

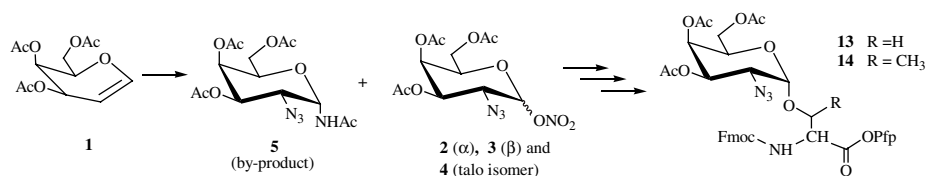
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FULL PAPERS

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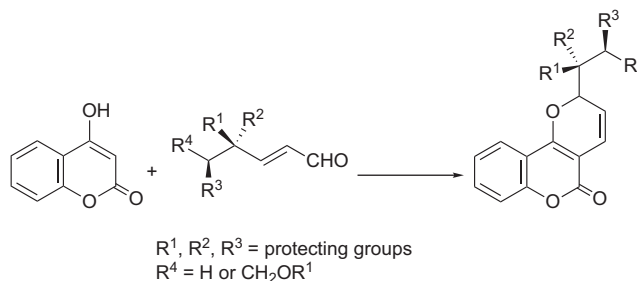
Mian Liu, Victor G. Young, Jr., Sachin Lohani, David Live* and George Barany*



Diastereoselective annulation of 4-hydroxypyran-2*H*-ones with enantiopure 2,3-dideoxy- α,β -unsaturated sugar aldehydes derived from respective glycals

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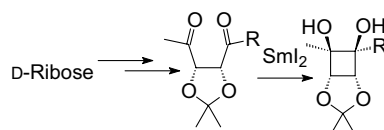
Ram Sagar, Pushpa Singh, Rishi Kumar, Prakas R. Maulik and Arun K. Shaw*



Highly functionalised cyclobutanols via samarium(II) iodide-induced pinacol cyclisations of carbohydrate-derived 1,4-diketones

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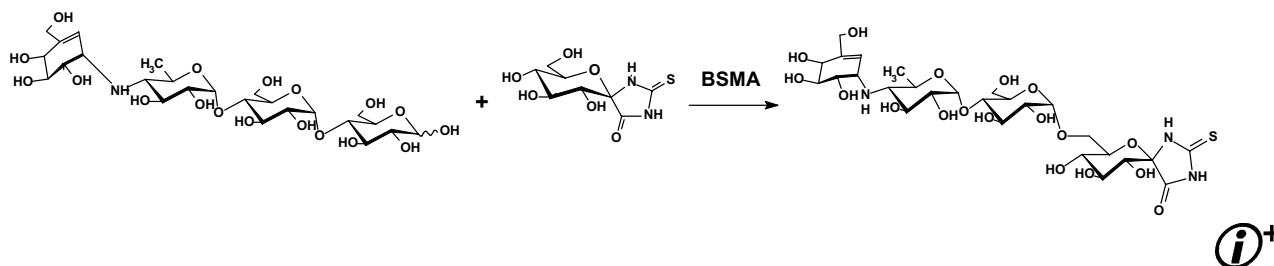
D. Bradley G. Williams,* Judy Caddy and Kevin Blann



Enzymatic synthesis of a new inhibitor of α -amylases: acarviosinyl-isomaltosyl-spiro-thiohydantoin

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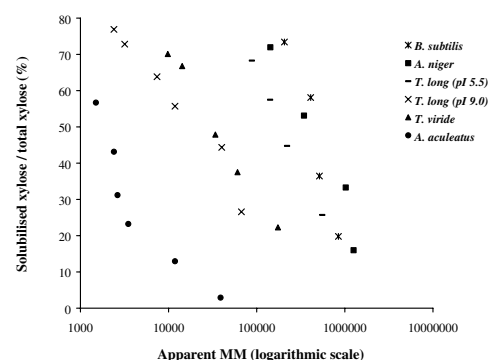
Lili Kandra,* Judit Remenyik, Gyula Batta, László Somsák, Gyöngyi Gyémánt and Kwan Hwa Park

