

Subject Index of Volume 332

2-Acetamido-2-deoxy-D-galacturonic acid

Structure of the O-specific polysaccharide of *Vibrio cholerae* O9 containing 2-acetamido-2-deoxy-D-galacturonic acid 279

Acidic extracellular polysaccharide

β -Elimination of glucosyluronic residues during methylation of an acidic polysaccharide from *Erwinia chrysanthemi* CU 643 317

Adenophostin

Xylopyranoside-based agonists of D-*myo*-inositol 1,4,5-trisphosphate receptors: synthesis and effect of stereochemistry on biological activity 53

ADEPT strategy

2-Nitro and 4-nitro-quinone-methides are not irreversible inhibitors of bovine β -glucuronidase 151

Allyl glycoside

Synthesis of propyl and 2-aminoethyl glycosides of α -D-galactosyl-(1 \rightarrow 3')- β -lactoside 363

Allyl glycosides

LiBF₄-mediated C-glycosylation of glycals with allyltrimethylsilane: a facile synthesis of allyl C-glycosylic compounds 221

Allyloxymethylmagnesium chloride

Homologation of methyl 2-azido- and 2-acetamido-3,4-di-O-benzyl-2-deoxy-D-hexopyranosides with allyloxymethylmagnesium chloride 225

Alternan

Enzymic α -galactosylation of a cyclic glucotetrasaccharide derived from alternan 299

The hydrolytic and transferase action of alternanase on oligosaccharides 373

Alternanase

The hydrolytic and transferase action of alternanase on oligosaccharides 373

Anion exchange

Metal ion coordination of macromolecular bioligands: formation of zinc(II) complex of hyaluronic acid 197

Anticoagulant activities

Anticoagulant properties of dextranmethylcarboxylate benzylamide sulfate (DMCBSu); a new generation of bioactive functionalized dextran 75

Antiviral agents

Synthesis of a carbocyclic sialic acid analogue for the inhibition of influenza virus neuraminidase 23

Aqueous micelles

Sugar-based anionic surfactants: synthesis and micelle formation of sodium methyl 2-acylamido-2-deoxy-6-O-sulfo-D-glucopyranosides 95

Arabinogalactan

Structural elucidation of a new arabinogalactan from the leaves of *Nerium indicum* 109

Ascorbate

Characteristics of xyloglucan after attack by hydroxyl radicals 389

Biosynthesis

Density-labelling of cell wall polysaccharides in cultured rose cells: comparison of incorporation of ²H and ¹³C from exogenous glucose 175

Bromophenol

Crystal structures of cyclomaltohexaose (α -cyclodextrin) complexes with *p*-bromophenol and *m*-bromophenol 235

Caesium trifluoroacetate (CsTFA™)

Density-labelling of cell wall polysaccharides in cultured rose cells: comparison of incorporation of ²H and ¹³C from exogenous glucose 175

Capillary electrophoresis

Determination of carbohydrates as their *p*-sulfophenylhydrazones by capillary zone electrophoresis 191

Carbocyclization

Free-radical mediated synthesis of enantiomerically pure, highly functionalized inositols from carbohydrates 341

Carbohydrate

Determination of carbohydrates as their *p*-sulfophenylhydrazones by capillary zone electrophoresis 191

Carbohydrates

Di-*tert*-butyl diethylphosphoramidite as the phosphitylating reagent in the preparation of 3-deoxy-3-*C*-methylene-D-ribohexose-6-phosphate and 3-deoxy-3-*C*-methylene-D-erythro-pentose-5-phosphate 141

Free-radical mediated synthesis of enantiomerically pure, highly functionalized inositols from carbohydrates 341

Sonochemistry of carbohydrate compounds 115

Cassia angustifolia

Structure of a galactomannan from the seeds of *Cassia angustifolia* Vahl 439

4-C-Branched monosaccharide

A general route to 4-*C*-branched sugars. Synthesis of methyl α -caryophylloside 241

