

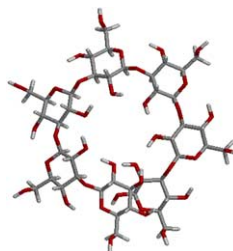
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FULL PAPERS

The influence of small oligosaccharides on the immune system

Elliot J. Bland, Tajalli Keshavarz and Christopher Bucke*

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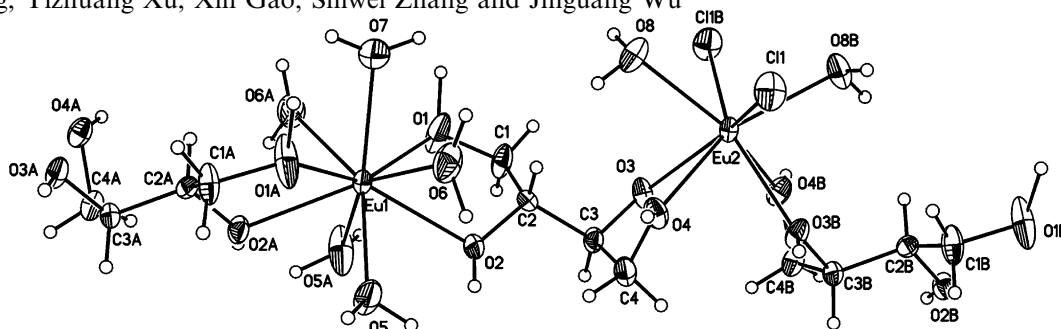


Oligosaccharides of varying structure, conformation and size have been tested for their effect on reactive oxidising species production from human immune cells. Oligosaccharides with a degree of polymerisation of 7 had the greatest effect, whilst the three-dimensional structure of the oligosaccharide influenced whether this effect was inhibitory or stimulatory. Representation of laminariheptaose is shown.

Complexation of trivalent lanthanide cations by erythritol in the solid state. The crystal structure and FT-IR study of $2\text{EuCl}_3 \cdot 2\text{C}_4\text{H}_{10}\text{O}_4 \cdot 7\text{H}_2\text{O}$

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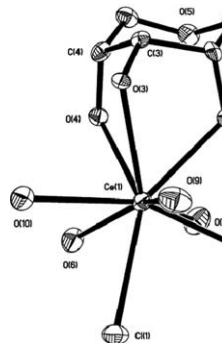
Limin Yang, Yizhuang Xu, Xin Gao, Shiwei Zhang and Jinguang Wu*



Metal-ion interactions with sugars. Crystal structures and FT-IR studies of the LaCl_3 –ribopyranose and CeCl_3 –ribopyranose complexes

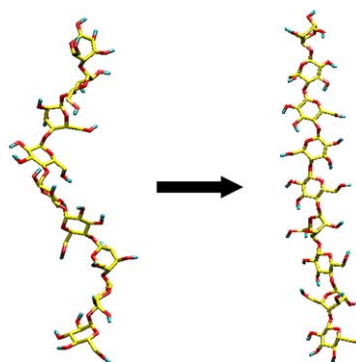
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Yan Lu,* Guocai Deng,* Fangming Miao and Zhengming Li



Effect of methylation on the stability and solvation free energy of amylose and cellulose fragments: a molecular dynamics study

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 Günter Wich and Wilfred F. van Gunsteren*

On the separation, detection and quantification of pectin derived oligosaccharides by capillary electrophoresis

pp 1711–1716

Anna Ström and Martin A.K. Williams*

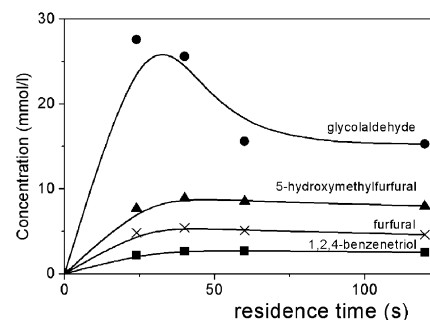
We describe a method for the quantitative analysis of pectin-derived oligosaccharides using capillary electrophoresis, taking into account the relative molecular absorbance of different partially methylesterified species.

