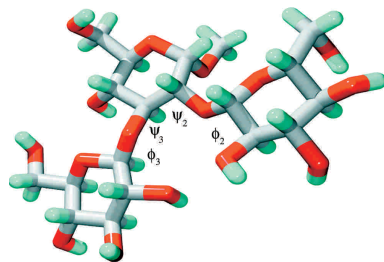


Molecular dynamics simulations of an oligosaccharide using a force field modified for carbohydrates

Carbohydr. Res. **2003**, 338, 393

Robert Eklund, Göran Widmalm

Department of Organic Chemistry, Arrhenius Laboratory, Stockholm University, S-106 91 Stockholm, Sweden

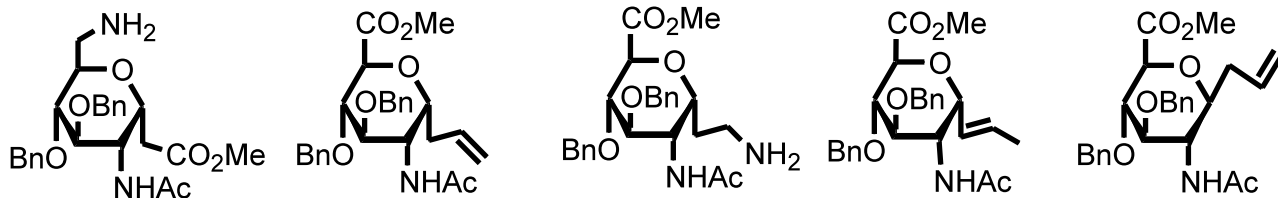


Synthesis of new sugar amino acid derivatives of D-glucosamine

Carbohydr. Res. **2003**, 338, 399

Juan Xie

Laboratoire de Chimie des Glucides, CNRS UMR 7613, Université Pierre et Marie Curie, 4 Place Jussieu, F-75005 Paris, France



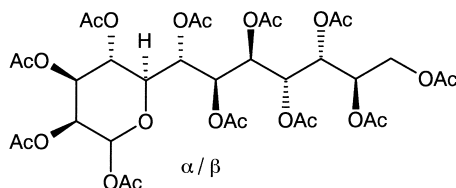
Convenient approach to higher carbon sugars.

First synthesis of the free C12-sugar: D-erythro-L-manno-D-manno-dodecose

Carbohydr. Res. **2003**, 338, 407

Sławomir Jarosz, Stanisław Skóra, Izabela Kościółowska

Institute of Organic Chemistry, Polish Academy of Sciences, Kasprzaka 44/52, 01-224 Warsaw, Poland



Characterizing the pH-dependent stability and catalytic mechanism of the family 11 xylanase from the alkalophilic *Bacillus agaradhaerens*

Carbohydr. Res. **2003**, 338, 415

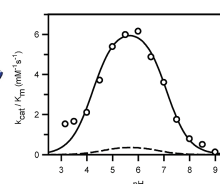
David K.Y. Poon,^a Philip Webster,^b Stephen G. Withers,^{a,b,d} Lawrence P. McIntosh^{a,b,c,d}

^aThe Department of Chemistry, University of British Columbia, Vancouver, BC, Canada V6T 1Z1

^bThe Department of Biochemistry and Molecular Biology, University of British Columbia, Vancouver, BC, Canada V6T 1Z1

^cThe Biotechnology Laboratory, University of British Columbia, Vancouver, BC, Canada V6T 1Z1

^dThe Protein Engineering Network of Centres of Excellence, University of British Columbia, Vancouver, BC, Canada V6T 1Z1

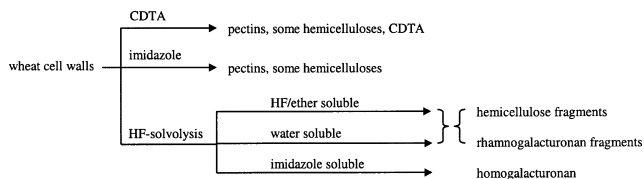


Isolation and characterisation of the homogalacturonan from type II cell walls of the commelinoid monocot wheat using HF-solvolysis

Nicola Wiethölter,^a Barbara Graebner,^a Manfred Mierau,^a William G.T. Willats,^b J. Paul Knox,^b Bruno M. Moerschbacher^a

^aInstitut für Biochemie und Biotechnologie der Pflanzen, Westfälische Wilhelms-Universität Münster, Hindenburgplatz 55, D-48143 Münster, Germany

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Effect of molecular structure on the conductivity of amorphous carbohydrate–water–KCl mixtures in the supercooled liquid state

Timothy R. Noel, Roger Parker, Stephen G. Ring

Food Materials Science Division, Institute of Food Research, Norwich Research Park, Colney, Norwich NR4 7UA, UK

The conductivity of low water content amorphous carbohydrate–water–KCl mixtures in the supercooled liquid state is, to varying extents, uncoupled from viscosity. Uncoupling increased in the order D-xylose < D-glucose < maltose < maltotriose and raffinose.

