

CARBOHYDRATE RESEARCH, VOL. 193 (1989)

SUBJECT INDEX

- 1,2-*trans*-2-Acetamido-2-deoxyglycopyranosides, synthesis *via* 1,2-*trans*-2-deoxy-2-iodoglycosyl azides of, 61
- Acylation of 2-amino-2-deoxy-D-gluconic acid, confirmation of the structures of the products obtained, 49
- Alfalfa-root saponin, isolation, synthesis, and an antifungal activity of, 115
- 2-Amino-2-deoxy-D-gluconic acid, confirmation of the structures of the products obtained on acylation, 49
- Amylose gelation, a rheological description of, 215
- Angelica acutiloba* Kitagawa, relationship between structure and activity of an anti-complementary arabinogalactan from the roots of, 193
- Angelica acutiloba* Kitagawa, structure of an anti-complementary arabinogalactan from the root of, 173
- 1,5-Anhydro-4,6-*O*-benzylidene-D-galactitol, selective, esterification of, 279
- Antibodies, monoclonal, against inner core region of bacterial, lipopolysaccharides, determination of epitope specificity of, 257
- Anti-complementary pectic polysaccharides from *Angelica acutiloba* Kitagawa, relationship between structure and activity of the "ramified" region in, 201
- Arabinogalactan from the roots of *Angelica acutiloba* Kitagawa, relationships between structure and activity of an anti-complementary, 193
- Arabinogalactan, from the roots of *Angelica acutiloba* Kitagawa, structure of an anti-complementary, 173
- Barbiturates, synthesis of *N*- β -D-glucopyranosyl derivatives of, 105
- 6-Benzylamino-6-deoxy-1,2,3,4-di-*O*-isopropylidene- α -D-glycero-D-galacto-heptopyranuronitrile, conformation of the six- and five-membered rings in, 23
- Blood-group specificity, a plant fucosyltransferase with human Lewis, 249
- Capsular antigen of *Escherichia coli* O8:K8:H4, structure of the, 157
- Ceramide, sialyl lactotetraosyl, total synthesis of, 323
- Conformation of the six- and five-membered rings in 6-benzylamino-6-deoxy-1,2,3,4-di-*O*-isopropylidene- α -D-glycero-D-galacto-heptopyranuronitrile, 23
- Convenient route to 6-functionalized derivatives of D-glucal, 275
- Crystal structures of 1,2,3,4,6-penta-*O*-acetyl-5-deoxy-5-[(*R*)-methoxyphosphinyl]- β -D-glucopyranose and its 5-[(*R*)-ethylphosphinyl] congener, 9
- 5-Deoxy-5-(hydroxyphosphinyl)-D-glucopyranoses, improved synthesis, 9
- 1,2-*trans*-2-Deoxy-2-iodoglycosyl azides, synthesis of 1,2-*trans*-2-acetamido-2-deoxyglycopyranosides *via*, 61
- 6-Deoxy-L-arabino-hexulose, facile preparation from L-rhamnose, 303
- 6-Deoxy-L-fructose, facile preparation from L-rhamnose, 303
- Direct fluorination at positions 3', 4', and 6' of β -D-glucopyranosyltheophylline, 307
- Escherichia coli* O18ac, a revision of the structure of the *O*-antigen polysaccharide from, using computer-assisted structural analysis with the program CASPER, 322
- Escherichia coli* O8:K8:H4, structure of the capsular antigen of, 157
- Esterification of 1,5-anhydro-4,6-*O*-benzylidene-D-galactitol, selective, 279
- Fluorination at positions 3', 4', and 6' of β -D-glucopyranosyltheophylline, direct, 307
- 6-Thio- β -D-Fructopyranose in the crystalline state, conformation of, 1
- β -D-Fructopyranose, 6-thio-, in the crystalline state, conformation of, 1
- L-Fructose, 6-deoxy-, facile preparation from L-rhamnose, 303
- Fucosyltransferase with human Lewis blood-group specificity, a plant, 249
- D-Galactopyranosylthioureas, syntheses of partially protected, 314
- Ganglioside, lactonization under acidic conditions of GD1b, 141
- Gelation, a rheological description of amylose, 215

