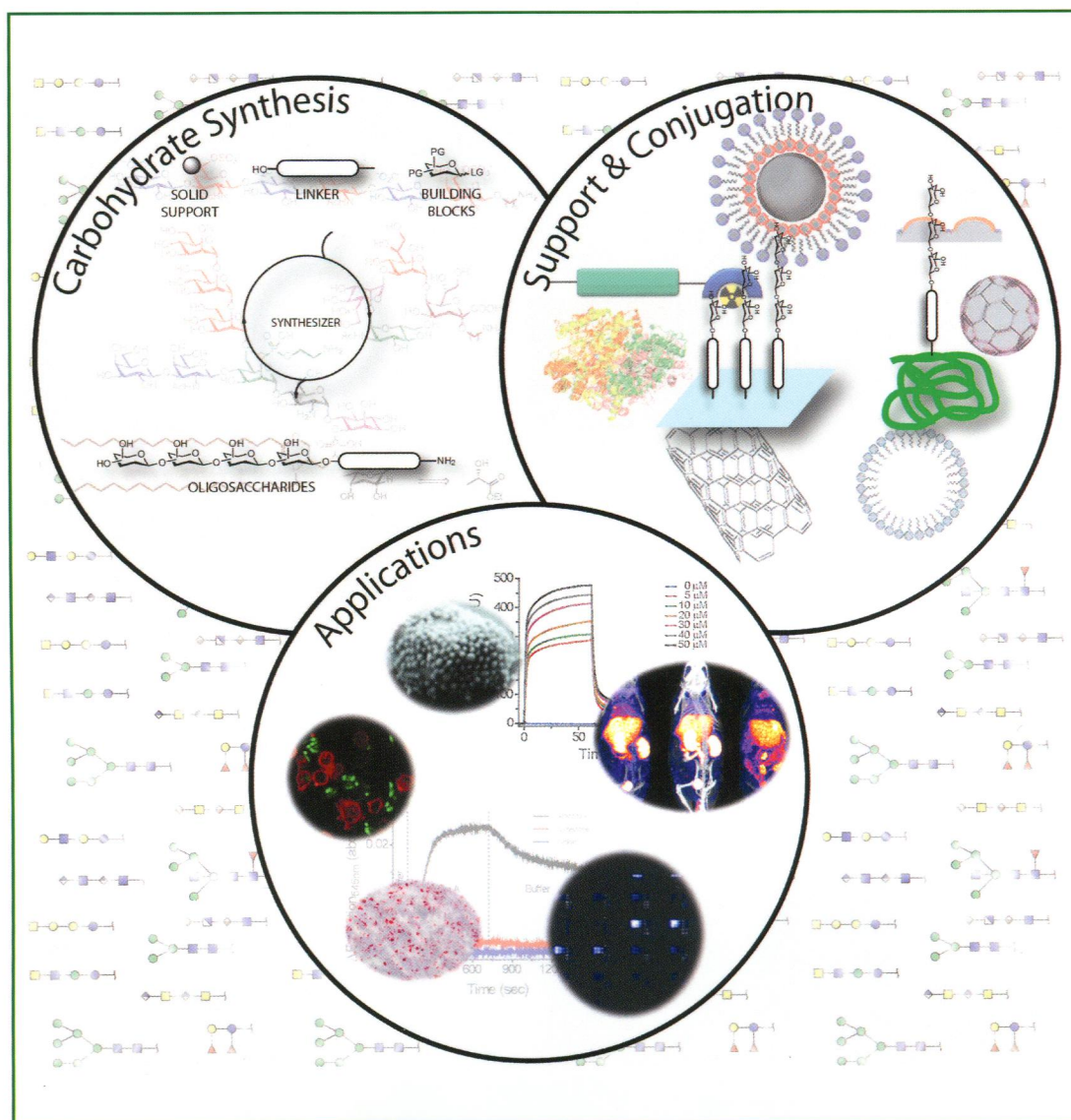


Carbohydrate RESEARCH

An International Journal



Carbohydrate Research Vol. 381, 2013

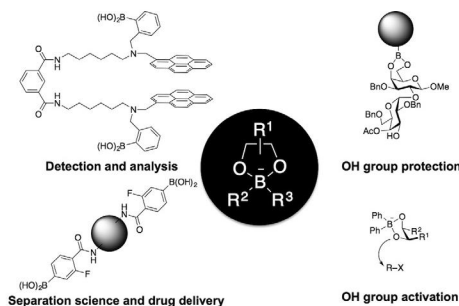
Contents

REVIEWS

Synthesis

 Applications of organoboron compounds in carbohydrate chemistry and glycobiology: analysis, separation, protection, and activation pp 112–122

