

1,5-Anhydro-D-fructose; a versatile chiral building block: biochemistry and chemistry

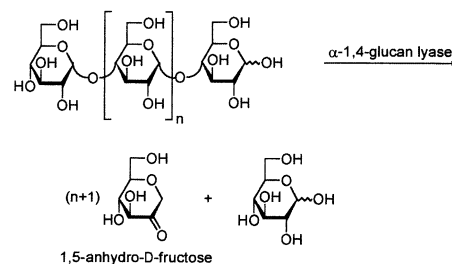
Carbohydr. Res. **2002**, 337, 873

Søren M. Andersen,^a Inge Lundt,^a Jan Marcussen,^b Shukun Yu^c

^aDepartment of Chemistry, Technical University of Denmark, Building 201, DK-2800 Kgs. Lyngby, Denmark

^bKMC, Nr. Lindvej 14, DK-7400 Herning, Denmark

^cDanisco-Cultor Innovation Center, Langebrogade 1, DK-1001 Copenhagen K, Denmark



Influence of exo β -D-galactofuranosidase inhibitors in cultures of *Penicillium fellutanum* and modifications in hyphal cell structure

Carbohydr. Res. **2002**, 337, 891

Karina Mariño,^a Carlos Lima,^a Sara Maldonado,^b Carla Marino,^a Rosa M. de Lederkremer^a

^aCIHIDECAR, Departamento de Química Orgánica, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Pabellón II, Ciudad Universitaria, 1428 Buenos Aires, Argentina

^bInstituto de Recursos Biológicos, INTA, 1712 Castelar, Pcia. de Buenos Aires, Argentina

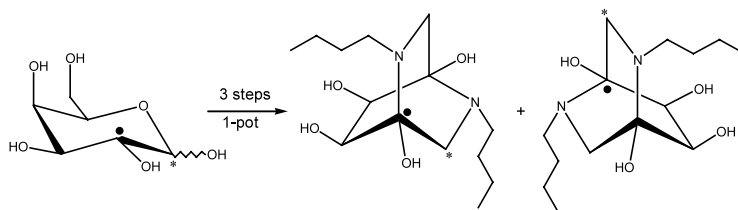
D-Galactono-1,4-lactone or 4-aminophenyl 1-thio- β -D-galactofuranoside in cultures of *Penicillium fellutanum* inhibited secretion of β -D-galactofuranosidase and peptidophosphogalactomannan (pPGM) and altered the ultrastructure of the hyphae.

Galactose dialdehyde as potential protein cross-linker: proof of principle

Carbohydr. Res. **2002**, 337, 899

Rob Schoevaart, Tom Kieboom

Industrial Fermentative Chemistry, Leiden University, Einsteinweg 55, PO Box 9502, NL-2300 RA Leiden, The Netherlands



Conformational studies of blood group A and blood group B oligosaccharides using NMR residual dipolar couplings

Carbohydr. Res. **2002**, 337, 905

Hugo F. Azurmendi, C. Allen Bush

Department of Chemistry and Biochemistry, University of Maryland-Baltimore County, 1000 Hilltop Circle, Baltimore, MD 21250, USA

The conformations of two synthetic trisaccharides of blood groups A and B were studied by NMR measurements of one-bond C-H residual dipolar couplings in partially oriented liquid crystal solutions. The analysis implies a single unique conformation for both blood group epitopes, which is in disagreement with theoretical models.

Structural characterisation of the olive pomace pectic polysaccharide arabinan side chains

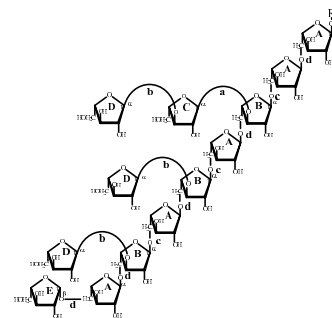
Carbohydr. Res. **2002**, *337*, 917

Susana M. Cardoso,^{a,b} Artur M.S. Silva,^a Manuel A. Coimbra^a

^a*Departamento de Química, Universidade de Aveiro, P-3810-193 Aveiro, Portugal*

^b*Escola Superior Agrária de Bragança, P-5301-855 Bragança, Portugal*

An arabinan was isolated from olive pomace by hot dilute acid and purified by ethanol precipitation, anion-exchange and size-exclusion chromatography. A tentative structure is proposed based on the results of methylation analysis and NMR spectroscopy.



Effect of (1 → 3)- and (1 → 4)-linkages of fully sulfated polysaccharides on their anticoagulant activity

Carbohydr. Res. **2002**, *337*, 925

Amornrut Chaidedgumjorn,^a Hidenao Toyoda,^a Eun Rhan Woo,^b Kyung Bok Lee,^c Yeong Shik Kim,^d Toshihiko Toida,^a Toshio Imanari^a

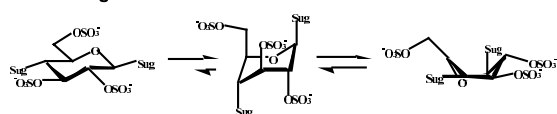
^a*Graduate School of Pharmaceutical Sciences, Chiba University, 1-33 Yayoi-cho, Inage-ku, Chiba-shi, Chiba 263-8522, Japan*

^b*College of Pharmacy, Chosun University, Kwangju 501-759, South Korea*

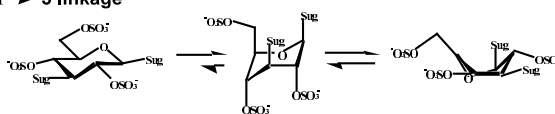
^c*Department of Biochemistry, College of Medicine, Konyang University, Nonsan, Chungnam 320-711, South Korea*

