

Subject index

- 1,2
Structure of (\pm)-1,2;4,5-di-*O*-cyclohexylidene *myo*-inositol and synthesis of *myo*-inositol 3-phosphate via its phosphorylation with (2*R*,4*S*,5*R*)-2-chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidin-2-one 43
- Acetylated glycopyranosylaminoguanidines
Cyclization reactions of *N*¹-(glycopyranosylamino)guanidines 229
- Allomorphs
A CP/MAS ¹³C NMR investigation of molecular ordering in celluloses 19
- All-*trans* zigzag conformation
Non-mesogenic crystal structure of a synthetic 1-D-glucosamide bolaamphiphile 139
- 1-Amino-1-deoxy-L-arabinitol, protected derivatives
Synthesis and condensation reactions of 1-amino-1-deoxy-2,3,4-tri-*O*-methyl-5-*O*-[(pentachlorophenoxy)phthaloyl]-L-arabinitol 241
- Aminoguanidine
Cyclization reactions of *N*¹-(glycopyranosylamino)guanidines 229
- Amphibian
Primary structure of seven sulfated oligosaccharide-alditols released by reductive β -elimination from oviducal mucins of *Rana temporaria*. Characterization of the sequence HSO₃(3)GlcA(β 1-3)Gal 179
- 4-Azido-4-deoxy-5-thio-D-xylose derivatives
Synthesis of 4-cyanophenyl 4-azido-4-deoxy-1,5-dithio- β -D-xylopyranoside 149
- Aziridine
Modifications under basic conditions of the minor sequences of heparin containing 2,3 or 2,3,6 sulfated D-glucosamine residues 103
- B-cell differentiation
Differential release of proteoglycans during human B lymphocyte maturation 85
- Benzylated aldonoalactones
Benzylation of aldonoalactones with benzyl trichloroacetimidate 109
- Benzyl trichloroacetimidate
Benzylation of aldonoalactones with benzyl trichloroacetimidate 109
- Capsular polysaccharide
The structure of the capsular polysaccharide from *Klebsiella* type 52, using the computerised approach CASPER and NMR spectroscopy 79
- Carboxymethylation
Distribution of substituents in *O*-carboxymethyl and *O*-cyanoethyl ethers of inulin 203
- CASPER
The structure of the capsular polysaccharide from *Klebsiella* type 52, using the computerised approach CASPER and NMR spectroscopy 79
- Cellulose
A CP/MAS ¹³C NMR investigation of molecular ordering in celluloses 19
- Chiral inositol
Synthesis of optically active *myo*-inositol derivatives starting from phytic acid 163
- Chitin
Formation and characterisation of a physical chitin gel 169
- Chitoooligosaccharides
Gram-scale synthesis of recombinant chitoooligosaccharides in *Escherichia coli* 35
- Chitosan
Chitosan *N*-sulfate. A water-soluble polyelectrolyte 7
- ¹³C NMR spectroscopy
Distribution of substituents in *O*-carboxymethyl and *O*-cyanoethyl ethers of inulin 203
- Conformation
The crystal and molecular structures of 4-cyanophenyl 1,5-dithio- β -D-xylopyranoside S-5 oxide and 4-ethyl-2-oxo-2*H*-1-benzopyran-7-yl 5-thio- β -D-xylopyranoside S-5 oxide 53
- CP/MAS ¹³C NMR
A CP/MAS ¹³C NMR investigation of molecular ordering in celluloses 19
- Crystal structure
Non-mesogenic crystal structure of a synthetic 1-D-glucosamide bolaamphiphile 139
- Structure of (\pm)-1,2;4,5-di-*O*-cyclohexylidene *myo*-inositol and synthesis of *myo*-inositol 3-phosphate via its phosphorylation with (2*R*,4*S*,5*R*)-2-chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidin-2-one 43
- The crystal and molecular structures of 4-cyanophenyl 1,5-dithio- β -D-xylopyranoside S-5 oxide and 4-ethyl-2-oxo-2*H*-1-benzopyran-7-yl 5-thio- β -D-xylopyranoside S-5 oxide 53
- Cyanoethylation
Distribution of substituents in *O*-carboxymethyl and *O*-cyanoethyl ethers of inulin 203
- Cyclodextrins
Direct preparation of cyclodextrin monophosphates 27
- Degree of acetylation
Formation and characterisation of a physical chitin gel 169
- Density
Interaction mechanism in sol-gel transition of alginate solutions by addition of divalent cations 97
- 6-Deoxy-6-*C*-sulfo-D-gluconic acid
Sulfoquinovose and its aldonic acid: their preparation and oxidation to 2-sulfoacetaldehyde by periodate 113
- 6-Deoxy-6-*C*-sulfo-D-glucopyranose
Sulfoquinovose and its aldonic acid: their preparation and oxidation to 2-sulfoacetaldehyde by periodate 113
- 4-Deoxy-L-*threo*-hex-4-enopyranosyluronic acid
The contribution to kappa number from hexeneuronic acid groups in pulp xylan 213
- 2,5-Diketo-D-*threo*-hexonic acid (2,5-diketo-D-gluconic acid)
Regio- and stereo-selectivity in homogeneous catalytic hydrogenation of 2,5-diketo-D-*threo*-hexonic acid 245
- 4,5-Di-*O*-cyclohexylidene *myo*-inositol
Structure of (\pm)-1,2;4,5-di-*O*-cyclohexylidene *myo*-inositol and synthesis of *myo*-inositol 3-phosphate via its phosphorylation with (2*R*,4*S*,5*R*)-2-chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidin-2-one 43
- Direct preparation
Direct preparation of cyclodextrin monophosphates 27

