

Tetrahedron: *Asymmetry* Vol. 16, No. 1, 2005

Special Issue

Carbohydrate Science

Part 1

Guest editor: **George W. J. Fleet**

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Contents

Preface

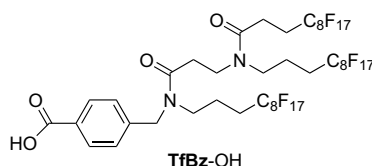
pp 1–2

COMMUNICATIONS

A novel benzoyl-type fluorous protecting group for use in fluorous synthesis

pp 3–6

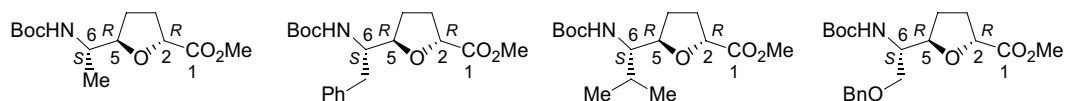
Tsuyoshi Miura,* Ai Satoh, Kohtaro Goto, Yasuoki Murakami, Nobuyuki Imai and Toshiyuki Inazu*



Synthesis of C6-substituted 3,4-dideoxy furanoid sugar amino acids

pp 7–9

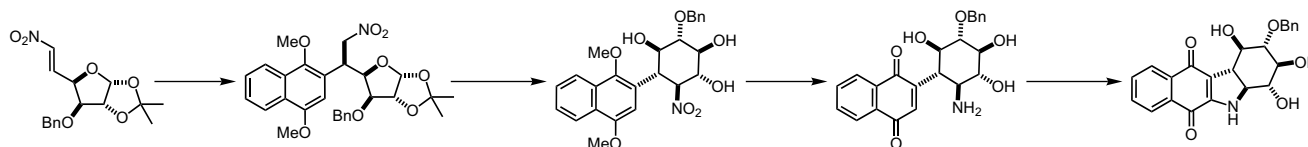
Tushar Kanti Chakraborty* and Gangarajula Sudhakar



Preliminary studies on the incorporation of sugars into naphthoquinones: synthesis of (1*R*,2*S*,3*S*,4*R*,4*aS*,11*bS*)-2-(benzyloxy)-1,2,3,4,4*a*,5-hexahydro-1,3,4-trihydroxy-11*bH*-benzo[*b*]carbazole-6,11-dione

pp 11–14

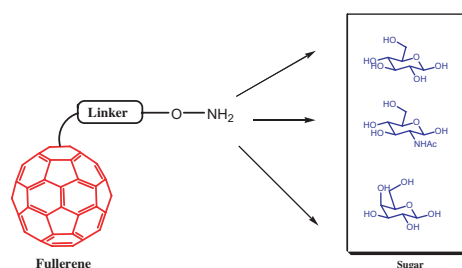
José M. Otero, José C. Barcia, Juan C. Estévez and Ramón J. Estévez*



Versatile synthesis of oligosaccharide-containing fullerenes

pp 15–19

Shigeaki Abe, Hideki Moriyama, Kenichi Niikura, Fei Feng, Kenji Monde and Shin-Ichiro Nishimura*

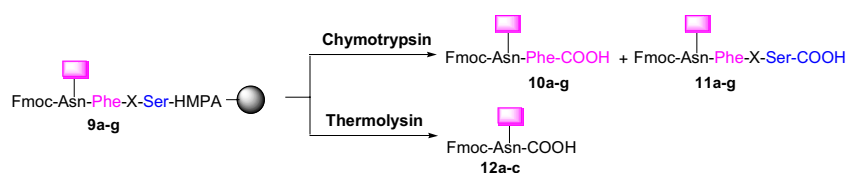


In this report, versatile and convenient syntheses of oligosaccharide-containing fullerenes are demonstrated.