Corey A. McClary, Mark S. Taylor*



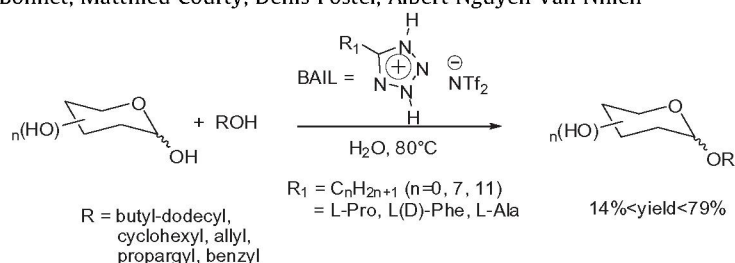
FULL PAPERS

Synthesis

Glycosylation mediated–BAIL in aqueous solution

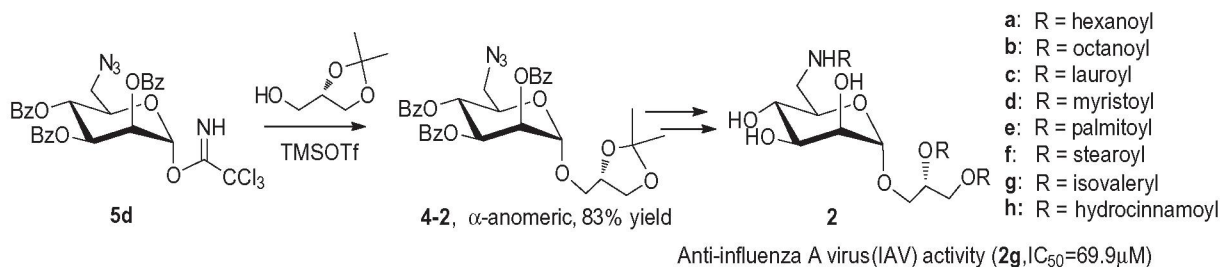
pp 12–18

Sébastien Delacroix, Jean-Pierre Bonnet, Matthieu Courty, Denis Postel, Albert Nguyen Van Nhien*


 Synthesis and antiviral evaluation of 6'-acylamido-6'-deoxy- α -D-mannoglycerolipids

pp 74–82

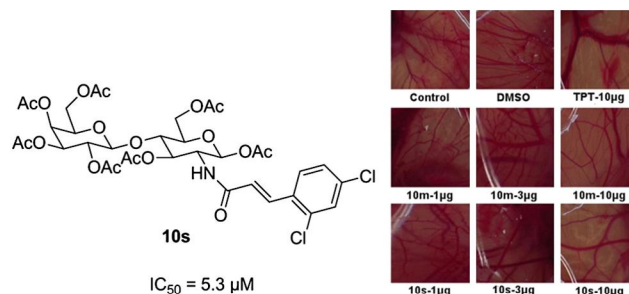
Jun Zhang, Yihua Sun, Wei Wang, Xiaoshuang Zhang, Chunxia Li*, Huashi Guan



Synthesis and anti-angiogenic activity evaluation of *N*-(3-aryl acryloyl)aminosaccharide derivatives

pp 83–92

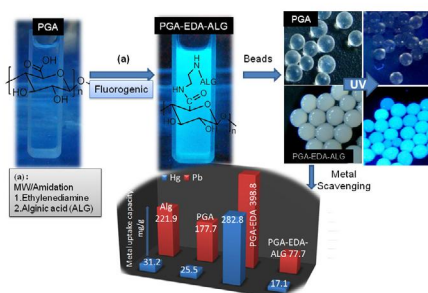
Kun Liu, Shuwei Yao, Yinghan Lou, Yungen Xu*



Facile synthesis of a new fluorogenic metal scavenging interpolymeric diamide based on cellulose and alginic acids

pp 93–100

Naresh D. Sanandiyaa, A.K. Siddhanta*



A facile synthesis of interpolymeric, fluorogenic, and metal scavenging diamide of polyglucuronic acid of cellulose and alginic acid using ethylenediamine has been described.