C- α -D-Mannosyl compound

Synthesis of C-mannopyranosylphloroacetophenone derivatives and their anomerization 103

C- β -D-Mannosyl compound

Synthesis of C-mannopyranosylphloroacetophenone derivatives and their anomerization 103

Cellulose-column chromatography

Rapid and simple preparation of N-linked oligosaccharides by cellulose-column chromatography 381

C-Glycoside

Synthesis of C-mannopyranosylphloroacetophenone derivatives and their anomerization 103

C-Glycosylation

LiBF₄-mediated C-glycosylation of glycals with allyltrimethylsilane: a facile synthesis of allyl C-glycosylic compounds 221

C-Glycosylflavonoid

Synthesis of C-mannopyranosylphloroacetophenone derivatives and their anomerization 103

C-Glycosylic compound

Synthesis of C-mannopyranosylphloroacetophenone derivatives and their anomerization 103

Channel packing

Structure of the complex of β -cyclodextrin with β -naphthyloxyacetic acid in the solid state and in aqueous solution 85

- Chitin
Concurrent production of chitin from shrimp shells and fungi 305
- Chondroitin
Synthesis of linear-type chondroitin clusters having a C₈ spacer between disaccharide moieties and enzymatic transfer of D-glucuronic acid to the artificial glycans 41
- CH₂OR group
Synthesis of D-xylopyranan by the ring-opening polymerization of 3-*O*-benzyl- α -D-xylopyranose 1,2,4-orthopivalate. Attempts to synthesize a stereoregular polymer 405
- C- α -L-Rhamnosyl compound
Synthesis of C-mannopyranosylphloroacetophenone derivatives and their anomerization 103
- C- β -L-Rhamnosyl compound
Synthesis of C-mannopyranosylphloroacetophenone derivatives and their anomerization 103
- Conformation
Synthesis of C-mannopyranosylphloroacetophenone derivatives and their anomerization 103
- Conformational analysis
Structural and immunological studies of a major polysaccharide from spores of *Ganoderma lucidum* (Fr.) Karst 67
- Copper chelate
Regioselective C-3-*O*-acylation and *O*-methylation of 4,6-*O*-benzylidene- β -D-glucosyl- and galactopyranosides displaying a range of anomeric substituents 157
- Crystal structure
Crystal structures of cyclomaltohexaose (α -cyclodextrin) complexes with *p*-bromophenol and *m*-bromophenol 235
- Crystal structures
Structure of the complex of β -cyclodextrin with β -naphthoxyacetic acid in the solid state and in aqueous solution 85
- Cyclic oligosaccharide
Enzymic α -galactosylation of a cyclic glucotetrasaccharide derived from alternan 299
The hydrolytic and transferase action of alternanase on oligosaccharides 373
- Cyclodextrin
Crystal structures of cyclomaltohexaose (α -cyclodextrin) complexes with *p*-bromophenol and *m*-bromophenol 235
- β -Cyclodextrin
Structure of the complex of β -cyclodextrin with β -naphthoxyacetic acid in the solid state and in aqueous solution 85
- Cytotoxicity
Concurrent production of chitin from shrimp shells and fungi 305
- Degradation
Construction of multivalent sialyl Le^x from the type Ia group B *Streptococcus* capsular polysaccharide 249
- Density-labelling
Density-labelling of cell wall polysaccharides in cultured rose cells: comparison of incorporation of ²H and ¹³C from exogenous glucose 175
- 2-Deoxy-arabino-D-hexuronic acid
Structure of a polysaccharide from a *Rhizobium* species containing 2-deoxy- β -D-arabino-hexuronic acid 167
- 6-Deoxymannojirimycin
Synthesis and structure determination of some sugar amino acids related to alanine and 6-deoxymannojirimycin 351
- Deoxy sugar
A general route to 4-*C*-branched sugars. Synthesis of methyl α -caryophylloside 241
