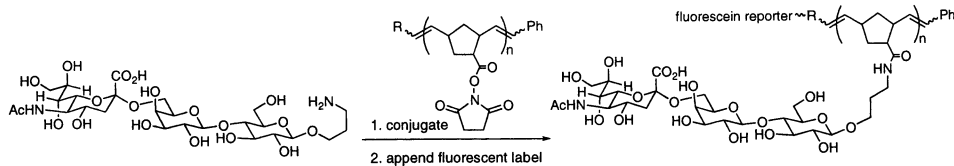


Synthesis of a multivalent display of a CD22-binding trisaccharide

Zhi-Qiang Yang,^a Erik B. Puffer,^b Jason K. Pontrello,^a Laura L. Kiessling^{a,b}

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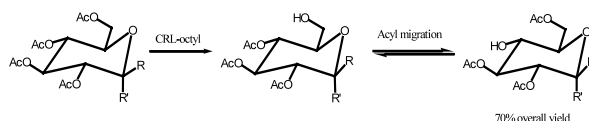


Regioselective enzymatic hydrolysis of acetylated pyranoses and pyranosides using immobilised lipases. An easy chemoenzymatic synthesis of α - and β -D-glucopyranose acetates bearing a free secondary C-4 hydroxyl group

Marco Terreni,^a Raul Salvetti,^a Laura Linati,^a Roberto Fernandez-Lafuente,^b Gloria Fernández-Lorente,^b Agatha Bastida,^b José M. Guisan^b

^aPharmaceutical Biocatalysis Laboratories, Department of Pharmaceutical Chemistry, Via Taramelli 12, University of Pavia, Pavia, Italy

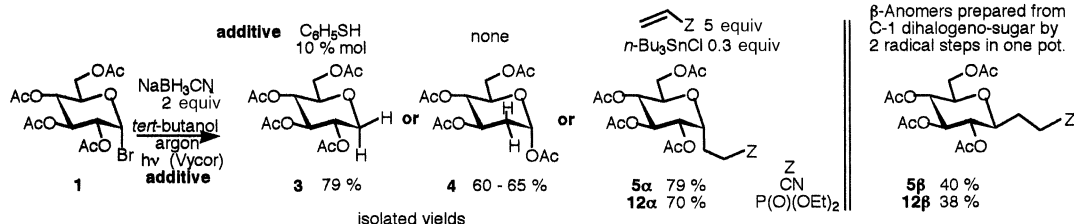
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Towards α - or β -D-C-glycosyl compounds by tin-catalyzed addition of glycosyl radicals to acrylonitrile and vinylphosphonate, and flexible reduction of tetra-O-acetyl- α -D-glucopyranosyl bromide with cyanoborohydride

Jean-Pierre Praly, Azin Salek Ardakani, Isabelle Bruyère, Chrystelle Marie-Luce, Bing Bing Qin

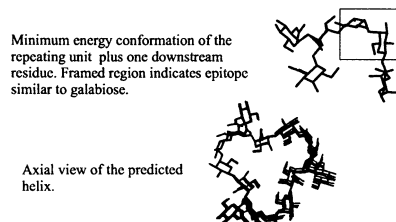
Université Claude-Bernard Lyon I, UMR CNRS-Université 5622, ESCPE-Lyon, Bâtiment 308, 43, Boulevard du 11 Novembre 1918, F-69622 Villeurbanne, France



Conformation of the branched O-specific polysaccharide of *Shigella dysenteriae* type 2: Molecular mechanics calculations show a compact helical structure exposing an epitope which potentially mimics galabiose

Jimmy Rosen, Armin Robobi, Per-Georg Nyholm

Department of Medical Biochemistry, Centre for Structural Biology, Göteborg University, Medicinaregatan 7B, SE-405 30 Göteborg, Sweden



An alternate carbon source for enhancing production of polysaccharides by *Silene vulgaris* callus

Elena A. Günter, Yury S. Ovodov

Institute of Physiology, Komi Science Centre, The Urals Branch of the Russian Academy of Sciences, 50, Pervomaiskaya strasse, 167982 Syktyvkar, Russia

The effect of the various carbon and sucrose concentrations on the production and compositions of the *S. vulgaris* callus polysaccharides was investigated. Glucose, galactose and sucrose were shown to be effective in sustaining biosynthesis of polysaccharides by callus. A sufficient sucrose concentration for the biosynthesis of genuine pectin contained the linear and the hairy regions in the macromolecule was found.