Hydrothermal upgrading of biomass to biofuel; studies on some monosaccharide model compounds

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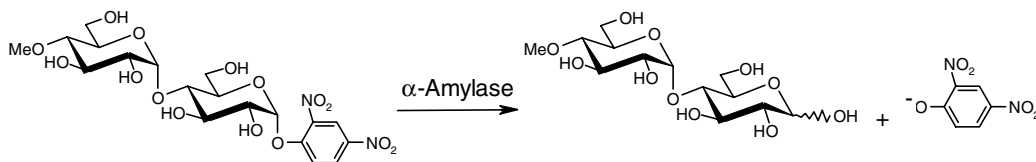
Zbigniew Srokol, Anne-Gaëlle Bouche, Anton van Estrik, Rob C. J. Strik, Thomas Maschmeyer and Joop A. Peters*

Reaction paths of the hydrothermal treatment of a 50 mM solution of glucose at 340 °C and 27.5 MPa for 25–204 s have been elucidated and are discussed in relation to the HTU process of biomass.


Synthesis and characterisation of novel chromogenic substrates for human pancreatic α -amylase

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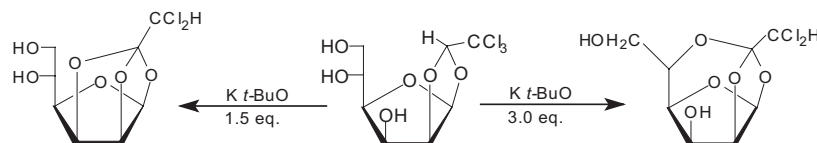
Iben Damager, Shin Numao, Hongming Chen, Gary D. Brayer and Stephen G. Withers*



Tricyclic furanoid dichloroacetyl orthoesters of D-mannose from 1,2-O-trichloroethylidene-β-D-mannofuranose

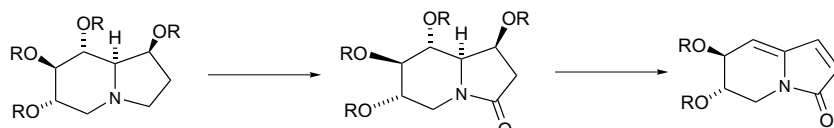
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Yeşim Gül Salman, Gökhan Kök and Levent Yüceer*


The chemistry of castanospermine. Direct oxidation of the tetraacetate to the corresponding γ-lactam

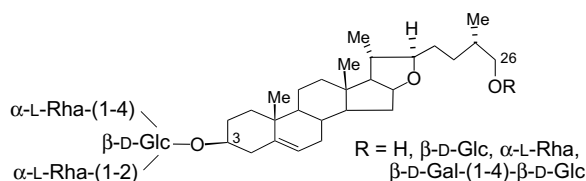
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Synthesis of bidesmosidic dihydrodiosgenin saponins bearing a 3-O-β-chacotriosyl moiety

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Yichun Zhang, Yingxia Li,* Shilei Zhu, Huashi Guan, Feng Lin and Biao Yu*

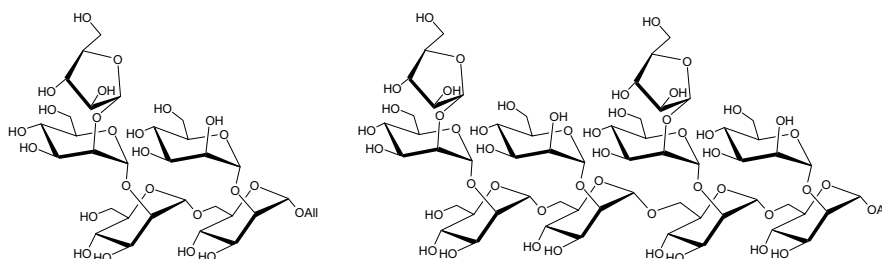


Several bidesmosidic dihydrodiosgenin saponins bearing a 3-O-β-chacotriosyl moiety were concisely synthesized and found to show no cytotoxicity.

Facile synthesis of arabinomannose penta- and decasaccharide fragments of the lipoarabinomannan of the equine pathogen, *Rhodococcus equi*

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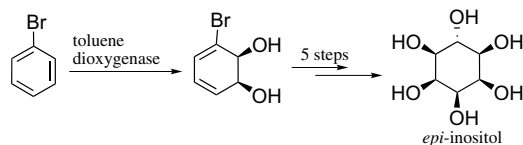
Zuchao Ma, Jianjun Zhang and Fanzuo Kong*



Concise chemoenzymatic synthesis of *epi*-inositol

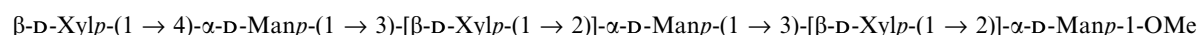
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Cecilia Vitelio, Ana Bellomo, Margarita Brovetto, Gustavo Seoane and David Gonzalez*