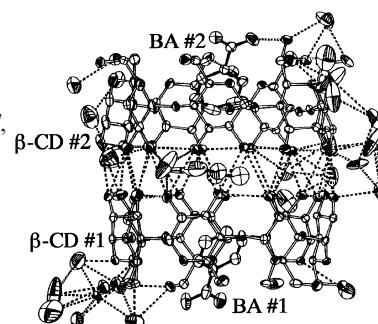
Crystal structure of β -cyclodextrin–benzoic acid inclusion complex

Thammarat Aree,^a Narongsak Chaichit^b

^aDepartment of Chemistry, Faculty of Science, Chulalongkorn University, Phyathai Road, Pathumwan, Bangkok 10330, Thailand

^bDepartment of Physics, Faculty of Science and Technology, Thammasat University, Rangsit, Pathum Thani 12121, Thailand

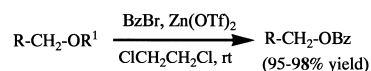
Two benzoic acid molecules (BA #1, 2) are included in the β -CD dimer (2:2 host–guest ratio) that is mainly stabilized by intermolecular O-2/O-3...O-2/O-3 hydrogen bonds.



Zinc triflate–benzoyl bromide: a versatile reagent for the conversion of ether into benzoate protecting groups and ether glycosides into glycosyl bromides

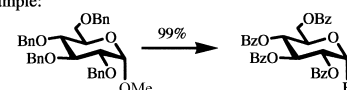
Tülay Polat, Robert J. Linhardt

Department of Chemistry, Medicinal and Natural Products Chemistry and Chemical and Biochemical Engineering, The University of Iowa, Iowa City, IA 52242, USA



R¹ = TBDMS, Benzyl or acetal

Example:



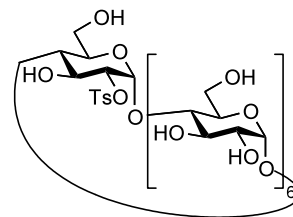
Regioselective sulfonylation at O-2 of cyclomaltoheptaose with 1-(*p*-tolylsulfonyl)-(1*H*)-1,2,4-triazole

Carbohydr. Res. **2003**, 338, 451

Ho Law,^a Isabelle Baussanne,^a José M. García Fernández,^b Jacques Defaye^a

^aDépartement de Pharmacochimie Moléculaire, CNRS and Université Joseph Fourier-Grenoble 1 (UMR 5063), BP 138, F-38243 Meylan, France

^bInstituto de Investigaciones Químicas, CSIC, Américo Vespucio s/n, Isla de la Cartuja, E-41092 Sevilla, Spain

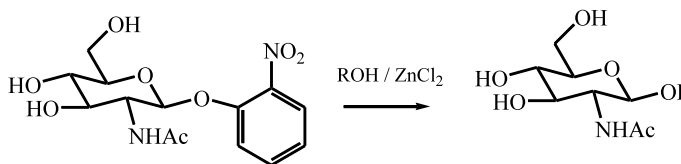


The use of the *o*-nitrophenyl group as a protecting/activating group for 2-acetamido-2-deoxyglucose

Carbohydr. Res. **2003**, 338, 455

Gabriela Pistia-Brueggeman, Rawle I. Hollingsworth

Department of Chemistry, Michigan State University, East Lansing, MI 48824, USA



Structure of an acidic polysaccharide from the marine bacterium *Pseudoalteromonas flavipulchra* NCIMB 2033^T

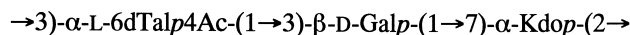
Carbohydr. Res. **2003**, 338, 459

Jimmy Muldoon,^a Andrei V. Perepelov,^b Alexander S. Shashkov,^b Evgeny L. Nazarenko,^c Vladimir A. Zubkov,^c Raisa P. Gorshkova,^c Elena P. Ivanova,^c Natalya M. Gorshkova,^c Yuriy A. Knirel,^b Angela V. Savage^a

^aDepartment of Chemistry, National University of Ireland, University Road, Galway, Ireland

^bN.D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Moscow 119991, Russia

^cPacific Institute of Bioorganic Chemistry, Far East Branch of the Russian Academy of Sciences, Vladivostok 690022, Russia



Structure and physicochemical properties of starches from kidney bean seeds at immature, premature and mature stages of development

Carbohydr. Res. **2003**, 338, 463

Hironori Yoshida,^a Koichi Nozaki,^b Isao Hanashiro,^a Fumio Yagi,^a Hiroyuki Ito,^b Mamoru Honma,^b Hirokazu Matsui,^b Yasuhito Takeda^a

^aDepartment of Biochemical Science and Technology, Faculty of Agriculture, Kagoshima University, Kagoshima 890-0065, Japan

^bDepartment of Applied Bioscience, Graduate School of Agriculture, Hokkaido University, Sapporo 060-8589, Japan

Starches from kidney bean (*Phaseolus vulgaris* L. cv. Toramame) seeds showed easier gelatinization, increase in content and molecular size of amylose and little change in branched structure of amylopectin with seed maturity.

**Examination of the structure of amylopectin molecules
by fluorescent labeling**

Yasuhito Takeda, Shunpei Shibahara, Isao Hanashiro

Department of Biochemical Science and Technology, Faculty of Agriculture, Kagoshima University, Kagoshima 890-0065, Japan

Amylopectin molecules from rice, maize, sweet potato and potato were examined by fluorescent labeling followed by gel-permeation HPLC.