

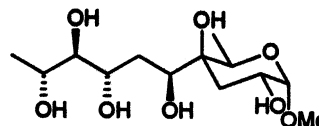
A general route to 4-C-branched sugars. Synthesis of methyl α -caryophylloside

Carbohydr. Res. **2001**, 332, 241

Jacques Prandi

Institut de Pharmacologie et de Biologie Structurale du CNRS, 205 route de Narbonne, F-31077 Toulouse, France

Diiodosamarium-mediated coupling of a cyclic ketone with an acid chloride was the key for a convergent and stereoselective synthesis of this 4-C-branched dodecose from hexose precursors.

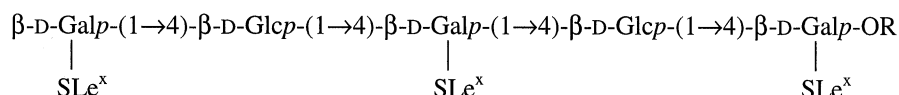


Construction of multivalent sialyl Le^x from the type Ia group B *Streptococcus* capsular polysaccharide

Carbohydr. Res. **2001**, 332, 249

Wei Zou, JianJun Li, Suzon Larocque, Harold J. Jennings

Institute for Biological Sciences, National Research Council of Canada, Ottawa, Ontario, Canada K1A 0R6



Synthesis of GLA-60 type pyran carboxylic acids with an alkyl chain instead of an ester chain as LPS-antagonists

Carbohydr. Res. **2001**, 332, 257

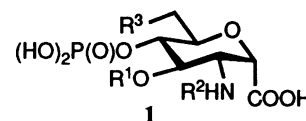
Yukiko Watanabe ^a, Kumiko Miura ^a, Masao Shiozaki ^a, Saori Kanai ^b, Shin-ichi Kurakata ^b, Masahiro Nishijima ^c

^a *Exploratory Chemistry Research Laboratories, Sankyo Co. Ltd, Hiromachi 1-2-58, Shinagawa-ku, Tokyo, 140-8710 Japan*

^b *Biological Research Laboratories, Sankyo Co. Ltd, Hiromachi 1-2-58, Shinagawa-ku, Tokyo 140-8710, Japan*

^c *Department of Biochemistry and Cell Biology, National Institute of Infectious Diseases, Toyama 1-23-1, Shinjuku-ku, Tokyo 162-8640, Japan*

Nine compounds (**1**) were synthesized and their biological activities were evaluated. [R¹ = (R)-3-dodecyloxytetradecyl or (R)-3-hydroxytetradecyl; R² = (R)-3-hydroxytetradecanoyl, tetradecanoyl, 2,2-difluorotetradecanoyl or (R)-3-dodecyloxytetradecanoyl; R³ = OH, OMe or F.]



Structure of the O-specific polysaccharide of *Vibrio cholerae* O9 containing 2-acetamido-2-deoxy-D-galacturonic acid

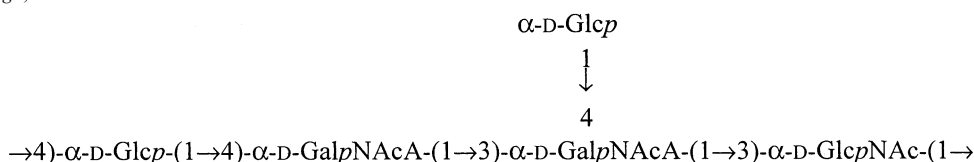
Carbohydr. Res. **2001**, 332, 279

Nina A. Kocharova,^{a,b} Yuriy A. Knirel,^{a,b} Per-Erik Jansson,^a Andrej Weintraub^c

^a*Karolinska Institute, Clinical Research Centre, Huddinge University Hospital, Novum, 141 86 Huddinge, Sweden*

^b*N.D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Moscow, Russia*

^c*Department of Microbiology, Pathology and Immunology, Division of Clinical Bacteriology, Karolinska Institute, Huddinge University Hospital, 141 86 Huddinge, Sweden*



Structural analyses of two arabinose containing oligo-saccharides derived from olive fruit xyloglucan: XXSG and XLSG

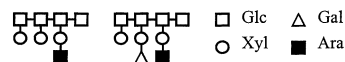
Carbohydr. Res. **2001**, 332, 285

Esther Vierhuis,^a William S. York,^b V.S. Kumar Kolli,^b Jean-Paul Vincken,^a Henk A. Schols,^a Gert-Jan W.M. Van Alebeek,^a Alphons G.J. Voragen^{a*}

^aLaboratory of Food Chemistry, Department of Agrotechnology and Food Sciences, Wageningen University, Bomenweg 2, 6700 EV Wageningen, The Netherlands

^bComplex Carbohydrate Research Center and Department of Biochemistry and Molecular Biology, University of Georgia, 220 Riverbend Road, Athens, GA 30602, USA

Characterisation of two arabinose containing xyloglucan oligomers by NMR spectroscopy and MALDI-TOF mass spectroscopy.