**Endoxylanase substrate selectivity determines degradation of wheat water-extractable and water-unextractable arabinoxylan**

pp 1319–1327

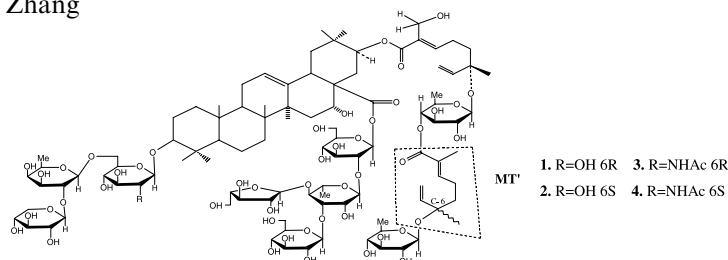
Karolien Moers,* Inge Celus, Kristof Brijs, Christophe M. Courtin and Jan A. Delcour

Endoxylanase substrate selectivity is the ratio of solubilising activity towards WU-AX and enzyme activity towards WE-AX. A set of six endoxylanases representing a range of substrate selectivities as determined with a screening method using chromophoric substrates was used to examine the impact of such selectivity on changes in structural characteristics of wheat WU-AX and WE-AX upon enzymic hydrolysis.

**Diastereoisomeric saponins from *Albizia julibrissin***

pp 1329–1334

Kun Zou, Wen-yong Tong, Hong Liang, Jing-rong Cui, Guang-zhong Tu, Yu-ying Zhao* and Ru-yi Zhang



The structures of four diastereoisomeric triterpenoidal saponins Julibroside J₅, J₈, J₁₂ and J₁₃ isolated from *Albizia julibrissin* have been determined on the basis of comprehensive spectroscopic analysis and chemical degradation.

Mango ripening—chemical and structural characterization of pectic and hemicellulosic polysaccharides

pp 1335–1342

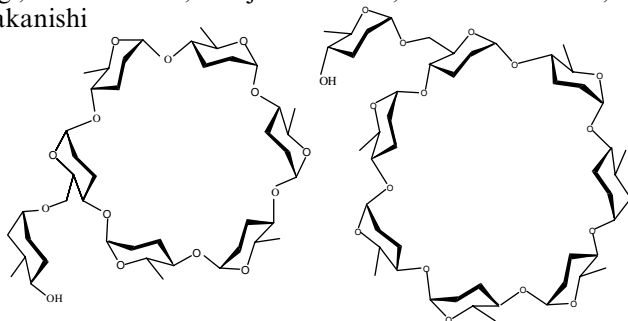
Hosakote M. Yashoda, Tyakal N. Prabha and Rudrapatnam N. Tharanathan*

Ripening-induced compositional–structural changes in pectic and hemicellulosic polysaccharides of mango (*Mangifera indica* L., cv. Alphonso) are elucidated.

Application of ultra-high magnetic field for saccharide molecules: ^1H NMR spectra of 6- O - α -D-glucopyranosylcyclomaltoheptaose and -cyclomaltohexaose

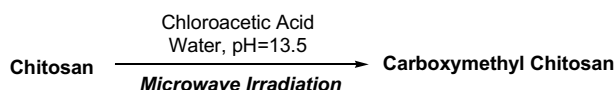
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Yasuko Ishizuka,* Kenji Takasugi, Yu Tsutsumi, Kenji Kanazawa, Tadashi Nemoto, Tsukasa Kiyoshi and Hiroshi Nakanishi