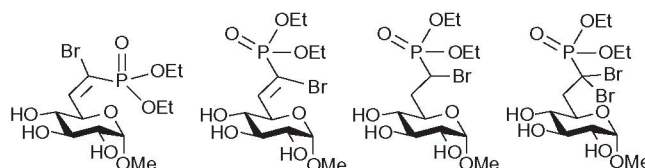


α -Bromophosphonate analogs of glucose-6-phosphate are inhibitors of glucose-6-phosphatase

pp 123–132

A. Michael Downey, Christopher W. Cairo*

Analogues of Glucose-6-phosphate:

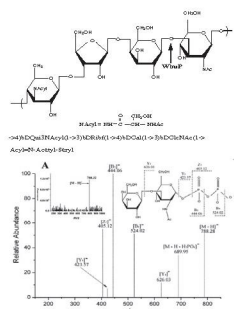


Biochemistry and Enzymes

Biochemical characterization of a new β -1,3-galactosyltransferase WbuP from *Escherichia coli* O114 that catalyzes the second step in O-antigen repeating-unit

pp 43–50

Dawei Zhou*, Natalia Utkina, Diange Li, Chenying Dong, Tatyana Druzhinina, Vladimir Veselovsky, Bin Liu



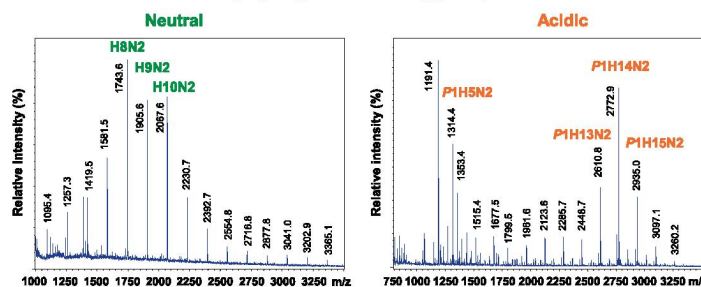
Characterization, Natural products

Characterization of the *Ashbya gossypii* secreted N-glycome and genomic insights into its N-glycosylation pathway

pp 19–27

Tatiana Q. Aguiar, Hannu Maaheimo, Annamari Heiskanen, Marilyn G. Wiebe, Merja Penttilä, Lucília Domingues*

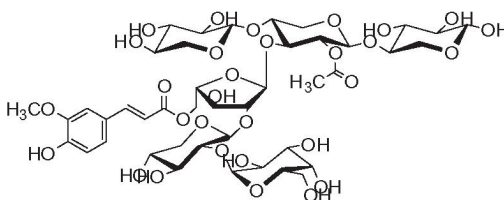
***Ashbya gossypii* secreted N-glycan profiles**



Enzyme resistant feruloylated xylooligomer analogues from thermochemically treated corn fiber contain large side chains, ethyl glycosides and novel sites of acetylation

pp 33–42

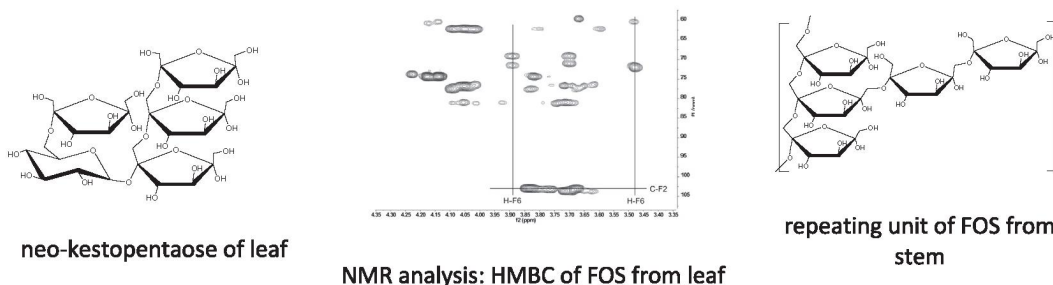
Maaikje M. Appeldoorn, Pieter de Waard, Mirjam A. Kabel, Harry Gruppen, Henk A. Schols*



