

Carbohydr. Res. 2002, 337, 383

**Synthesis of  $\alpha$ -Manp-(1  $\rightarrow$  2)- $\alpha$ -Manp-(1  $\rightarrow$  3)- $\alpha$ -Manp-(1  $\rightarrow$  3)-Manp, the tetrasaccharide repeating unit of *Escherichia coli* O9a, and  $\alpha$ -Manp-(1  $\rightarrow$  2)- $\alpha$ -Manp-(1  $\rightarrow$  2)- $\alpha$ -Manp-(1  $\rightarrow$  3)- $\alpha$ -Manp-(1  $\rightarrow$  3)-Manp, the pentasaccharide repeating unit of *E. coli* O9 and *Klebsiella* O3**

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The tetrasaccharide repeating unit of *Escherichia coli* O9a,  $\alpha$ -Manp-(1  $\rightarrow$  2)- $\alpha$ -Manp-(1  $\rightarrow$  3)- $\alpha$ -Manp-(1  $\rightarrow$  3)-Manp, and the pentasaccharide repeating unit of *E. coli* O9 and *Klebsiella* O3,  $\alpha$ -Manp-(1  $\rightarrow$  2)- $\alpha$ -Manp-(1  $\rightarrow$  2)- $\alpha$ -Manp-(1  $\rightarrow$  3)- $\alpha$ -Manp-(1  $\rightarrow$  3)-Manp, were synthesized regio- and stereoselectively as their methyl glycosides.

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**Synthesis of an xylosylated rhamnose pentasaccharide, the repeating unit of the O-chain polysaccharide of the lipopolysaccharide of *Xanthomonas campestris* pv. *begoniae* GSPB 525**

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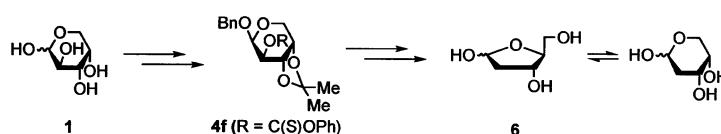
The title pentasaccharide,  $\alpha$ -L-Rhap-(1  $\rightarrow$  3)-[ $\beta$ -L-Xylp-(1  $\rightarrow$  2)]- $\alpha$ -L-Rhap-(1  $\rightarrow$  3)-[ $\beta$ -L-Xylp-(1  $\rightarrow$  4)]-L-Rhap, was synthesized in a regio- and stereoselective manner.

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**Efficient synthesis of 2-deoxy-L-erythro-pentose (2-deoxy-L-ribose) from L-arabinose**

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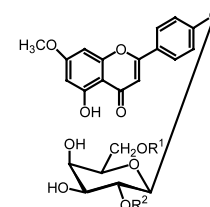


Carbohydr. Res. 2002, 337, 403

**Flavonoid glycosides from *Salvia moorcroftiana* Wall.**

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Two new flavonoid glycosides, genkwanin 4'-O- $\alpha$ -L-arabinopyranosyl-(1  $\rightarrow$  6)- $\beta$ -D-galactopyranoside (**1**) and genkwanin 4'-O-{ $\alpha$ -L-rhamnopyranosyl - (1  $\rightarrow$  2) - [ $\alpha$ -L-rhamnopyranosyl-(1  $\rightarrow$  6)]- $\beta$ -D-galactopyranoside} (**2**), along with three known compounds, were isolated from whole parts of *Salvia moorcroftiana* Wall. Their structures were elucidated by spectroscopic techniques, including 1D and 2D NMR spectroscopy.



- (1) R<sup>1</sup> = Arabinose  
(2) R<sup>1</sup> = R<sup>2</sup> = Rhamnose

**Structural analysis of lipopolysaccharide oligosaccharide epitopes expressed by non-typeable *Haemophilus influenzae* strain 176**

*Carbohydr. Res.* **2002**, 337, 409

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The LPS from non-typeable *H. influenzae* strain 176 contains the common inner-core element of *H. influenzae*, L- $\alpha$ -D-Hepp-(1  $\rightarrow$  2)-[PEtn  $\rightarrow$  6]-L- $\alpha$ -D-Hepp-(1  $\rightarrow$  3)-[ $\beta$ -D-Glcp-(1  $\rightarrow$  4)]-L- $\alpha$ -D-Hepp-(1  $\rightarrow$  5)-[PP Etn  $\rightarrow$  4]- $\alpha$ -Kdop-(2  $\rightarrow$  6)-Lipid A with  $\beta$ -D-Galp substitution at the O-3 position of the terminal heptose.