- β -D-GlcpNAc-(1 \rightarrow 2)- α -D-Manp unit, synthesis of oligosaccharides containing the, 125
- D-Glucal, a convenient route to 6-functionalized derivatives of, 275
- N- β -D-Glucopyranosyl derivatives of barbitals, synthesis of, 105
- β -D-Glucopyranosyltheophylline, direct, fluorination at positions 3', 4', and 6' in, 307
- D-Glucuronate, methyl (1R)-1,2,3,5-tetra-O-acetyl-4-O-methyl-, methyl acetal, crystal and molecular structure of, 271
- Glycans isolated from the lipopolysaccharides of reference strains for *Serratia marcescens* serogroups O16 and O20, structures of neutral, 241
- (R,S)-Glycerols, O- α -lactosyl- and 1-O- α -lactosyl-3-O- β -lactosyl-, synthesis of, 91
- Glycogen, synthesis of the trisaccharide branching-point of, 296
- Glycopeptide, sialyl-, enzymic synthesis of, 288
- Glycopeptides of the mucin type containing a β -D-GlcpNAc-(1 \rightarrow 3)-D-GalpNAc unit, synthesis of, 33
- Glycopyranosides, 1,2-trans-1-thio-, synthesis catalyzed by zirconium(IV) chloride of, 283
- Heparin, chemical sulfation of hydroxyl groups of, 165
- Highly uneven distribution of O-acetyl groups in the acidic D-xylan of *Mimosa scabrella* (bracatinga), 23
- Hydroxyl groups of heparin, chemical sulfation of, 165
- 2-Iodoglycosyl azides, 1-2-trans-2-deoxy-, as intermediates in 2-acetamido-2-deoxyglycopyranosides synthesis, 61
- Klebsiella* K10, a re-investigation of the structure of the capsular polysaccharide of, 147
- Lactones, unsaturated, from the acylation of 2-amino-2-deoxy-D-gluconic acid, 49
- Lactonization of GD1b ganglioside under acidic conditions, 141
- 1-O- α -Lactosyl-(R,S)-glycerols, synthesis of, 91
- 1-O- α -Lactosyl-3-O- β -lactosyl-(R,S)-glycerols, synthesis of, 91
- Lipopolysaccharides, bacterial, determination of epitope specificity of monoclonal antibodies against inner core region of, 257
- (1 \rightarrow 2)- α -D-Manp, β -D-GlcpNAc-, unit, synthesis of oligosaccharides containing the, 125
- 3 β -Medicagenic acid β -maltoside, isolation, synthesis, and antifungal activity of, 115
- Methyl (1R)-1,2,3,5-tetra-O-acetyl-4-O-methyl-D-glucuronate methyl acetal, crystal and molecular structure of, 271
- Monoclonal antibodies against inner core region of bacterial lipopolysaccharides, determination of epitope specificity of, 257
- Mucin-type glycopeptides containing a β -D-GlcpNAc-(1 \rightarrow 3)-D-GalpNAc unit, synthesis of, 33
- α -D-Neup5Ac-(2 \rightarrow 6)- β -D-Galp-(1 \rightarrow 4)- β -D-GlcpNAc-(1 \rightarrow 4-N)-L-Asn, enzymic synthesis of, 288
- Neuraminic acid, a simple one-step synthesis of N-acetyl-9-O-acetyl-, by enzyme transesterification mediated by porcine pancreas lipase in pyridine, 294
- Octulosonic, 3-deoxy-D-manno-, containing antigens, use for determination of the epitope specificity of monoclonal antibodies of, 257
- Oligosaccharides containing the β -D-GlcpNAc-(1 \rightarrow 2)- α -D-Manp unit, synthesis of, 125
- 1,2,3,4,6-Penta-O-acetyl-5-deoxy-5-[(R)-methoxyphosphinyl]- β -D-glucopyranose and its 5-[(R)-ethylphosphinyl] congener, crystal structures of, 9
- 5-Phosphinyl-D-glucopyranoses, substituted, improved synthesis and crystal structures, 9
- Plant fucosyltransferase with human Lewis blood-group specificity, a, 249
- Polysaccharide antigen of *Pseudomonas aeruginosa*, synthesis of a common, as the 6-aminoheptyl glycoside, 75
- Polysaccharide from *E. coli* O18ac, a revision of the structure of the O-antigen, using computer-assisted structural analysis with the program CASPER, 322
- Polysaccharide of *Klebsiella* K10, a re-investigation of the structure of the capsular, 147
- Polysaccharides from *Angelica acutiloba* Kitagawa, relationships between structure and activity of the "ramified" region in anti-complementary pectic, 201
- Pseudomonas aeruginosa*, synthesis of a common polysaccharide antigen of, as the 6-aminoheptyl glycoside, 75
- Relationship between structure and activity of the "ramified" region in anti-complementary pectic polysaccharides from *Angelica acutiloba* Kitagawa, 201
- Relationships between structure and activity of an anti-complementary arabinogalactan from the roots of *Angelica acutiloba* Kitagawa, 193

