

Carbohydrate Research Vol. 339, No. 16, 2004

Contents

FULL PAPERS

Synthesis of unnatural sugar nucleotides and their evaluation as donor substrates in glycosyltransferase-catalyzed reactions

pp 2641-2649

Amira Khaled, Tatiana Ivannikova and Claudine Augé*

A facile approach to anhydrogalactosucrose derivatives from chlorinated sucrose Feng-Wu Liu, Hong-Min Liu,* Yu Ke and Jingyu Zhang

pp 2651-2656

HO

$$R^2 = R^1$$
 $R^2 = CI$
 $R^2 = CI$

Structure of minor oligosaccharides from the lipopolysaccharide fraction from *Pseudomonas stutzeri* OX1

suff. KOH

pp 2657-2665

Serena Leone, Viviana Izzo, Luisa Sturiale, Domenico Garozzo, Rosa Lanzetta, Michelangelo Parrilli, Antonio Molinaro* and Alberto Di Donato

R-β-Glc(1→3)-α-GalN(1→3)-α-Hep6*P*-(1→3)-α-Hep2*P*4*P*-(1→5)-Kdo-Lipid A
$$4 \\ α-GlcN(1^J \\ Kdo(2^J$$

$$\mathbf{R} = (S)$$
-Pyr($\rightarrow 4,6$) or α -Rha-(1 $\rightarrow 3$)

Structural investigation of a novel rhamnoglucogalactan isolated from the fruiting bodies of the fungus *Hericium erinaceus*

pp 2667-2671

Lian-meng Jia, Liu Liu, Qun Dong* and Ji-nian Fang

A new rhamnoglucogalactan was isolated from the fruiting bodies of *Hericium erinaceus*. Methylation analysis, partial hydrolysis, and NMR spectroscopy showed that it has a $(1\rightarrow6)$ -linked α -D-galactopyranosyl backbone, with branches attached to O-2, composed of terminal rhamnosyl and 1-, 2-, and 6-linked glucosyl residues.

Succinyl and acetyl starch derivatives of a hybrid maize: physicochemical characteristics and retrogradation properties monitored by differential scanning calorimetry

pp 2673-2682

Olayide S. Lawal*

Starch from hybrid maize was chemically modified by succinylation and acetylation. The products when subjected to wide-angle X-ray diffraction showed no differences from native starch and modified starch. Physicochemical properties were determined and reported.

Structural parameters of amylopectin clusters and semi-crystalline growth rings in wheat starches with different amylose content

pp 2683-2691

Vladimir P. Yuryev,* Alexei V. Krivandin, Valentina I. Kiseleva, Lyubov A. Wasserman, Natalia K. Genkina, Jozef Fornal, Wioletta Blaszczak and Alberto Schiraldi

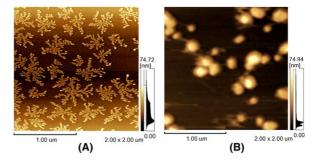
SAXS and SEM were used to investigate the internal structure of granules from wheat starches with differing amylose content.

Preparation and antibacterial activity of chitosan nanoparticles

Lifeng Qi,* Zirong Xu, Xia Jiang, Caihong Hu and Xiangfei Zou

pp 2693-2700

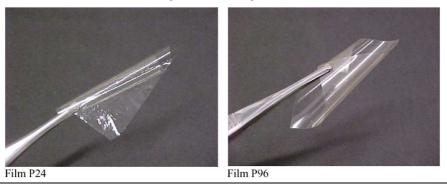
Atomic force micrographs (AFMs) of chitosan nanoparticles at pH 5.0. Chitosan nanoparticles (A) and copper-loaded nanoparticles (B).



Flexible chitin films: structural studies

pp 2701-2711

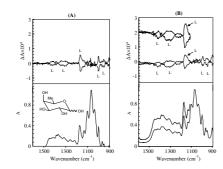
Nealda Leila Binte Muhammad Yusof, Lee Yong Lim and Eugene Khor*



Vibrational circular dichroism of carbohydrate films formed from aqueous solutions

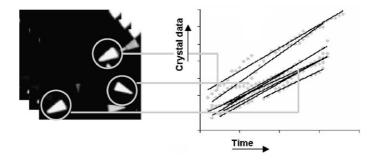
pp 2713-2720

Ana G. Petrovic, Pranati K. Bose and Prasad L. Polavarapu*



Development of a digital video-microscopy technique to study lactose crystallisation kinetics in situ María Paz Arellano, José Miguel Aguilera and Pedro Bouchon*

pp 2721-2730



NOTE

1,5-Anhydroxylitol from leaves of Olea europaea

pp 2731-2732

Elisabetta Campeol,* Guido Flamini, Pier Luigi Cioni, Ivano Morelli, Felicia D'Andrea and Roberto Cremonini

*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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