

Carbohydrate Research Vol. 343, No. 18, 2008

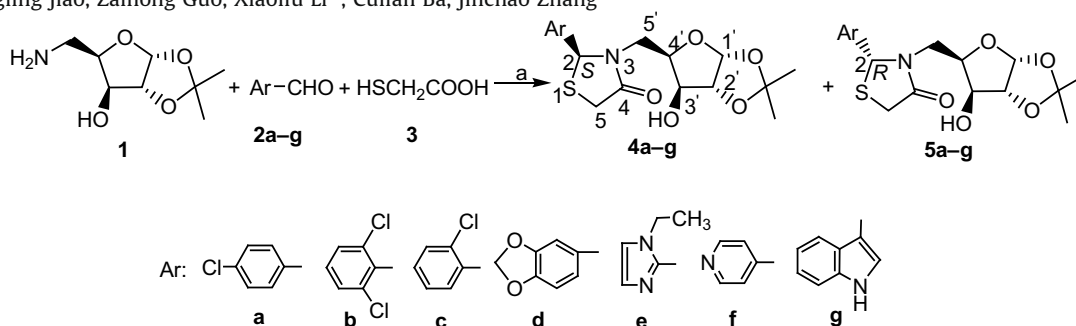
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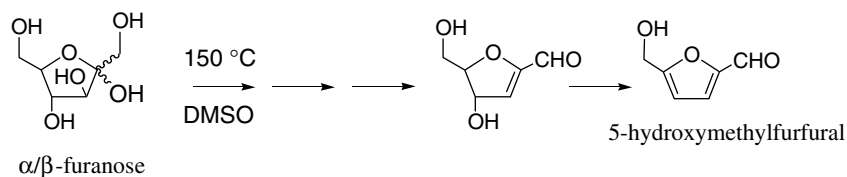
Hua Chen, Lingling Jiao, Zaihong Guo, Xiaoliu Li *, Cuilan Ba, Jinchao Zhang



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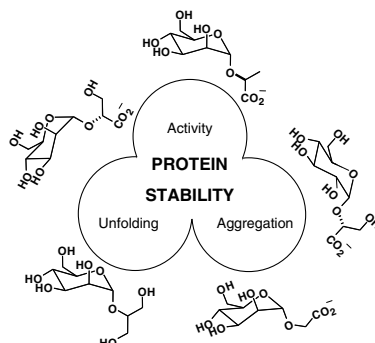
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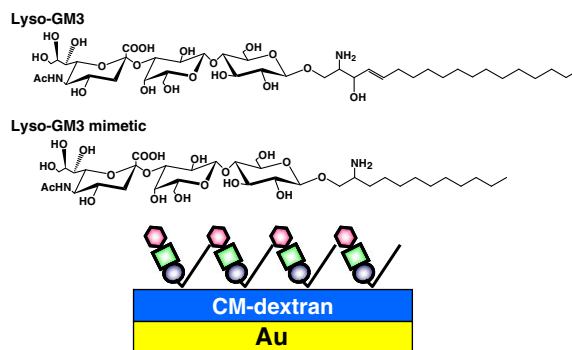
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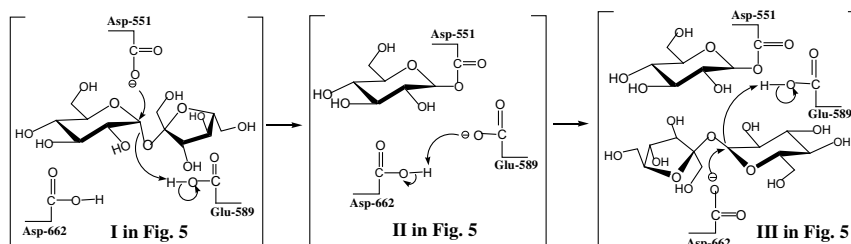
Yoshimi Haga, Sen-itiroh Hakomori, Kenichi Hatanaka *



Dextranase and the mechanism for dextran biosynthesis

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John F. Robyt *, Seung-Heon Yoon, Rupendra Mukerjeea

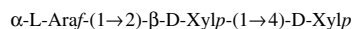
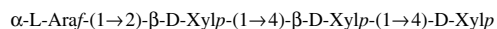
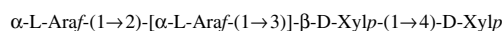
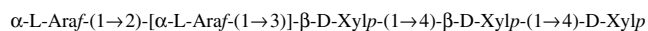


Initiation steps I, II, and III, involving the amino acids (Asp551, Glu589, and Asp662), in the organic reaction enzyme mechanism for the biosynthesis of dextran by dextranase.