- Rheological description of amylose gelation, 215
Route to 6-functionalized derivatives of D-glucal, a convenient, 275
- Saponin from alfalfa root, isolation, synthesis, and antifungal activity, 115
- Selective esterification of 1,5-anhydro-4, 6-*O*-benzylidene-D-galactitol, 279
- Serratia marcescens* serogroups O16 and O20, structures of neutral glycans isolated from the lipopolysaccharides of reference strains for, 241
- Sialylglycopeptide, enzymic synthesis of, 288
- Starch, synthesis of the trisaccharide branching-point of, 296
- Synthesis of a common polysaccharide antigen of *Pseudomonas aeruginosa* as the 6-aminoethyl glycoside, 75
- Structure of an anti-complementary arabino-galactan from the root of *Angelica acutiloba* Kitagawa, 173
- Structure of 6-benzylamino-6-deoxy-1,2,3,4-di-*O*-isopropylidene- α -D-glycero-D-galactohexopyranurononitrile: conformation of the six- and five-membered rings, 23
- Synthesis of partially protected D-galactopyranosylthiourea: new D-galactopyranosyl imidazoline-2-thiones and D-galactopyranosylaminothiazoles, 314
- Structure of the capsular antigen of *Escherichia coli* O8:K8:H4, 157
- Structure of the capsular polysaccharide of *Klebsiella* K10 a re-investigation of the, 147
- Structure of the O-antigen polysaccharide from *E. coli* O18ac: a revision using computer-assisted structural analysis with the program CASPER, 322
- Structures of neutral glycans isolated from the lipopolysaccharides of reference strains for *Serratia marcescens* serogroups O16 and O20, 241
- Sulfation, chemical, of hydroxyl groups of heparin, 165
- Synthesis of glycopeptides of the mucin type containing a β -D-GlcpNAc-(1 \rightarrow 3)-D-GalpNAc unit, 33
- Synthesis of *N*-acetyl-9-*O*-acetylneuraminic acid by enzymic transesterification mediated by porcine pancreas lipase in pyridine, a simple one-step, 294
- (1*R*)-1,2,3,5-Tetra-*O*-acetyl-4-*O*-methyl-D-glucuronate, methyl, methyl acetal, crystal and molecular structure of, 271
- 1,2-*trans*-1-Thioglycopyranosides, synthesis catalyzed by zirconium(IV) chloride of, 283
- Thiourea, imidazoline-2-thione, and aminothiazole, syntheses of some new D-galactopyranosyl derivatives of, 314
- Total synthesis of sialyl lactotetraosyl ceramide, 323
- Transesterification mediated by porcine pancreas lipase in pyridine a simple one-step synthesis of *N*-acetyl-9-*O*-acetylneuraminic acid by enzyme, 294
- Trisaccharide, branching-point of starch and glycogen, synthesis of, 296
- X-Ray diffraction data of 6-thio- β -D-fructopyranose, 1
- D-Xylan, acidic, of *Mimosa scabrella* (bracatinga), highly uneven distribution of *O*-acetyl groups in the, 23
- Zirconium(IV)chloride, synthesis of 1,2-*trans*-1-thioglycopyranosides catalyzed by, 283