GRAPHICAL ABSTRACTS

Carbohydr. Res. **1997**, *300*, 289

^{1}H NMR analysis of novel sialylated and fucosylated lactose-based oligosaccharides having linear GlcNAc(β1–6)Gal and Neu5Ac(α2–6)GlcNAc sequences

David Bailey [a], Michael J. Davies [a], Françoise H. Routier [a], Christopher Bauer [b], James Feeney [b], Elizabeth F. Hounsell [a,*]

[a] *MRC Glycoprotein Structure / Function Group, Department of Biochemistry and Molecular Biology, University College London, Gower Street, London WC1E 6BT, UK*

[b] *MRC Biomedical NMR Centre, National Institute for Medical Research, The Ridgeway, Mill Hill, London NW7 1AA, UK*

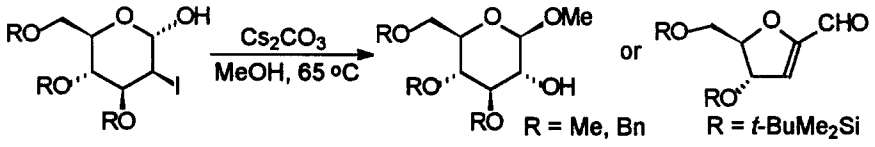
Comprehensive NMR chemical shift assignments have been made for naturally occurring oligosaccharides with linear sequences as normally present in the branched sequences Gal(β1–4)[Fuc(α1–3)]GlcNAc(β1–6)[GlcNAc(β1–3)]Gal and Neu5Ac(α2–6)[Neu5Ac(α2–3)Gal(β1–3)]GlcNAc(β1–.

Carbohydr. Res. **1997**, *300*, 301

Chemistry of glucal halohydrins (II): An unusual protecting group effect in the competitive formation of formyl furanosides and methyl glycosides

John S. Kozlowski, Cecilia H. Marzabadi, Nigam P. Rath, Christopher D. Spilling *

Department of Chemistry, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, MO 63121-4499, USA



Carbohydr. Res. **1997**, *300*, 323

The structure of the exopolysaccharide of *Pseudomonas fluorescens* strain H13

Stanley F. Osman [a,*], William F. Fett [a], Peter Irwin [a], Paola Cescutti [b], Janine N. Brouillette [a], Joanne V. O'Connor [a]

[a] *U.S. Department of Agriculture, Agricultural Research Service, Eastern Research Center, Wyndmoor, PA 19038, USA*

[b] *Dipartmento di Biochimica, Biofisica e Chimica delle Macromolecule, Università de Trieste, Via L. Giorgieri 1, I-34127 Trieste, Italy*

The exopolysaccharide from *Pseudomonas fluorescens* strain H13 was identified by chemical and NMR spectral methods as the following:

→ 4)-β-D-Glc *p*(1 → 4)-α-D-GlcNAc *p*-(1 → 3)-β-D-(ManNAcA *p*-(1 →

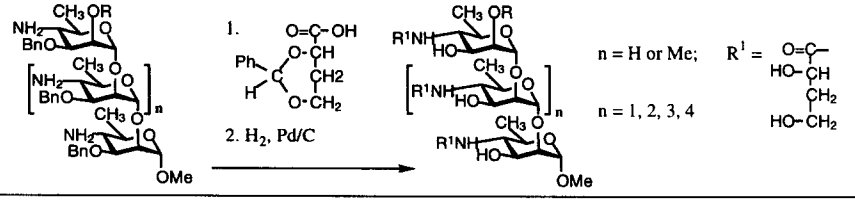
Carbohydr. Res. **1997**, *300*, 329

Synthesis of methyl α-glycosides of some higher oligosaccharide fragments of the O-antigen of *Vibrio cholerae* O1-, serotype Inaba and Ogawa

Jian Zhang, Pavol Kováč *

NIDDK, National Institutes of Health, 8 Center Drive, Bethesda, MD 20892-0815, USA

The requisite oligosaccharides were prepared from intermediate containing azido groups. *N*-acylation of the corresponding amines was achieved with 2,4-*O*-benzylidene-3-deoxy-L-*glycero*-tetronic acid.



Carbohydr. Res. **1997**, *300*, 341

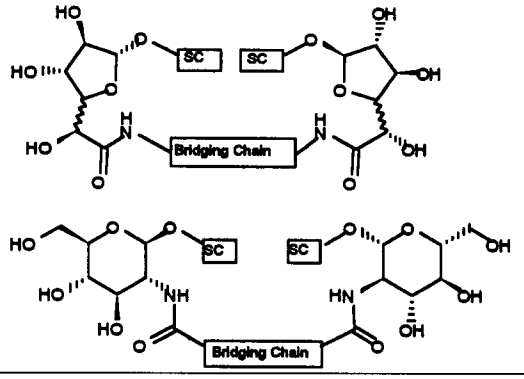
Novel sugar bola-amphiphiles with a pseudo macrocyclic structure

Jean-Noel Bertho [a], Annie Coué [b], David F. Ewing [b], John W. Goodby [b], Phillipe Letellier [b], Grahame Mackenzie [b,*], Daniel Plusquellec [a,*]

[a] *Ecole Nationale Supérieure de Chimie de Rennes, CNRS URA 1467, Ave. du Général Leclerc, F-35700 Rennes, France*

[b] *School of Chemistry, University of Hull, Hull, HU6 7RX, UK*

Short synthetic routes to several new pseudo macrocyclic bola-amphiphiles of the types shown are described. The short chain (SC) is cinnamyl, octyl or decyl



