

Carbohydrate Research Vol. 343, No. 15, 2008

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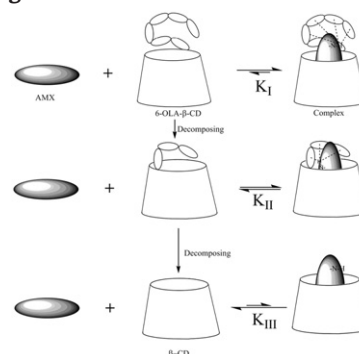
FULL PAPERS

A convenient preparation of 6-oligo(lactic acid)cyclomaltoheptaose as kinetically degradable derivative for controlled release of amoxicillin

pp 2517–2522

Jian Shen, Aiyao Hao *, Guangyan Du, Huacheng Zhang, Hongyuan Sun

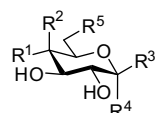
A new water-soluble cyclomaltoheptaose derivative, 6-oligo(lactic acid)cyclomaltoheptaose (6-oligo(lactic acid)- β -CD) for the controlled release of the common drug Amoxicillin (AMX).



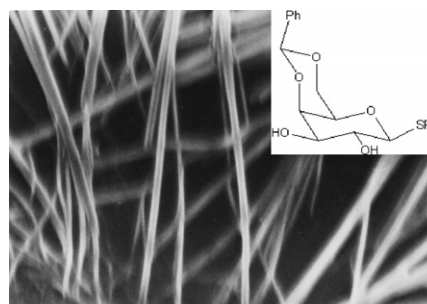
Aryl 4,6-O-arylidene-1-thio- β -D-glycopyranoside-based new organogelators and their gels

pp 2523–2529

Soumik Roy, Arijit Chakraborty, Rina Ghosh *



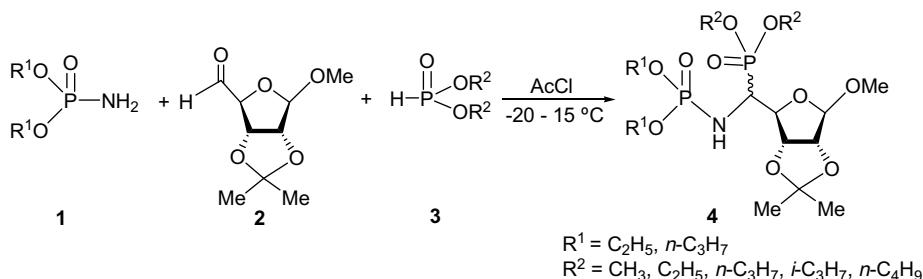
R², R⁴ = H; R¹, R⁵ = OCHC₆H₅; R³ = SPh
 R¹, R⁴ = H; R², R⁵ = OCHC₆H₅; R³ = SPh
 R², R⁴ = H; R¹, R⁵ = OCH-*p*-NO₂C₆H₄; R³ = SPh
 R¹, R⁴ = H; R², R⁵ = OCH-*p*-NO₂C₆H₄; R³ = SPh
 R², R⁴ = H; R¹, R⁵ = OCH-*p*-NO₂C₆H₄; R³ = STol
 R¹, R⁴ = H; R², R⁵ = OCH-*p*-NO₂C₆H₄; R³ = STol



The diastereoselective synthesis of methyl 5-deoxy-5-(dialkylphosphono)-5-(dialkylphosphorylamido)-2,3-O-isopropylidene- β -D-ribofuranosides

pp 2530–2534

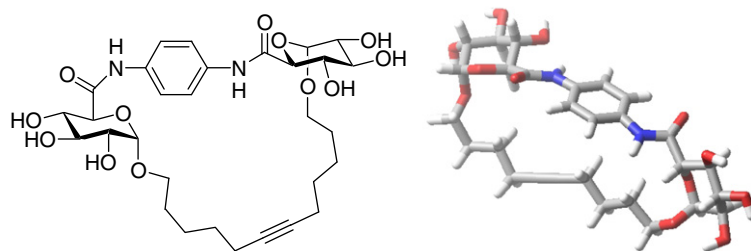
Zhanwei Cui, Jianfeng Zhang, Fei Wang, Yadan Wang, Zhiwei Miao *, Ruyu Chen



Synthesis of novel glycophanes derived from glucuronic acid by ring closing alkene and alkyne metathesis