Structure of the arabinogalactan from gum tragacanth (*Astragalus gummifer*)

Cesar A. Tischer, Marcello Iacomini, Philip A.J. Gorin

Departamento de Bioquímica, Universidade Federal do Paraná, Caixa Posta 19046, 81531-990 Curitiba, PR, Brazil

The gum contains free α -Araf-(1 $\rightarrow$ 2)- α -Araf-(1 $\rightarrow$ 4)-Arap and α -Araf-(1 $\rightarrow$ 2)- α -Araf-(1 $\rightarrow$ 5)-Araf, which correspond to side-chain structures with α -Araf and Arap in the arabinogalactan. β -Galp-(1 $\rightarrow$ 4)-[β -Galp-(1 $\rightarrow$ 4)]₂-Galp, β -Galp-(1 $\rightarrow$ 4)- β -Galp-(1 $\rightarrow$ 4)-Galp, β -Glc p-(1 $\rightarrow$ 4)-[β -Galp-(1 $\rightarrow$ 4)]₂-Galp probably correspond to tragacanthic acid, and α -Glc p-(1 $\rightarrow$ 4)-[α -Glc p-(1 $\rightarrow$ 4)]₀₋₃-Glc to starch.

-L-Arap-, $\rightarrow$ 2)- β -L-Araf, α -L-Araf, $\rightarrow$ 2)- α -L-Araf, $\rightarrow$ 3)- α -L-Araf, $\rightarrow$ 4)- α -D-Galp-, $\rightarrow$ 6)- α -D-Galp-, α -L-Araf-(1 $\rightarrow$ 2)- α -L-Araf-(1 $\rightarrow$ 4)-L-Ara, α -L-Araf-(1 $\rightarrow$ 2)- α -L-Araf-(1 $\rightarrow$ 5)-L-Ara, β -D-Galp-(1 $\rightarrow$ 4)-[β -D-Galp-(1 $\rightarrow$ 4)]₂-D-Gal, β -D-Galp-(1 $\rightarrow$ 4)- β -D-Galp-(1 $\rightarrow$ 4)-D-Gal, β -D-Glc p-(1 $\rightarrow$ 4)-[β -D-Galp-(1 $\rightarrow$ 4)]₂-D-Galp, α -D-Glc p-(1 $\rightarrow$ 4)-[α -D-Glc p-(1 $\rightarrow$ 4)]₀₋₃-D-Glc.

Interaction of lead(II) with β -cyclodextrin in alkaline solutions

Eugenijus Norkus,^a Giedrė Grincienė,^a Rimantas Vaitkus^b

^a*Institute of Chemistry, A. Goštauto 9, LT-2600 Vilnius, Lithuania*

^b*Vilnius Pedagogical University, Studentu 39, LT-2034 Vilnius, Lithuania*

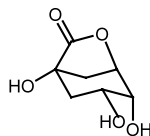
Pb(II) reacts with the β -cyclodextrin anion in alkaline solutions (10 < pH < 11.5) forming a 1:1 complex with the stability constant value equal to 10^{15.9} and the molar extinction coefficient value equal to 5500 (λ_{max} = 260 nm).

Interaction of lead(II) with β -cyclodextrin in alkaline solutions

Pedro Abreu, Angela Relva

Departamento de Química, Centro de Química Fina e Biotecnologia, FCT-UNL, P-2829 516 Caparica, Portugal

Quinic acid 1,5-lactone (**1**), D-(–)-bornesitol, D-pinitol, *myo*-inositol, sucrose, D-glucose, and D-fructose benzoates were isolated and characterised in *Detarium microcarpum* bark extract.