- Dextran derivatives
Anticoagulant properties of dextranmethylcarboxylate benzylamide sulfate (DMCBSu); a new generation of bioactive functionalized dextran 75
- Diastereoisomerism
Synthesis of C-mannopyranosylphloroacetophenone derivatives and their anomerization 103
- Diiodosamarium
A general route to 4-*C*-branched sugars. Synthesis of methyl α -caryophylloside 241
- α -D-Mannopyranoside
Synthesis and hypolipidemic activity of *N*-phthalimidomethyl tetra-*O*-acyl- α -D-mannopyranosides 335
- Doxorubicin
2-Nitro and 4-nitro-quinone-methides are not irreversible inhibitors of bovine β -glucuronidase 151
- β -Elimination
 β -Elimination of glucosyluronic residues during methylation of an acidic polysaccharide from *Erwinia chrysanthemi* CU 643 317
- Endotoxin
Synthesis of GLA-60 type pyran carboxylic acids with an alkyl chain instead of an ester chain as LPS-antagonists 257
- Enzymatic glycosylation
Construction of multivalent sialyl Le^x from the type Ia group B *Streptococcus* capsular polysaccharide 249
- Enzyme inhibitors
Di-*tert*-butyl diethylphosphoramidite as the phosphitylating reagent in the preparation of 3-deoxy-3-*C*-methylene-D-ribohexose-6-phosphate and 3-deoxy-3-*C*-methylene-D-erythro-pentose-5-phosphate 141
- Extracellular polysaccharide
Structure of a polysaccharide from a *Rhizobium* species containing 2-deoxy- β -D-arabino-hexuronic acid 167
- Extra stabilization
Metal ion coordination of macromolecular bioligands: formation of zinc(II) complex of hyaluronic acid 197
- Fermentation
Concurrent production of chitin from shrimp shells and fungi 305
- Free-radicals
Free-radical mediated synthesis of enantiomerically pure, highly functionalized inositols from carbohydrates 341
- Fungi
Concurrent production of chitin from shrimp shells and fungi 305
- Fungus
Structural and immunological studies of a major polysaccharide from spores of *Ganoderma lucidum* (Fr.) Karst 67
- Galactomannan
Structure of a galactomannan from the seeds of *Cassia angustifolia* Vahl 439
- Galactopyranose
Structure of a galactomannan from the seeds of *Cassia angustifolia* Vahl 439
- Galactose derivatives
Molecular and crystal structures of *N*-aryl- β -D-glycopyranosylamines from mannose and galactose 415
- α -Galactosidase
Enzymic α -galactosylation of a cyclic glucotetrasaccharide derived from alternan 299
- α -Galactosylation
Synthesis of propyl and 2-aminoethyl glycosides of α -D-galactosyl-(1 \rightarrow 3')- β -lactoside 363
- Gal(1,3)Gal epitope
Synthesis of propyl and 2-aminoethyl glycosides of α -D-galactosyl-(1 \rightarrow 3')- β -lactoside 363
- Ganoderma lucidum*
Structural and immunological studies of a major polysaccharide from spores of *Ganoderma lucidum* (Fr.) Karst 67

β -Glucuronidase

2-Nitro and 4-nitro-quinone-methides are not irreversible inhibitors of bovine β -glucuronidase 151

Glycocluster

Synthesis of linear-type chondroitin clusters having a C₈ spacer between disaccharide moieties and enzymatic transfer of D-glucuronic acid to the artificial glycans 41

Glycocusters

Synthetic studies on dendritic glycocusters: a convergent palladium-catalyzed strategy 215

Glycoprotein

Rapid and simple preparation of N-linked oligosaccharides by cellulose-column chromatography 381

Glycosulose residues

Characteristics of xyloglucan after attack by hydroxyl radicals 389

Glycosylamines

Molecular and crystal structures of *N*-aryl- β -D-glycopyranosylamines from mannose and galactose 415

