carbohydr. Res. **2002,** *337*, 1083

Cosam C. Joseph, Henk Regeling, Binne Zwanenburg, Gordon J.F. Chittenden

Department of Organic Chemistry, NSR Center for Molecular Structure, University of Nijmegen, Toernooiveld 1, NL-6525 ED Nijmegen, The Netherlands

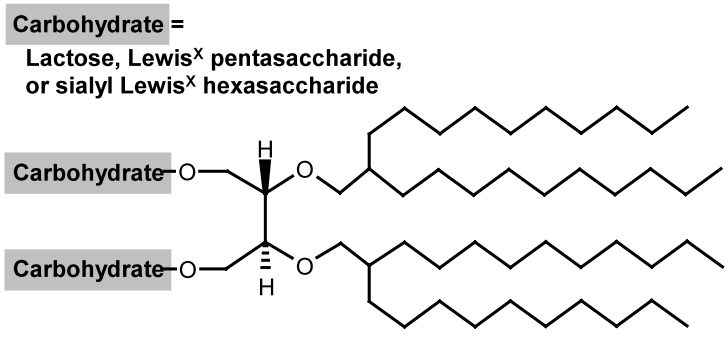


Synthesis of dimeric lactose and dimeric (sialyl) Lewis^x glycolipids

Carbohydr. Res. **2002,** *337*, 1089

Christian Gege, Richard R. Schmidt

Fachbereich Chemie, Universität Konstanz, Box M725, D-78457 Konstanz, Germany

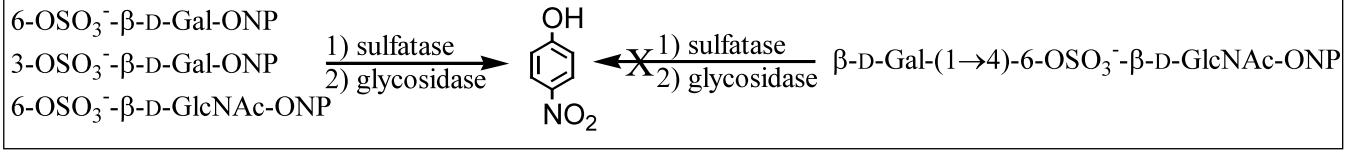


Synthesis and utility of sulfated chromogenic carbohydrate model substrates for measuring activities of mucin-desulfating enzymes

Carbohydr. Res. **2002,** *337*, 1095

Keith Clinch,[a] Gary B. Evans,[a] Richard H. Furneaux,[a] Phillip M. Rendle,[a] Phillippa L. Rhodes,[b] Anthony M. Roberton,[b] Douglas I. Rosendale,[b] Peter C. Tyler,[a] Damian P. Wright[b]

[a]*Industrial Research Ltd., Gracefield Road, PO Box 31-310, Lower Hutt, New Zealand*
[b]*School of Biological Sciences, The University of Auckland, Private Bag 92019, Auckland, New Zealand*



Carbohydr. Res. **2002,** *337*, 1113

Reactions of alpha amylases with starch granules in aqueous suspension giving products in solution and in a minimum amount of water giving products inside the granule

Cheol Yook, John F. Robyt

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

	Porcine pancreatic alpha amylase gives G1–G4				*Bacillus amyloliquefaciens* alpha amylase gives G1–G8			
Starches	Maize	Waxy maize	Amylomaize-7	Potato	Maize	Waxy maize	Amylomaize-7	Potato
in solution	71%	74%	38%	32%	84%	80%	43%	24%
in the granule	17%	17%	15%	10%	24%	24%	19%	12%

Carbohydr. Res. **2002,** *337*, 1119

Structure of the phenol-soluble polysaccharide from *Shewanella putrefaciens* strain A6

Alexander S. Shashkov,[a,b] Vladimir I. Torgov,[a,b] Evgeny L. Nazarenko,[c] Vladimir A. Zubkov,[c] Natalya M. Gorshkova,[c] Raisa P. Gorshkova,[c] Göran Widmalm[a]

[a]*Arrhenius Laboratory, Department of Organic Chemistry, Stockholm University, S-106 91 Stockholm, Sweden*
[b]*N.D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Moscow 117913, Russian Federation*
[c]*Pacific Institute of Bioorganic Chemistry, Far East Branch of the Russian Academy of Sciences, Vladivostok 690022, Russian Federation*

