

## SUBJECT INDEX

- 2-Alkynyl-1-ethoxy glucosides, stereoselective synthesis of, 169
- Anhydro sugars and oligosaccharides from the thermolysis of sucrose, 195
- Antigen (LPS) from *Escherichia coli* O22:K13, structure of the O-specific polysaccharide of the O22-, 203
- Arabinoxylans from barley, structures of small oligomers liberated by endoxylanase from *Aspergillus awamori*, 245
- Asialoglycoprotein receptor, rabbit, binding of D-galactose-terminated ligands to, 257
- Bacteriophage degradation of *Klebsiella* K30 capsular polysaccharide and an NMR investigation of the 3,4-pyruvated galactose-containing repeating oligosaccharide, 333
- Barley arabinoxylans, structures of small oligomers liberated by endoxylanase from *Aspergillus awamori*, 245
- Binding of D-galactose-terminated ligands to rabbit asialoglycoprotein receptor, 257
- Carbon-carbon bond formation at secondary carbon in cyclic sugars, stereospecific, 133
- 1-Carboxyethyl ethers of methyl  $\alpha$ -L-rhamnopyranoside and methyl  $\alpha$ -D-galactopyranoside, synthesis and NMR and CD studies of, 35
- CD and NMR studies of 1-carboxyethyl ethers of methyl  $\alpha$ -L-rhamnopyranoside and methyl  $\alpha$ -D-galactopyranoside, synthesis and, 35
- Characterization and separation of five positional isomers of trimaltosyl-cyclomaltoheptaose (trimaltosyl- $\beta$ -cyclodextrin), 1
- Chlamidia*, synthesis of pentasaccharide core structures corresponding to the genus-specific lipopolysaccharide epitope of, 105
- Complexation of iron(III) with D-fructose, a new approach, 277
- Crystal structure and taste of 3,3'-dideoxy- $\alpha$ , $\alpha$ -arabino-trehalose monohydrate, 281
- $\beta$ -Cyclodextrin, trimaltosyl-, (trimaltosyl-cyclomaltoheptaose), separation and characterization of five positional isomers of, 1
- Cyclomaltoheptaose, trimaltosyl-, (trimaltosyl- $\beta$ -cyclodextrin), separation and characterization of five positional isomers of, 1
- C-(2-Deoxyhex/pent-1-enopyranosyl)heterocycles, preparation, 91
- 1-Deoxymannonojirimycin (1,5-dideoxy-1,5-imino-D-mannitol) and D-fructose, an efficient conversion of D-mannitol into, 25
- 3-Deoxy-2-octulosonic acid derivatives and characterisation of their 3-deoxyoctitols, synthesis of, 141
- Determination of the concentrations of oligosaccharides, complex-type carbohydrates, and glycoproteins by the phenol-sulfuric acid method, 157
- 2,4-Diamino sugar precursors from 2,3-dideoxy-2-enopyranos-4-uloses, a synthesis of in one reaction vessel, 317
- Disaccharide alditols, electron impact mass spectra of permethylated, 15
- Disaccharides having D-xylose coupled to other monosaccharides, preparation of ether-linked, 325
- Electron impact mass spectra of permethylated disaccharide alditols, 15
- Escherichia coli* O22:K13, structure of the O-specific polysaccharide of the O22-antigen (LPS) from, 203
- Escherichia coli* O126, structure of the O-specific side chain of the lipopolysaccharide from, 221
- D-Fructose and 1,5-dideoxy-1,5-imino-D-mannitol (1-deoxymannonojirimycin), an efficient conversion of D-mannitol into, 25
- Fructose, a new approach to the complexation of iron(III) with, 277
- Galactopyranose rings, reporter resonances in the NMR spectra of oligosaccharides containing sialic acid linked to, 289

- Galactose-specific toxic lectin of mistletoe, the sugar-combining area of the, extends beyond the terminal sugar residue: comparison with a homologous toxic lectin, ricin, 269