Glycosyl transfer

Synthesis of linear-type chondroitin clusters having a C₈ spacer between disaccharide moieties and enzymatic transfer of D-glucuronic acid to the artificial glycans 41

Group B streptococcal polysaccharide

Construction of multivalent sialyl Le^x from the type Ia group B *Streptococcus* capsular polysaccharide 249

Hemicellulose

Characteristics of xyloglucan after attack by hydroxyl radicals 389

¹H NMR spectroscopy

Structure of the complex of β -cyclodextrin with β -naphthoxyacetic acid in the solid state and in aqueous solution 85

Homogeneous and heterogeneous media

Sonochemistry of carbohydrate compounds 115

Homologation reaction

Homologation of methyl 2-azido- and 2-acetamido-3,4-di-*O*-benzyl-2-deoxy-D-hexopyranosides with allyloxymethylmagnesium chloride 225

Hyaluronic acid fragments

Metal ion coordination of macromolecular bioligands: formation of zinc(II) complex of hyaluronic acid 197

Hydantoins, Alanine

Synthesis and structure determination of some sugar amino acids related to alanine and 6-deoxymannojirimycin 351

Hydrogen bonding

Molecular and crystal structures of *N*-aryl- β -D-glycopyranosylamines from mannose and galactose 415

Immunological activities

Structural and immunological studies of a major polysaccharide from spores of *Ganoderma lucidum* (Fr.) Karst 67

Inclusion compound

Structure of the complex of β -cyclodextrin with β -naphthoxyacetic acid in the solid state and in aqueous solution 85

Inositols

Free-radical mediated synthesis of enantiomerically pure, highly functionalized inositols from carbohydrates 341

iso-Globo trisaccharide

Synthesis of propyl and 2-aminoethyl glycosides of α -D-galactosyl-(1 \rightarrow 3')- β -lactoside 363

Isomaltose

The hydrolytic and transferase action of alternanase on oligosaccharides 373

Isopycnic centrifugation

Density-labelling of cell wall polysaccharides in cultured rose cells: comparison of incorporation of ²H and ¹³C from exogenous glucose 175

Kinetics

Transglucosidation of methyl and ethyl D-glucofuranosides by alcoholysis 33

Linear-type glycocluster

Synthesis of linear-type chondroitin clusters having a C₈ spacer between disaccharide moieties and enzymatic transfer of D-glucuronic acid to the artificial glycans 41

Lipid A

Synthesis of GLA-60 type pyran carboxylic acids with an alkyl chain instead of an ester chain as LPS-antagonists 257

Lipopolysaccharide

Structure of the O-specific polysaccharide of *Vibrio cholerae* O9 containing 2-acetamido-2-deoxy-D-galacturonic acid 279

Lithium tetrafluoroborate

LiBF₄-mediated C-glycosylation of glycals with allyltrimethylsilane: a facile synthesis of allyl C-glycosylic compounds 221

LPS-antagonist

Synthesis of GLA-60 type pyran carboxylic acids with an alkyl chain instead of an ester chain as LPS-antagonists 257

MALDI-TOF MS

Structural analyses of two arabinose containing oligosaccharides derived from olive fruit xyloglucan: XXSG and XLSG 285

ManNAc derivatives

Synthesis of C-3 nitrogen-containing derivatives of *N*-acetyl- α , β -D-mannosamine as substrates for *N*-acetylneuraminic acid aldolase 133

Mannopyranose

Structure of a galactomannan from the seeds of *Cassia angustifolia* Vahl 439

Mannose derivatives

Molecular and crystal structures of *N*-aryl- β -D-glycopyranosylamines from mannose and galactose 415

Mechanistic studies

Transglucosidation of methyl and ethyl D-glucofuranosides by alcoholysis 33

Methyl 2-acetamido-3,4-di-*O*-benzyl-2-deoxy- α - and - β -D-*gluco*-heptopyranosides

