



### Carbohydrate Research 301 (1997) III-V

# Subject index

#### Absolute configuration

First total synthesis of two new diglycosides, neohancosides A and B, from Cynanchum hancockianum 123

#### Acinetobacter baumannii

Structure of the O18 antigen from Acinetobacter baumannii 187 Alginate

Dielectric analysis of food polysaccharides in aqueous solution 51

Structural studies of the extracellular polysaccharide from Butyrivibrio fibrisolvens strain CF3 193

#### Amadori compound

Amadori products from model reactions of D-glucose with phosphatidyl ethanolamine — Independent synthesis and identification of 1-deoxy-1-(2-hydroxyethylamino)-D-fructose derivatives 111

### Amino acid ester isocyanate

Synthesis of novel amino acid glycoside conjugates 145

#### Amino acid glycoconjugates

Synthesis of novel amino acid glycoside conjugates 145

1,6-Anhydro-3,4-dideoxy-α-D-glycero-hex-3-enopyranos-2-ulose

Thiosugars II. A novel approach to thiodisaccharides. The synthesis of 3-deoxy-4-thiocellobiose from levoglucosenone 167

#### Antigen

Structure of the <sup>13</sup>C-enriched O-deacetylated glucuronoxylomannan of Cryptococcus neoformans serotype A determined by NMR spectroscopy 33

## O-Antigen

Structure of the O-specific polysaccharide of Salmonella enterica ssp. arizonae O50 (Arizona 9a,9b) 61

#### Arabinogalactan

Development of an immunoassay for larch arabinogalactan and its use in the detection of larch arabinogalactan in rat blood 69

New molecular weight forms of arabinogalactan from Larix occidentalis 89

### 2-Azido-2-deoxy-5-thio-D-xylose

Synthesis of 4-cyanophenyl 2-azido-2-deoxy- and 3-azido-3-deoxy-1,5-dithio- $\beta$ -D-xylopyranosides 23

### 3-Azido-3-deoxy-5-thio-D-xylose

Synthesis of 4-cyanophenyl 2-azido-2-deoxy- and 3-azido-3-deoxy-1,5-dithio- $\beta$ -D-xylopyranosides 23

#### Azidonitration reaction

Synthesis of 4-cyanophenyl 2-azido-2-deoxy- and 3-azido-3-deoxy-1,5-dithio- $\beta$ -D-xylopyranosides 23

## Bacterial polysaccharide

Structural studies of the extracellular polysaccharide from *Butyrivib-rio fibrisolvens* strain CF3 193

#### Bacterial polysaccharide, structure

Structure of the O-specific polysaccharide of Salmonella enterica ssp. arizonae O50 (Arizona 9a,9b) 61

### Butyllithium

 $\alpha$ -Hydrogen elimination in some 3- and 4-triflates of  $\alpha$ -D-glycopyranosides 77

#### Butvrivibrio fibrisolvens

Structural studies of the extracellular polysaccharide from Butyrivibrio fibrisolvens strain CF3 193

#### Carbene

 $\alpha$ -Hydrogen elimination in some 3- and 4-triflates of  $\alpha$ -D-glycopyranosides 77

#### (1-Carboxyethyl)-galactose

Structural studies of the extracellular polysaccharide from Butyrivibrio fibrisolvens strain CF3 193

#### (1-Carboxyethyl)-glucose

Structural studies of the extracellular polysaccharide from *Butyrivib-rio fibrisolvens* strain CF3 193

#### к-Carrageenan

Dielectric analysis of food polysaccharides in aqueous solution 51 Cell walls

#### Cell walls

Detection and homogeneity of cell wall pectic polysaccharides of Lemna minor 205

## <sup>13</sup>C Labeling, Structure

Structure of the <sup>13</sup>C-enriched *O*-deacetylated glucuronoxylomannan of *Cryptococcus neoformans* serotype A determined by NMR spectroscopy 33

## <sup>13</sup>C NMR edited ROESY

NMR experiments for the detection of NOEs and scalar coupling constants between equivalent protons in trehalose-containing molecules 5

### Combretastatin glucosides

Synthesis of biologically active polyphenolic glycosides (combretastatin and resveratrol series) 95

### Correlation length

Dielectric analysis of food polysaccharides in aqueous solution 51 Counterion fluctuation