Disaccharide complexes

Synthesis and characterization of oxovanadium(IV) complexes with saccharides 131

Egg jelly coat

Primary structure of seven sulfated oligosaccharide-alditols released by reductive β -elimination from oviducal mucins of *Rana temporaria*. Characterization of the sequence HSO₃(3)GlcA(β 1-3)Gal 179

Electronic spectra

Synthesis and characterization of oxovanadium(IV) complexes with saccharides 131

Enzyme purification

The alkaline xylanase III from *Fusarium oxysporum* F3 belongs to family F/10 191

Enzymic deacylations

Synthesis of acylated methyl β -D-xylopyranosides and their enzymic deacylations by rabbit serum esterases 13

4,5-Epithio-D-xylose and 5-azido-5-deoxy-4-thio-D-xylose derivatives

Synthesis of 4-cyanophenyl 4-azido-4-deoxy-1,5-dithio- β -D-xylopyranoside 149

Esters

Direct preparation of cyclodextrin monophosphates 27

Etherification

Distribution of substituents in *O*-carboxymethyl and *O*-cyanoethyl ethers of inulin 203

Exopolysaccharide

Lactobacillus helveticus Lh59 secretes an exopolysaccharide that is identical to the one produced by *Lactobacillus helveticus* TN-4, a presumed spontaneous mutant of *Lactobacillus helveticus* TY1-2 197

Fusarium oxysporum

The alkaline xylanase III from *Fusarium oxysporum* F3 belongs to family F/10 191

Ganglioside

Synthesis of 6'-GM2, a regioisomer of ganglioside GM2, for studying the mechanism of action of GM2 activator 223

Gelation

Formation and characterisation of a physical chitin gel 169

1-Glucosamide bolaamphiphile

Non-mesogenic crystal structure of a synthetic 1-D-glucosamide bolaamphiphile 139

Glycal

A regio- and stereo-selective introduction of azide at C-4 of 2,3-unsaturated *N*-acetylneuraminic acids 237

Glycosaminoglycans

The crystal and molecular structures of 4-cyanophenyl 1,5-dithio- β -D-xylopyranoside S-5 oxide and 4-ethyl-2-oxo-2*H*-1-benzopyran-7-yl 5-thio- β -D-xylopyranoside S-5 oxide 53

Glycosidation reactions

Synthesis of 4-cyanophenyl 4-azido-4-deoxy-1,5-dithio- β -D-xylopyranoside 149

GM2 activator

Synthesis of 6'-GM2, a regioisomer of ganglioside GM2, for studying the mechanism of action of GM2 activator 223