Synthesis of *N*-linked glycopeptides on solid support and their evaluation as protease substrates

pp 21–24

Mallesham Bejugam, Beatrice A. Maltman and Sabine L. Flitsch*

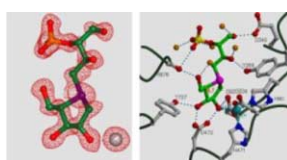


ARTICLES

Crystallographic analysis of the interactions of *Drosophila melanogaster* Golgi α -mannosidase II with the naturally occurring glycomimetic salacinol and its analogues

pp 25–32

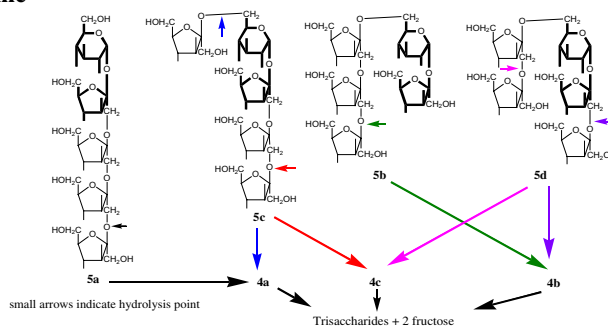
Douglas A. Kuntz, Ahmad Ghavami, Blair D. Johnston, B. Mario Pinto* and David R. Rose*



Tetra- and penta-fructooligosaccharide (FOS) isomers assessment in onion bulb tissues: effect of temperature and storage time

pp 33–37

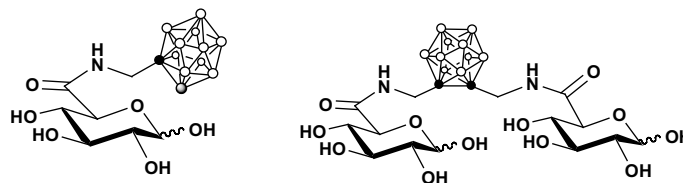
Noureddine Benkeblia, Natsuko Takahashi, Keiji Ueno, Shuichi Onodera and Norio Shiomi*



Synthesis of mono- and bisglucuronylated carboranes

pp 39–44

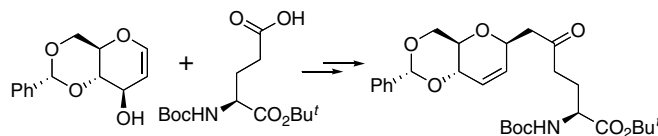
Silvia Ronchi, Davide Prosperi, Christian Thimon, Christophe Morin and Luigi Panza*



Synthesis of C-glycosyl amino acids: scope and limitations of the tandem Tebbe/Claisen approach

pp 45–55

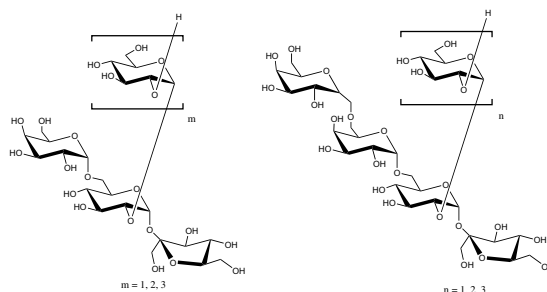
David J. Chambers, Graham R. Evans and Antony J. Fairbanks*



Structural analysis of six novel oligosaccharides synthesized by glucosyl transfer from β -D-glucose 1-phosphate to raffinose and stachyose using *Thermoanaerobacter brockii* kojibiose phosphorylase

pp 57–63

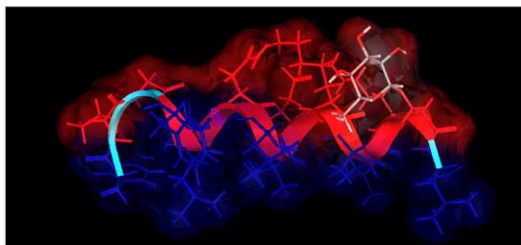
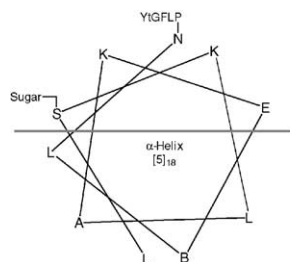
Natsuko Takahashi, Hideki Okada, Eri Fukushi, Shuichi Onodera, Tomoyuki Nishimoto, Jun Kawabata and Norio Shiomi*