Dielectric analysis of food polysaccharides in aqueous solution 51

### $\alpha$ -, $\beta$ -, and $\gamma$ -Cyclodextrin

Thermodynamics of the hydrolysis and cyclization reactions of  $\alpha$ -,  $\beta$ -, and  $\gamma$ -cyclodextrin 11

#### Cyclomaltodextrin glucanotransferase

Thermodynamics of the hydrolysis and cyclization reactions of  $\alpha$ -,  $\beta$ -, and  $\gamma$ -cyclodextrin 11

#### Deoxyfluoro sugars

Two isosteric fluorinated derivatives of the powerful glucosidase inhibitors, 1-deoxynojirimycin and 2,5-dideoxy-2,5-imino-D-mannitol: Syntheses and glycosidase-inhibitory activities of 1,2,5-trideoxy-2-fluoro-1,5-imino-D-glucitol and of 1,2,5-trideoxy-1-fluoro-2,5-imino-D-mannitol 155

### 1-Deoxy-1-(2-hydroxyethylamino)-D-fructose derivatives

Amadori products from model reactions of D-glucose with phosphatidyl ethanolamine — Independent synthesis and identification of 1-deoxy-1-(2-hydroxyethylamino)-D-fructose derivatives 111

### 3-Deoxythiocellobiose

Thiosugars II. A novel approach to thiodisaccharides. The synthesis of 3-deoxy-4-thiocellobiose from levoglucosenone 167

#### Deuterated compound

 $\alpha$ -Hydrogen elimination in some 3- and 4-triflates of  $\alpha$ -D-glycopyranosides 77

## Deuterium isotope effect

 $\alpha$ -Hydrogen elimination in some 3- and 4-triflates of  $\alpha$ -D-glycopyranosides 77

IV Subject index

#### 3,6-Dideoxy-L-xylo-hexose (colitose)

Structure of the O-specific polysaccharide of Salmonella enterica ssp. arizonae O50 (Arizona 9a,9b) 61

### Dielectric relaxation

Dielectric analysis of food polysaccharides in aqueous solution 51

## 2D NMR spectroscopy

Structure of the <sup>13</sup>C-enriched *O*-deacetylated glucuronoxylomannan of *Cryptococcus neoformans* serotype A determined by NMR spectroscopy 33

#### α-Elimination

 $\alpha$ -Hydrogen elimination in some 3- and 4-triflates of  $\alpha$ -D-glycopyranosides 77

#### Enterobacteria

Structure of the O-specific polysaccharide of Salmonella enterica ssp. arizonae O50 (Arizona 9a,9b) 61

#### Enthalpies of reaction

Thermodynamics of the hydrolysis and cyclization reactions of  $\alpha$ -,  $\beta$ -, and  $\gamma$ -cyclodextrin 11

#### Equilibrium constants

Thermodynamics of the hydrolysis and cyclization reactions of  $\alpha$ -,  $\beta$ -, and  $\gamma$ -cyclodextrin 11

#### Exopolysaccharide structure

Structural characterisation of the exocellular polysaccharide produced by Streptococcus thermophilus OR 901 41

### Ganglioside analogue

Chemoenzymatic synthesis of a trimeric ganglioside GM<sub>3</sub> analogue 1 Gel filtration

New molecular weight forms of arabinogalactan from Larix occidentalis 89

#### **GHMBC**

Structure of the <sup>13</sup>C-enriched *O*-deacetylated glucuronoxylomannan of *Cryptococcus neoformans* serotype A determined by NMR spectroscopy 33

### **D**-Glucose acetals

Synthesis of iodobenzylidene and iodoethylidene acetals of p-glucose 225

### Glucose isomerase

Two isosteric fluorinated derivatives of the powerful glucosidase inhibitors, 1-deoxynojirimycin and 2,5-dideoxy-2,5-imino-D-mannitol: Syntheses and glycosidase-inhibitory activities of 1,2,5-trideoxy-2-fluoro-1,5-imino-D-glucitol and of 1,2,5-trideoxy-1-fluoro-2,5-imino-D-mannitol 155

## Glucosidase inhibitors

Two isosteric fluorinated derivatives of the powerful glucosidase inhibitors, 1-deoxynojirimycin and 2,5-dideoxy-2,5-imino-D-mannitol: Syntheses and glycosidase-inhibitory activities of 1,2,5-trideoxy-2-fluoro-1,5-imino-D-glucitol and of 1,2,5-trideoxy-1-fluoro-2,5-imino-D-mannitol 155

