Graphical Abstracts

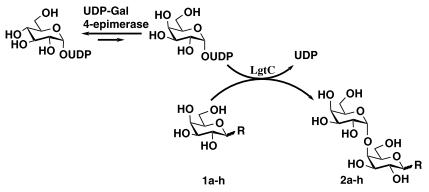
Carbohydr. Res. **2002,** *337*, 969

Efficient chemoenzymatic synthesis of globotriose and its derivatives with a recombinant α-(1 → 4)-galactosyltransferase

Jianbo Zhang, Przemyslaw Kowal, Jianwen Fang, Peter Andreana, Peng George Wang

Department of Chemistry, Wayne State University, Detroit, MI 48202, USA

An efficient chemoenzymatic approach based on the use of recombinant α-(1 → 4)-galactosyltransferase (LgtC) has been reported for the synthesis of globotriose and its derivatives.



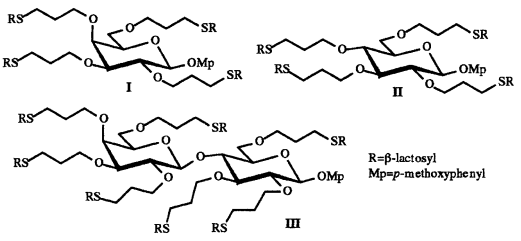
Carbohydr. Res. **2002,** *337*, 977

Facile synthesis of 1-thio-β-lactoside clusters scaffolded onto *p*-methoxyphenyl, β-D-galactopyranoside, β-D-glucopyranoside, and lactoside

Xiang-Bao Meng, Lian-Dai Yang, Hui Li, Qing Li, Tie-Ming Cheng, Meng-Shen Cai, Zhong-Jun Li

Department of Chemical Biology, School of Pharmaceutical Science, National Research Laboratory of Natural and Biomimetic Drugs, Peking University, Beijing 100083, China

Three 1-thio-β-lactoside clusters (**I**, **II**, **III**) based on galactoside, glucoside, and lactoside centers were synthesized by free-radical addition.



Carbohydr. Res. **2002,** *337*, 983

Convenient use of non-malodorous thioglycosyl donors for the assembly of multivalent globo- and isoglobosyl trisaccharides

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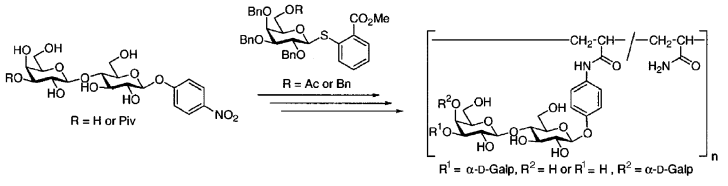

Carbohydr. Res. **2002,** *337*, 991

Chemical transformation of lactose into 4-*O*-β-D-galactopyranosyl-D-glucuronic acid (pseudolactobiouronic acid) and some derivatives thereof

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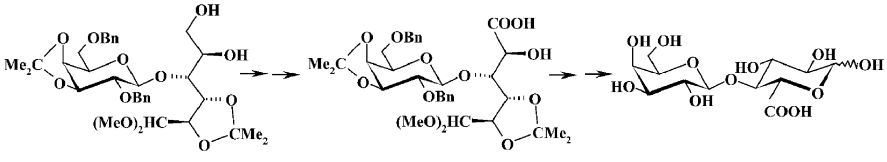
Dipartimento di Chimica Bioorganica e Biofarmacia, Università degli Studi di Pisa, via Bonanno, 33, I-56126 Pisa, Italy



Synthesis and surface-active properties of a new class of surfactants derived from D-gluconic acid

Carbohydr. Res. **2002,** *337*, 997

Maryline Abert,[a] Nathalie Mora,[a] Jean-Michel Lacombe[b]