Biosian glycopeptides penetrate the blood–brain barrier

pp 65–75

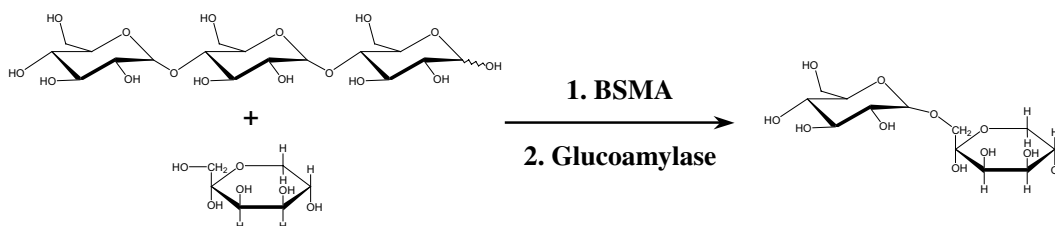
Richard D. Egleton,* Edward J. Bilsky,* Gordon Tollin, Muthu Dhanasekaran, John Lowery, Isabel Alves, Peg Davis, Frank Porreca, Henry I. Yamamura, Larisa Yeomans, Charles M. Keyari and Robin Polt*



Transglycosylation of tagatose with maltotriose by *Bacillus stearothermophilus* maltogenic amylase (BSMA)

pp 77–82

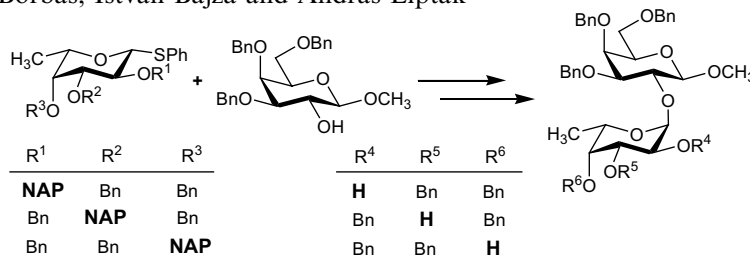
Hoe-Jin Roh, Su-Cheol Kang, Hee-Seob Lee, Doo-Kyung Kim, Sung-Bae Byun, Sung-Joon Lee and Kwan-Hwa Park*



Synthesis of fully protected α -L-fucopyranosyl-(1 \rightarrow 2)- β -D-galactopyranosides with a single free hydroxy group at position 2', 3' or 4' using *O*-(2-naphthyl)methyl (NAP) ether as a temporary protecting group

pp 83–95

Zoltán B. Szabó, Anikó Borbás, István Bajza and András Lipták*

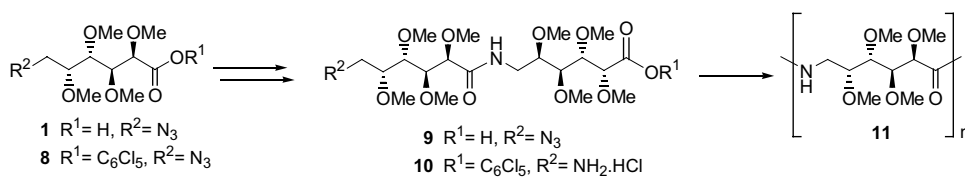


NAP = 2-(naphthyl)methyl

Synthesis of stereoregular poly-*O*-methyl-D- and L-polygalactonamides as nylon 6 analogues

pp 97–103

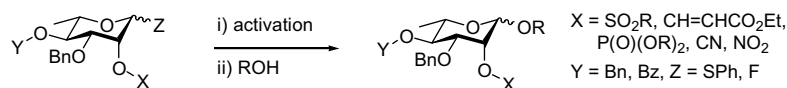
Carmen L. Romero Zaliz and Oscar Varela*



Disarming, non-participating 2-O-protecting groups in manno- and rhamnopyranosylation: scope and limitations of sulfonates, vinylogous esters, phosphates, cyanates, and nitrates

pp 105–119

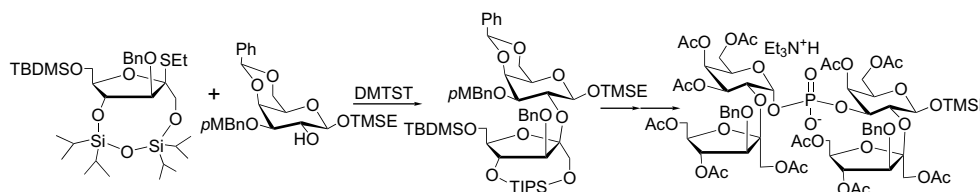
David Crich,* Thomas K. Hutton, Abhisek Banerjee, Prasanna Jayalath and John Picione



