

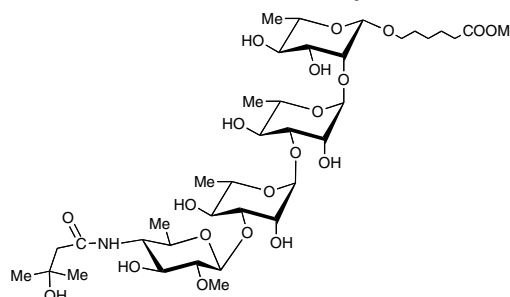
Contents

RAPID COMMUNICATION

Synthesis of the β anomer of the spacer-equipped tetrasaccharide side chain of the major glycoprotein of the *Bacillus anthracis* exosporium

pp 2579–2582

Roberto Adamo, Rina Saksena and Pavol Kováč*



Synthesis of the tetrasaccharide side chain of the major glycoprotein of the *Bacillus anthracis* exosporium.

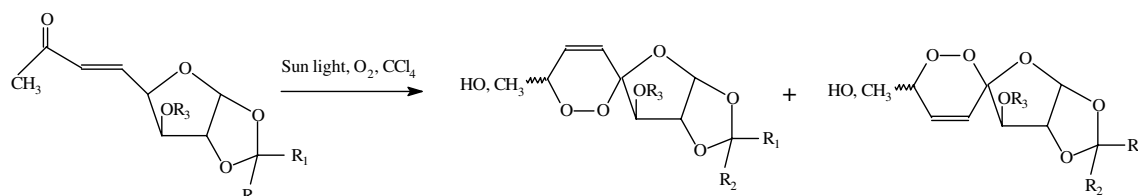


FULL PAPERS

Stable spiro-endoperoxides by sunlight-mediated photooxygenation of 1,2-*O*-alkylidene-5(*E*)-eno-5,6,8-trideoxy- α -D-xylo-oct-1,4-furano-7-uloses

pp 2583–2589

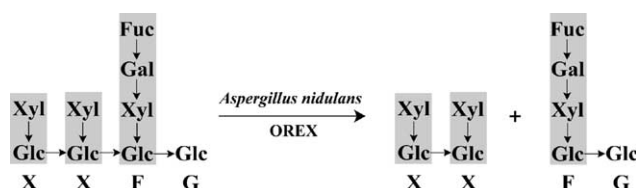
Fatma Çetin, Nilgün Yenil and Levent Yüceer*



Cloning, expression, and characterization of an oligoxyloglucan reducing end-specific xyloglucanobiohydrolase from *Aspergillus nidulans*

pp 2590–2597

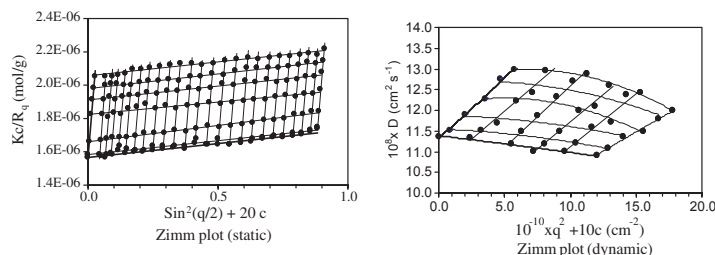
Stefan Bauer, Prasanna Vasu, Andrew J. Mort and Chris R. Somerville*



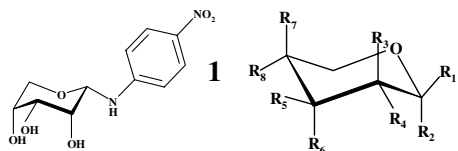
Molecular characterisation of soybean polysaccharides: an approach by size exclusion chromatography, pp 2637–2644
dynamic and static light scattering methods

Qi Wang,* Xiaoqing Huang, Akihiro Nakamura, Walther Burchard and F. Ross Hallett

For a native and a debranched soybean polysaccharides, Zimm plots from static light scattering yielded molecular weight and radius of gyration; that from dynamic light scattering (DLS) gave hydrodynamic radius. Both DLS and size exclusion chromatography yielded size distributions of the polysaccharide molecules.


