

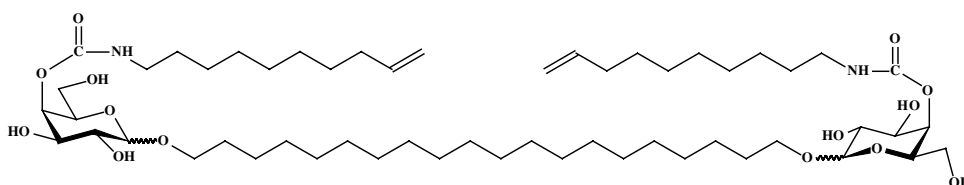
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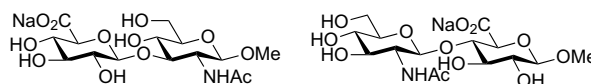
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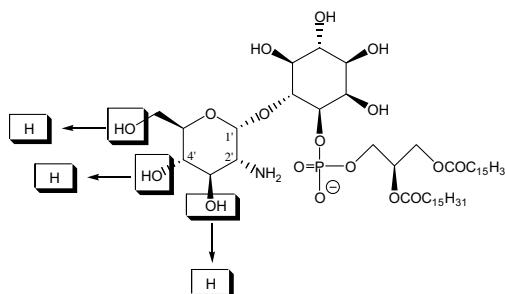
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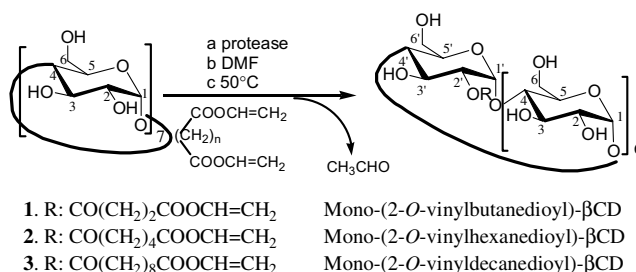
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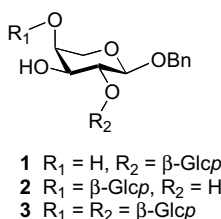
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Synthesis of *cis*-(1 → 3)-glycosides of allyl 2-acetamido-4,6-*O*-benzylidene-2-deoxy-α-D-glucopyranoside

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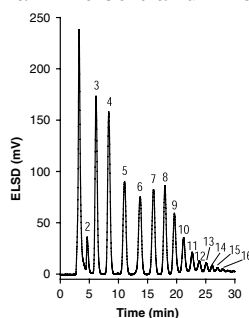
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Isolation of κ-carrageenan oligosaccharides using ion-pair liquid chromatography—characterisation by electrospray ionisation mass spectrometry in positive-ion mode

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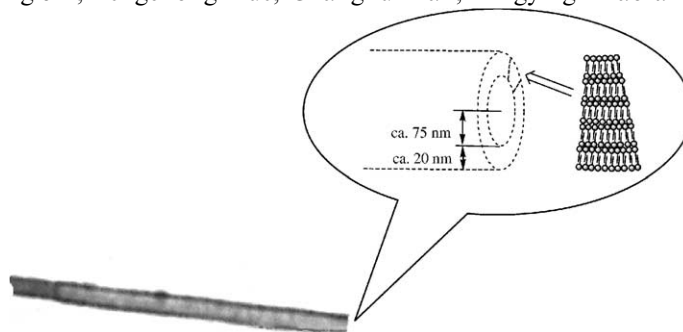
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Synthesis, self-assembly and characterization of a new glucoside-type hydrogel having a Schiff base on the aglycon

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Chunyan Bao, Ran Lu,* Ming Jin, Pengchong Xue, Changhui Tan, Yingying Zhao and Guofa Liu



Material properties of concentrated pectin networks

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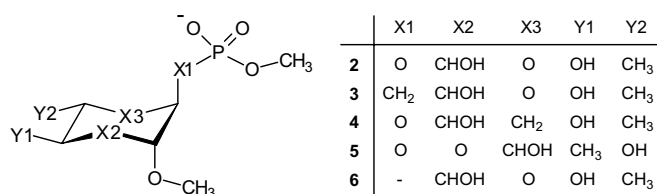
Gabor Zsivanovits, Alistair J. MacDougall, Andrew C. Smith and Stephen G. Ring*

Pectin films were allowed to hydrate, at constant osmotic stress, to produce pectin networks of a concentration similar to that found in the plant cell wall. The observed swelling of the film was dependent on counterion type and concentration. The tensile modulus of the film increased with decreasing swelling.

