

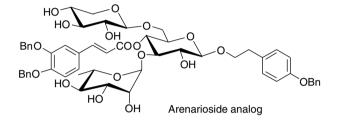
### Carbohydrate Research Vol. 341, No. 15, 2006

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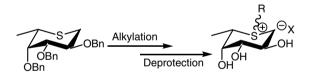
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Facile synthesis of sulfonium ion derivatives of 1,5-anhydro-5-thio-L-fucitol as potential  $\alpha$ -L-fucosidase inhibitors

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Guofeng Gu, Hui Liu and B. Mario Pinto\*





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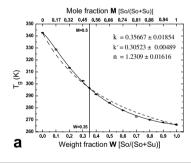
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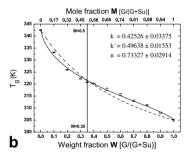


### The glass transition temperatures of sugar mixtures

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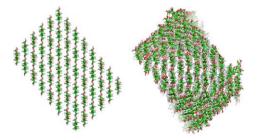
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### ммз Potential energy surfaces of trisaccharide models of $\lambda\text{--},\,\mu\text{--},$ and v-carrageenans

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## Structural elucidation of the O-antigenic polysaccharide from enterohemorrhagic (EHEC) *Escherichia coli* O48:H21

pp 2543-2549

Leann L. MacLean, Ann C. Webb and Malcolm B. Perry\*

[
$$\rightarrow$$
3)- $\beta$ -D-Glc $p$ NAc-( $1\rightarrow$ 4)- $\beta$ -D-Gal $p$ NAc-( $1\rightarrow$ 3)- $\alpha$ -D-Gal $p$ -( $1\rightarrow$ 4)- $\alpha$ -L-Rha $p$ -( $1\rightarrow$ ]
$$\alpha$$
-D-Gal $p$ A-( $1\rightarrow$ 3)
$$3 \quad 2$$

$$\uparrow \quad \uparrow$$

$$Ac \quad Ac \quad \uparrow$$

## The enhancement of xylose monomer and xylotriose degradation by inorganic salts in aqueous solutions at $180\,^{\circ}\mathrm{C}$

pp 2550-2556

Chaogang Liu and Charles E. Wyman\*

Inorganic salts such as KCl, NaCl, CaCl<sub>2</sub>, MgCl<sub>2</sub>, and FeCl<sub>3</sub>, and particularly the latter, significantly increased xylose monomer and xylotriose degradation in water heated to 180 °C and also caused considerable losses of xylose to unidentified compounds.

## Progesterone binding to the tryptophan residues of human $\alpha_1$ -acid glycoprotein

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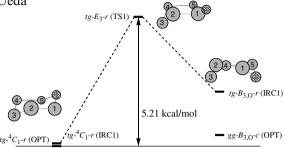
### J. R. Albani

Binding studies between progesterone and  $\alpha_1$ -acid glycoprotein allowed us to demonstrate that the binding site of progesterone contains one hydrophobic tryptophan residue and that the structure of the protein is not altered upon binding. The data obtained at saturated concentrations of progesterone clearly reveals the type of interaction at physiological levels.

## An investigation of the pyranose ring interconversion path of $\alpha\text{-L-idose}$ calculated using density functional theory

pp 2565-2574

Youji Kurihara\* and Kazuyoshi Ueda\*



## B3LYP/6-311++ $G^{**}$ study of structure and spin–spin coupling constant in methyl 2-O-sulfo- $\alpha$ -L-iduronate

pp 2575-2580

Miloš Hricovíni

Structures and spin–spin coupling constants of three most stable conformations ( ${}^{1}C_{4}$ ,  ${}^{4}C_{1}$ ,  ${}^{2}S_{0}$ ) of methyl 2-O-sulfo- $\alpha$ -L-iduronate monosodium salt have been analyzed by DFT at the B3LYP/6-311++ $G^{**}$  level of theory.