Step-wise enzymatic preparation and structural characterization of singly and doubly substituted arabinoxylo-oligosaccharides with non-reducing end terminal branches

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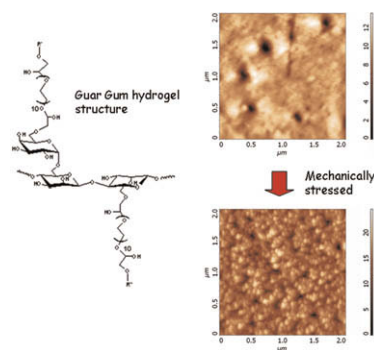
Helena Pastell *, Päivi Tuomainen, Liisa Virkki, Maija Tenkanen



A thixotropic hydrogel from chemically cross-linked guar gum: synthesis, characterization and rheological behaviour

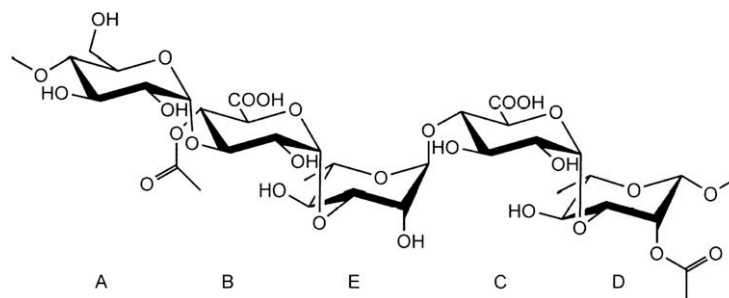
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Rolando Barbucci *, Daniela Pasqui, Roberto Favaloro, Giuseppe Panariello



Structure of the high-molecular weight exopolysaccharide isolated from *Lactobacillus pentosus* LPS26

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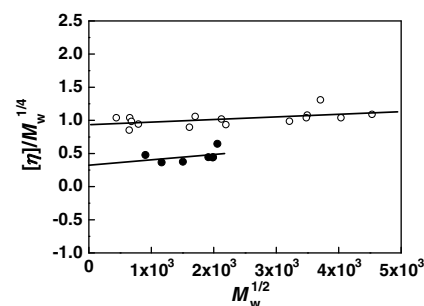
Miguel A. Rodríguez-Carvajal ^{*}, J. Ignacio Sánchez, Ana B. Campelo, Beatriz Martínez, Ana Rodríguez, Antonio M. Gil-Serrano**Microwave-assisted solubilization and solution properties of hyperbranched polysaccharide**

pp 3071–3078

Yongzhen Tao ^{*}, Weilin Xu

A water-insoluble hyperbranched polysaccharide was treated by microwave heating to produce an aqueous solution. The effect of microwave exposure time upon the molecular weight and molecular weight distribution was determined in order to ascertain an appropriate treatment regime. Furthermore, we attempted to study the chain conformation of hyperbranched polysaccharide in aqueous solution using size-exclusion chromatography (SEC-LLS) and viscometry.

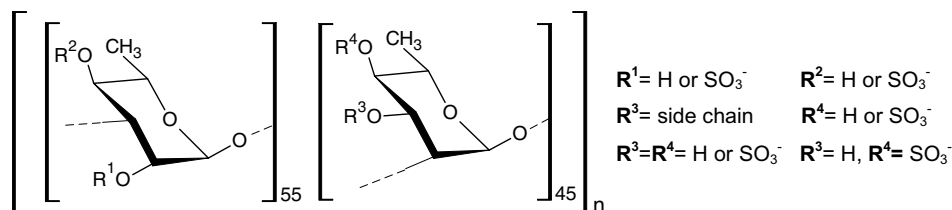
Modified Stockmayer–Fixman plot for hyperbranched polymers with the data for TM3a in 0.02 wt % aqueous NaN₃ at 25 °C (●), in comparison with TM3a in 0.25 M LiCl/DMSO at 25 °C (○).

**The structure of the polysaccharide of the lipopolysaccharide produced by *Taylorella equigenitalis* type strain (ATCC 35865)**

pp 3079–3084

Evgeny Vinogradov, Leann L. MacLean, Brian W. Brooks, Cheryl Lutze-Wallace, Malcolm B. Perry ^{*}**Chemical structure and antiviral activity of the sulfated heterorhamnan isolated from the green seaweed *Gayralia oxysperma***

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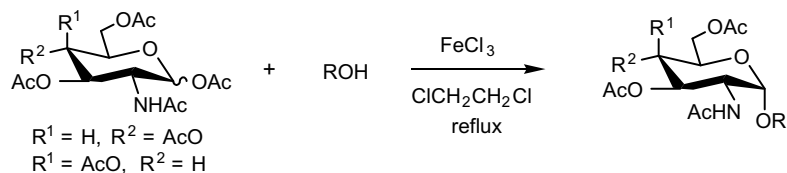
Juliana E. F. Cassolato, Miguel D. Nosedá, Carlos A. Pujol, Franciane M. Pellizzari, Elsa B. Damonte, Maria E. R. Duarte ^{*}