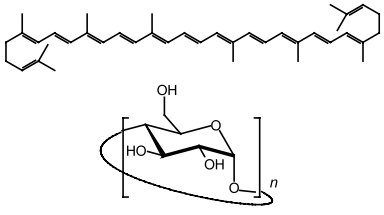
The repeating unit is composed of two nine-carbon sugars: →4)-α-Non*p*A-(2→3)-β-Sug*p*-(1→ where α-Non*p*A is 5-acetamido-7-acetamidino-8-*O*-acetyl-3,5,7,9-tetradeoxy-L-*glycero*-α-D-*galacto*-non-2-ulosonic acid (8eLeg) and β-Sug*p* is 2-acetamido-2,6-dideoxy-4-*C*-(3′-carboxamide-2′,2′-dihydroxypropyl)-β-D-galactopyranose.

Carbohydr. Res. **2002,** *337*, 1129

Non-covalent associations of cyclomaltooligosaccharides (cyclodextrins) with carotenoids in water. A study on the α- and β-cyclodextrin/ψ,ψ-carotene (lycopene) systems by light scattering, ionspray ionization and tandem mass spectrometry

Andrea Mele,[a] Raniero Mendichi,[c] Antonio Selva,[b] Peter Molnar,[d] Gyula Toth[d]

[a]*Dipartimento di Chimica, Materiali ed Ingegneria Chimica "G. Natta" del Politecnico di Milano, Via Mancinelli, 7, I-20131 Milan, Italy*
[b]*CNR, Istituto di Chimica del Riconoscimento Molecolare, Via Mancinelli, 7, I-20131 Milan, Italy*
[c]*CNR, Istituto di Chimica delle Macromolecole, Via Bassini, 15, I-20133 Milan, Italy*
[d]*Department of Biochemistry and Medical Chemistry, University of Pécs, Medical School, H-7601 Pécs, Hungary*



n=6 α-cyclodextrin (αCD)
n=7 β-cyclodextrin (βCD)

Carbohydr. Res. **2002,** *337*, 1137

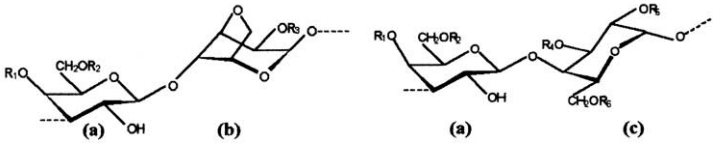
The structure of a galactan sulfate from the red seaweed *Bostrychia montagnei*

Maria E.R. Duarte,[a] Miguel D. Noseda,[a] Marco A. Cardoso,[a] Siumara Tulio,[a] Alberto S. Cerezo[b]

[a]*Departamento de Bioquímica e Biologia Molecular, Universidade Federal do Paraná, PO Box 19046, CEP: 81531-990, Curitiba-Paraná, Brazil*
[b]*Departamento de Química Orgánica, CIHIDECAR-CONICET, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Ciudad Universitaria, Pabellón 2, 1428 Buenos Aires, Argentina*

Propsed structure for the agarans from *B. montagnei*.

(a) $R_1 = SO_3^-$ or H, R_2 = H
R_1 = H, $R_2 = SO_3^-$ or CH_3
(b) $R_3 = SO_3^-$ or CH_3 or H
(c) $R_4 = SO_3^-$, R_5 = H or glycosyl, R_6 = H or SO_3^-



Carbohydr. Res. **2002,** *337*, 1145

Molecular interactions in bacterial cellulose composites studied by 1D FT-IR and dynamic 2D FT-IR spectroscopy

Marta Kačuráková,[a] Andrew C. Smith,[a] Michael J. Gidley,[b] Reginald H. Wilson[a]

[a]*Norwich Laboratory, Institute of Food Research, Norwich Research Park, Colney Lane, Norwich NR4 7UA, UK*
[b]*Unilever Research, Colworth House, Sharnbrook, Bedford MK44 1LQ, UK*

Specific strain-induced cellulose interactions in three *Acetobacter* cellulose composites: cellulose, cellulose/pectin and cellulose/xyloglucan were characterized by FT-IR spectroscopy and dynamic 2D FT-IR.