Structure of fructo-oligosaccharides from leaves and stem of *Agave tequilana* Weber, var. azul

pp 64–73

Werner Praznik*, Renate Löppert, José M. Cruz Rubio, Klaus Zangger, Anton Huber

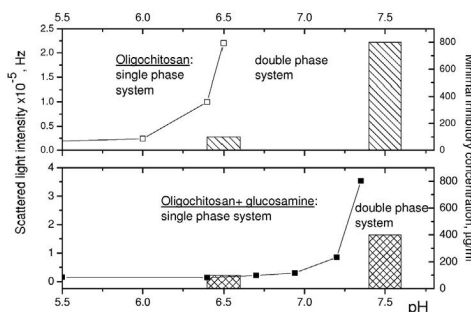


Polysaccharides

Influence of glucosamine on oligochitosan solubility and antibacterial activity

pp 28–32

Inesa V. Blagodatskikh, Sergey N. Kulikov, Oxana V. Vyshivannaya, Evgeniya A. Bezrodnykh, Igor A. Yamskov, Vladimir E. Tikhonov*



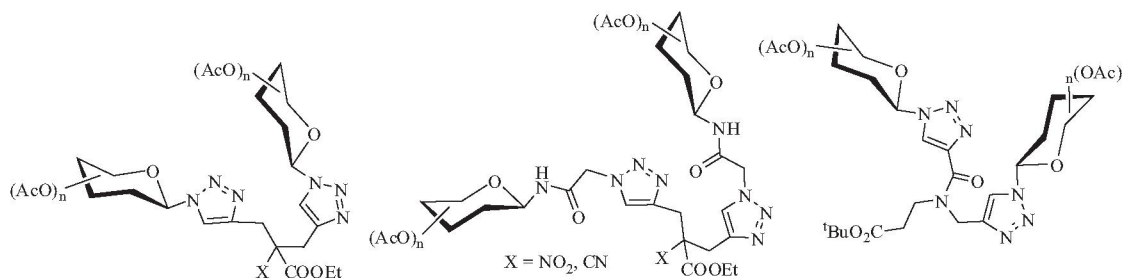
NOTES

Synthesis

Synthesis of divalent glycoamino acids with bis-triazole linkage

pp 51–58

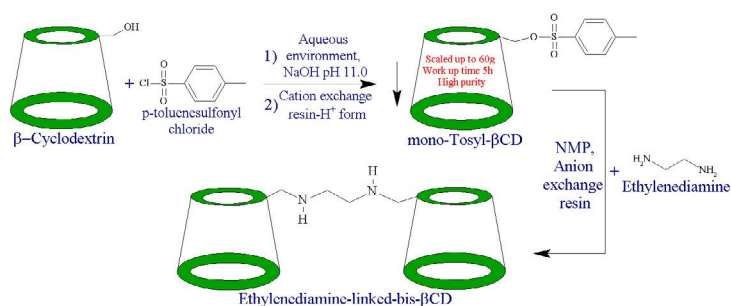
Laxminarayan Sahoo*, Anadi Singhamahapatra, Keshav Kumar, Duraikkannu Loganathan



Efficient synthesis of pure monotosylated beta-cyclodextrin and its dimers

pp 59–63

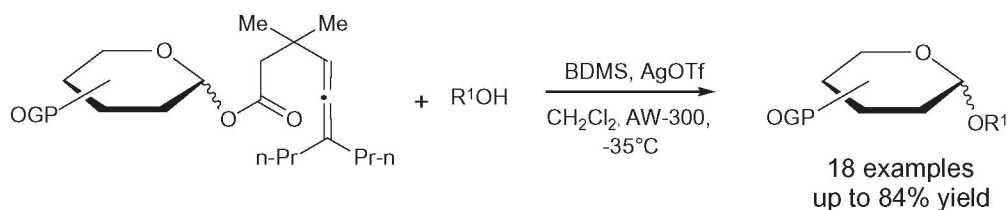
Giuseppe Tripodo, Christian Wischke, Axel T. Neffe, Andreas Lendlein*



