Graphical Abstracts

Carbohydr. Res. **2002,** *337*, 1707

Structural determination of the complex exopolysaccharide from the virulent strain of *Cryphonectria parasitica*

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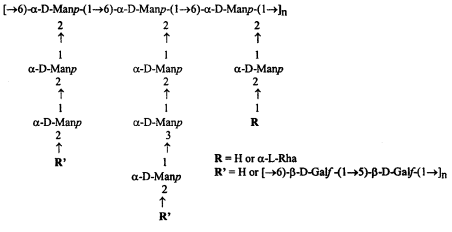
The structure of a new exopolysaccharide from the virulent strain of the fungus *Cryphonectria parasitica* has been elucidated by means of 2D NMR spectroscopy and selective degradations. The polysaccharide consists of a branched mannan backbone to which is linked a galacto-furanan branching chain or terminal rhamnose. The polysaccharide is built up of mannose, galactose and rhamnose and has a rather complex non-repetitive structure that can be idealised as follows:



Carbohydr. Res. **2002,** *337*, 1715

Synthesis of oligosaccharides corresponding to *Streptococcus pneumoniae* type 9 capsular polysaccharide structures

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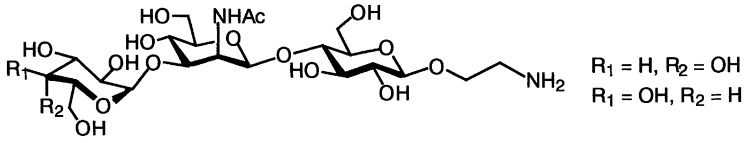

Carbohydr. Res. **2002,** *337*, 1723

Structures of the O-polysaccharide chains of the lipopolysaccharides of *Xanthomonas campestris* pv. *phaseoli* var. *fuscans* GSPB 271 and *X. campestris* pv. *malvacearum* GSPB 1386 and GSPB 2388

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Carbohydr. Res. **2002,** *337*, 1729

Supercritical CO_2 fluid extraction of crystal water from trehalose dihydrate. Efficient production of form II (T_α) phase

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The anhydrous form II of trehalose was efficiently obtained from the dihydrate by using supercritical CO_2 fluid extraction method.

Carbohydr. Res. **2002,** *337*, 1737

Three-dimensional structure of the inclusion complex between phloridzin and β-cyclodextrin

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Two types of the inclusion complex were resulted by distance geometry method using distance constraints estimated from NOE.

Carbohydr. Res. **2002,** *337*, 1745

NMR studies of molybdate complexes of D-*erythro*-L-*manno*-octose and D-*erythro*-L-*gluco*-octose and their alditols

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Various types of molybdate complexes of D-*erythro*-L-*manno*-octose, D-*erythro*-L-*gluco*-octose, D-*erythro*-L-*manno*-octitol and D-*erythro*-L-*gluco*-octitol in aqueous solutions and in the solid state have been analyzed and characterized by ^{1}H and ^{13}C NMR spectroscopy.

Carbohydr. Res. **2002,** *337*, 1757

Electrophoretically mediated microscale reaction of glycosidases: kinetic analysis of some glycosidases at the nanoliter scale

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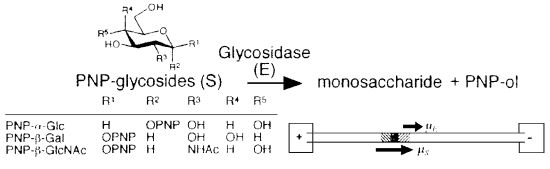
Ultramicroscale reactions of native enzymes under electrophoretic conditions are reported.



Carbohydr. Res. **2002,** *337*, 1763

A mild and selective method for cleavage of *O*-acetyl groups with dibutyltin oxide

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A mild and efficient neutral method for the cleavage of *O*-acetyl groups with dibutyltin oxide has been developed.

Carbohydr. Res. **2002,** *337*, 1769

Synthesis of 3-*C*-(6-*O*-acetyl-2,3,4-tri-*O*-benzyl-α-D-mannopyranosyl)-1-propene: a caveat

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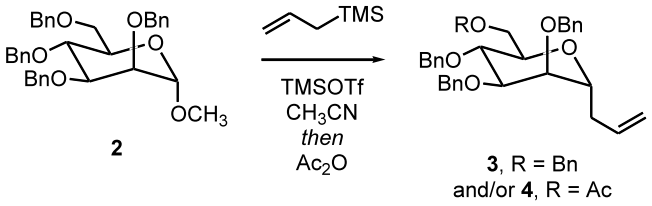

Carbohydr. Res. **2002,** *337*, 1775

Conformational studies of a novel cationic glycolipid, glyceroplasmalopsychosine, from bovine brain by NMR spectroscopy

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The three-dimensional structure of Gro1(3)-*O*-CH($(CH_2)_nCH_3$)-*O*-6Galβ-sphingosine was studied by NMR spectroscopy. A conformation with the galactose and the glycerol at the end of two parallel hydrophobic chains, i.e. the sphingosine and the fatty aldehyde, was proposed based on the $^1H-^1H$ distances derived from ROESY experiments and $^3J_{H,H}$ coupling constants.

Carbohydr. Res. **2002,** *337*, 1781

On the chain flexibility of arabinoxylans and other β-(1→4) polysaccharides

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Data on arabinoxylan solutions recently published in the literature derives parameters related to polymer chain flexibility, such as the persistence length, L_p. By re-examining these data we are able to obtain a slightly lower value of L_p, which agrees well with other estimates in the literature, including recently published results for substituted galactomannans. We suggest such values may be applicable to other β-(1→4) polysaccharides.

Carbohydr. Res. **2002,** *337*, 1785

^{13}C NMR spectroscopic analysis on the chiral discrimination of *N*-acetylphenylalanine, catechin and propranolol induced by cyclic-(1→2)-β-D-glucans (cyclosophoraoses)

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Cyclosophoraoses (cyclic-(1→2)-β-D-glucans) produced by *Rhizobium meliloti* were used as a novel chiral NMR solvating agent. ^{13}C NMR signal splittings were observed on the interactions of cyclosophoraoses with the enantiomers of *N*-acetylphenylalanine, catechin and propranolol.