A stereoselective approach to phosphodiester-linked oligomers of the repeating unit of *Escherichia coli* K52 capsular polysaccharide containing β-D-fructofuranosyl moieties

pp 121–125

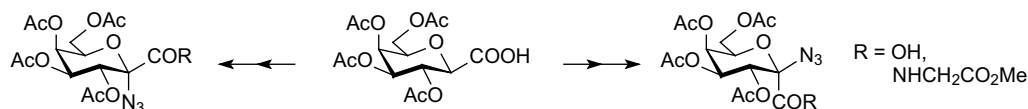
Stefan Oscarson* and Fernando W. Sehgelmeble



Anomeric α-azido acid (2-azido-2-deoxy-hept-2-ulopyranosonic acid) derivatives en route to peptides incorporating sugar amino acids

pp 127–141

Katalin Czifrák, Péter Szilágyi and László Somsák*

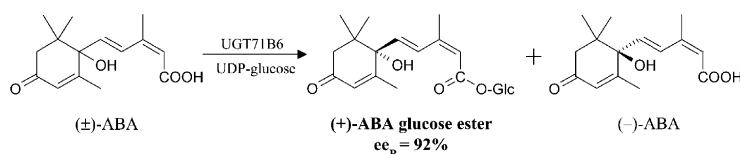


Radical-mediated bromination–azide substitution sequences gave both epimers of anomeric α-azido acid derivatives from the corresponding anhydro-aldonic acids.

Resolution of (+)-abscisic acid using an *Arabidopsis* glycosyltransferase

pp 143–147

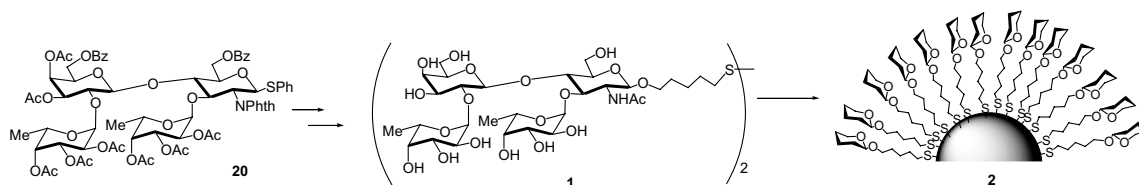
Eng-Kiat Lim, Charlotte J. Doucet, Bingkai Hou, Rosamond G. Jackson, Suzanne R. Abrams and Dianna J. Bowles*



Synthesis of a Le^y neoglycoconjugate and Le^y-functionalized gold glyconanoparticles

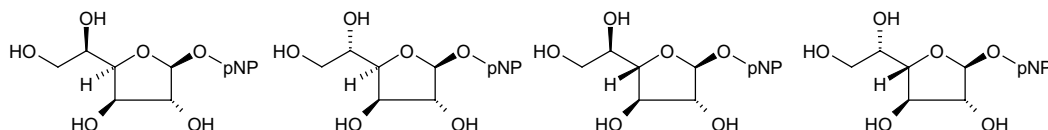
pp 149–158

José-Luis de Paz, Rafael Ojeda, África G. Barrientos, Soledad Penadés and Manuel Martín-Lomas*



Non-natural aldofuranosides as substrates of a β -glucosidase

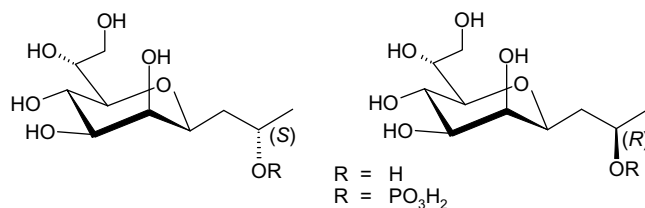
pp 159–165

Andreas Tauss, Peter Greimel, Karen Rupitz, Andreas J. Steiner, Arnold E. Stütz,*
Stephen G. Withers* and Tanja M. Wrodnigg