Gradient-enhanced NMR experiments

Isolation and structure elucidation of a highly haemolytic saponin from the Merck saponin extract using high-field gradient-enhanced NMR techniques 67

Haemolytic saponins

Isolation and structure elucidation of a highly haemolytic saponin from the Merck saponin extract using high-field gradient-enhanced NMR techniques 67

Heparin

Modifications under basic conditions of the minor sequences of

heparin containing 2,3 or 2,3,6 sulfated D-glucosamine residues 103
L-threo-Hex-2-enono-1,4-lactone (L-ascorbic acid, vitamin C)

Regio- and stereo-selectivity in homogeneous catalytic hydrogenation of 2,5-diketo-D-threo-hexonic acid 245

High cell density culture

Gram-scale synthesis of recombinant chitoooligosaccharides in *Escherichia coli* 35

Hydrogen bonding

Structure of (\pm)-1,2,4,5-di-*O*-cyclohexylidene *myo*-inositol and synthesis of *myo*-inositol 3-phosphate via its phosphorylation with (2*R*,4*S*,5*R*)-2-chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidin-2-one 43

Hydrogen-bonding network

Non-mesogenic crystal structure of a synthetic 1-D-glucosamide bolaamphiphile 139

Imidation

Synthesis and condensation reactions of 1-amino-1-deoxy-2,3,4-tri-*O*-methyl-5-*O*-[(pentachlorophenoxy)phthaloyl]-L-arabinitol 241

Inclusion complexes

Effect of methylation of β -cyclodextrin on the formation of inclusion complexes with aromatic compounds. An ionspray mass spectrometry investigation 1

1D-*chiro*-Inositol

A new glycoside, 1D-2-*O*- α -D-galactopyranosyl-*chiro*-inositol from jojoba beans 219

myo-Inositol

Synthesis of optically active *myo*-inositol derivatives starting from phytic acid 163

Inositol glycoside

A new glycoside, 1D-2-*O*- α -D-galactopyranosyl-*chiro*-inositol from jojoba beans 219

Inositol monophosphatase

Structure of (\pm)-1,2,4,5-di-*O*-cyclohexylidene *myo*-inositol and synthesis of *myo*-inositol 3-phosphate via its phosphorylation with (2*R*,4*S*,5*R*)-2-chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidin-2-one 43

Inositol phosphate

Synthesis of optically active *myo*-inositol derivatives starting from phytic acid 163

myo-Inositol 3-phosphate

Structure of (\pm)-1,2,4,5-di-*O*-cyclohexylidene *myo*-inositol and synthesis of *myo*-inositol 3-phosphate via its phosphorylation with (2*R*,4*S*,5*R*)-2-chloro-3,4-dimethyl-5-phenyl-1,3,2-oxazaphospholidin-2-one 43

Intramolecular condensation

Synthesis and condensation reactions of 1-amino-1-deoxy-2,3,4-tri-*O*-methyl-5-*O*-[(pentachlorophenoxy)phthaloyl]-L-arabinitol 241

Inulin

Distribution of substituents in *O*-carboxymethyl and *O*-cyanoethyl ethers of inulin 203

Ionspray mass spectrometry

Effect of methylation of β -cyclodextrin on the formation of inclusion complexes with aromatic compounds. An ionspray mass spectrometry investigation 1

Jojoba beans

A new glycoside, 1D-2-*O*- α -D-galactopyranosyl-*chiro*-inositol from jojoba beans 219

Kappa number

The contribution to kappa number from hexeneuronic acid groups in pulp xylan 213

Klebsiella type 52

The structure of the capsular polysaccharide from *Klebsiella* type 52, using the computerised approach CASPER and NMR spectroscopy 79