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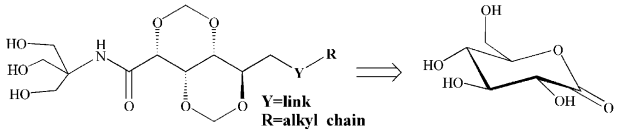
[b]*UMR A 408 Qualité et Sécurité des Aliments d'Origine Végétale, Faculté des Sciences d'Avignon, 33, rue Louis Pasteur, F-84000 Avignon, France*

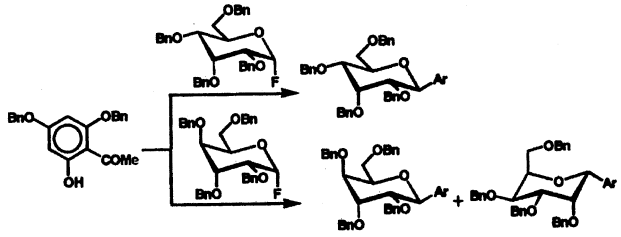


Synthesis of *C*-glycopyranosylphloroacetophenone derivatives and their anomerization facilitated by 1,3-diaxial interactions

Carbohydr. Res. **2002,** *337*, 1007

Toshihiro Kumazawa, Kanako Onda, Hayato Okuyama, Shigeru Matsuba, Shingo Sato, Jun-ichi Onodera

Department of Chemistry and Chemical Engineering, Faculty of Engineering, Yamagata University, Jonan 4-3-16, Yonezawa, Yamagata 992-8510, Japan



Starch biosynthesis: mechanism for the elongation of starch chains

Carbohydr. Res. **2002,** *337*, 1015

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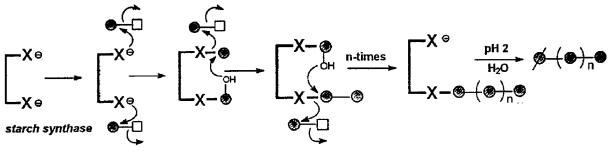
Laboratory of Carbohydrate Chemistry and Enzymology, Department of Biochemistry and Biophysics, 4252 Molecular Biology Building, Iowa State University, Ames, IA 50011, USA

Pulse and chase studies with ADPGlc and eight varieties of starch granules show that starch chains are elongated by the addition of D-glucose to the reducing end of a growing starch chain, via a two-site, insertion mechanism.



Fluorescent labeling of pectic oligosaccharides with 2-aminobenzamide and enzyme assay for pectin

Carbohydr. Res. **2002,** *337*, 1023

Tadashi Ishii,[a] Junji Ichita,[b] Hajime Matsue,[b] Hiroshi Ono,[c] Ikuko Maeda[c]

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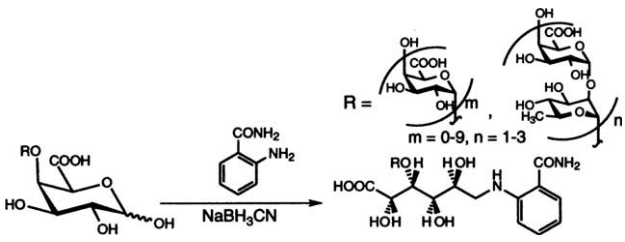
[b]*Aomori Advanced Industrial Technology Center, 202-4, Ashiya, Yatsuyaku, Aomori 030-0112, Japan*
[c]*National Food Research Institute, 2-1-2, Kannondai, Tsukuba, Ibaraki 305-8642, Japan*



Carbohydr. Res. **2002,** *337*, 1033

An acetylated galactoglucomannan from *Picea abies* L. Karst

Peter Capek, Juraj Alföldi, Desana Lišková

Institute of Chemistry, Slovak Academy of Sciences, Dúbravská cesta 9, SK-842 38 Bratislava, Slovak Republic

The water-soluble galactoglucomannan having a β-(1→4)-linked glucopyranosyl–mannopyranosyl backbone is *O*-acetylated at C-2 and C-3 of the mannosyl unit residues in 1.7:1 mole proportion.