- (1 → 3)- $\beta$ -D-Glucan from *Sclerotinia sclerotiorum* IFO 9395, preparation and properties of metabolically  $^3\text{H}$ - or  $^{13}\text{C}$ -labeled, 213
- Glycoproteins by the phenol-sulfuric acid method, determination of the concentrations of oligosaccharides, complex-type carbohydrates, and, 157
- L-glycero- $\alpha$ -D-manno-Heptopyranosyl derivatives of allyl  $\alpha$ -glycosides of D-glucose, kojibiose, and 3-O- $\alpha$ -kojibiosyl-D-glucose, 43
- Heptose-hexose region of the *Salmonella* Ra core, synthesis of hexa-, penta-, and tetra-saccharides related to the, 81
- Heterocycles, preparation of C-(2-deoxyhex/pent-1-enopyranosyl)-, 91
- Hexacarbonyldicobalt complexes derived from 2-propynyl and 3-butylnyl 4,6-di-O-acetyl-2,3-dideoxy- $\alpha$ -D-erythro-hex-2-enopyranosides, synthesis and characterisation, 311
- Hexasaccharide corresponding to part of the heptose-hexose region of the *Salmonella* Ra core and a penta- and tetra-saccharide that compose parts of this structure, synthesis, 81
- Hex-2-enopyranosides, synthesis and characterisation of hexacarbonyldicobalt complexes derived from 2-propynyl and 3-butylnyl 4,6-di-O-acetyl-2,3-dideoxy- $\alpha$ -D-erythro-, 311
- $^3\text{H}$ - or  $^{13}\text{C}$ -labeled (1 → 3)- $\beta$ -D-glucan from *Sclerotinia sclerotiorum* IFO 9395, preparation and properties of metabolically, 213
- Iron(III), a new approach to the complexation of D-fructose with, 277
- 3-Keto-sucrose, regioselective synthesis of new sucrose derivatives via, 183
- Klebsiella* K30 capsular polysaccharide, bacteriophage degradation and an NMR investigation of the 3,4-pyruvated galactose-containing repeating oligosaccharide, 333
- Kojibiose, 3-O- $\alpha$ -kojibiosyl-D-glucose, and D-glucose, synthesis of L-glycero- $\alpha$ -D-manno-heptopyranosyl derivatives of allyl  $\alpha$ -glycosides of, 43
- Lactoside, syntheses of all the possible monomethyl ethers and several deoxyhalo analogues of methyl  $\beta$ -, as ligands for the *Ricinus communis* lectins, 61
- Lectin of mistletoe, the sugar-combining area of the galactose-specific toxic, extends beyond the terminal sugar residue: comparison with a homologous toxic lectin, ricin, 269
- (Lepidin-2-yl)hydrazones, sugar, and synthesis of 1-(alditol-1-yl)-5-methyl[1,2,4]triazolo[4,3-a]-quinoline, 295
- Ligands, binding of D-galactose terminated to rabbit asialoglycoprotein receptor, 257
- Linkage analysis of polysaccharides as partially methylated alditol acetates, a critical assessment of a one-tube procedure for the, 229
- Lipopolysaccharide epitope of *Chlamidia*, synthesis of pentasaccharide core structures corresponding to the genus-specific, 105
- Lipopolysaccharide from *Escherichia coli* O126, structure of the O-specific side chain of the, 221
- D-Mannitol, an efficient conversion of, into D-fructose and 1,5-dideoxy-1,5-imino-D-mannitol (1-deoxymannonojirimycin), 25
- Manno-oligosaccharides, synthesis of some partially substituted methyl  $\alpha$ -D- and 1-thio- $\alpha$ -D-mannopyranosides for the preparation of, 301
- $\alpha$ -D-Mannopyranosides, synthesis of some partially substituted phenyl 1-thio- and methyl, for the preparation of manno-oligosaccharides, 301
- Mass spectra of permethylated disaccharide alditols, electron impact, 15
- Metabolically  $^3\text{H}$ - or  $^{13}\text{C}$ -labeled (1 → 3)- $\beta$ -D-glucan from *Sclerotinia sclerotiorum* IFO 9395, preparation and properties, 213