Synthesis of C-glycosides related to glycerol- β -D-manno-heptoses

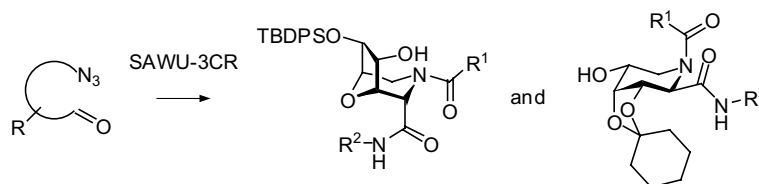
pp 167–175

Andrea Graziani, Hassan Amer, Alla Zamyatina, Andreas Hofinger and Paul Kosma*



Synthesis of functionalized heterocycles via a tandem Staudinger/aza-Wittig/Ugi multicomponent reaction

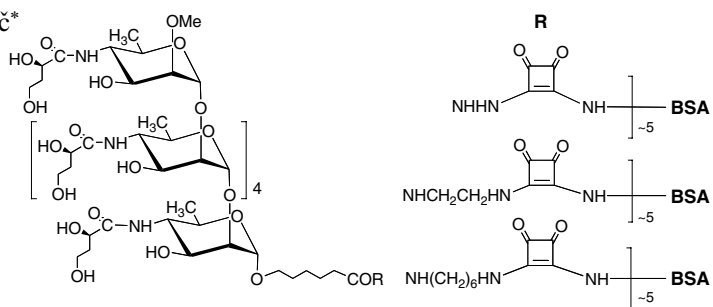
pp 177–185

Mattie S. M. Timmer, Martijn D. P. Risseeuw, Martijn Verdoes, Dmitri V. Filippov,
Jasper R. Plaisier, Gijsbert A. van der Marel, Herman S. Overkleeft* and Jacques H. van Boom*,*

Immunogens from a synthetic hexasaccharide fragment of the O-SP of *Vibrio cholerae* O:1, serotype Ogawa

pp 187–197

Rina Saksena, Jian Zhang and Pavol Kováč*

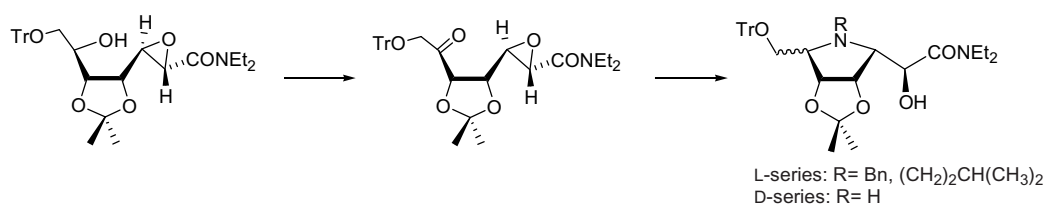


Neoglycoconjugates from the upstream, hexasaccharide fragment of the O-SP of *Vibrio cholerae* O:1, serotype Ogawa, and BSA.

Syntheses of sugar-related pyrrolidine derivatives by reductive amination reactions

pp 199–204

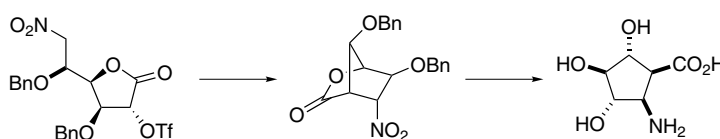
M. S. Pino-González* and C. Assiego



Stereocontrolled transformation of nitrohexofuranoses into cyclopentylamines via 2-oxabicyclo-[2.2.1]heptanes. Part 2: Synthesis of (1*S*,2*R*,3*S*,4*S*,5*R*)-3,4,5-trihydroxy-2-aminocyclopentanecarboxylic acid