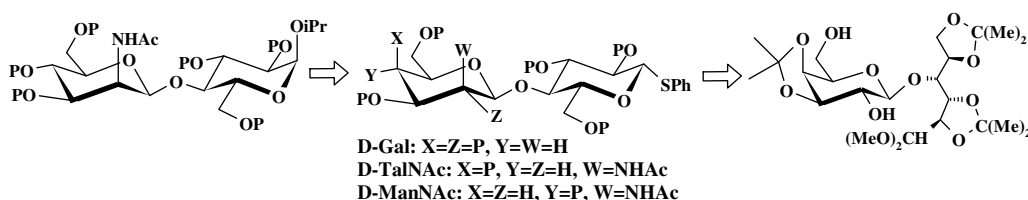
pp 2535–2544

Dearbhla Doyle, Paul V. Murphy *

**Stereoselective synthesis of a model α -glycoside of the β -D-ManNAcp-(1 $\rightarrow$ 4)-D-Glc disaccharide starting from lactose, avoiding the β -mannosaminylation step**

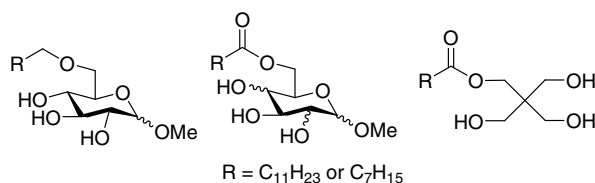
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Emanuele Attolino, Filippo Bonaccorsi, Giorgio Catelani *, Felicia D'Andrea

**Synthesis and antimicrobial evaluation of carbohydrate and polyhydroxylated non-carbohydrate fatty acid ester and ether derivatives**

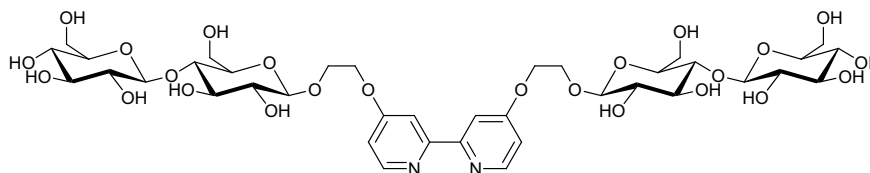
pp 2557–2566

Aoife Smith, Patricia Nobmann, Gary Henahan, Paula Bourke, Julie Dunne *

**New chiral oligopyridines—4,4'-bis(disaccharide)-functionalised 2,2'-bipyridines and 4'-(disaccharide)-functionalised 2,2':6',2''-terpyridines**

pp 2567–2575

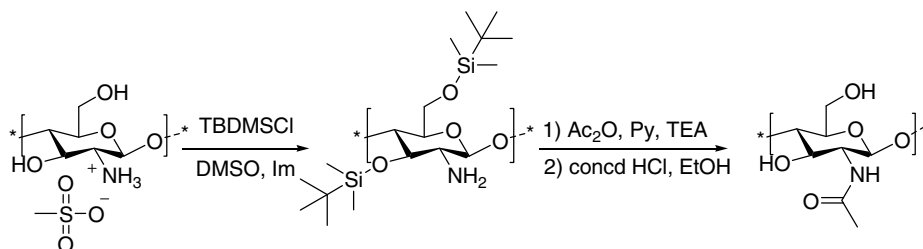
Edwin C. Constable *, Catherine E. Housecroft, Azad Mahmood



tert-Butyldimethylsilyl O-protected chitosan and chitoooligosaccharides: useful precursors for N-modifications in common organic solvents

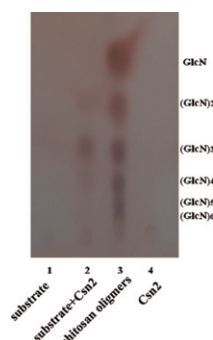
pp 2576–2582

Ögmundur Vidar Rúnarsson, Clemens Malainer, Jukka Holappa, Snorri Th. Sigurdsson, Már Másson *