**Preparation of carboxymethyl chitosan in aqueous solution under microwave irradiation**

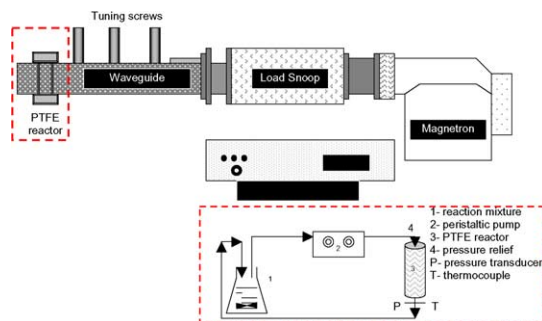
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Hua-Cai Ge* and Deng-Ke Luo

**Seaweed processing using industrial single-mode cavity microwave heating: a preliminary investigation**

pp 1357–1364

Sandra F. Uy,* Allan J. Easteal, Mohammed M. Farid, Richard B. Keam and Gregory T. Conner

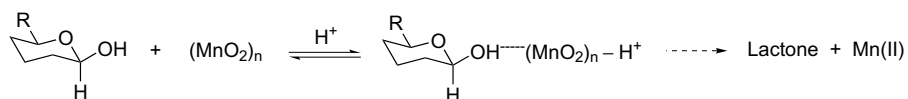


Schematic illustration of microwave extraction system.

Oxidation of gum arabic by soluble colloidal MnO_2

pp 1365–1371

Parveen Kumar and Zaheer Khan*

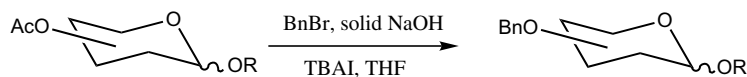


NOTES

Direct one-pot conversion of acylated carbohydrates into their alkylated derivatives under heterogeneous reaction conditions using solid NaOH and a phase transfer catalyst

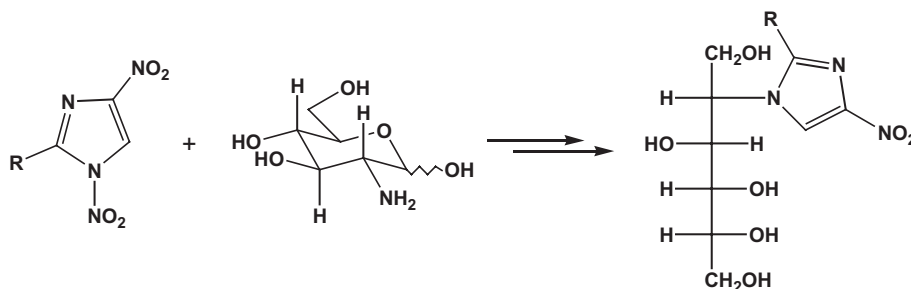
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Soni Kamlesh Madhusudan, Geetanjali Agnihotri, Devendra S. Negi and Anup Kumar Misra*

**Synthesis of 2-deoxy-2-(4-nitroimidazol-1-yl)-D-alditols**

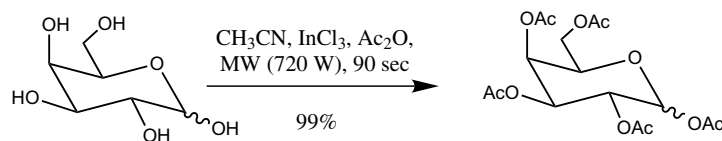
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Andrzej Gondela and Krzysztof Walczak*

**InCl₃ as a powerful catalyst for the acetylation of carbohydrate alcohols under microwave irradiation**

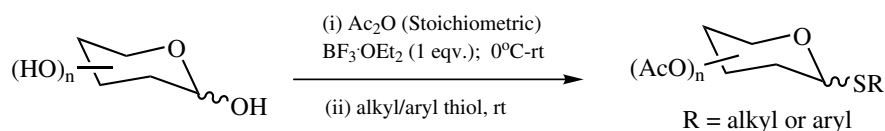
pp 1387–1392

Saibal Kumar Das,* K. Anantha Reddy, V. L. Narasimha Rao Krovvidi and K. Mukkanti