pp 205–211

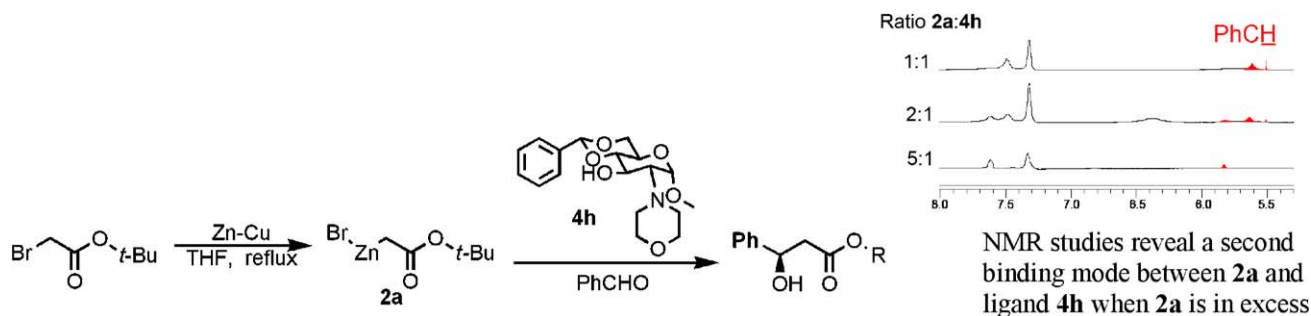
Raquel G. Soengas, M. Begoña Pampín, Juan C. Estévez and Ramón J. Estévez*



Carbohydrate-derived aminoalcohol ligands for asymmetric Reformatsky reactions

pp 213–221

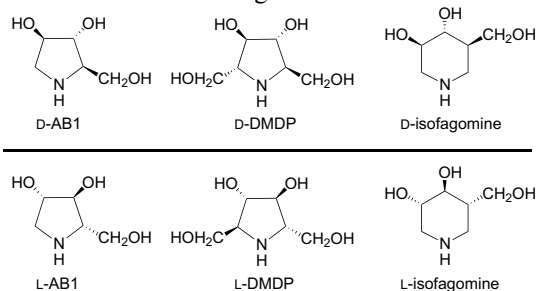
Daniel P. G. Emmerson, William P. Hems and Benjamin G. Davis*



The L-enantiomers of D-sugar-mimicking iminosugars are noncompetitive inhibitors of D-glycohydrolase?

pp 223–229

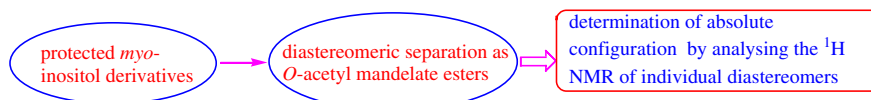
Naoki Asano,* Kyoko Ikeda, Liang Yu, Atsushi Kato, Kenji Takebayashi, Isao Adachi, Ikuo Kato, Hidekazu Ouchi, Hiroki Takahata and George W. J. Fleet



Resolution of synthetically useful *myo*-inositol derivatives using the chiral auxiliary *O*-acetylmandelic acid

pp 231–241

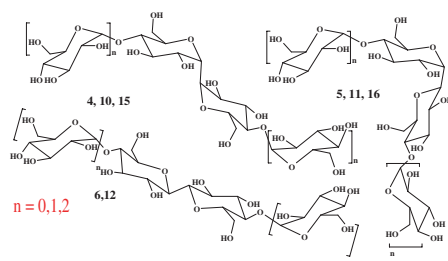
Kana M. Sureshan,* Yoko Kiyosawa, Fushe Han, Sayuri Hyodo, Yuhki Uno and Yutaka Watanabe*



Synthesis and characterisation of hexa- and tetrasaccharide mimics from acetobromomaltotriose and acetobromomaltose, and of *C*-disaccharide mimics from acetobromoglucose, obtained by electrochemical reduction on silver