### GluT

Synthesis of iodobenzylidene and iodoethylidene acetals of D-glucose 225

#### Glycosidation reactions

Synthesis of 4-cyanophenyl 2-azido-2-deoxy- and 3-azido-3-deoxy-1,5-dithio-β-D-xylopyranosides 23

#### Haloacetals

Synthesis of iodobenzylidene and iodoethylidene acetals of p-glucose 225

## HCCH-COSY

Structure of the  $^{13}$ C-enriched O-deacetylated glucuronoxylomannan of Cryptococcus neoformans serotype A determined by NMR spectroscopy 33

### HCCH-TOCSY

Structure of the <sup>13</sup>C-enriched O-deacetylated glucuronoxylomannan of Cryptococcus neoformans serotype A determined by NMR spectroscopy 33

#### Homogeneity

Detection and homogeneity of cell wall pectic polysaccharides of Lemna minor 205

#### **HSOC**

Structure of the <sup>13</sup>C-enriched *O*-deacetylated glucuronoxylomannan of *Cryptococcus neoformans* serotype A determined by NMR spectroscopy 33

## 8-Hydroxylinalool

First total synthesis of two new diglycosides, neohancosides A and B, from Cynanchum hancockianum 123

#### Immunoassay

Development of an immunoassay for larch arabinogalactan and its use in the detection of larch arabinogalactan in rat blood 69

New molecular weight forms of arabinogalactan from Larix occidentalis 89

### Inhibitory activity

Two isosteric fluorinated derivatives of the powerful glucosidase inhibitors, 1-deoxynojirimycin and 2,5-dideoxy-2,5-imino-p-mannitol: Syntheses and glycosidase-inhibitory activities of 1,2,5-trideoxy-2-fluoro-1,5-imino-p-glucitol and of 1,2,5-trideoxy-1-fluoro-2,5-imino-p-mannitol 155

#### Iodine labelling

Synthesis of iodobenzylidene and iodoethylidene acetals of D-glucose 225

#### Lactic acid bacteria

Structural characterisation of the exocellular polysaccharide produced by Streptococcus thermophilus OR 901 41

#### Lemnaceae

Detection and homogeneity of cell wall pectic polysaccharides of Lemna minor 205

#### Lemna minor

Detection and homogeneity of cell wall pectic polysaccharides of Lemna minor 205

#### Levoglucosenone

Thiosugars II. A novel approach to thiodisaccharides. The synthesis of 3-deoxy-4-thiocellobiose from levoglucosenone 167

### Light scattering

New molecular weight forms of arabinogalactan from Larix occidentalis 89

#### Linalool

First total synthesis of two new diglycosides, neohancosides A and B, from Cynanchum hancockianum 123

### Lipopolysaccharide

Structure of the O-specific polysaccharide of Salmonella enterica ssp. arizonae O50 (Arizona 9a,9b) 61

Structure of the O18 antigen from Acinetobacter baumannii 187

## Long range heteronuclear coupling constants

NMR experiments for the detection of NOEs and scalar coupling constants between equivalent protons in trehalose-containing molecules 5

### Maillard reaction

Amadori products from model reactions of D-glucose with phosphatidyl ethanolamine — Independent synthesis and identification of 1-deoxy-1-(2-hydroxyethylamino)-p-fructose derivatives 111

#### Melanoma antigen

Chemoenzymatic synthesis of a trimeric ganglioside  $GM_3$  analogue 1 Methyllithium

 $\alpha$ -Hydrogen elimination in some 3- and 4-triflates of  $\alpha$ -D-glycopyranosides 77

### Michael additions

Thiosugars II. A novel approach to thiodisaccharides. The synthesis of 3-deoxy-4-thiocellobiose from levoglucosenone 167

#### Molecular weight

New molecular weight forms of arabinogalactan from Larix occidentalis 89

Subject index V

#### Multivalent

Chemoenzymatic synthesis of a trimeric ganglioside GM3 analogue 1

#### NMR data

Structural characterisation of the exocellular polysaccharide produced by *Streptococcus thermophilus* OR 901 41

