

Carbohydrate Research Vol. 344, Issue 10, 2009

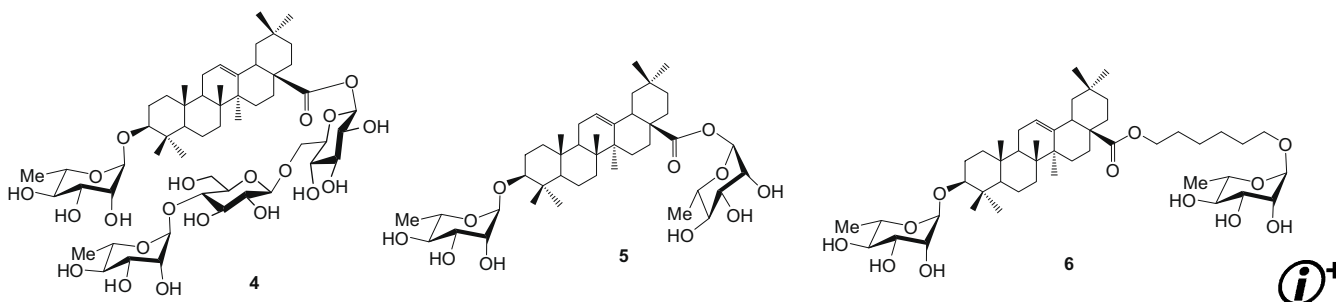
Contents

Full Papers

Synthesis of oleanolic acid saponins mimicking components of Chinese folk medicine Di Wu

pp 1153–1158

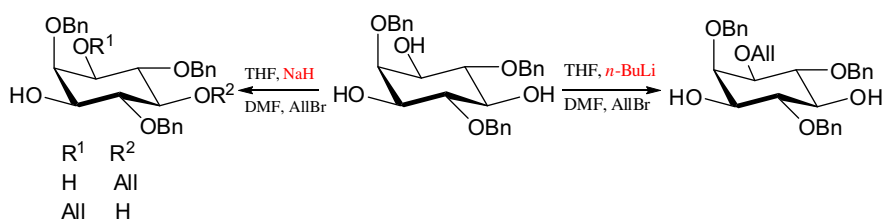
Xing Huang, Shuihong Cheng, Yuguo Du^{*}, Feihong Bing



Relative reactivity of hydroxyl groups in inositol derivatives: role of metal ion chelation

pp 1159–1166

Subramanian Devaraj, Rajendra C. Jagdhane, Mysore S. Shashidhar^{*}



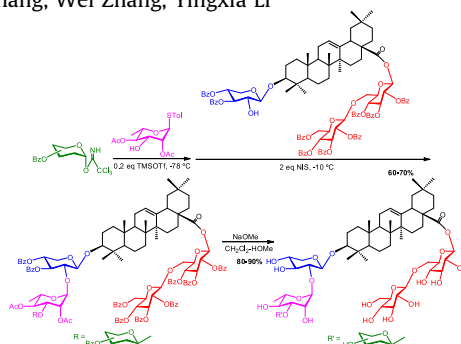
Experimental investigations of the O-alkylations of eight *myo*-inositol derivatives using BuLi/alkyl halide and NaH/alkyl halide show that BuLi/alkyl halide gives better regioselectivity than NaH/alkyl halide.



Facile synthesis of three bidesmosidic oleanolic acid saponins with strong inhibitory activity on pancreatic lipase

pp 1167–1174

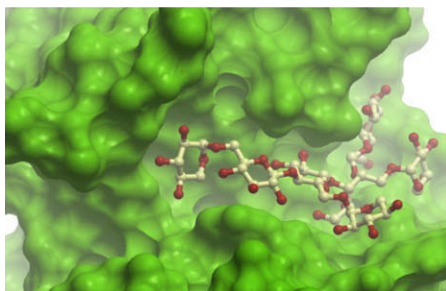
Tiantian Guo, Qingchao Liu, Peng Wang, Lei Zhang, Wei Zhang, Yingxia Li^{*}



Substrate recognition and hydrolysis by a fungal xyloglucan-specific family 12 hydrolase

pp 1175–1179

Justin Powlowski, Sonam Mahajan, Matthieu Schapira, Emma R. Master *

**Plasticization and crosslinking effects of acetone–formaldehyde and tannin resins on wheat protein-based natural polymers**