**Characterization of a novel fungal chitosanase Csn2 from *Gongronella* sp. JG**

pp 2583–2588

Jun Wang *, Wei Zhou, Hang Yuan, Yujuan Wang

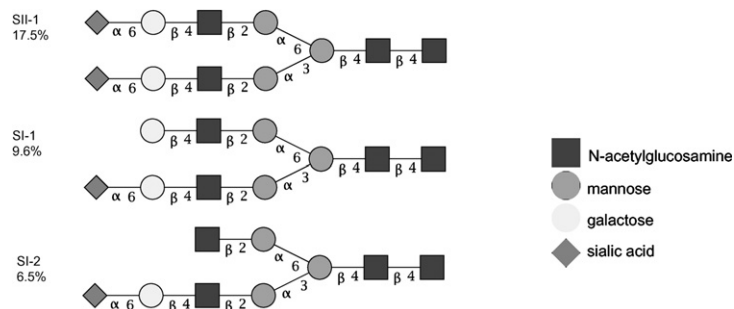


The end products of 85% deacetylated chitosan hydrolyzed by Csn2.

Sialyloligosaccharides inhibit cholera toxin binding to the GM1 receptor

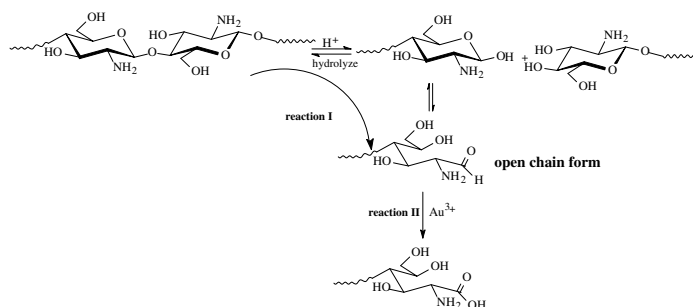
pp 2589–2594

Haydn R. Sinclair, Christopher W. Smejkal, Claire Glistler, Fred Kemp, Ellen van den Heuvel, Jaap de Slegte *, Glenn R. Gibson, Robert A. Rastall

**Degradation behavior of chitosan chains in the 'green' synthesis of gold nanoparticles**

pp 2595–2599

Changmei Sun, Rongjun Qu *, Hou Chen, Chunnuan Ji, Chunhua Wang, Yanzhi Sun, Benhong Wang

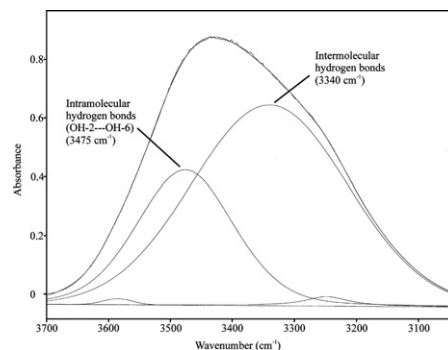


Hydrogen bond formation in regioselectively functionalized 3-mono-*O*-methyl cellulose

pp 2600–2604

Tetsuo Kondo *, Andreas Koschella, Brigitte Heublein, Dieter Klemm, Thomas Heinze *

The hydrogen bond formation in 3-mono-*O*-methyl cellulose was elucidated by means of ^{13}C CP/MAS NMR- and FTIR spectroscopy. The deconvolution revealed an intramolecular hydrogen bond between the OH groups of positions 2 and 6 of adjacent repeating units of the highly crystalline polymer.

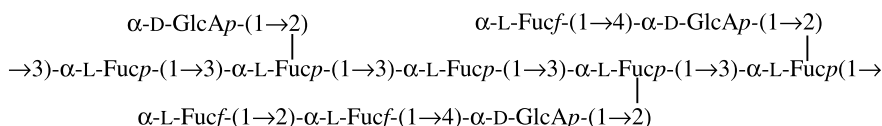


A sulfated glucuronofucan containing both fucufuranose and fucopyranose residues from the brown alga

pp 2605–2612

Chordaria flagelliformis

Maria I. Bilan, Ekaterina V. Vinogradova, Evgenia A. Tsvetkova, Alexey A. Grachev, Alexander S. Shashkov, Nikolay E. Nifantiev, Anatolii I. Usov *

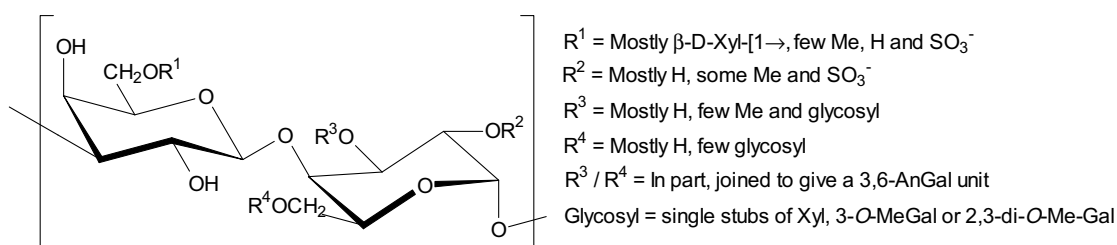


In the native fucoidan some fucufuranose residues are mono- and disulfated at different positions, additional sulfate groups may occupy C-2 and C-4 of the backbone, the latter position being also partially acetylated.

