A facile and effective synthesis of  $\alpha$ - $(1 \rightarrow 6)$ -linked

Carbohydr. Res. 2001, 332, 1

mannose di-, tri-, tetra-, hexa-, octa-, and dodecasaccharides, and  $\beta$ -(1  $\rightarrow$  6)-linked glucose di-, tri-, tetra-, hexa-, and octasaccharides using sugar trichloroacetimidates as the donors and unprotected or partially protected glycosides as the acceptors

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The title compounds have been synthesized using sugar trichloroacetimidates as the donors and unprotected or partially protected glycosides as the acceptors.

# Synthesis of a carbocyclic sialic acid analogue for the inhibition of influenza virus neuraminidase

Carbohydr. Res. 2001, 332, 23

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<sup>c</sup>Dipartimento di Studi di Chimica e Tecnologia delle Sostanze Biologicamente Attive, Università 'La Sapienza', Rome, Italy

A carbocyclic sialic acid analogue 17, potentially able to inhibit neuraminidase (NA), was prepared. Its structure is an analogue of the transition state of the reaction catalysed by NA.

H<sub>2</sub>N NH NHAC

Sialic acid

Carbocyclic sialic acid analogue, 17

## Transglucosidation of methyl and ethyl D-glucofuranosides by alcoholysis

Carbohydr. Res. 2001, 332, 33

Karl-Jonas Johansson,<sup>c</sup> Peter Konradsson,<sup>a,</sup> Zygmunt Trumpakaj<sup>b</sup>

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<sup>b</sup>Department of Chemistry, University of Gdansk, PL-80-952 Gdansk, Poland

Kinetics and the anomerization of alkyl 5-O-methyl D-glucofuranosides have been studied under transglucosidation conditions and the rate constants have been determined.

# Synthesis of linear-type chondroitin clusters having a C<sub>8</sub> Carbohydr. Res. 2001, 332, 41 spacer between disaccharide moieties and enzymatic transfer of D-glucuronic acid to the artificial

Jun-ichi Tamura, a,c, Hirofumi Urashima, a,c Kazunori Tsuchida, Hiroshi Kitagawa, b

Kazuyuki Sugahara<sup>b</sup>

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<sup>c</sup>CREST, Japan Science and Technology Corporation (JST), Japan

<sup>&</sup>lt;sup>c</sup>Arrhenius Laboratory, Department of Organic Chemistry, Stockholm University, S-106 91 Stockholm, Sweden

#### Xylopyranoside-based agonists of D-myo-inositol 1,4,5-

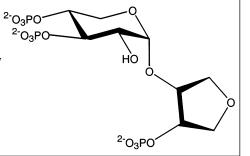
Carbohydr. Res. 2001, 332, 53

trisphosphate receptors: synthesis and effect of stereochemistry on biological activity

Heidi J. Rosenberg,<sup>a</sup> Andrew M. Riley,<sup>a</sup> Rachel D. Marwood,<sup>a</sup> Vanessa Correa,<sup>b</sup> Colin W. Taylor,<sup>b</sup> Barry V.L. Potter<sup>a,</sup>

<sup>a</sup>Wolfson Laboratory of Medicinal Chemistry, Department of Pharmacy and Pharmacology, University of Bath, Claverton Down, Bath BA2 7AY, UK

<sup>b</sup>Department of Pharmacology, Tennis Court Road, University of Cambridge, Cambridge CB2 10J, UK



Carbohydr. Res. 2001, 332, 67

# Structural and immunological studies of a major polysaccharide from spores of *Ganoderma lucidum* (Fr.) Karst

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An immunoactivating polysaccharide, having a backbone chain of  $(1 \rightarrow 3)$ -linked  $\beta$ -D-glucopyranosyl residues, with branches of mono-, di- and oligosaccharide side chains substituting at the C-6 of the glucosyl residues in the main chain, was isolated from the spores of *Ganoderma lucidum*.

## Anticoagulant properties of dextranmethylcarboxylate Carbohydr. Res. 2001, benzylamide sulfate (DMCBSu); a new generation of bioactive functionalized dextran

Carbohydr. Res. 2001, 332, 75

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<sup>b</sup>Laboratoire de Recherches sur les Macromolécules, CNRS-UMR 7540, Institut Galilée, 99 Avenue J.-B. Clément, F-93430 Villetaneuse, France

Derivatized dextrans were prepared by three successive substitutions of free hydroxyls by carboxymethyl groups (MC), N-benzyl-methylene carboxamide groups (B) and sulfate groups (Su). The anticoagulant ability of DMCBSu was directly depending on their composition.

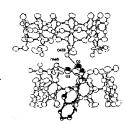
# Structure of the complex of $\beta$ -cyclodextrin with $\beta$ -naphthyloxyacetic acid in the solid state and in aqueous solution

Carbohydr. Res. 2001, 332, 85

Areti Kokkinou,<sup>a</sup> Konstantina Yannakopoulou,<sup>b</sup> Irene M. Mavridis,<sup>b</sup> Dimitris Mentzafos<sup>a</sup>,

<sup>a</sup>Physics Laboratory, Agricultural University of Athens, Iera Odos 75, GR-11855 Athens, Greece <sup>b</sup>Institute of Physical Chemistry, National Center for Scientific Research 'Demokritos', Aghia Paraskevi, GR-15310 Athens, Greece

The  $\beta$ -CD/NOA complex crystallizes with a stoichiometry of 2:1 host–guest; in aqueous solution the  $^1H$  NMR spectroscopic study indicated the existence of a mixture of complexes with stoichiometries both 1:1 and 2:1.



Sugar-based anionic surfactants: synthesis and micelle

Carbohydr. Res. 2001, 332, 95

formation of sodium methyl 2-acylamido-2-deoxy-6-O-sulfo-D-glucopyranosides

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HOCH<sub>2</sub>
HO
HO
HO
NH<sub>3</sub>CI

HOCH<sub>2</sub>
HO
HOCH<sub>2</sub>
HOCH<sub>2</sub>
HOCH<sub>3</sub>
HOCH<sub>2</sub>
HOCH<sub>2</sub>
HOCH<sub>3</sub>
HOCH<sub>3</sub>
HOCH<sub>3</sub>
NHCOR

HOCH<sub>2</sub>
HOCH<sub>3</sub>
NAO<sub>3</sub>SOCH<sub>2</sub>
HOCH<sub>3</sub>
NHCOR

NHCOR

NHCOR

# Synthesis of *C*-mannopyranosylphloroacetophenone derivatives and their anomerization

Carbohydr. Res. 2001, 332, 103

Toshihiro Kumazawa, Shingo Sato, Shigeru Matsuba, Jun-ichi Onodera

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# Structural elucidation of a new arabinogalactan from the leaves of *Nerium indicum*

Carbohydr. Res. 2001, 332, 109

Qun Dong, Ji-nian Fang

Shanghai Institute of Materia Medica, Chinese Academy of Sciences, 294 Tai-Yuan Road, Shanghai 200031, People's Republic of China

A polysaccharide fraction, NIB-2, isolated from *Nerium indicum*, was found to be mainly an arabinogalactan possessing a backbone consisting of 1,6-linked  $\beta$ -Galp, with branches at O-3. The branches consist of terminal 1,5- and 1,3,5-linked Araf and a small proportion of Gal residues at the termini.