Crystal structure and solid-state ^{13}C NMR analysis of *N*-*p*-nitrophenyl- α -D-ribofuranosylamine, pp 2645–2653
***N*-*p*-nitrophenyl- α -D-xylofuranosylamine, and solid-state ^{13}C NMR analysis of *N*-*p*-nitrophenyl-**
2,3,4-tri-*O*-acetyl- β -D-lyxofuranosylamine and *N*-*p*-nitrophenyl-2,3,4-tri-*O*-acetyl- α -L-arabinofuranosylamine

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



- 2 $\text{R}_1 = \text{R}_3 = \text{R}_6 = \text{R}_7 = \text{H}$, $\text{R}_2 = \text{NH-C}_6\text{H}_4\text{-4-NO}_2$, $\text{R}_4 = \text{R}_5 = \text{R}_8 = \text{OH}$
 3 $\text{R}_2 = \text{R}_4 = \text{R}_5 = \text{R}_7 = \text{H}$, $\text{R}_1 = \text{NH-C}_6\text{H}_4\text{-4-NO}_2$, $\text{R}_3 = \text{R}_5 = \text{R}_6 = \text{OAc}$
 4 $\text{R}_2 = \text{R}_3 = \text{R}_6 = \text{R}_7 = \text{H}$, $\text{R}_1 = \text{NH-C}_6\text{H}_4\text{-4-NO}_2$, $\text{R}_4 = \text{R}_5 = \text{R}_7 = \text{OAc}$

Molecular mobility and the glass transition in amorphous glucose, maltose, and maltotriose pp 2654–2660

Sonali Shirke and Richard D. Ludescher*

Measurements of the phosphorescence intensity decay of the triplet probe erythrosin B dispersed in amorphous glucose, maltose, and maltotriose at probe:sugar mole ratios of $\sim 1:10^4$ were used to monitor the molecular mobility of the sugar matrix in the glass and melt around the glass-transition temperature (T_g).

Dynamic site heterogeneity in amorphous maltose and maltitol from spectral heterogeneity in erythrosin B phosphorescence pp 2661–2669

Sonali Shirke and Richard D. Ludescher*

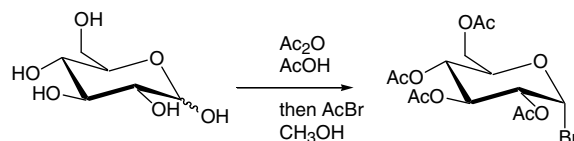
Phosphorescence from erythrosin B (tetraiodofluorescein) dispersed in thin films of either maltose or maltitol was used to investigate the physical properties of these amorphous pure sugar matrices.