pp 243–253

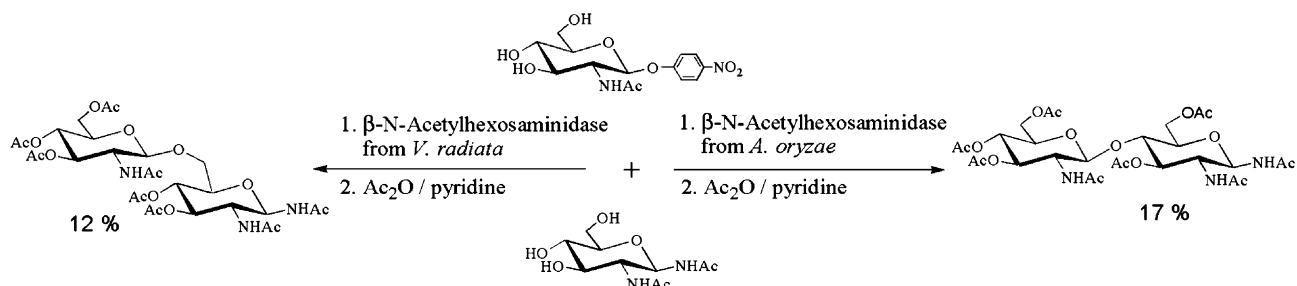
Marco Guerrini, Sara Guglieri, Roberto Santarsiero and Elena Vismara*



Enzymatic synthesis of *N*-glycoprotein linkage region disaccharide mimetics using β -*N*-acetylhexosaminidases from *Aspergillus oryzae* and *Vigna radiata*

pp 255–260

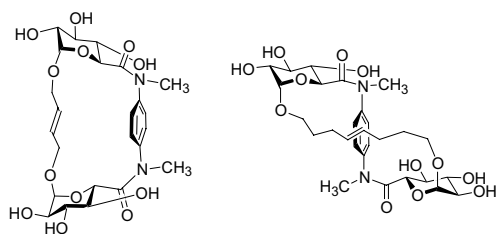
Thiruneelakantan Lakshmanan and Duraikkannu Loganathan*



Synthesis and conformational analysis of novel water soluble macrocycles incorporating carbohydrates, including a β -cyclodextrin mimic

pp 261–272

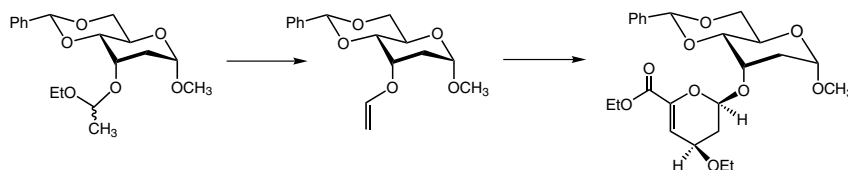
Trinidad Velasco-Torrijos and Paul V. Murphy*



Synthesis of vinyl glycosides and carbohydrate vinyl ethers from mixed acetals: a hetero-Diels–Alder approach to deoxygenated disaccharides

pp 273–282

Kevin D. Hughes, Tuan-Linh N. Nguyen, Damian Dyckman, Doreen Dulay, Walter J. Boyko and Robert M. Giuliano*

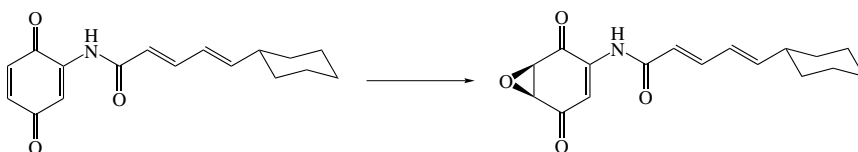


Treatment of mixed acetal glycosides as well as other types of carbohydrate mixed acetals with TMS-triflate and an amine base provides vinyl glycosides or carbohydrate vinyl ethers. Hetero-Diels–Alder reactions of carbohydrate 3-*O*- and 6-*O*-vinyl ethers with ethyl (*E*)-ethoxymethylenepyruvate were carried out as part of a model study for the synthesis of deoxygenated disaccharides of antibiotics.

The design and synthesis of novel anomeric hydroperoxides: influence of the carbohydrate residue in the enantioselective epoxidation of quinones

pp 283–293

Abass Bundu, Neil G. Berry, Christopher D. Gill, Catherine L. Dwyer, Andrew V. Stachulski,* Richard J. K. Taylor* and John Whittall



A series of anomeric carbohydrate hydroperoxides were prepared and used in the base-catalysed epoxidation of quinones. Good yields and ees were obtained, and by the use of a *D*- or *L*-series carbohydrate either enantiomer of each pair of epoxides could be accessed.

OTHER CONTENTS

Stereochemistry abstracts
Instructions to contributors
Cumulative author index

pp A1–A70
pp I–IV
p V

*Corresponding author



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CONTENTS
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