Carbohydr. Res. **2002,** *337*, 1039

An efficient synthesis of GDP-hexanolamine, a key tool for the purification of fucosyltransferases

Stéphane P. Vincent,[a] Louis N. Gastinel[b]

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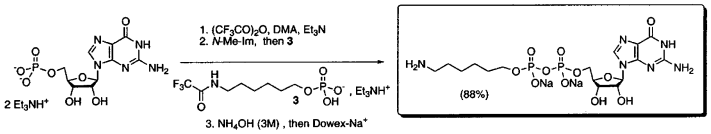
[b]*Architecture et Fonction des Macromolécules Biologiques, UMR 6098 du CNRS, 31 Chemin Joseph Aiguier, F-13402 Marseille, France*

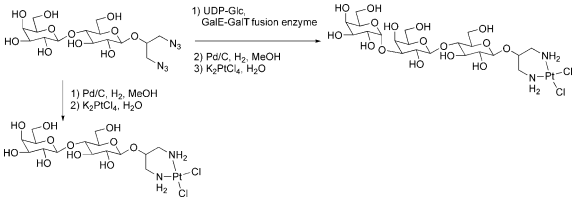


Carbohydr. Res. **2002,** *337*, 1043

Expeditious syntheses of two carbohydrate-linked cisplatin analogs

Yongsheng Chen, Adam Janczuk, Xi Chen, Jianqiang Wang, Mohamad Ksebati, Peng George Wang

Department of Chemistry, Wayne State University, 373 Chemistry, Detroit, MI 48202, USA

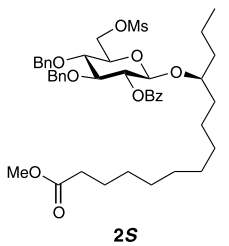


Carbohydr. Res. **2002,** *337*, 1047

Preparation and diastereomeric separation of an (*S*)- and (*R*)-1-(methoxycarbonyl)tridec-10-yl glucoside derivative, a precursor for a monosaccharide constituent of resin glycosides

Shigeru Kobayashi, Jun-ichi Furukawa, Tomoko Sakai, Nobuo Sakairi

Division of Bioscience, Graduate School of Environmental Earth Science, Hokkaido University, Sapporo 060-0810, Japan



Carbohydr. Res. **2002,** *337*, 1055

Synthesis of 7-*O*-(2-deoxy-2-sulfamido-α-D-gluco-pyranosyl)-4-methylcoumarin sodium salt: a fluorogenic substrate for sulfamidase

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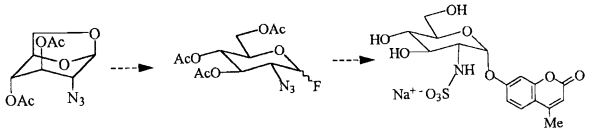
BioMarin Pharmaceutical Inc., 11 Pimentel Court, Novato, CA 94949, USA

Reaction between 2-azido-2-deoxy-tri-*O*-acetyl-D-glucopyranosyl fluoride and 7-*O*-trimethylsilyl-4-methylcoumarin in the presence of BF_3–ET_2O gave a mixture of α-, β-glycosides. Reduction of the azido group with $SnCl_2$–$PhSH$–Et_3N to a free amine followed by *N*-sulfation and de-*O*-acetylation produced the target compound in good yield.



Carbohydr. Res. **2002,** *337*, 1059

Determination of the side-products formed during the nitroxide-mediated bleach oxidation of glucose to glucaric acid

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[b]*Department of Chemistry, University of Connecticut, Storrs, CT 06269-3060, USA*

glucose $\xrightarrow[\text{[TEMPO/Br}^-\text{]}]{\text{NaOCl}}$ glucaric acid (major product) + gluconic acid + *meso*-, D-, L-tartaric acid + tartronic acid + oxalic acid (side products)