^d*Natural Products Research Institute, Seoul National University, Seoul 151-747, South Korea*

1 → 4 linkage



1 → 3 linkage

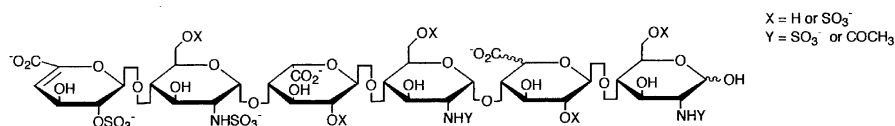


Hexasaccharides from the histamine-modified depolymerization of porcine intestinal mucosal heparin

Carbohydr. Res. **2002**, *337*, 935

Wei-Lien Chuang, Heather McAllister, Dallas L. Rabenstein

Department of Chemistry, University of California, Riverside, CA 92521, USA

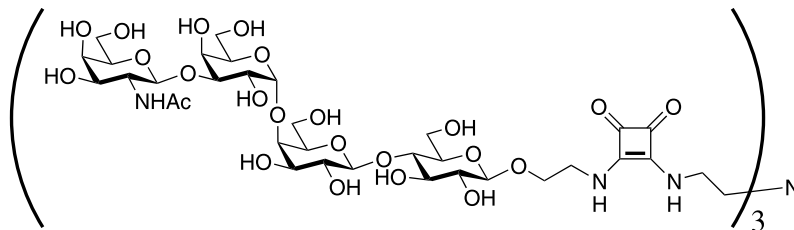


Synthesis of a globotetraose trimer

Carbohydr. Res. **2002**, *337*, 947

Anders Bergh, Sumita Bhattacharyya, Ulf J. Nilsson

Organic and Bioorganic Chemistry, Lund University, PO Box 124, SE-221 00 Lund, Sweden



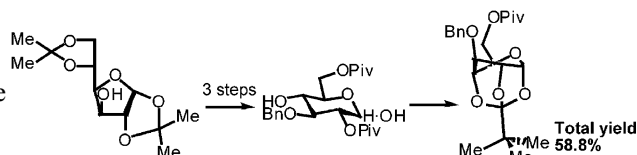
An improved method for the preparation of 3-*O*-benzyl-6-*O*-pivaloyl- α -D-glucopyranose 1,2,4-orthopivalate

Carbohydr. Res. **2002**, 337, 951

Makoto Karakawa, Fumiaki Nakatsubo

Division of Forest and Biomaterials Science, Graduate School of Agriculture, Kyoto University, Sakyo-Ku, Kyoto 606-8502, Japan

The previously established synthetic steps for 3-*O*-benzyl-6-*O*-pivaloyl- α -D-glucopyranose 1,2,4-orthopivalate was shortened by introducing two novel reactions.



5,7-Diamino-5,7,9-trideoxynon-2-ulosonic acid: a novel sugar from a phytopathogenic *Pseudomonas lipopolysaccharide*

Carbohydr. Res. **2002**, 337, 955

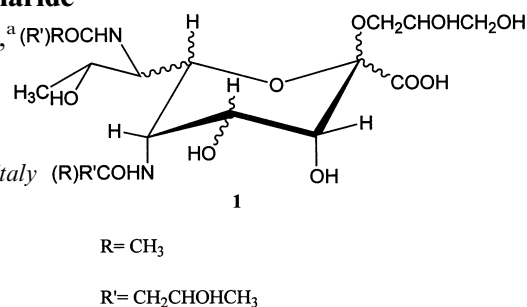
Maria Michela Corsaro,^a Antonio Evidente,^b Rosa Lanzetta,^a Paola Lavermicocca,^c Michelangelo Parrilli,^a Salvatore Ummarino^a

^a*Dipartimento di Chimica Organica e Biochimica, Università Federico II, Complesso Universitario Monte S. Angelo, Via Cintia, 4, I-80126 Naples, Italy*

^b*Dipartimento di Scienze del Suolo, della Pianta e dell'Ambiente, Università Federico II, Via Università 100, I-80055 Portici, Italy*

^c*Istituto di Scienze delle Produzioni Alimentari del CNR, Viale L. Einaudi 51, I-70125 Bari, Italy*

A novel sugar from the O-chain of the lipopolysaccharide of *Pseudomonas corrugata* was obtained for the first time and characterised by means of NMR spectroscopy and mass spectrometry. This is a 5,7-diamino-5,7,9-trideoxynon-2-ulosonic acid.

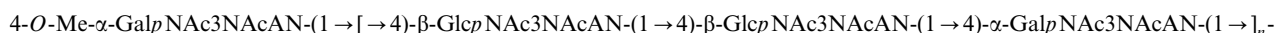


Structure of the O-specific polysaccharide chain of the lipopolysaccharide of *Bordetella hinzii*

Carbohydr. Res. **2002**, 337, 961

Evgeny Vinogradov

Institute for Biological Sciences, National Research Council, 100 Sussex Drive, Ottawa, Ont., Canada K1A 0R6



A method for obtaining equilibrium tautomeric mixtures of reducing sugars via glycosylamines using nonaqueous media

Carbohydr. Res. **2002**, 337, 965

Sikkander Sulthan Allavudeen, Balagurunathan Kuberan, Duraikkannu Loganathan

Department of Chemistry, Indian Institute of Technology Madras, Chennai 600 036, India

Equilibrium tautomeric mixtures of several mono- and disaccharides are obtained in anhydrous form, without the use of water, by reacting the sugars with ammonia gas in dry methanol, followed by concentration of the resultant solution to dryness.

