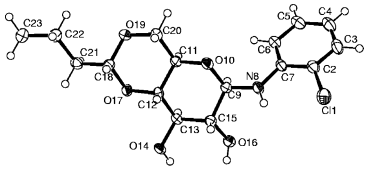
Graphical Abstracts

Carbohydr. Res. **2002,** *337*, 187

Glycosylamines of 4,6-*O*-butylidene-α-D-glucopyranose: synthesis and characterization of glycosylamines, and the crystal structure of 4,6-*O*-butylidene-*N*-(*o*-chlorophenyl)-β-D-glucopyranosylamine

Gudneppanavar Rajsekhar,[a] Chebrolu P. Rao,[a] Pauli K. Saarenketo,[b] Erkki Kolehmainen,[b] Kari Rissanen[b]

[a]*Bioinorganic laboratory, Department of Chemistry, Indian Institute of Technology, Bombay, Mumbai 400 076, India*
[b]*Department of Chemistry, University of Jyvaskyla, Fin 40351 Jyvaskyla, Finland*

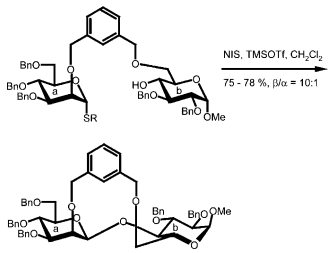


Carbohydr. Res. **2002,** *337*, 195

Efficient intramolecular β-mannoside formation using *m*-xylylene and isophthaloyl derivatives as rigid spacers

Adel A.-H. Abdel-Rahman,[a] El Sayed H. El Ashry,[b] Richard R. Schmidt[a]

[a]*Department of Chemistry, University of Konstanz, Fach M 725, D-78457 Konstanz, Germany*
[b]*Department of Chemistry, Faculty of Science, University of Alexandria, Alexandria, Egypt*



A series of mannosyl donors linked via position 2 to an *m*-xylylene or an isophthaloyl spacer which was connected to the position 6 of a glucoside acceptor afforded, via intramolecular glycosylation, the corresponding disaccharides with high β anomeric ratio.

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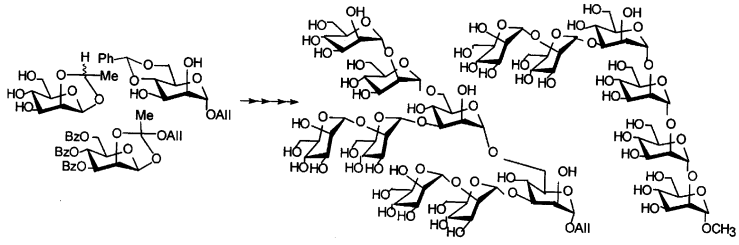
A facile regio- and stereoselective synthesis of mannose octasaccharide of the *N*-glycan in human CD2 and mannose hexasaccharide antigenic factor 13b

Yuliang Zhu, Langqiu Chen, Fanzuo Kong

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

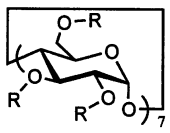


Carbohydr. Res. **2002,** *337*, 217

Improved preparation of perallylated cyclodextrins: facile synthesis of cyclodextrin-based polycationic and polyanionic compounds

Jiahong Ni, Suddham Singh, Lai-Xi Wang

Institute of Human Virology, University of Maryland Biotechnology Institute, University of Maryland, 725 W. Lombard Street, Baltimore, MD 21201, USA



1 R = H
2 R = Allyl
3 R = $CH_2CH_2CH_2SCH_2CH_2NH_2HCl$
4 R = $CH_2CH_2CH_2SCH_2CO_2Na$

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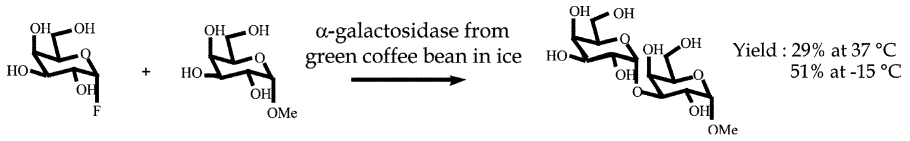
α-Galactosyl fluoride in transfer reactions mediated by the green coffee beans α-galactosidase in ice

Petra Spangenberg, Corinne André, Virginie Langlois, Michel Dion, Claude Rabiller

Unité de Recherches en Biocatalyse (unité CNRS 2230), Faculté des Sciences et des Techniques, 2, rue de la Houssinière, BP 92208, F-44322 Nantes, France



Carbohydr. Res. **2002,** *337*, 229

Brown seaweed protein as an inhibitor of marine mollusk endo-(1→3)-β-D-glucanases

Svetlana P. Yermakova, Viktoriya V. Sova, Tatiana N. Zvyagintseva

Laboratory of Enzyme Chemistry, Pacific Institute of Bioorganic Chemistry, Far East Branch, Russian Academy of Sciences, Prospect 100-Letiya 159, Vladivostok 690022, Russia

Aqueous ethanol extracts from brown seaweed were found to contain substances inhibiting *endo*-(1→3)-β-D-glucanases, the digestive enzymes of marine mollusks. The inhibitors were detected in 70% of the brown seaweeds investigated. An irreversible protein inhibitor with high specificity for *endo*-(1→3)-β-D-glucanases of marine mollusks was isolated from the brown seaweed, *Laminaria cichorioides*. As determined by gel filtration, the molecular weight of the inhibitor was 46 kDa. The value of $[I]_{50}$ (10^{-8} M) for the inhibitor was comparable with the corresponding value for natural α-amylase inhibitors from terrestrial plants. Chemical modification results indicated that tryptophan, dicarboxylic acid, histidine and probably tyrosine residues of inhibitor molecule are important for interaction of the inhibitor with the enzyme.