**Synthesis of a hexasaccharide fragment of the O-deacetylated GXM of *C. neoformans* serotype B**

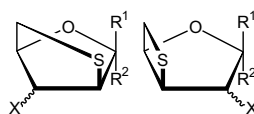
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Wei Zhao and Fanzuo Kong*

**The thio-Mitsunobu reaction: a useful tool for the preparation of 2,5-anhydro-2-thio- and 3,5-anhydro-3-thiopentofuranosides**

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Oliver Schulze,* Jürgen Voss, Gunadi Adiwidjaja and Falk Olbrich

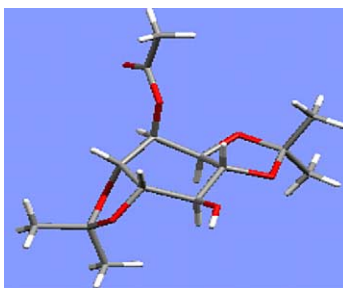


X: various substituents
 R¹, R²: OMe or H

NOTES**Solid and solution state conformation of 1L-1-O-acetyl-2,3:5,6-di-O-isopropylidene-*chiro*-inositol**

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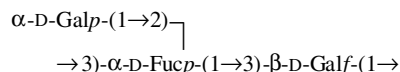
Kana M. Sureshan,* Tomomi Miyasou and Yutaka Watanabe*



Structure of the O-polysaccharide of the lipopolysaccharide of *Rahnella aquatilis* 1-95

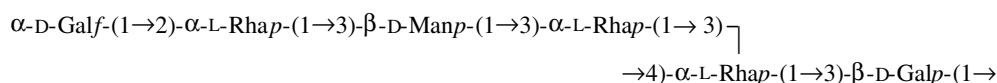
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**Structure of the O-polysaccharide of the lipopolysaccharide of *Azospirillum irakense* KBC1**

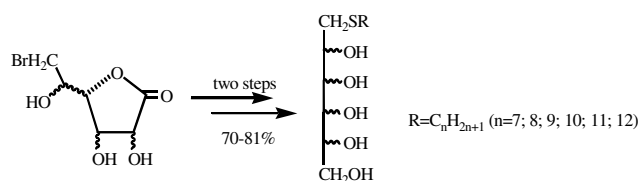
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**Direct syntheses of *S*-alkylthio-D-galactono-, D-mannono-1,4-lactones, *S*-alkylthio-L-galactitols and D-mannitols displaying amphiphilic and mesophasic properties**

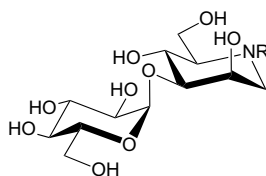
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Ludovic Chaveriat, Imane Stasik,* Gilles Demailly and Daniel Beaupère

**Golgi endomannosidase inhibitor, α -D-glucopyranosyl-(1 \rightarrow 3)-1-deoxymannojirimycin: a five-step synthesis from maltulose and examples of *N*-modified derivatives**

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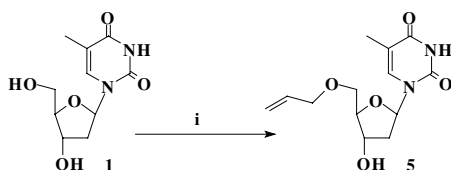
Josef Spreitz and Arnold E. Stütz*



One step selective 5'-O-allylation of thymidine using microwave or ultrasound activation

pp 1829–1831

Vincent Roy, Ludovic Colombeau, Rachida Zerrouki* and Pierre Krausz



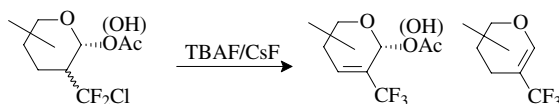
reagents and conditions :

(i) a- NaH (1.15 equiv), dry DMF,))) or MW (100 W)

b- BrCH₂CH=CH₂ (1.2 equiv,))) or MW (100 W)**Synthesis of 2,3- or 1,2-unsaturated derivatives of 2-deoxy-2-trifluoromethylhexopyranoses**

pp 1833–1837

Anita Wegert, Helmut Reinke and Ralf Miethchen*



*Corresponding author

COVER

Well-defined glycoforms of glycoproteins can easily be obtained by oxidative coupling of synthetic thioaldoses with proteins that have a cysteine moiety in lieu of an asparagine residue carrying natural N-linked oligosaccharides. In vitro glycosylation offers several advantages such as quantitative conjugation, incorporation of oligosaccharides that display high bioactivities and the possibility of using convenient bacterial or yeast protein expression systems. The figure is related to Geert-Jan Boons' *Carbohydrate Research Award* paper, *Carbohydr. Res.*, **2004**, 339, 181–193.



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