**One-pot synthesis of per-O-acetylated thioglycosides from unprotected reducing sugars**

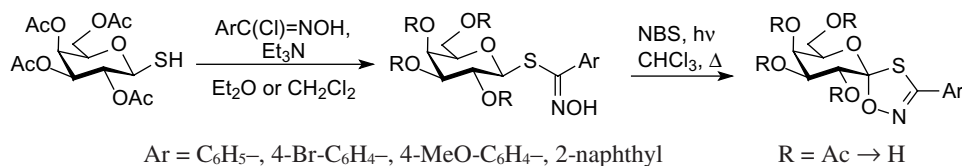
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Geetanjali Agnihotri, Pallavi Tiwari and Anup Kumar Misra*



β -D-Galactopyranosyl-thiohydroximates and D-galactopyranosylidene-spiro-oxathiazoles: synthesis and enzymatic evaluation against *E. coli* D-galactosidase pp 1397–1402

Rita Elek, László Kiss, Jean-Pierre Praly* and László Somsák

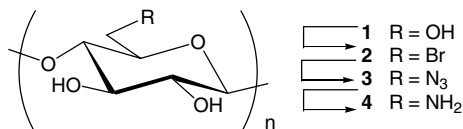


Inhibition constants were found to be in the millimolar range.

Facile synthesis of 6-amino-6-deoxycellulose

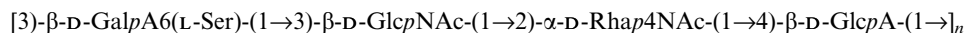
pp 1403–1406

Yoshiaki Matsui, Junya Ishikawa, Hiroshi Kamitakahara, Toshiyuki Takano* and Fumiaki Nakatsubo

**Structure of the O-polysaccharide from the lipopolysaccharide of *Providencia stuartii* O43 containing an amide of D-galacturonic acid with L-serine**

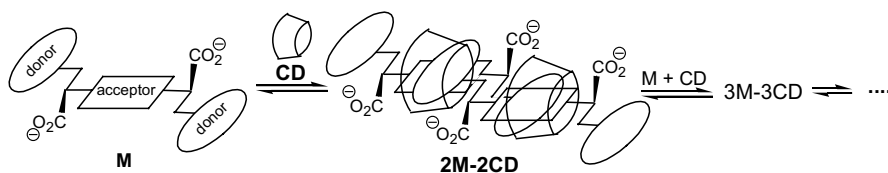
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Olga G. Ovchinnikova,* Nina A. Kocharova, Agnieszka Torzewska, Aleksandra Blaszczyk, Alexander S. Shashkov, Yuriy A. Knirel and Antoni Rozalski

**Cyclomaltooligosaccharide (cyclodextrin)-assisted enantiomeric recognition of benzo[*lmn*][3,8]phenanthroline-derived amino acids**

pp 1413–1418

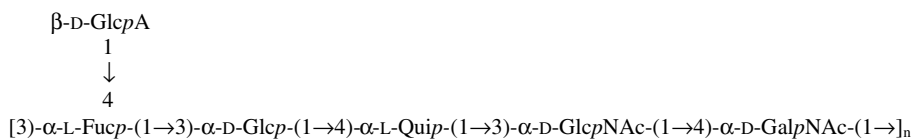
Branko S. Jursic* and Paresh K. Patel



The O-polysaccharide from the lipopolysaccharide of *Providencia stuartii* O44 contains L-quinovose, a 6-deoxy sugar rarely occurring in bacterial polysaccharides