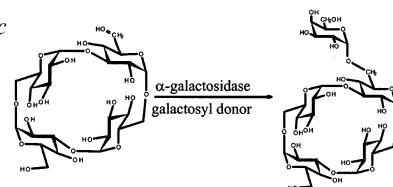
Enzymic α -galactosylation of a cyclic glucotetrasaccharide derived from alternan

Carbohydr. Res. **2001**, 332, 299

Peter Biely,^a Vladimír Puchart,^a Gregory L. Cote^b

^aInstitute of Chemistry, Slovak Academy of Sciences, 842 38 Bratislava, Slovak Republic

^bFermentation Biochemistry Research Unit, National Center for Agricultural Utilization Research, Agricultural Research Service, USDA, 1815 N. University Street, Peoria, IL 61604, USA



Concurrent production of chitin from shrimp shells and fungi

Carbohydr. Res. **2001**, 332, 305

Wee Lin Teng,^a Eugene Khor,^a Teck Koon Tan,^b Lee Yong Lim,^c Su Ching Tan^a

^aDepartment of Chemistry, Faculty of Science, National University of Singapore, 3 Science Drive, Singapore 117543, Singapore

^bDepartment of Biological Sciences, Faculty of Science, National University of Singapore, 3 Science Drive, Singapore 117543, Singapore

^cDepartment of Pharmacy, Faculty of Science, National University of Singapore, 3 Science Drive, Singapore 117543, Singapore

The concurrent production of chitin from shrimp shells and fungi by placing shrimp shells in direct contact with the fermentation of filamentous fungi was studied. Proteolytic enzymes released from the fungi deproteinate and demineralize the shrimp shells, releasing amino acids that act as a nitrogen source for fungal growth. Thus two sources of chitin — shrimp shells and fungal sources — were utilized in a symbiotic process to produce chitin.

β -Elimination of glucosyluronic residues during methylation of an acidic polysaccharide from *Erwinia chrysanthemi* CU 643

Carbohydr. Res. **2001**, 332, 317

Byung Yun Yang, Rex Montgomery

Department of Biochemistry, College of Medicine, University of Iowa, Iowa City, Iowa, IA 52242, USA

The *Erwinia chrysanthemi* CU643 EPS has a proven linear hexasaccharide repeating unit, in which a 4-linked uronic acid residue is present. The EPS was methylated by either the NaOH–Me₂SO–MeI or Li-dimsyl procedure. MALDI-TOF MS analysis of the methylated products indicates that the β -eliminative degradation occurs during the methylation, as characterized by serial fragments of the hexasaccharide repeating units. The degradation was clearly defined from the methylation of a glucosyluronic-containing pyruvated pentasaccharide.

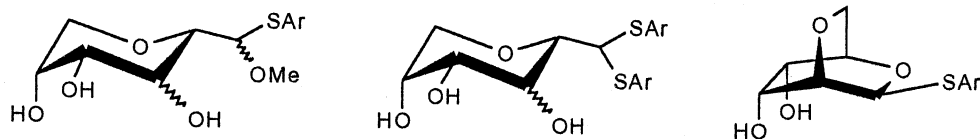
Conversion of 2,6-anhydro-D-altrose and -mannose derivatives with 4-substituted phenyl thiols to prepare compounds with potential antithrombotic activity

Carbohydr. Res. **2001**, 332, 325

Éva Bozó,^a Sándor Boros,^b János Kuszmann^b

^aGedeon Richter Chemical Works Ltd., PO Box 17, H-1475 Budapest, Hungary

^bInstitute for Drug Research, PO Box 82, H-1325 Budapest, Hungary



Synthesis and hypolipidemic activity of *N*-phthalimidomethyl tetra-*O*-acyl- α -D-mannopyranosides

Carbohydr. Res. **2001**, 332, 335

Rajendra M. Srivastava,^a Fernando J.S. Oliveira,^a Ladjane P. da Silva,^a João R. de Freitas Filho,^a Shalom P. Oliveira,^b Vera L.M. Lima^b

^aDepartamento de Química Fundamental, Universidade Federal de Pernambuco, Cidade Universitária, 50.740-540 Recife, PE, Brazil

^bDepartamento de Bioquímica, Universidade Federal de Pernambuco, Cidade Universitária, 50.670-420 Recife, PE, Brazil

A facile synthesis of anomerically pure phthalimidomethyl 2,3,4,6-tetra-*O*-acetyl- and phthalimidomethyl 2,3-di-*O*-acetyl-4,6-di-*O*-benzoyl- α -D-mannopyranosides (**6** and **9b**) starting from *N*-hydroxymethylphthalimide and tri-*O*-acetyl-D-glucal is described. These compounds possess hypolipidemic activity.