**Effect of roasting on degradation and structural features of polysaccharides in Arabica coffee beans**

*Carbohydr. Res.* **2002**, 337, 421

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The thermal stability of the arabinogalactans, (galacto)mannans and cellulose components differed markedly at different roasting levels of three Arabica (*Coffea arabica*) bean varieties. Between 12 and 40% of the bean polysaccharides were degraded depending on the roasting conditions.

**Structural studies on  $\kappa$ -carrageenan derived oligosaccharides**

*Carbohydr. Res.* **2002**, 337, 433

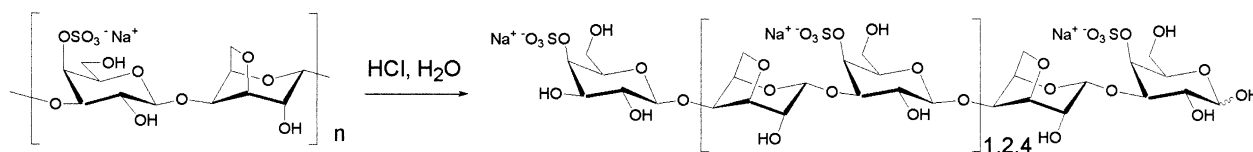
Guangli Yu,<sup>a</sup> Huashi Guan,<sup>a</sup> Alexandra S. Ioanoviciu,<sup>b</sup> Sulthan A. Sikkander,<sup>b</sup> Charuwan Thanawiroon,<sup>b</sup> Joanne K. Tobacman,<sup>c</sup> Toshihiko Toida,<sup>d</sup> Robert J. Linhardt<sup>b</sup>

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**Effect of molecular structure on thermodynamic properties of carbohydrates. A calorimetric study of aqueous di- and oligosaccharides at subzero temperatures**

*Carbohydr. Res.* **2002**, 337, 441

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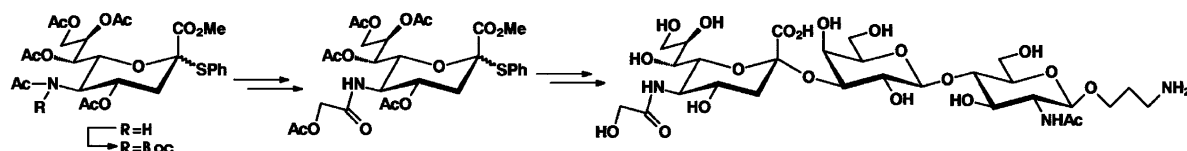
The possibility was found that there is a common key element related to the stereochemistry of carbohydrates behind several important thermodynamic properties that relate to their characteristics as biological protectants.

**Preparative route to *N*-glycolylneuraminic acid phenyl 2-thioglycoside donor and synthesis of Neu5Gc- $\alpha$ -(2 $\rightarrow$ 3')-lactosamine 3-aminopropyl glycoside**

*Carbohydr. Res.* **2002**, 337, 451

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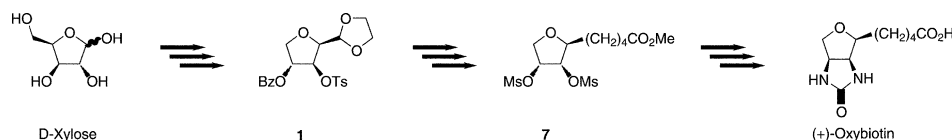


**Stereospecific synthesis of (+)-oxybiotin from D-xylose**

*Carbohydr. Res.* **2002**, 337, 459

Velimir Popsavin, Goran Benedeković, Mirjana Popsavin, Dušan Miljković

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**O-Specific chain structure from the lipopolysaccharide fraction of *Pseudomonas reactans*: a pathogen of the cultivated mushrooms**

*Carbohydr. Res.* **2002**, 337, 467

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<sup>b</sup>*Dipartimento di Scienze Chimico-Agrarie, Università di Napoli Federico II, via Università 100, I-80055 Portici (Na), Italy*

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The O-antigenic portion of the LPS component from *Pseudomonas reactans* was obtained for the first time and characterised by means of chemical and spectroscopical methods. It consists of a trisaccharidic structure built up of two units of bacillosamine, one acetylated while the other is substituted by acetyl-alanine, and a unit of glucosamine substituted by an acetamidino group.