The system of xylogalactans from the red seaweed *Jania rubens* (Corallinales, Rhodophyta)

pp 2613–2622

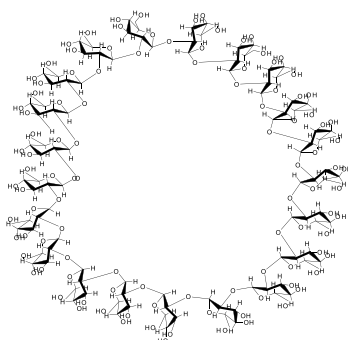
Diego A. Navarro, Carlos A. Stortz *



First isolation and structural determination of cyclic $\beta\text{-(1}\rightarrow 2\text{)-glucans}$ from an alga, *Chlorella pyrenoidosa*

pp 2623–2633

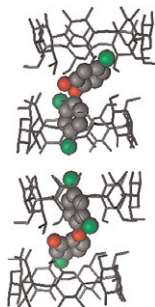
Erick Reyes Suárez, Sarah M. Bugden, Fui Boon Kai, Jaroslav A. Kralovec, Miguel D. Nosedá, Colin J. Barrow, T. Bruce Grindley *



Crystal structure of the inclusion complex of the antibacterial agent triclosan with cyclomaltoheptaose and NMR study of its molecular encapsulation in positively and negatively charged cyclomaltoheptaose derivatives

pp 2634–2640

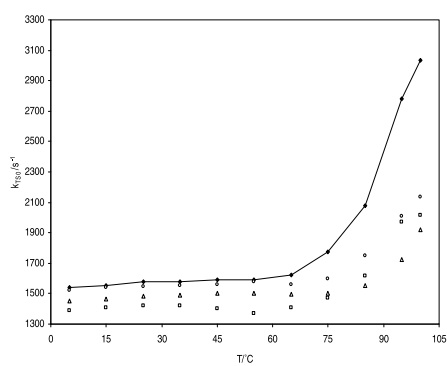
Anastasia Paulidou, Davide Maffeo, Konstantina Yannakopoulou, Irene M. Mavridis *



The effect of salts on molecular mobility in amorphous sucrose monitored by erythrosin B phosphorescence

pp 2641–2649

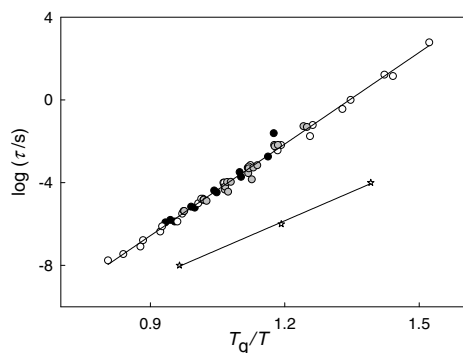
Yumin You, Richard D. Ludescher *



Secondary relaxations in supercooled and glassy sucrose–borate aqueous solutions

pp 2650–2656

M. Paula Longinotti, Horacio R. Corti *, Juan J. de Pablo

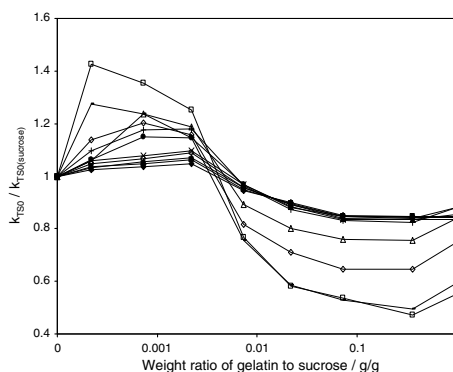


- (●) aqueous sucrose with 20, 25 and 30 wt% water content (this work).
- (○) aqueous sucrose with 20 and 25 wt% water content [Jansson, H.; Hultdt, C.; Bergman, R.; Swenson, J. *Phys. Rev. E*, **2005**, 71, 011901-1-7].
- (●) aqueous sucrose–borate mixtures with 20 and 30 wt% water content (this work).
- (☆) aqueous sucrose with 1 wt% water content [Champion, D.; Maglione, M.; Niquet, G.; Simatos, D.; Le Meste, M. *J. Thermal Anal. Calorim.*, **2003**, 71, 249-261].