Kraft pulps

- The contribution to kappa number from hexeneuronic acid groups in pulp xylan 213
- Lactobacillus helveticus* Lh59
Lactobacillus helveticus Lh59 secretes an exopolysaccharide that is identical to the one produced by *Lactobacillus helveticus* TN-4, a presumed spontaneous mutant of *Lactobacillus helveticus* TY1-2 197
- Layered assembly
 Non-mesogenic crystal structure of a synthetic 1-D-glucosamide bolaamphiphile 139
- Metaphosphate
 Direct preparation of cyclodextrin monophosphates 27
- Methylated β -cyclodextrins
 Effect of methylation of β -cyclodextrin on the formation of inclusion complexes with aromatic compounds. An ionspray mass spectrometry investigation 1
- Methyl β -D-xylopyranosides, acylated
 Synthesis of acylated methyl β -D-xylopyranosides and their enzymic deacylations by rabbit serum esterases 13
- Monosaccharide complexes
 Synthesis and characterization of oxovanadium(IV) complexes with saccharides 131
- Multiplicity-edited ge-HSQC
 Isolation and structure elucidation of a highly haemolytic saponin from the Merck saponin extract using high-field gradient-enhanced NMR techniques 67
- N*-acetylneuraminic acid
 A regio- and stereo-selective introduction of azide at C-4 of 2,3-unsaturated *N*-acetylneuraminic acids 237
- N*-deacetylation
 Gram-scale synthesis of recombinant chitooligosaccharides in *Escherichia coli* 35
- NMR
 Primary structure of seven sulfated oligosaccharide-alditols released by reductive β -elimination from oviducal mucins of *Rana temporaria*. Characterization of the sequence $\text{HSO}_3(3)\text{GlcA}(\beta 1-3)\text{Gal}$ 179
- NMR spectrometry
 A new glycoside, 1D-2-*O*- α -D-galactopyranosyl-*chiro*-inositol from jojoba beans 219
- 2D-NMR spectroscopy
 Isolation and structure elucidation of a highly haemolytic saponin from the Merck saponin extract using high-field gradient-enhanced NMR techniques 67
- Nod genes
 Gram-scale synthesis of recombinant chitooligosaccharides in *Escherichia coli* 35
- Oligomers
 Synthesis and condensation reactions of 1-amino-1-deoxy-2,3,4-tri-*O*-methyl-5-*O*-[(pentachlorophenoxy)phthaloyl]-L-arabinitol 241
- Oral antithrombotic activity
 Synthesis of 4-cyanophenyl 4-azido-4-deoxy-1,5-dithio- β -D-xylopyranoside 149
- Order
 A CP/MAS ^{13}C NMR investigation of molecular ordering in celluloses 19
- Partial amino acid sequence
 The alkaline xylanase III from *Fusarium oxysporum* F3 belongs to family F/10 191
- Participation of the sulfur atom
 Synthesis of 4-cyanophenyl 4-azido-4-deoxy-1,5-dithio- β -D-xylopyranoside 149
- Periodate oxidation
 Sulfoquinovose and its aldonic acid: their preparation and oxidation to 2-sulfoacetaldehyde by periodate 113
- Phenylsulfenyl triflate
 Studies on α -sialylation using sialyl donors with an auxiliary 3-thiophenyl group 123
- Phosphate
 Direct preparation of cyclodextrin monophosphates 27
- Phytic acid
 Synthesis of optically active *myo*-inositol derivatives starting from phytic acid 163
- Polycondensation reaction
 Synthesis and condensation reactions of 1-amino-1-deoxy-2,3,4-tri-*O*-methyl-5-*O*-[(pentachlorophenoxy)phthaloyl]-L-arabinitol 241
- Polyelectrolyte
 Chitosan *N*-sulfate. A water-soluble polyelectrolyte 7
- Polysaccharide
 Modifications under basic conditions of the minor sequences of heparin containing 2,3 or 2,3,6 sulfated D-glucosamine residues 103
- Proteoglycans
 Differential release of proteoglycans during human B lymphocyte maturation 85
- Rabbit serum esterases
 Synthesis of acylated methyl β -D-xylopyranosides and their enzymic deacylations by rabbit serum esterases 13
- Recombinant oligosaccharides
 Gram-scale synthesis of recombinant chitooligosaccharides in *Escherichia coli* 35
- Ru(II) Tris(*m*-sulfophenyl)phosphine [Ru(II)-TPPTS]
 Regio- and stereo-selectivity in homogeneous catalytic hydrogenation of 2,5-diketo-D-*threo*-hexonic acid 245
- Secretion
 Differential release of proteoglycans during human B lymphocyte maturation 85
- Serglycin
 Differential release of proteoglycans during human B lymphocyte maturation 85
- Sialic acid
 A regio- and stereo-selective introduction of azide at C-4 of 2,3-unsaturated *N*-acetylneuraminic acids 237
- Sialyl glycoside
 Studies on α -sialylation using sialyl donors with an auxiliary 3-thiophenyl group 123
- Simmondsia chinensis*
 A new glycoside, 1D-2-*O*- α -D-galactopyranosyl-*chiro*-inositol from jojoba beans 219
- Sodium alginate
 Interaction mechanism in sol-gel transition of alginate solutions by addition of divalent cations 97
- Sol-gel transition
 Interaction mechanism in sol-gel transition of alginate solutions by addition of divalent cations 97
- Stereoselective α -sialylation
 Studies on α -sialylation using sialyl donors with an auxiliary 3-thiophenyl group 123
- Sulfated-oligosaccharides
 Primary structure of seven sulfated oligosaccharide-alditols released by reductive β -elimination from oviducal mucins of *Rana temporaria*. Characterization of the sequence $\text{HSO}_3(3)\text{GlcA}(\beta 1-3)\text{Gal}$ 179
- 2-Sulfoacetaldehyde
 Sulfoquinovose and its aldonic acid: their preparation and oxidation to 2-sulfoacetaldehyde by periodate 113
- Sulfoquinovose
 Sulfoquinovose and its aldonic acid: their preparation and oxidation to 2-sulfoacetaldehyde by periodate 113
- Supramolecular structure