Homologation of methyl 2-azido- and 2-acetamido-3,4-di-*O*-benzyl-2-deoxy-D-hexopyranosides with allyloxymethylmagnesium chloride 225

Methylation

β -Elimination of glucosyluronic residues during methylation of an acidic polysaccharide from *Erwinia chrysanthemi* CU 643 317
Regioselective C-3-*O*-acylation and *O*-methylation of 4,6-*O*-benzylidene- β -D-*gluco*- and galactopyranosides displaying a range of anomeric substituents 157

Methyl 2-azido-3,4-di-*O*-benzyl-2-deoxy- α -, - β -D-*gluco*- and - α -D-*manno*-heptopyranosides

Homologation of methyl 2-azido- and 2-acetamido-3,4-di-*O*-benzyl-2-deoxy-D-hexopyranosides with allyloxymethylmagnesium chloride 225

Methyl L α D- and D α D-*manno*-heptosides

From methyl mannosides to methyl octosides by a stepwise homologation with Grignard C₁ reagents 429

Methyl 5-*O*-benzyl-2,3-*O*-isopropylidene- α -D-*manno*-hexodialdo-1,4-furanoside

From methyl mannosides to methyl octosides by a stepwise homologation with Grignard C₁ reagents 429

Methyl 4-*O*-benzyl-2,3-*O*-isopropylidene- α -D-*manno*-hexodialdo-1,5-pyranoside

From methyl mannosides to methyl octosides by a stepwise homologation with Grignard C₁ reagents 429

Methyl octosides

From methyl mannosides to methyl octosides by a stepwise homologation with Grignard C₁ reagents 429

Methyl 2,3-*O*-isopropylidene-hexofuranosid-5-uloses

Synthesis and structure determination of some sugar amino acids related to alanine and 6-deoxymannojirimycin 351

Monosaccharides, structure

Molecular and crystal structures of *N*-aryl- β -D-glycopyranosylamines from mannose and galactose 415

Multivalent sialyl Le^x

Construction of multivalent sialyl Le^x from the type Ia group B *Streptococcus* capsular polysaccharide 249

myo-Inositol

Xylopyranoside-based agonists of D-*myo*-inositol 1,4,5-trisphosphate receptors: synthesis and effect of stereochemistry on biological activity 53

N-Acetylneuraminic acid

Synthesis of C-3 nitrogen-containing derivatives of *N*-acetyl- α , β -D-mannosamine as substrates for *N*-acetylneuraminic acid aldolase 133

 β -Naphthylxyacetic acid

Structure of the complex of β -cyclodextrin with β -naphthylxyacetic acid in the solid state and in aqueous solution 85

Nerium indicum

Structural elucidation of a new arabinogalactan from the leaves of *Nerium indicum* 109

Neu5Ac aldolase

Synthesis of C-3 nitrogen-containing derivatives of *N*-acetyl- α , β -D-mannosamine as substrates for *N*-acetylneuraminic acid aldolase 133

N-Hydroxymethylphthalimide

Synthesis and hypolipidemic activity of *N*-phthalimidomethyl tetra-*O*-acyl- α -D-mannopyranosides 335

NMR spectroscopy

Structural analyses of two arabinose containing oligosaccharides derived from olive fruit xyloglucan: XXSG and XLSG 285

Non-enzymic scission

Characteristics of xyloglucan after attack by hydroxyl radicals 389

O-Acetyl groups

Structural analyses of two arabinose containing oligosaccharides derived from olive fruit xyloglucan: XXSG and XLSG 285

Oleander

Structural elucidation of a new arabinogalactan from the leaves of *Nerium indicum* 109

Oligosaccharide phosphate fraction

Large-scale preparation of the oligosaccharide phosphate fraction of *Pichia holstii* NRRL Y-2448 phosphomannan for use in the manufacture of PI-88 183