NOTES

Mild one-pot preparation of glycosyl bromides

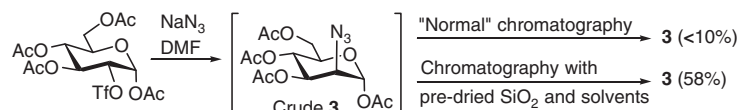
pp 2670–2674

Mo Hunsen,* David A. Long, Christopher R. D'Ardenne and Amanda L. Smith

**Improved synthesis of 1,3,4,6-tetra-*O*-acetyl-2-azido- α -D-mannopyranose**

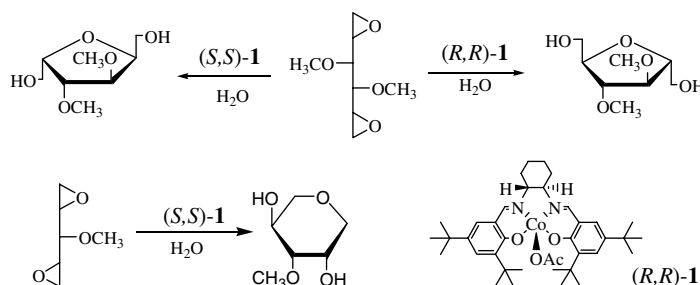
pp 2675–2676

Peter Teodorović, Rikard Slättegård and Stefan Oscarson*

**Regio- and stereoselective cyclizations of dianhydro sugar alcohols catalyzed by a chiral (salen)Co^{III} complex**

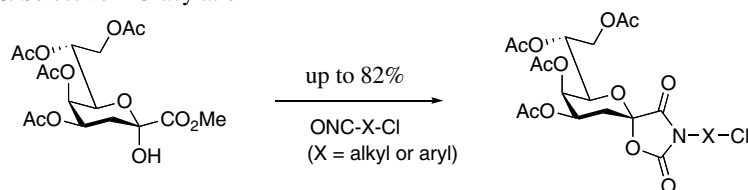
pp 2677–2681

Toshifumi Satoh, Tomoko Imai, Satoshi Umeda, Katsuyuki Tsuda, Hisaho Hashimoto and Toyoji Kakuchi*

**Anomeric *O*-acylation of Kdo using alkyl and aryl isocyanates**

pp 2682–2687

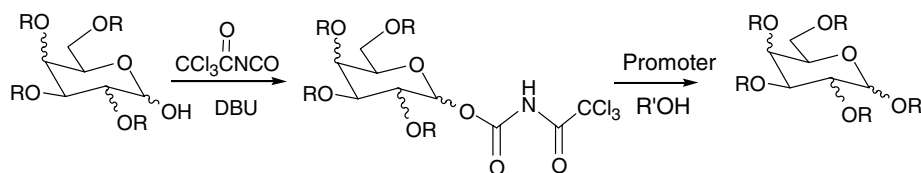
Tsuyoshi Ichiyanagi and Ryohei Yamasaki*

 α -Selective 2-*O*-acylation

Glycosyl trichloroacetylcarbamate: a new glycosyl donor for O-glycosylation

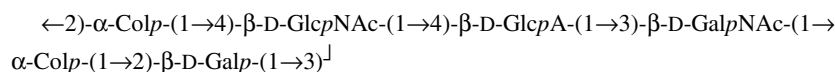
pp 2688–2692

K. Jayakanthan and Yashwant D. Vankar*

**The O-chain structure from the LPS of marine halophilic bacterium *Pseudoalteromonas carrageenovora*-type strain IAM 12662^T**

pp 2693–2697

Alba Silipo, Antonio Molinaro,* Evgeny L. Nazarenko, Raisa P. Gorshkova, Elena P. Ivanova, Rosa Lanzetta and Michelangelo Parrilli

**Oxidation of lactose with bromine**


pp 2698–2705

Byung Y. Yang and Rex Montgomery*

Distribution of reaction products as compound 1 equivalents, based on peak area in GLC-FID analyses

| Compound | Relative amount (%) | Compound | Relative amount (%) |
|--|---------------------|---------------------------|---------------------|
| 1 Galactosylgluconic acid | 100.0 | 10 Lyxonic acid | 0.9 |
| 2 Galactosylerythronic acid | 2.9 | 11 Arabinonic acid | 1.4 |
| 3 Galactosylarabinonic acid | 7.5 | 12 Xylonic acid | 0.5 |
| 4 Galacturonosylarabinonic acid | 0.4 | 13 Threonic acid | 1.0 |
| 5 Galactosylarabinaric acid | 0.5 | 14 Erythronic acid | 0.4 |
| 6 Galactosylglucaric acid | 0.2 | 15 Tartaric acid | 3.7 |
| 7 Galactose | 2.5 | 16 Glyceric acid | 0.6 |
| 8 Gluconic acid | 3.2 | 17 Oxalic acid | 0.6 |
| 9 Galactonic acid | 2.3 | | |

*Corresponding author

 Supplementary data available via ScienceDirect

COVER

Model of blood group A trisaccharide in the binding site of the *Dolichos biflorus* lectin as established by a combination of theoretical and experimental approaches. Molecular modeling of the oligosaccharide demonstrated that two different conformations could be adopted by the trisaccharide in the binding site. NMR experiments using transferred nuclear Overhauser effects (TRNOE) displayed intermolecular contacts (blue arrows) corresponding to only one of the two theoretical conformations. This work is a collaboration between Anne Imberty (CERMAV, Grenoble) and Thomas Peters (University of Lübeck) and was presented during the XXIInd International Carbohydrate Symposium (Glasgow, 2004) on the occasion of the Whistler award.

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