A theoretical study of the conformational behavior of analogues of α -L-rhamnose-1-phosphate

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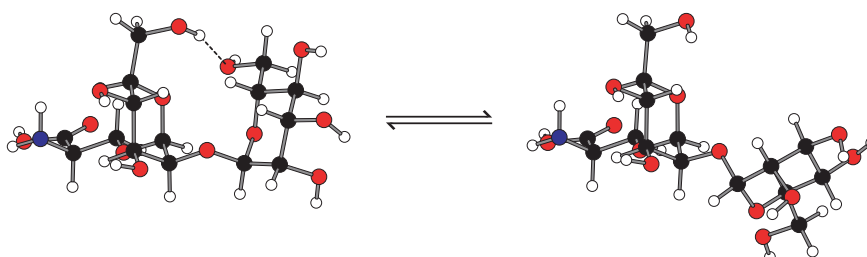
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A conformational study of α -D-Manp-(1 \rightarrow 2)- α -D-Manp-(1 \rightarrow O)-L-Ser by NMR ^1H , ^1H T-ROESY experiments and molecular-dynamics simulations

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Kristina Lycknert, Anne Helander, Stefan Oscarson, Lennart Kenne and Göran Widmalm*



Isolation and partial characterization of fucan sulfates from the body wall of sea cucumber *Stichopus japonicus* and their ability to inhibit osteoclastogenesis

pp 1339–1346

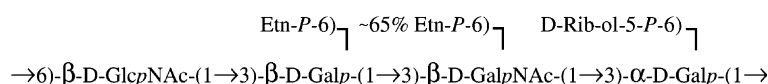
Yutaka Kariya,* Barbara Mulloy, Kyoko Imai, Akihiro Tominaga, Takuji Kaneko, Akira Asari, Kiyoshi Suzuki, Hiroyuki Masuda, Mamoru Kyogashima and Tadashi Ishii

Fucan sulfates were isolated from sea cucumber *Stichopus japonicus*. One type consists of (1→3)-linked linear fucosyl residues that are substituted at C-4 with fucosyl residues. Another type is largely composed of unbranched (1→3)-linked fucosyl residues. Both types were substituted at C-2 and/or C-4 with sulfates and shown to be potent inhibitors of osteoclastogenesis.

Structure of a highly phosphorylated *O*-polysaccharide of *Proteus mirabilis* O41

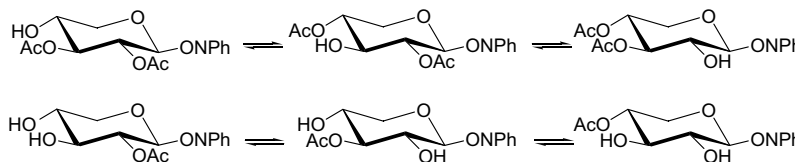
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Lipase-catalysed preparation of acetates of 4-nitrophenyl β -D-xylopyranoside and their use in kinetic studies of acetyl migration

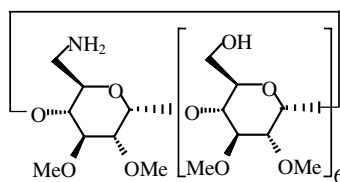
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Mária Mastihubová* and Peter Biely


NOTES
Synthesis of 6^I-amino-6^I-deoxy-2^{I-VII},3^{I-VII}-tetradeca-*O*-methyl-cyclomaltoheptaose

pp 1361–1366

Tommaso Carofiglio,* Matteo Cordioli, Roberto Fornasier, Laszlo Jicsinszky and Umberto Tonellato

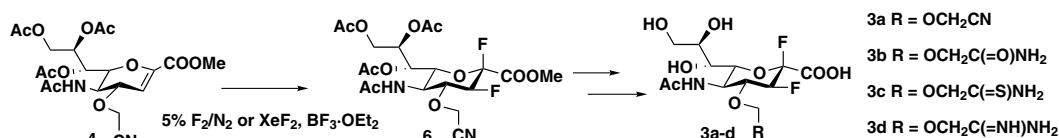


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2β,3β-Difluorosialic acid derivatives structurally modified at the C-4 position: synthesis and biological evaluation as inhibitors of human parainfluenza virus type 1

pp 1367–1372

Kiyoshi Ikeda,* Satoru Kitani, Kazuki Sato, Takashi Suzuki, Chika Hosokawa, Yasuo Suzuki, Kiyoshi Tanaka and Masayuki Sato*

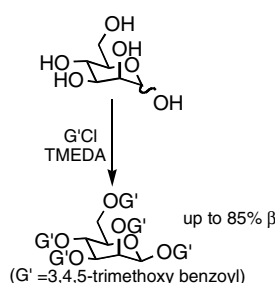


The synthesis of some novel 4-*O*-substituted analogues of 2β,3β-difluorosialic acid **3a–d** via a key intermediate **6** was achieved by the electrophilic *syn* addition of fluorine to the double bond in glycal **4** using molecular fluorine or xenon difluoride in the presence of $\text{BF}_3 \cdot \text{OEt}_2$. Compound **3c** showed the most potent activity against sialidase of hPIV-1.