Bromodimethylsulfonium bromide/silver triflate-promoted glycosylations using glycosyl allenates as donors

pp 101–111

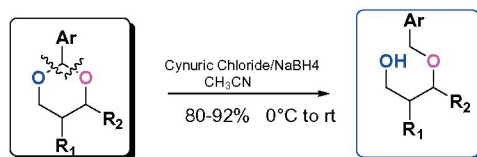
Yongzhen Zhang, Peng Wang, Ni Song, Ming Li*



Cyanuric chloride/sodium borohydride: a new reagent combination for reductive opening of 4,6-benzylidene acetals of carbohydrates to primary alcohols

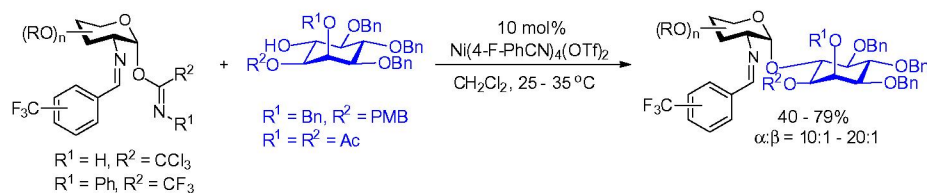
pp 142–145

Madhubabu Tatina, Syed Khalid Yousuf*, Subrayashastry Aravinda, Baldev Singh, Debaraj Mukherjee*



Stereoselective α -glycosylation of C(6)-hydroxyl *myo*-inositols via nickel catalysis—application to the synthesis of GPI anchor pseudo-oligosaccharides pp 146–152

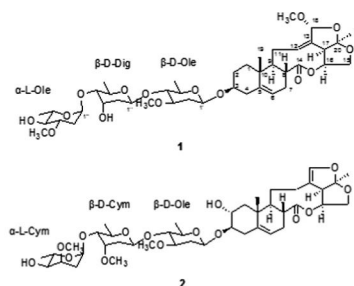
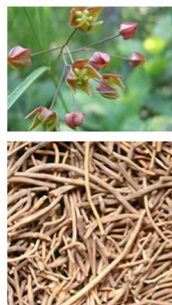
Matthew S. McConnell, Enoch A. Mensah, Hien M. Nguyen*



Characterization, Natural products

Chemical constituents from the roots of *Cynanchum paniculatum* and their cytotoxic activity pp 1–5

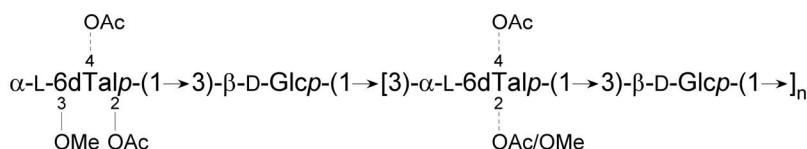
Chung Sub Kim, Ju Yeoun Oh, Sang Un Choi, Kang Ro Lee*



Polysaccharides

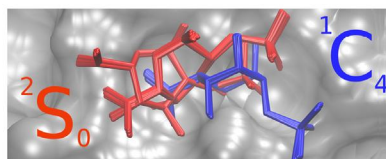
Revised structures for the predominant O-polysaccharides expressed by *Burkholderia pseudomallei* and *Burkholderia mallei* pp 6–11

Christian Heiss, Mary N. Burtnick, Rosemary A. Roberts, Ian Black, Parastoo Azadi, Paul J. Brett*



Importance of IdoA and IdoA(2S) ring conformations in computational studies of glycosaminoglycan–protein interactions pp 133–137

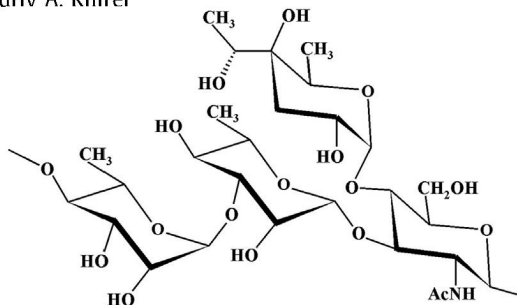
Sergey A. Samsonov*, M. Teresa Pisabarro*