NOTES

FeCl₃-catalyzed α -glycosidation of glycosamine pentaacetates

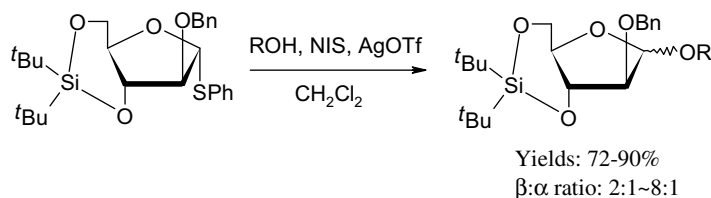
pp 3096–3099

Guohua Wei, Xun Lv, Yuguo Du *

**Synthesis of β -D-arabinofuranosides: stereochemical differentiation between D- and L-enantiomers**

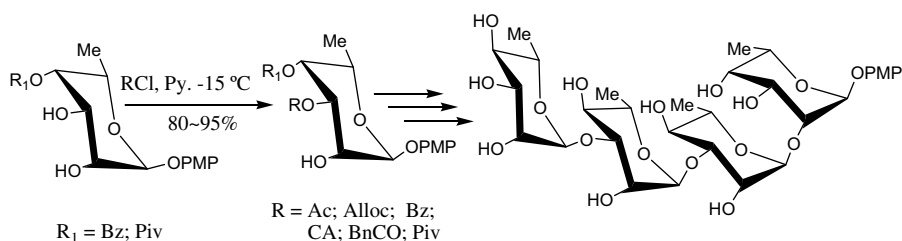
pp 3100–3106

Yingxi Wang, Samuel Maguire-Boyle, Ravindra T. Dere, Xiangming Zhu *

**Synthesis of the 6-deoxytalose-containing tetrasaccharide of the glycopeptidolipid from *Mycobacterium intracellare* serotype 7**

pp 3107–3111

Shiqiang Yan, Xiaomei Liang, Peiyu Diao, Ye. Yang, Jianjun Zhang *, Daoquan Wang, Fanzuo Kong

**TEMPO-mediated selective oxidation of substituted polysaccharides—an efficient approach for the determination of the degree of substitution at C-6**

pp 3112–3116

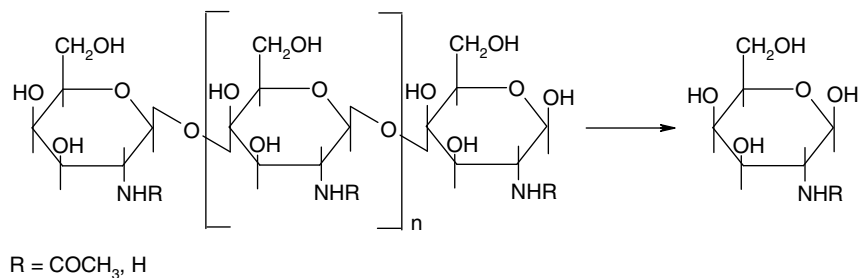
Bin Ding, Ying qing Ye, Jiecheng Cheng, Ke Wang, Jianhui Luo, Bo Jiang *

Tempo-mediated oxidation was investigated for several substituted polysaccharides. It was shown that this oxidation reaction can be used for the determination of the degree of substitution at C-6 position of the polysaccharide by comparing the difference of oxidation yield between substituted and natural polysaccharides.

Polarized light-stimulated enzymatic hydrolysis of chitin and chitosan

pp 3117–3119

Anna Konieczna-Molenda, Maciej Fiedorowicz, Wei Zhong, Piotr Tomasik *

**Structural characterization of a water-soluble β -(1 $\rightarrow$ 6)-linked D-glucan isolated from the hot water extract of an edible mushroom, *Agaricus bitorquis***

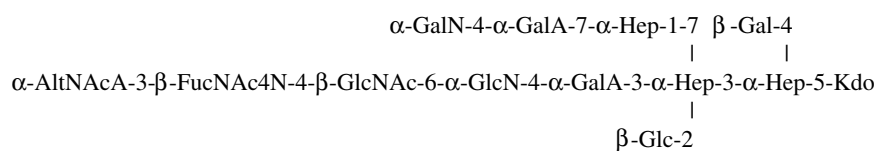
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Chanchal K. Nandan, Pradip Patra, Sunil K. Bhanja, Bappaditya Adhikari, Ramsankar Sarkar, Soumitra Mandal, Syed S. Islam *

 $\rightarrow 6$)- β -D-Glcp-(1 $\rightarrow$ **The elucidation of the structure of the core part of the LPS from *Plesiomonas shigelloides* serotype O17 expressing O-polysaccharide chain identical to the *Shigella sonnei* O-chain**

pp 3123–3127

Joanna Kubler-Kielb, Rachel Schneerson, Chris Mocca, Evgeny Vinogradov *



*Corresponding author

 Supplementary data available via ScienceDirect

COVER

The graphic represents a molecular dynamics simulation of water density around the disaccharide α -D-Araf-(1 $\rightarrow$ 5)- α -D-Araf-OCH₃, highlighting the interglycosidic linkage. The red clouds represent regions where the probability of finding an oxygen atom is high while the gray clouds are for hydrogen atoms. This work is the result of a collaboration in the Alberta Ingenuity Centre for Carbohydrate Science and Department of Chemistry at the University of Alberta between the groups of Pierre-Nicolas Roy and Todd L. Lowary (Castillo, N.; Roy, P. N.; Lowary, T. L. Manuscript in Preparation).

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