Effect of gelatin on molecular mobility in amorphous sucrose detected by erythrosin B phosphorescence

pp 2657–2666

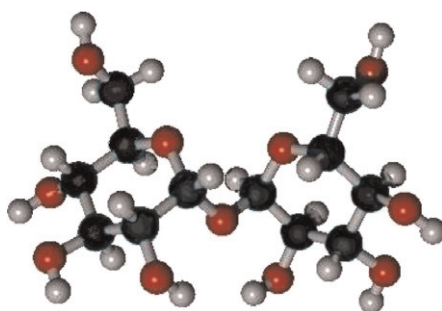
Yumin You, Richard D. Ludescher *



Trehalose amorphization and recrystallization

Fabiana Sussich, Attilio Cesàro *

pp 2667–2674



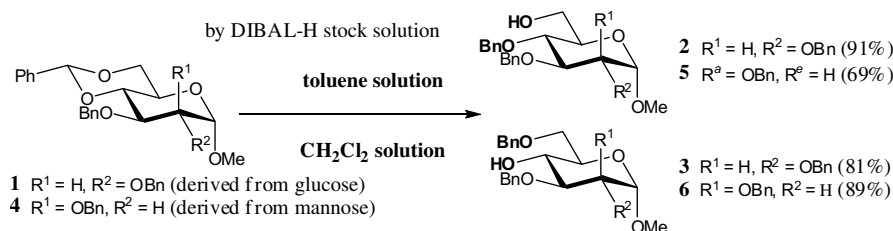
The stability of the amorphous trehalose prepared by using several amorphization reveals a dual behavior of the undercooled liquid of trehalose, which depends on the way the amorphous/glassy state has been reached.

NOTES

Regioselective ring opening of benzylidene acetal protecting group(s) of hexopyranoside derivatives by DIBAL-H

pp 2675–2679

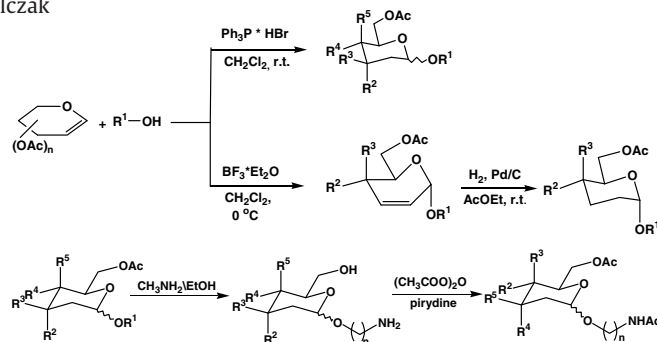
Nobuo Tanaka, Izumi Ogawa, Shigeki Yoshigase, Junzo Nokami *



The use of tri-*O*-acetyl-*D*-glucal and -*D*-galactal in the synthesis of ω -aminoalkyl 2-deoxy- and 2,3-dideoxy-*D*-hexopyranosides

pp 2680–2686

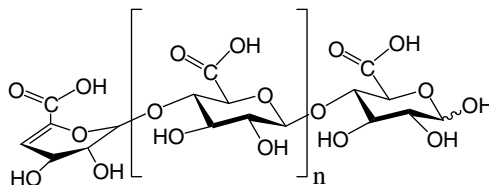
Anna W. Pierwocha *, Krzysztof Walczak



Production of oligoglucuronans using a monolithic enzymatic microreactor

pp 2687–2691

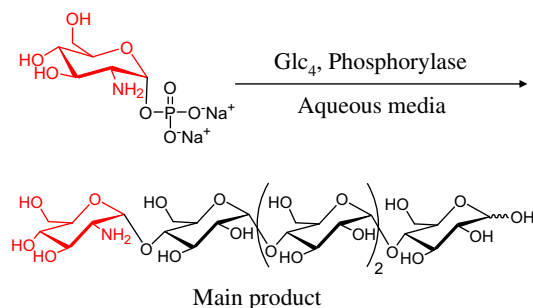
M. L. Tavernier, E. Petit, C. Delattre, B. Courtois, J. Courtois, A. Strancar, P. Michaud *