Oligosaccharides

A facile and effective synthesis of α -(1 \rightarrow 6)-linked mannose di-, tri-, tetra-, hexa-, octa-, and dodecasaccharides, and β -(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 1

Structural analyses of two arabinose containing oligosaccharides derived from olive fruit xyloglucan: XXSG and XLSG 285

Oligosaccharide synthesis

Construction of multivalent sialyl Le^x from the type Ia group B *Streptococcus* capsular polysaccharide 249

Olive fruit

Structural analyses of two arabinose containing oligosaccharides derived from olive fruit xyloglucan: XXSG and XLSG 285

One-pot synthesis

Regioselective C-3-*O*-acylation and *O*-methylation of 4,6-*O*-benzylidene- β -D-glucopyranosides displaying a range of anomeric substituents 157

Oral antithrombotic activity

Conversion of 2,6-anhydro-D-altrose and -mannose derivatives

with 4-substituted phenyl thiols to prepare compounds with potential antithrombotic activity 325

1,2,4-Orthopivalates

Synthesis of D-xylopyranan by the ring-opening polymerization of 3-*O*-benzyl- α -D-xylopyranose 1,2,4-orthopivalate. Attempts to synthesize a stereoregular polymer 405

O,*S*-Monothiohemiacetals

Conversion of 2,6-anhydro-D-altrose and -mannose derivatives with 4-substituted phenyl thiols to prepare compounds with potential antithrombotic activity 325

O-Specific polysaccharide structures

Structure of the *O*-specific polysaccharide of *Vibrio cholerae* O9 containing 2-acetamido-2-deoxy-D-galacturonic acid 279

Ozonolysis

Synthesis of propyl and 2-aminoethyl glycosides of α -D-galactosyl-(1 \rightarrow 3')- β -lactoside 363

p-Amino benzoic acid ethyl ester

Rapid and simple preparation of N-linked oligosaccharides by cellulose-column chromatography 381

Panose

The hydrolytic and transferase action of alternanase on oligosaccharides 373

Pd-catalyzed reactions

Synthetic studies on dendritic glycoclusters: a convergent palladium-catalyzed strategy 215

(Phenyldimethylsilyl)methylmagnesium chloride

Homologation of methyl 2-azido- and 2-acetamido-3,4-di-*O*-benzyl-2-deoxy-D-hexopyranosides with allyloxymethylmagnesium chloride 225

Phosphomannan

Large-scale preparation of the oligosaccharide phosphate fraction of *Pichia holstii* NRRL Y-2448 phosphomannan for use in the manufacture of PI-88 183

Phosphoric acids and derivatives

Di-*tert*-butyl diethylphosphoramidite as the phosphitylating reagent in the preparation of 3-deoxy-3-*C*-methylene-D-ribohexose-6-phosphate and 3-deoxy-3-*C*-methylene-D-erythro-pentose-5-phosphate 141

Phosphorylation

Di-*tert*-butyl diethylphosphoramidite as the phosphitylating reagent in the preparation of 3-deoxy-3-*C*-methylene-D-ribohexose-6-phosphate and 3-deoxy-3-*C*-methylene-D-erythro-pentose-5-phosphate 141

p-Hydrazinobenzenesulfonic acid

Determination of carbohydrates as their *p*-sulfophenylhydrazones by capillary zone electrophoresis 191

Physical principles

Sonochemistry of carbohydrate compounds 115

PI-88

Large-scale preparation of the oligosaccharide phosphate fraction of *Pichia holstii* NRRL Y-2448 phosphomannan for use in the manufacture of PI-88 183

Pichia holstii

Large-scale preparation of the oligosaccharide phosphate fraction of *Pichia holstii* NRRL Y-2448 phosphomannan for use in the manufacture of PI-88 183