1

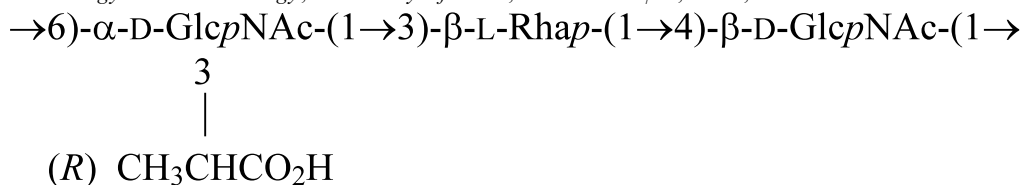
Structure of the O-specific polysaccharide of *Providencia alcalifaciens* O16 containing *N*-acetylmuramic acid

Carbohydr. Res. **2002**, 337, 1667

Nina A. Kocharova,^a George V. Zatonsky,^a Olga V. Bystrova,^a Andrzej Ziolkowski,^b Marianna Wykrota,^b Aleksander S. Shashkov,^a Yuriy A. Knirel,^a Antoni Rozalski^b

^a*N.D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Leninsky Prospekt 47, 119991 Moscow, GSP-1, Russia*

^b*Institute of Microbiology and Immunology, University of Łódź, Banacha 12/16, Łódź, Poland*

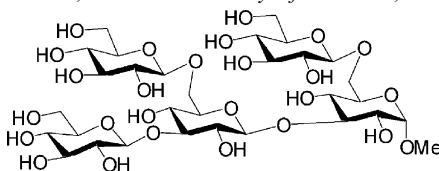


Synthesis of natural β -D-(1 $\rightarrow$ 3)-glucopyranosyl oligosaccharides

Carbohydr. Res. **2002**, 337, 1673

Hongmei He, Feng Yang, Yuguo Du

Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, PO Box 2871, Beijing 100085, PR China

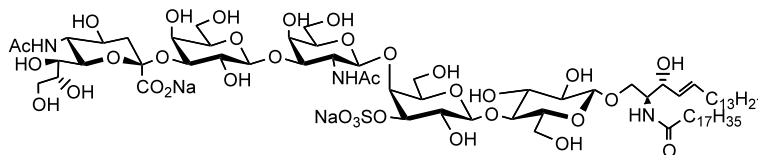


A first total synthesis of a novel sulfated ganglioside, 3'-*O*-sulfo-GM1b

Carbohydr. Res. **2002**, 337, 1679

Tatsuki Komori, Saori Kondo, Hironume Ando, Hideharu Ishida, Makoto Kiso

Department of Applied Bio-organic Chemistry, Gifu University, Gifu 501-1193, Japan

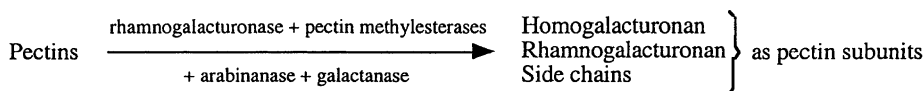


Characterisation of pectin subunits released by an optimised combination of enzymes

Carbohydr. Res. **2002**, 337, 1687

Estelle Bonnin, Elizabeth Dolo, Angélique Le Goff, Jean-François Thibault

Unité de Recherche sur les Polysaccharides, leurs Organisations et Interactions INRA, BP 71627, 44316 Nantes Cedex 03, France



Structural investigation of the O-specific polysaccharides of *Morganella morganii* consisting of two higher sugars

Carbohydr. Res. **2002**, *337*, 1697

Michelle Kilcoyne,^a Alexander S. Shashkov,^b Sof'ya A. Senchenkova,^b Yuriy A. Knirel,^b Evgeny V. Vinogradov,^c Joanna Radziejewska-Lebrecht,^d Regina Galimska-Stypa,^d Angela V. Savage^a

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