## Crystal structure and solid-state <sup>13</sup>C NMR analysis of *N-o-*, *N-m-* and *N-p-*nitrophenyl-2,3, 4,6-tetra-*O*-acetyl-β-D-glucopyranosylamines, and their *N*-acetyl derivatives

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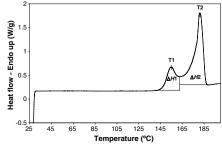
Andrzej Temeriusz,\* Tomasz Gubica, Paulina Rogowska, Katarzyna Paradowska and Michał K. Cyrański

$$\begin{array}{c} \text{CH}_2\text{OAc} \\ \text{AcO} \\ \text{AcO}$$

#### DSC study of sucrose melting

pp 2591-2599

Stephen T. Beckett, M. Grazia Francesconi, Peter M. Geary, Grahame Mackenzie\* and Aurélia P. E. Maulny



Typical DSC thermogram for recrystallised sucrose showing T1,  $\Delta H1$  and T2,  $\Delta H2$ .

### NOTES

**Identification of a novel glycosyltransferase involved in LOS biosynthesis of** *Moraxella catarrhalis* Jennifer C. Wilson, Patrick M. Collins, Zoran Klipic, I. Darren Grice and Ian R. Peak\*

pp 2600-2606

Lgt5  

$$\downarrow$$
  
 $\alpha$ -D-Gal $p$ -(1 $\rightarrow$ 4)- $\beta$ -D-Gal $p$ -(1 $\rightarrow$ 4)- $\alpha$ -D-Glc $p$ -(1 $\rightarrow$ 2)- $\beta$ -D-Glc $p$   
1  
 $\downarrow$   
6  
 $\alpha$ -D-GlcNAc $p$ -(1 $\rightarrow$ 2)- $\beta$ -D-Glc $p$ -(1 $\rightarrow$ 4)- $\alpha$ -D-Glc $p$ -(1 $\rightarrow$ 5)-Kdo<sub>2</sub>  
3  
 $\uparrow$   
1  
 $\beta$ -D-Glc $p$ 

Increase in the growth inhibition of bovine pulmonary artery smooth muscle cells by an O-hexanoyl low-molecular-weight heparin derivative

pp 2607-2612

Hari G. Garg,\* Charles A. Hales, Lunyin Yu, Melissa Butler, Tasneem Islam, Jin Xie and Robert J. Linhardt

$$\begin{pmatrix} CH_2OY & CH_2OY & CH_2OY & CO_2Na^* & CH_2OY & CO_2Na^* & CH_2OY & CO_2Na^* & CO_2N$$

## The structures of the cell wall teichoic acids from the thermophilic microorganism *Geobacillus* thermoleovorans strain Fango

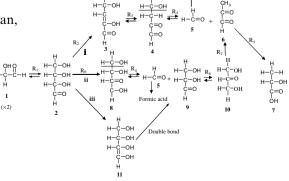
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Serena Leone, Antonio Molinaro,\* Ida Romano, Barbara Nicolaus, Rosa Lanzetta, Michelangelo Parrilli and Otto Holst

→1)-Gro-(3P→
$$\begin{array}{c}
2\\
\uparrow\\
1\\
\alpha\text{-D-Glc}p
\end{array}$$
→1)-Gro-(3P→

Formation of lactic acid from glycolaldehyde by alkaline hydrothermal reaction

Hisanori Kishida, Fangming Jin,\* Xiuyi Yan, Takehiko Moriya and Heiji Enomoto



pp 2619-2623

\*Corresponding author

(1) Supplementary data available via ScienceDirect

#### **COVER**

Image represents a key process of malaria parasites multiplying in, and rupturing from the human blood cell. The parasite surface is coated with glycosylphosphatidylinositols (GPIs), which have been identified as the malaria toxin by a collaborative effort between the research groups headed by Peter Seeberger (Swiss Federal Institute of Technology (ETH) Zürich, Switzerland) and Louis Schofield (Walter and Eliza Hall Institute of Medical Research, Australia). The space filling model represents the native GPI molecule from malaria parasite that has been chemically synthesized by the Seeberger group. Professor Peter Seeberger was presented with the Carbohydrate Research Award at the 13th European Carbohydrate Symposium (Bratislava, 2005).

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