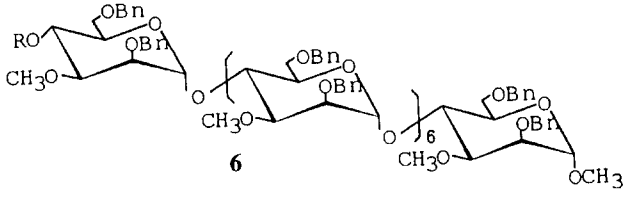
Carbohydr. Res. **1997**, *300*, 347

Convergent synthesis of an octasaccharide acceptor corresponding to the reducing terminus of mycobacterial 3-*O*-methylmannose polysaccharide (MMP)

Wensheng Liao *, Depei Lu

Research Center for Eco-Environmental Sciences, Academia Sinica, P.O. Box 2871, Beijing 100085, People's Republic of China

The protected mannose octasaccharide **6** (R=H) was synthesized by imidate coupling of two tetrasaccharide precursors.



6

Carbohydr. Res. **1997**, *300*, 351

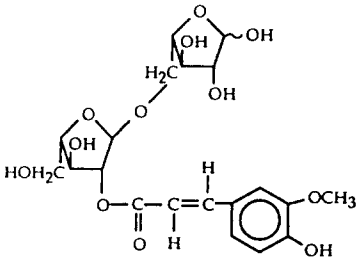
Process for the isolation of preparative quantities of [2-*O*-(*trans*-feruloyl)-α-L-arabinofuranosyl]-(1 → 5)-L-arabinofuranose from sugarbeet

Paul A. Kroon [a,*], Maria T. Garcia Conesa [a], Ian J. Colquhoun [b], Gary Williamson [a]

[a] *Biochemistry Department, Institute of Food Research, Norwich Laboratory, Colney Lane, Norwich NR4 7UA, UK*

[b] *Food Biophysics Department, Institute of Food Research, Norwich Laboratory, Colney Lane, Norwich NR4 7UA, UK*

[2-*O*-(*trans*-Feruloyl)-α-L-arabinofuranosyl]-(1 → 5)-L-arabinofuranose was isolated in preparative amounts after hydrolysis of sugarbeet pulp with specific enzymes.



Carbohydr. Res. **1997**, *300*, 361

Synthesis of $2^1,3^1$-*O*-(propane-1,2-diyl)- and $2^1,3^1$-*O*-(3-hydroxypropane-1,2-diyl)-cyclomaltoheptaose

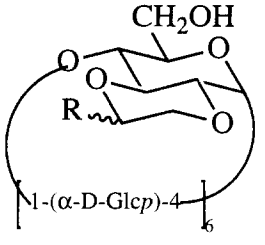
Jindrich Jindrich [a], Kazuaki Harata [b], Bengt Lindberg [c,*], Josep Pitha, Pia Seffers [c]

[a] *Department of Organic Chemistry, Charles University, Alberthov 2030, 128 40 Praha 2, Czech Republic*

[b] *Biomolecular Department, National Institute of Bioscience and Human-Technology, 1-1 Higashi, Tsukuba, Ibaraki 305, Japan*

[c] *Department of Organic Chemistry, Arrhenius Laboratory, Stocholm University, S-10691 Stockholm, Sweden*

The title substanses (R = CH_3 and CH_2OH, resp.) have been prepared, starting from 2-*O*-allylcyclomaltoheptaose.

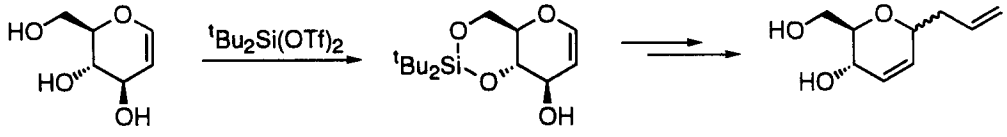


Carbohydr. Res. **1997**, *300*, 365

Synthesis and chemistry of 4,6-*O*-di-(*tert*-butyl)silanediyl-D-glucal

John O. Hoberg
National Renewable Energy Laboratory, 1617 Cole Boulevard, Golden, CO 80401, USA

Reaction of D-Glucal with di-*tert*-butylsilyl-bis(trifluoromethanesulfonate) produces the title compound in excellent yields.



Carbohydr. Res. **1997**, *300*, 369

Thiol addition to protected allyl glycosides: an improved method for the preparation of spacer-arm glycosides

Paul B. van Seeventer, Johannes A.L.M. van Dorst, John F. Siemerink, Johannis P. Kamerling, Johannes F.G. Vliegenthart *
Bijvoet Center, Department of Bio-Organic Chemistry, Utrecht University, P.O. Box 80.075, NL-3508 TB Utrecht, The Netherlands

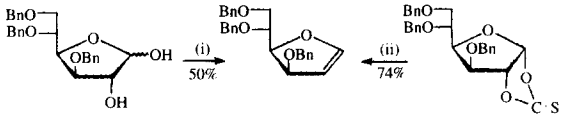
A variety of differently functionalized sulfide spacer-arm glycosides can be obtained by the radical addition of thiols to protected allyl glycosides.

R
$(CH_2)_4CH_3$
$(CH_2)_2COOCH_3$
$(CH_2)_2OH$
$(CH_2)_2N_3$

Carbohydr. Res. **1997**, *300*, 375

Synthesis of furanose glycals from furanose 1,2-diols and their cyclic thiocarbonate esters

Rafael Robles Diaz *, Concepción Rodríguez Melgarejo, Isidoro Izquierdo Cubero, María T. Plaza López-Espinosa
Department of Organic Chemistry, University of Granada, E-18071, Granada, Spain



(i) I_2/Ph_3P/Imidazole; (ii) DMPD/MePh