Structure of the O-polysaccharide of *Pseudomonas mandelii* CYar1 containing 3,6-dideoxy-4-C-[(S)-1-hydroxyethyl]-D-xylo-hexose (yersiniose A)

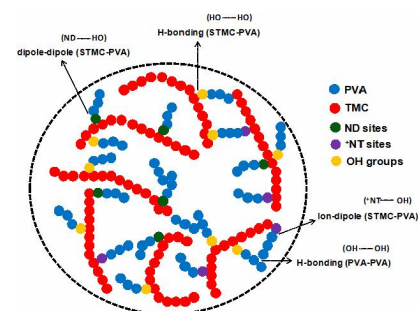
pp 138–141

Anna N. Kondakova*, Marina S. Drutskaya, Alexander S. Shashkov, Sergei A. Nedospasov, Vladimir N. Akimov, Nikolay P. Arbatsky, Valery F. Galchenko, Yuriv A. Knirel


Synthesis, characterization, and cytotoxicity of TMC-graft-poly(vinyl alcohol) copolymers

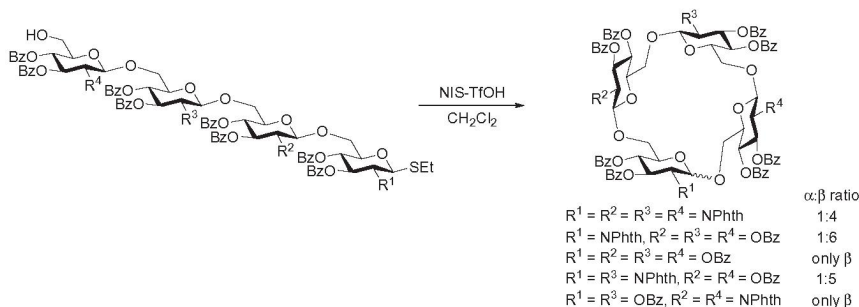
pp 153–160

Alessandro F. Martins*, Pedro V.A. Bueno, Heveline D.M. Follmann, Samara R. Nocchi, Celso V. Nakamura, Adley F. Rubira, Edvani C. Muniz

 Physical structure of the new copolymers based on *N*-trimethyl chitosan/poly(vinyl alcohol) (TMC-g-PVA) depicting the major interactions that occur among the segments of polymers chains of 6-*O*-succinate-*N*-trimethyl chitosan (STMC) and PVA.

Stereochemistry of intramolecular cyclization of tetra-β-(1→6)-D-glucosamines and related tetrasaccharides: the role of the conformational stereocontrol and the neighboring group participation

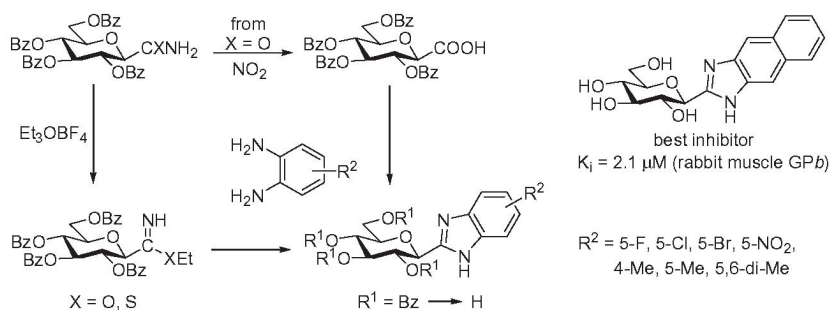
pp 161–178

Denis V. Titov, Marina L. Gening, Alexey G. Gerbst, Alexander O. Chizhov, Yury E. Tsvetkov, Nikolay E. Nifantiev*


Synthesis of substituted 2-(β-D-glucopyranosyl)-benzimidazoles and their evaluation as inhibitors of glycogen phosphorylase