- Methyl  $\alpha$ -D- and phenyl 1-thio- $\alpha$ -D-mannopyranosides, synthesis for the preparation of manno-oligosaccharides, 301
- Methyl  $\beta$ -lactoside, syntheses of all the monomethyl ethers and several deoxyhalo analogues, as ligands for the *Ricinus communis* lectins, 61
- Monomethyl ethers and several deoxyhalo analogues of methyl  $\beta$ -lactoside, syntheses of all the, as ligands for the *Ricinus communis* lectins, 61
- NMR and CD studies of methyl 4-O-[(R)- and (S)-1-carboxyethyl]- $\alpha$ -L-rhamnopyranoside and methyl 6-O-[(R)- and (S)-1-carboxyethyl]- $\alpha$ -D-galactopyranoside, synthesis and, 35
- NMR investigation of the 3,4-pyruvated galactose-containing pentasaccharide produced by bacteriophage degradation of the *Klebsiella* K30 capsular polysaccharide, 333

- Octitols, synthesis of 3-deoxy-2-octulosonic acid derivatives and characterisation of their 3-deoxy-, 141
- 2-Octulosonic acid derivatives, synthesis of 3-deoxy-, and characterisation of their 3-deoxyoctitols, 141
- Oligomers liberated from barley arabinoxylans by endoxylanase from *Aspergillus awamori*, structures of small, 245
- Oligosaccharides containing sialic acid linked to galactopyranose rings, reporter resonances in the NMR spectra of, 289
- Oligosaccharides for use as substrates for synthetic antigens, synthesis of linear, 43
- Oligosaccharides from the thermolysis of sucrose, anhydro sugars and, 195
- One-tube procedure for the linkage analysis of polysaccharides as partially methylated alditol acetates, a critical assessment, 229
- Pentasaccharide core structures corresponding to the genus-specific lipopolysaccharide epitope of *Chlamidia*, synthesis, 105
- Phenol-sulfuric acid method, determination of the concentrations of oligosaccharides, complex-type carbohydrates, and glycoproteins by the, 157
- Polysaccharide of the O22-antigen (LPS) from *Escherichia coli* O22:K13, structure of the O-specific, 203
- Polysaccharides, a critical assessment of a one-tube procedure for linkage analysis as partially methylated alditol acetates, 229
- Preparation of ether-linked disaccharides having D-xylose coupled to other monosaccharides, 325
- 2-Propynyl and 3-butynyl 4,6-di-O-acetyl-2,3-dideoxy- $\alpha$ -D-erythro-hex-2-enopyranosides, synthesis and characterisation of hexacarbonyldicobalt complexes derived from, 311
- Quinoline, 1-(alditol-1-yl)-5-methyl[1,2,4]triazolo[4,3-a]- and sugar (lepidin-2-yl)hydrazones, synthesis of, 295
- Salmonella* Ra core, synthesis of hexa-, penta-, and tetra-saccharides related to the heptose-hexose region of the, 81
- Secondary carbons in cyclic sugars, stereospecific carbon-carbon bond formation at, 133
- Separation and characterization of five positional isomers of trimaltosyl-cyclomaltoheptaose (trimaltosyl- $\beta$ -cyclodextrin), 1
- Sialic acid linked to galactopyranose rings, reporter resonances in the NMR spectra of oligosaccharides containing, 289
- Stereospecific carbon-carbon bond formation at secondary carbons in cyclic sugars, 133
- Structure of the O-specific side chain of the lipopolysaccharide from *Escherichia coli* O126, 221
- Sucrose, anhydro sugars and oligosaccharides from the thermolysis of, 195
- Sucrose derivatives via 3-keto-sucrose, regioselective synthesis of new, 183
- Xylose coupled to other monosaccharides, preparation of ether-linked disaccharides having D-, 325