#### Non-anomeric

Synthesis of novel amino acid glycoside conjugates 145

#### O18 Antigen, structure

Structure of the O18 antigen from Acinetobacter baumannii 187 Oral antithrombotic activity

Synthesis of 4-cyanophenyl 2-azido-2-deoxy- and 3-azido-3-deoxy-1,5-dithio- $\beta$ -D-xylopyranosides 23

#### Pectic polysaccharides

Detection and homogeneity of cell wall pectic polysaccharides of Lemna minor 205

#### Pectic substances

Extraction of pectic substances from dehulled rapeseed 177

#### **Pharmacokinetics**

Development of an immunoassay for larch arabinogalactan and its use in the detection of larch arabinogalactan in rat blood 69

#### Phosphatidyl ethanolamine

Amadori products from model reactions of D-glucose with phosphatidyl ethanolamine — Independent synthesis and identification of 1-deoxy-1-(2-hydroxyethylamino)-D-fructose derivatives 111

#### Piceid

Synthesis of biologically active polyphenolic glycosides (combretastatin and resveratrol series) 95

#### Polyphenolic glucosides

Synthesis of biologically active polyphenolic glycosides (combretastatin and resveratrol series) 95

#### Polysaccharide

Structure of the <sup>13</sup>C-enriched *O*-deacetylated glucuronoxylomannan of *Cryptococcus neoformans* serotype A determined by NMR spectroscopy 33

### Proton 1,2-shift

 $\alpha$ -Hydrogen elimination in some 3- and 4-triflates of  $\alpha$ -D-glycopyranosides 77

## Rapeseed

Extraction of pectic substances from dehulled rapeseed 177 Resveratrol 3-β-D-glucoside

Synthesis of biologically active polyphenolic glycosides (combretastatin and resveratrol series) 95

### Salmonella enterica ssp. arizonae

Structure of the O-specific polysaccharide of Salmonella enterica ssp. arizonae O50 (Arizona 9a,9b) 61

#### Scaling law

Dielectric analysis of food polysaccharides in aqueous solution 51

#### Selective pulses

NMR experiments for the detection of NOEs and scalar coupling constants between equivalent protons in trehalose-containing molecules 5

#### $\alpha$ -(2 $\rightarrow$ 3)-Sialyltransferase

Chemoenzymatic synthesis of a trimeric ganglioside GM<sub>3</sub> analogue 1 PECT

Synthesis of iodobenzylidene and iodoethylidene acetals of p-glucose 225

#### Streptococcus thermophilus

Structural characterisation of the exocellular polysaccharide produced by Streptococcus thermophilus OR 901 41

#### Succinimide

Synthesis of novel amino acid glycoside conjugates 145

#### Sugar disulfide

A simple synthesis of sugar disulfides using tetrathiomolybdate as a sulfur-transfer reagent 221

#### Sulfur-transfer reagent

A simple synthesis of sugar disulfides using tetrathiomolybdate as a sulfur-transfer reagent 221

#### Symmetry

NMR experiments for the detection of NOEs and scalar coupling constants between equivalent protons in trehalose-containing molecules 5

#### Terpene diglycosides

First total synthesis of two new diglycosides, neohancosides A and B, from Cynanchum hancockianum 123

#### Tetrathiomolybdate

A simple synthesis of sugar disulfides using tetrathiomolybdate as a sulfur-transfer reagent 221

#### Thermodynamics

Thermodynamics of the hydrolysis and cyclization reactions of  $\alpha$ -,  $\beta$ -, and  $\gamma$ -cyclodextrin 11

#### Thioglycosides

Synthesis of 4-cyanophenyl 2-azido-2-deoxy- and 3-azido-3-deoxy-1,5-dithio- $\beta$ -D-xylopyranosides 23

#### Thiosugars

Thiosugars II. A novel approach to thiodisaccharides. The synthesis of 3-deoxy-4-thiocellobiose from levoglucosenone 167

### Trehalose

NMR experiments for the detection of NOEs and scalar coupling constants between equivalent protons in trehalose-containing molecules 5

## Triflate

 $\alpha$ -Hydrogen elimination in some 3- and 4-triflates of  $\alpha$ -D-glyco-pyranosides 77

### Unsaturation

 $\alpha ext{-Hydrogen}$  elimination in some 3- and 4-triflates of  $\alpha ext{-D-glyco-pyranosides}$  77