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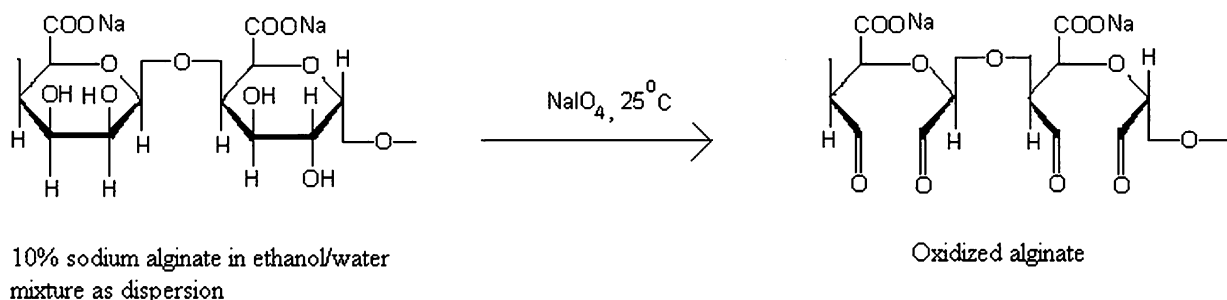
Nina A. Kocharova, Olga G. Ovchinnikova,* Filip V. Toukach, Agnieszka Torzewska, Alexander S. Shashkov, Yuriy A. Knirel and Antoni Rozalski



Periodate oxidation of sodium alginate in water and in ethanol–water mixture: a comparative study

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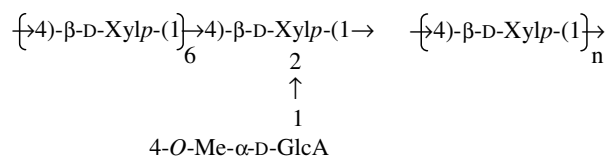
B. Balakrishnan, S. Lesieur, D. Labarre and A. Jayakrishnan*



Isolation and characterization of xylans from seed pericarp of *Argania spinosa* fruit

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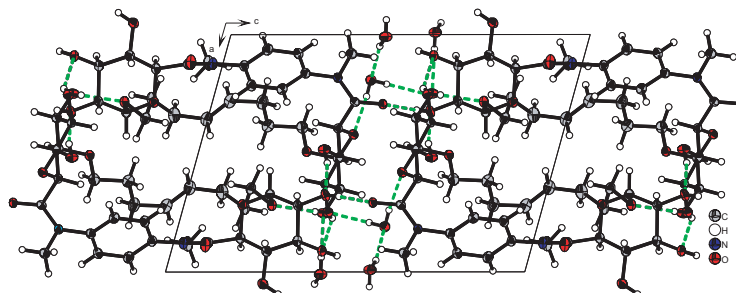
Youssef Habibi and Michel R. Vignon*



The crystal structure of a cyclic glycolipid reveals a carbohydrate–carbohydrate interaction interface

pp 1437–1440

Paul V. Murphy,* Helge Müller-Bunz and Trinidad Velasco-Torrijos

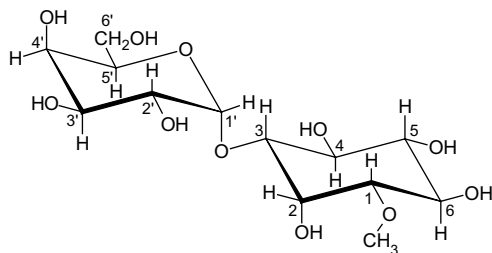


The crystal structure of an amphiphilic macrocycle is described.



Molecular structure of lathyritol, a galactosylbornesitol from *Lathyrus odoratus* seeds, by NMR**pp 1441–1446**

Ralph L. Obendorf,* Christine E. McInnis, Marcin Horbowicz, Ivan Keresztes and Lesław B. Lahuta



The molecular structure of galactosyl-D-(–)-bornesitol, a novel compound isolated from sweet pea seeds, was determined to be α -D-galactopyranosyl-(1 $\rightarrow$ 3)-1-O-methyl-1D-*myo*-inositol by 1D and 2D NMR spectroscopy and assigned the trivial name lathyritol.

*Corresponding author

①⁺ 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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