- A CP/MAS ^{13}C NMR investigation of molecular ordering in celluloses 19
- Synthesis
The crystal and molecular structures of 4-cyanophenyl 1,5-dithio- β -D-xylopyranoside S-5 oxide and 4-ethyl-2-oxo-2*H*-1-benzopyran-7-yl 5-thio- β -D-xylopyranoside S-5 oxide 53
- Tay–Sachs disease
Synthesis of 6'-GM2, a regioisomer of ganglioside GM2, for studying the mechanism of action of GM2 activator 223
- Texture
Lactobacillus helveticus Lh59 secretes an exopolysaccharide that is identical to the one produced by *Lactobacillus helveticus* TN-4, a presumed spontaneous mutant of *Lactobacillus helveticus* TY1-2 197
- Thioglycoside
Studies on α -sialylation using sialyl donors with an auxiliary 3-thiophenyl group 123
- Thioglycosides
Synthesis of 4-cyanophenyl 4-azido-4-deoxy-1,5-dithio- β -D-xylopyranoside 149
- Thioisostere
A regio- and stereo-selective introduction of azide at C-4 of 2,3-unsaturated *N*-acetylneuraminic acids 237
- Thioxylopyranosides
The crystal and molecular structures of 4-cyanophenyl 1,5-dithio- β -D-xylopyranoside S-5 oxide and 4-ethyl-2-oxo-2*H*-1-benzopyran-7-yl 5-thio- β -D-xylopyranoside S-5 oxide 53
- 1,2,4-Triazole-nucleosides
Cyclization reactions of *N*¹-(glycopyranosylamino)guanidines 229
- Ulosonic acid
A regio- and stereo-selective introduction of azide at C-4 of 2,3-unsaturated *N*-acetylneuraminic acids 237
- Vibrational spectra
Synthesis and characterization of oxovanadium(IV) complexes with saccharides 131
- Viscosity
Interaction mechanism in sol–gel transition of alginate solutions by addition of divalent cations 97
- VO²⁺ complexes
Synthesis and characterization of oxovanadium(IV) complexes with saccharides 131
- X-ray
Non-mesogenic crystal structure of a synthetic 1-D-glucosamide bolaamphiphile 139
- Xylan
The contribution to kappa number from hexeneuronic acid groups in pulp xylan 213
- Xylanase
The alkaline xylanase III from *Fusarium oxysporum* F3 belongs to family F/10 191