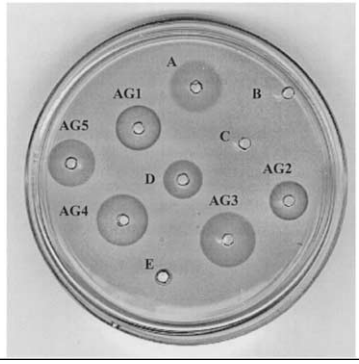
Carbohydr. Res. **2002,** *337*, 239

Coffee bean arabinogalactans: acidic polymers covalently linked to protein

Robert J. Redgwell, Delphine Curti, Monica Fischer, Pierre Nicolas, Laurent B. Fay

Nestlé Research Center, Nestec Ltd., Vers-chez-les-Blanc, PO Box 44, CH-1000 Lausanne 26, Switzerland

An arabinogalactan-protein polymer from coffee beans was isolated and characterised.

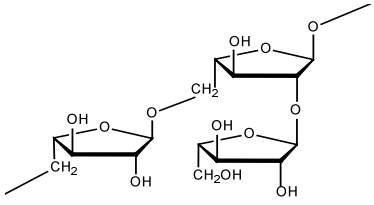


Carbohydr. Res. **2002,** *337*, 255

NMR spectroscopy and chemical studies of an arabinan-rich system from the endosperm of the seed of *Gleditsia triacanthos*

Diego A. Navarro, Alberto S. Cerezo, Carlos A. Stortz†

Departamento de Química Orgánica-CIHIDECAR, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Pab. 2, Ciudad Universitaria, 1428 Buenos Aires, Argentina



Carbohydr. Res. **2002,** *337*, 265

Acid-catalyzed isomerization of methyl 2-deoxy-D-*arabino*-hexosides: equilibria, kinetics and mechanism

Andrzej Nowacki, Kazimiera Smiataczowa, Regina Kasprzykowska, Barbara Dmochowska, Andrzej Wiśniewski

Department of Chemistry, Sugar Chemistry Group, University of Gdañsk, 18 Sobieskiego, PL-80-952 Gdañsk, Poland

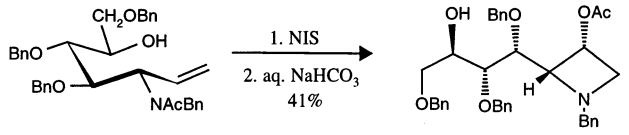
Four isomers of methyl 2-deoxy-D-*arabino*-hexosides were isolated by HPLC as chromatographically homogeneous compounds. The rates of pyranoside isomerization (α^p and β^p) at 40 °C and of furanoside isomerization (α^f and β^f) at 26 °C were determined. A mechanism has been suggested for transformations taking place during isomerization of methyl 2-deoxy-D-*arabino*-hexosides in methanolic solution catalyzed with hydrogen chloride.

Carbohydr. Res. **2002,** *337*, 273

Reinvestigation of the iodocyclization of 4,5,7-tri-*O*-benzyl-3-(*N*-benzylacetamido)-1,2,3-trideoxy-D-*gluco*-hept-1-enitol: unexpected formation of a 1,3-imino-heptitol derivative

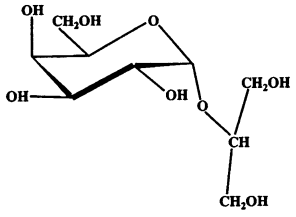
Adewale Eniade, Olivier R. Martin

Department of Chemistry, State University of New York, PO Box 6016, Binghamton, NY 13902-6016, USA



Carbohydr. Res. **2002,** *337*, 279

Complete ^{1}H and ^{13}C spectral assignment of floridoside



Christelle Simon-Colin,[a] Nelly Kervarec,[b] Roger Pichon,[b] Eric Deslandes[a]

[a]*Laboratoire d'Ecophysiologie et de Biotechnonologie des Halophytes et des Algues Marines, Institut Universitaire Européen de la Mer, Université de Bretagne Occidentale, Technopôle Brest-Iroise, F-29280 Plouzané, France*
[b]*Laboratoire de Résonance Magnétique Nucléaire, Faculté des Sciences, Université de Bretagne Occidentale, Avenue Le Gorgeu, F-29285 Brest, France*

1D/2D NMR experiments were used to fully assign the ^{1}H and ^{13}C spectra of floridoside (2-*O*-α-D-galactopyranosylglycerol) extracted from the red alga *Rhodymenia palmata*.

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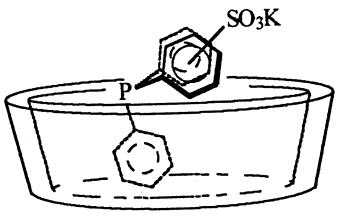
Thermodynamic insight into the origin of the inclusion of monosulfonated isomers of triphenylphosphine into the β-cyclodextrin cavity



Michaël Canipelle, Laurent Caron, Caline Christine, Sébastien Tilloy, Eric Monflier

Laboratoire de Physico-Chimie des Interfaces et Applications, Faculté des Sciences J. Perrin, Université d'Artois, Rue Jean Souvraz, Sac postal 18, F-62307 Lens, France

The *o*-, *m*-, and *p*-substituted monosulfonated triphenylphosphines form 1:1 inclusion complexes with β-cyclodextrin. All inclusion complexes were enthalpy stabilized, but entropy destabilized.