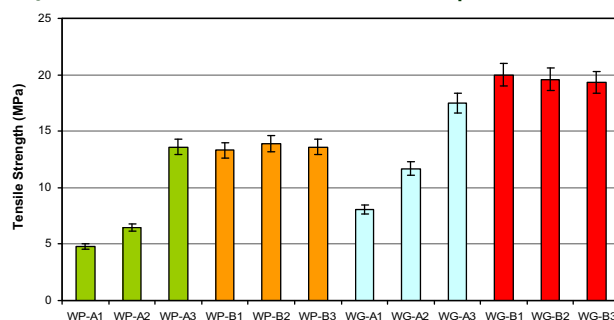
pp 1180–1189

Xiaoqing Zhang *, My Dieu Do

wheat proteins
ketone-aldehyde tannin resins

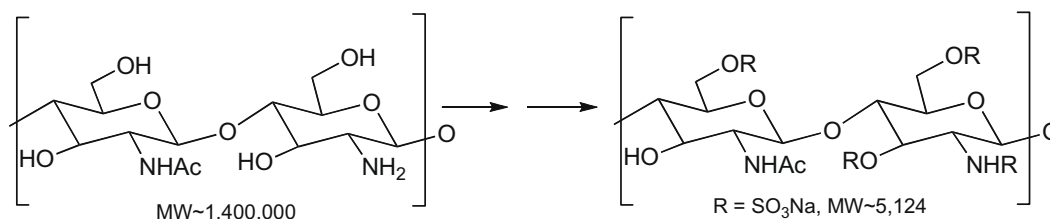
thermal processing →

plasticized - crosslinked
wheat protein networks

**Sulfonation of papain-treated chitosan and its mechanism for anticoagulant activity**

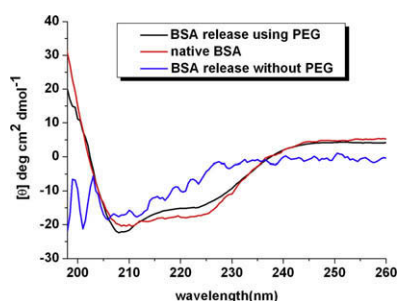
pp 1190–1196

Jiraporn Suwan, Zhenqing Zhang, Boyangzi Li, Preeyanat Vongchan, Puttinan Meepowpan, Fuming Zhang, Shaker A. Mousa, Shaymaa Mousa, Bhusana Premanode, Prachya Kongtawelert *, Robert J. Linhardt *

**Polyelectrolyte nanoparticles based on water-soluble chitosan–poly(L-aspartic acid)–polyethylene glycol for controlled protein release**

pp 1197–1204

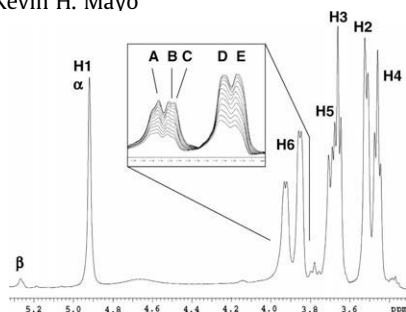
Shujun Shu, Xinge Zhang *, Dayong Teng, Zhen Wang, Chaoxing Li *



Using pulse field gradient NMR diffusion measurements to define molecular size distributions in glycan preparations

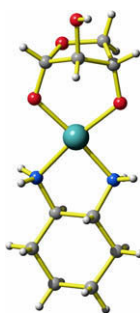
pp 1205–1212

Michelle C. Miller, Anatole Klyosov, David Platt, Kevin H. Mayo *

**Bidentate palladium(II) chelation by the common aldoses**

pp 1213–1224

Yvonne Arendt, Oliver Labisch, Peter Klüfers *

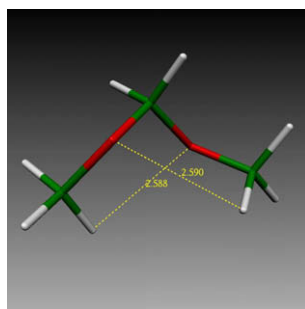


A prominent metal-binding site in the aqueous solution equilibrium of an aldose is provided by the furanose isomer in its 1,3-bonding mode. Since this binding mode does not lead to typical signal patterns in NMR spectra, structural work on single crystals was necessary to confirm this form of aldose chelating. The figure shows L-threose adopting this mode, but pentoses and hexoses also ligate that way to palladium(II) centres. 1,3-Bonding galactofuranose thus is the major isomer in an equimolar aqueous solution of the palladium reagent $[\text{Pd}^{\text{II}}\{(\text{R,R})\text{-chxn}\}(\text{OH})_2]$ (chxn = 1,2-diaminocyclohexane) and D-galactose.

