

Reductive cleavage of permethylated polysaccharides with borane–methyl sulfide complex and butyltin trichloride

Nan Wang, Gary R. Gray *

The Department of Chemistry, University of Minnesota, Minneapolis, MN 55455, USA

Mixtures of borane–methyl sulfide complex and boron trifluoride etherate were found to accomplish the reductive cleavage of several fully methylated methyl glycosides as well as fully methylated amylose, cellulose, pullulan, and inulin to give only the expected products.

Modeling of the water–sucrose state diagram below 0 °C

Geneviève Blond ^{a,*}, Denise Simatos ^a, Marianne Catté ^b, Claude Gilles Dussap ^b, Jean Bernard Gros ^b

^a Département de Biochimie, Physico-Chimie et Propriétés Sensorielles, Ecole Nationale Supérieure de Biologie Appliquée à la Nutrition et à l'Alimentation, F-21000 Dijon, France

^b Laboratoire de Génie Chimique Biologique, Université Blaise Pascal, F-63177 Aubière, France

While the UNIQUAC model predicted reliable ice melting temperatures in the high sucrose concentration range, a significant variation of the fitted glass transition curve was obtained due to the selected temperature values as the glass transition temperature. The calculated glass temperatures (T_g) were compared with direct DSC experiments.

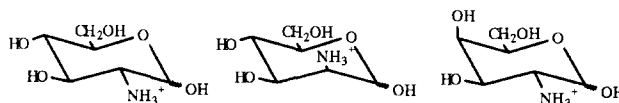
Determination of acid dissociation constants of anomers of amino sugars by ¹H NMR spectroscopy

Andrei Blaskó ^a, Clifford A. Bunton ^{a,*}, Sergio Bunel ^b, Carmen Ibarra ^b, Exiquiel Moraga ^b

^a Department of Chemistry, University of California, Santa Barbara, CA 93106, USA

^b Departamento de Química Inorgánica y Analítica, Facultad de Ciencias Químicas y Farmacéuticas, Universidad de Chile, Santiago, Casilla 233, Chile

$pK_a(D)$ of the α - and β -sugars have been determined.

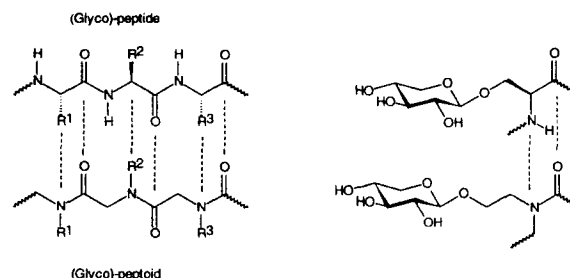


New prototypical O-linked-glycopeptidomimetics corresponding to the linkage region of proteoglycans

Jin Mi Kim, René Roy *

Department of Chemistry, University of Ottawa, Ottawa, Ontario, Canada K1N 6N5

A new class of glycopeptidomimetic composed of N-substituted oligoglycine (peptoid) mimicking the β -D-Xyl-(1 \rightarrow 3)-O-L-Ser linkage region of proteoglycans was synthesized using a convergent approach.

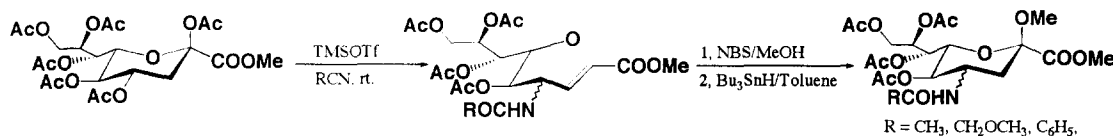


Syntheses of sialic acid analogues with acylamino groups at C-4 (*N*-acyl regioisomers of sialic acids)

Xue-Long Sun, Toshitsugu Kai, Hiroaki Takayanagi, Kimio Furuhata *

School of Pharmaceutical Sciences, Kitasato University, 5-9-1 Shirokane, Minato-ku, Tokyo 108, Japan

Treatment of 2,4-dideoxy-4-acylamino-Kdn methyl esters with *N*-bromosuccinimide in methanol and subsequent debromination with Bu₃SnH/AIBN in toluene gave 4-deoxy-4-acylamino-Kdn methyl esters which were termed as protected "iso-sialic acid".



Novel di-*O*-acetylated GM3s from equine erythrocytes, one containing 4,9-di-*O*-acetyl-*N*-glycolylneuraminic acid and another containing 4-*O*-acetyl-*N*-glycolylneuraminic acid and 6-*O*-acetyl-D-galactose

Youichi Yachida, Keiko Tsuchihashi, Shinsei Gasa *

Department of Chemistry, School of Medicine, Sapporo Medical University, Chuo-ku, S1 W17, Sapporo 060, Japan