Plant cell wall

Characteristics of xyloglucan after attack by hydroxyl radicals 389

Polysaccharide

Structural elucidation of a new arabinogalactan from the leaves of *Nerium indicum* 109

Polysaccharides

Anticoagulant properties of dextranmethylcarboxylate benzylamide sulfate (DMCBSu); a new generation of bioactive functionalized dextran 75

Practical references

Sonochemistry of carbohydrate compounds 115

Precolumn derivatization

Determination of carbohydrates as their *p*-sulfophenylhydrazones by capillary zone electrophoresis 191

Propargyl glycosides

Synthetic studies on dendritic glycoclusters: a convergent palladium-catalyzed strategy 215

Quantitation of sugars

Analysis of mono- and oligosaccharides by multiwavelength surface plasmon resonance (SPR) spectroscopy 209

Quinone-methide

2-Nitro and 4-nitro-quinone-methides are not irreversible inhibitors of bovine β -glucuronidase 151

Random functionalization

Anticoagulant properties of dextranmethylcarboxylate benzylamide sulfate (DMCBSu); a new generation of bioactive functionalized dextran 75

Regio- and stereoselective synthesis

A facile and effective synthesis of α -(1 \rightarrow 6)-linked mannose di-, tri-, tetra-, hexa-, octa-, and dodecasaccharides, and β -(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 1

Regioselective acylation

Regioselective C-3-*O*-acylation and *O*-methylation of 4,6-*O*-benzylidene- β -D-glucopyranosides displaying a range of anomeric substituents 157

Rhizobium sp.

Structure of a polysaccharide from a *Rhizobium* species containing 2-deoxy- β -D-*arabino*-hexuronic acid 167

Ring-opening polymerization

Synthesis of D-xylopyranan by the ring-opening polymerization of 3-*O*-benzyl- α -D-xylopyranose 1,2,4-orthopivalate. Attempts to synthesize a stereoregular polymer 405

Saccharide identification

Analysis of mono- and oligosaccharides by multiwavelength surface plasmon resonance (SPR) spectroscopy 209

Selective protection

Xylopyranoside-based agonists of D-*myo*-inositol 1,4,5-trisphosphate receptors: synthesis and effect of stereochemistry on biological activity 53

Shikimic acid

Synthesis of a carbocyclic sialic acid analogue for the inhibition of influenza virus neuraminidase 23

Shrimp shells

Concurrent production of chitin from shrimp shells and fungi 305

Sialic acid

Synthesis of a carbocyclic sialic acid analogue for the inhibition of influenza virus neuraminidase 23

Synthesis of C-3 nitrogen-containing derivatives of *N*-acetyl- α , β -D-mannosamine as substrates for *N*-acetylneuraminic acid aldolase 133

Size-exclusion gel chromatography

Metal ion coordination of macromolecular bioligands: formation of zinc(II) complex of hyaluronic acid 197

Sodium methyl 2-acylamido-2-deoxy-6-*O*-sulfo-D-glucopyranosides

Sugar-based anionic surfactants: synthesis and micelle formation of sodium methyl 2-acylamido-2-deoxy-6-*O*-sulfo-D-glucopyranosides 95

Spacers

Synthesis of linear-type chondroitin clusters having a C₈ spacer between disaccharide moieties and enzymatic transfer of D-glucuronic acid to the artificial glycans 41

Spores

Structural and immunological studies of a major polysaccharide from spores of *Ganoderma lucidum* (Fr.) Karst 67

S,S-Dithioacetals

Conversion of 2,6-anhydro-D-altrose and -mannose derivatives with 4-substituted phenyl thiols to prepare compounds with potential antithrombotic activity 325

Stereoregular (1 \rightarrow 4)- β -D-xylopyranan

Synthesis of D-xylopyranan by the ring-opening polymerization of 3-*O*-benzyl- α -D-xylopyranose 1,2,4-orthopivalate. Attempts to synthesize a stereoregular polymer 405