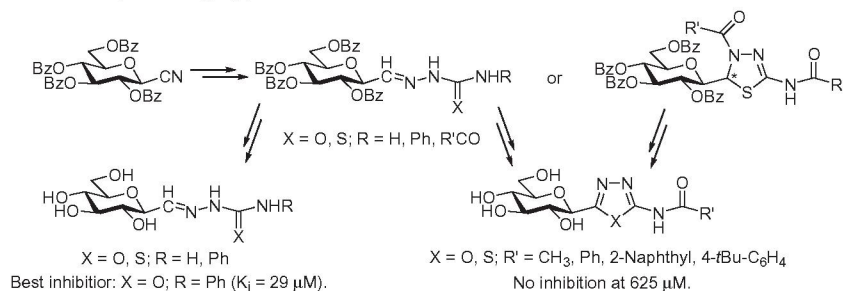
pp 179–186

Éva Bokor, Enikő Szilágyi, Tibor Docsa, Pál Gergely, László Somsák*



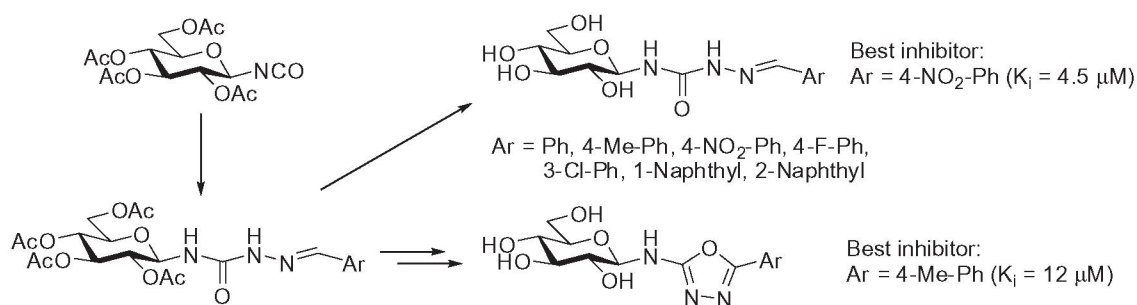
Synthesis of 2-(β-D-glucopyranosyl)-5-(substituted-amino)-1,3,4-oxa- and -thiadiazoles for the inhibition of glycogen phosphorylase pp 187–195

Béla Szócs, Marietta Tóth*, Tibor Docsa, Pál Gergely, László Somsák*



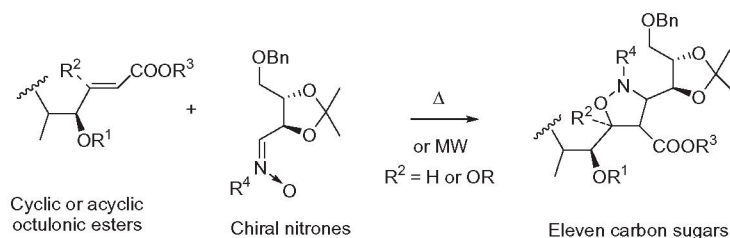
Synthesis of 2-(β-D-glucopyranosylamino)-5-substituted-1,3,4-oxadiazoles for inhibition of glycogen phosphorylase pp 196–204

Marietta Tóth*, Béla Szócs, Tímea Kaszás, Tibor Docsa, Pál Gergely, László Somsák*




The 1,3-dipolar cycloaddition reaction of chiral carbohydrate-derived nitron and olefin: towards long-chain sugars pp 205–214

Hassan Oukani, Nadia Pellegrini-Moïse, Olivier Jackowski, Françoise Chrétien, Yves Chapleur*



*Corresponding author

 Supplementary data available via ScienceDirect

COVER

Multi-functionalisation of cyclodextrins (CD) has entered a new era thanks to the regioselective chemistry developed by M. Sollogoub's group. As illustrated on the cover, many applications can now be reached using CDs with various functions on specific positions. An example of functionalisation of CDs is given in the first issue of this journal. Image realised by Mickaël Ménand.

Available online at www.sciencedirect.com

ScienceDirect

Abstracted/Indexed in: Chem. Abstr.: Curr. Contents: Phys., Chem. & Earth Sci. Life Sci. Current Awareness in Bio. Sci. (CABS). Science Citation Index. Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database which is available on STN[®] International. Also covered in the abstract and citation database Scopus[®]. Full text available on ScienceDirect[®]



ELSEVIER

ISSN 0008-6215