Enzymatic α -glucosaminylation of maltooligosaccharides catalyzed by phosphorylase

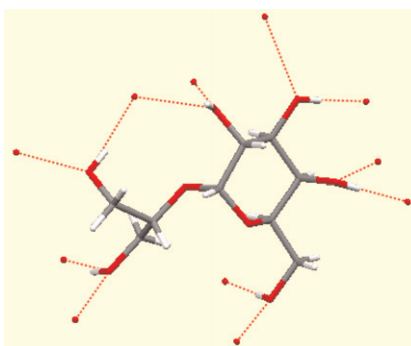
pp 2692–2696

Mutsuki Nawaji, Hironori Izawa, Yoshiro Kaneko, Jun-ichi Kadokawa *

**X-ray structure of floridoside isolated from the marine red algae *Dilsea carnosa***

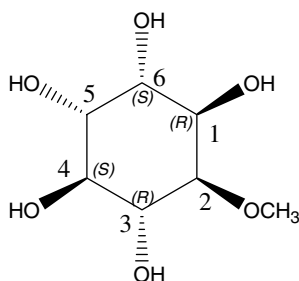
pp 2697–2698

Catherine Vonthron-Sénécheau *, Jana Sopkova-de Oliveira Santos, Isabelle Mussio, Anne-Marie Rusig

**First record of ι -quebrachitol in *Allophylus edulis* (Sapindaceae)**

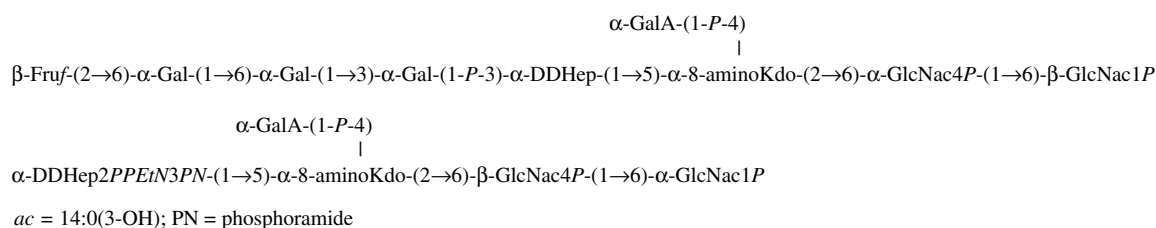
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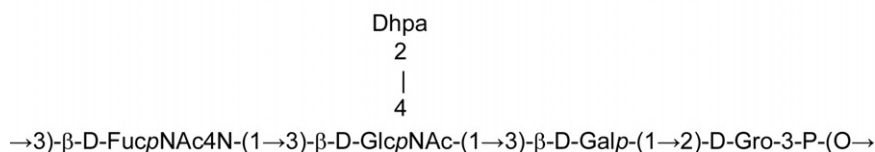
Martina Díaz, Andrés González, Ian Castro-Gamboa, David Gonzalez, Carmen Rossini *

**The structure of the carbohydrate backbone of the LPS from *Shewanella* spp. MR-4**

pp 2701–2705

Evgeny Vinogradov *, Joanna Kubler-Kielb, Anton Korenevsky



Structure of the O-polysaccharide of *Providencia alcalifaciens* O8 containing (2S,4R)-2,4-dihydroxypentanoic acid, a new non-sugar component of bacterial glycans pp 2706–2711Filip V. Toukach ^{*}, Nina A. Kocharova, Agnieszka Maszewska, Alexander S. Shashkov, Yuriy A. Knirel, Antoni Rozalski*Providencia alcalifaciens* O8^{*}Corresponding author ⁺ Supplementary data available via ScienceDirect**COVER**

The graphic represents a molecular dynamics simulation of water density around the disaccharide $\alpha\text{-D-Araf-(1}\rightarrow 5\text{)-}\alpha\text{-D-Araf-OCH}_3$, highlighting the interglycosidic linkage. The red clouds represent regions where the probability of finding an oxygen atom is high while the gray clouds are for hydrogen atoms. This work is the result of a collaboration in the Alberta Ingenuity Centre for Carbohydrate Science and Department of Chemistry at the University of Alberta between the groups of Pierre-Nicolas Roy and Todd L. Lowary (Castillo, N.; Roy, P. N.; Lowary, T. L. Manuscript in Preparation).

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