Structural analysis

Structure of a polysaccharide from a *Rhizobium* species containing 2-deoxy- β -D-*arabino*-hexuronic acid 167

Substituents of C-2 and C-3 positions

Synthesis of D-xylopyranan by the ring-opening polymerization of 3-*O*-benzyl- α -D-xylopyranose 1,2,4-orthopivalate. Attempts to synthesize a stereoregular polymer 405

Sugar acrylates

Synthetic studies on dendritic glycoclusters: a convergent palladium-catalyzed strategy 215

Sugar amino acids

Synthesis and structure determination of some sugar amino acids related to alanine and 6-deoxymannojirimycin 351

Sugar-based surfactants

Sugar-based anionic surfactants: synthesis and micelle formation of sodium methyl 2-acylamido-2-deoxy-6-*O*-sulfo-D-glucopyranosides 95

Sugar sulfates

Sugar-based anionic surfactants: synthesis and micelle formation of sodium methyl 2-acylamido-2-deoxy-6-*O*-sulfo-D-glucopyranosides 95

Surface plasmon resonance (SPR)

Analysis of mono- and oligosaccharides by multiwavelength surface plasmon resonance (SPR) spectroscopy 209

Synthetic methods

Sonochemistry of carbohydrate compounds 115

Thioglycosides

Conversion of 2,6-anhydro-D-altrose and -mannose derivatives with 4-substituted phenyl thiols to prepare compounds with potential antithrombotic activity 325

TNF α production inhibitor

Synthesis of GLA-60 type pyran carboxylic acids with an alkyl chain instead of an ester chain as LPS-antagonists 257

Transglucosylation

Transglucosidation of methyl and ethyl D-glucofuranosides by alcoholysis 33

Transglycosylation

Density-labelling of cell wall polysaccharides in cultured rose cells: comparison of incorporation of ²H and ¹³C from exogenous glucose 175

The hydrolytic and transferase action of alternanase on oligosaccharides 373

Tributyltin hydride

Free-radical mediated synthesis of enantiomerically pure, highly functionalized inositols from carbohydrates 341

Trichloroimidates

A facile and effective synthesis of α -(1 \rightarrow 6)-linked mannose di-, tri-, tetra-, hexa-, octa-, and dodecasaccharides, and β -(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 1

Tri-*O*-acetyl-D-glucal

Synthesis and hypolipidemic activity of *N*-phthalimidomethyl tetra-*O*-acetyl- α -D-mannopyranosides 335

Ultrasound

Sonochemistry of carbohydrate compounds 115

Vibrio cholerae

Structure of the O-specific polysaccharide of *Vibrio cholerae* O9 containing 2-acetamido-2-deoxy-D-galacturonic acid 279

Xenotransplantation

Synthesis of propyl and 2-aminoethyl glycosides of α -D-galactosyl-(1 \rightarrow 3')- β -lactoside 363

X-ray analysis

Synthesis and structure determination of some sugar amino acids related to alanine and 6-deoxymannojirimycin 351

X-ray crystal structure

Molecular and crystal structures of *N*-aryl- β -D-glycopyranosylamines from mannose and galactose 415

X-ray structure

Crystal structures of cyclomaltohexaose (α -cyclodextrin) complexes with *p*-bromophenol and *m*-bromophenol 235

Xyloglucan

Characteristics of xyloglucan after attack by hydroxyl radicals 389

Density-labelling of cell wall polysaccharides in cultured rose cells: comparison of incorporation of ^2H and ^{13}C from exogenous glucose 175

Structural analyses of two arabinose containing oligosaccharides derived from olive fruit xyloglucan: XXSG and XLSG 285

Zinc(II)-hyaluronate complex

Metal ion coordination of macromolecular bioligands: formation of zinc(II) complex of hyaluronic acid 197

Zn-selective electrode

Metal ion coordination of macromolecular bioligands: formation of zinc(II) complex of hyaluronic acid 197