Improved anomeric selectivity for the arylation of sugars

pp 1373–1376

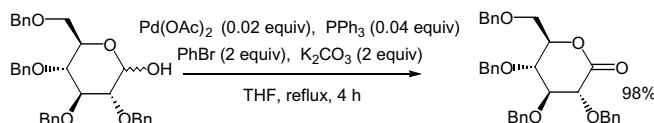
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Palladium-catalyzed oxidation of benzylated aldose hemiacetals to lactones

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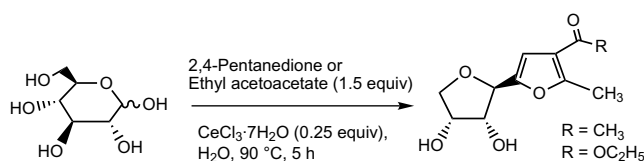
Alla Bessmertnykh, Françoise Hénin and Jacques Muzart*



Preparation of polyhydroxyalkyl- and C-glycosylfuran derivatives from free sugars catalyzed by cerium(III) chloride in aqueous solution: an improvement of the García González reaction

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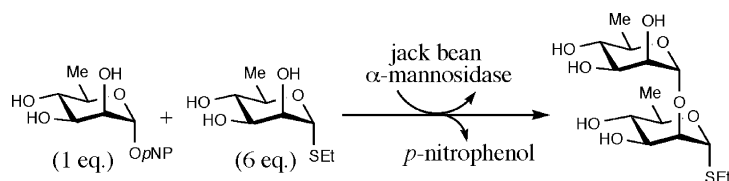
Anup Kumar Misra* and Geetanjali Agnihotri



α -Mannosidase-catalyzed synthesis of a (1 \rightarrow 2)- α -D-rhamnodosaccharide derivative

pp 1389–1393

Toshiyuki Nishio,* Shigeki Hoshino, Akihiro Kondo, Masahiro Ogawa, Yukari Matsuishi, Mai Kitagawa, Ryu Kawachi and Tadatake Oku

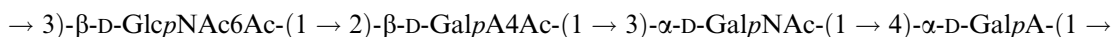


Using *p*NP α -D-rhamnopyranoside as a donor and ethyl α -D-thiorhamnopyranoside as a acceptor, ethyl α -D-rhamnopyranosyl-(1 \rightarrow 2)-1-thio- α -D-rhamnopyranoside was synthesized by transglycosylation reaction of jack bean α -mannosidase, in 32.1% isolated yield (based on donor substrate).

Structure of the O-polysaccharide of *Proteus mirabilis* CCUG 10701 (OB) classified into a new *Proteus* serogroup, O74

pp 1395–1398

Andrei V. Perepelov,* Agnieszka Zabłotni, Krystyna Zych, Sof'ya N. Senchenkova, Alexander S. Shashkov, Yuriy A. Knirel and Zygmunt Sidorczyk

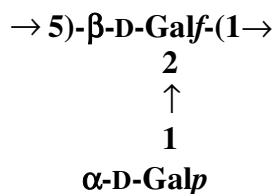


Based on the unique structure of the O-polysaccharide and serological data, it is proposed to classify *Proteus mirabilis* CCUG 10701 (OB) into a new *Proteus* serogroup, O74.

Structural characterization of the antigenic O-polysaccharide in the lipopolysaccharide produced by *Actinobacillus pleuropneumoniae* serotype 14

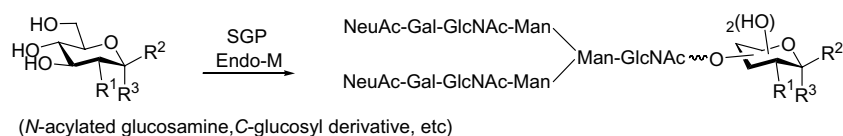
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Malcolm B. Perry* and Leann L. MacLean

**Transglycosylation reaction of *Mucor hiemalis* endo- β -N-acetylglucosaminidase using sugar derivatives modified at C-1 or C-2 as oligosaccharide acceptors**

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Takashi Yamanoi,* Maki Tsutsumida, Yoshiki Oda, Eri Akaike, Kenji Osumi, Kenji Yamamoto and Kiyotaka Fujita



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*Corresponding author

COVER

Well-defined glycoforms of glycoproteins can easily be obtained by oxidative coupling of synthetic thioaldoses with proteins that have a cysteine moiety in lieu of an asparagine residue carrying natural N-linked oligosaccharides. In vitro glycosylation offers several advantages such as quantitative conjugation, incorporation of oligosaccharides that display high bioactivities and the possibility of using convenient bacterial or yeast protein expression systems. The figure is related to Geert-Jan Boons' *Carbohydrate Research Award* paper, *Carbohydr. Res.*, **2004**, 339, 181–193.



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