**The origin of the generalized anomeric effect: possibility of CH/π and CH/π hydrogen bonds**

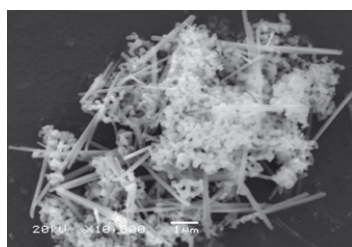
pp 1225–1229

Osamu Takahashi *, Katsuyoshi Yamasaki, Yuji Kohno *, Kazuyoshi Ueda, Hiroko Suezawa, Motohiro Nishio *

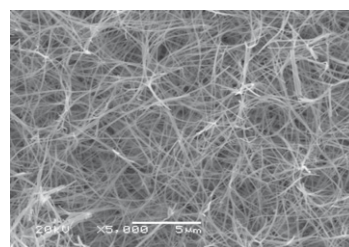
**Synthesis of selenium nanowires morphologically directed by *Shinorhizobial* oligosaccharides**

pp 1230–1234

Sanghoo Lee, Chanho Kwon, Baeho Park, Seunho Jung *



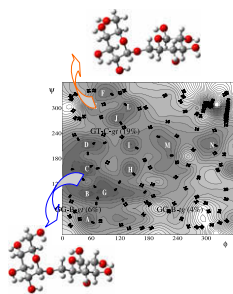
Shinorhizobial oligosaccharides
 vitamin C, H₂O, RT



The (α -1,6) glycosidic bond of isomaltose: a tricky system for theoretical conformational studies

pp 1235–1247

Fábio Javaroni, Aurélio B.B. Ferreira, Clarissa O. da Silva *

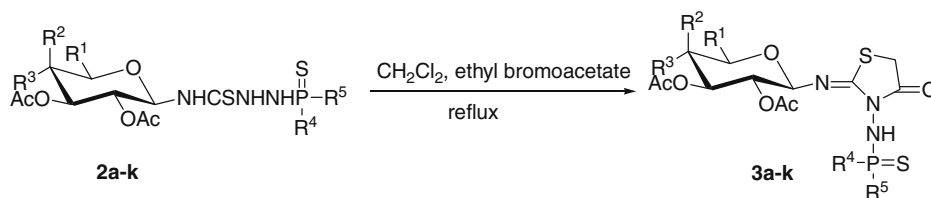


Notes

Regioselective synthesis of novel 3-alkoxy (phenyl) thiophosphorylamido-2-(per-O-acetylglycosyl-1'-imino)thiazolidine-4-one derivatives from O-alkyl N⁴-glycosyl(thiosemicarbazido)phosphonothioates

pp 1248–1253

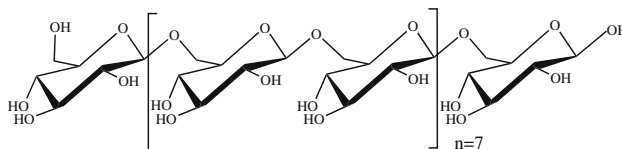
Yu Xin Li, Hao An Wang, Xiao Ping Yang, Hai Ying Cheng, Zhi Hong Wang, Yi Ming Li, Zheng Ming Li *, Su Hua Wang, Dong Wen Yan



A novel water-soluble β -(1 \rightarrow 6)-D-glucan isolated from the fruit bodies of *Bulgaria inquinans* (Fries)

pp 1254–1258

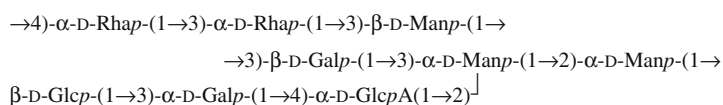
Hongtao Bi, Xiuzhen Ni, Xiaoyu Liu, Jeff Iteku, Guihua Tai, Yifa Zhou *, Jimin Zhao *




Isolation and structure elucidation of two different polysaccharides from the lipopolysaccharide of *Rahnella aquatilis* 33071^T

pp 1259–1262

Evelina L. Zdorovenko *, Ludmila D. Varbanets, George V. Zatonsky, Galina M. Zdorovenko, Alexander S. Shashkov, Yuriy A. Knirel



*Corresponding author

+ Supplementary data available via ScienceDirect

COVER

High-mannose-type asparagine-linked glycans play critical roles in glycoprotein processing and quality control in the endoplasmic reticulum. However, the analysis of these events has been hindered by the limited availability of glycan substrates. Work by Ito and co-workers has enabled the systematic synthesis of high mannose-type glycans, which were converted to conjugates with various small molecules and proteins. These probes revealed the substrate specificities of lectins, chaperones, and glycoprotein-processing enzymes.

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