

## CARBOHYDRATE RESEARCH, VOL. 114 (1983)

## SUBJECT INDEX

- Acetylation with ethyl acetate and sodium hydride, 153
- Additional reactions of levoglucosenone, 71
- Alditol anhydrides in acetic acid, equilibration of, 11
- O*-[2,2-bis(Alkylthio)ethyl]glycolaldehydes, synthesis and properties of some, 287
- Amino acid residues involved in the action of endo-(1→3)- $\beta$ -D-glucanase II from *Flavobacterium dormitator* var. *glucanolyticae* FA-5, 137
- 2-Amino-6-*O*-(2-amino-2-deoxy- $\beta$ -D-glucopyranosyl)-2-deoxy-D-glucose as constituent of *Bordetella pertussis* endotoxin, 95
- 2-Amino-2-deoxy-D-glucose, *O*-(2-amino-2-deoxy- $\beta$ -D-glucopyranosyl)-(1→6)-, as constituent of *Bordetella pertussis* endotoxin, 95
- 2-Amino-2-deoxyhexoses, an automated Elson-Morgan assay for, with increased sensitivity, 201
- Anhydrides, equilibration of alditol, in acetic acid, 11
- 1,2-Anhydro-4-deoxy-3-*O*-methylpentopyranoses, synthesis of pyrimidine nucleosides from, 193
- Antitumor polysaccharide produced by *Microellobosporia grisea*: preparation, general characterization, and antitumor activity, 164
- $\beta$ -L-Arabinose 1,2-(alkyl orthoacetates), competitive formation of peracetylated  $\alpha$ -L-arabinopyranosides and, in Koenigs-Knorr condensations, 209
- Automated Elson-Morgan assay for 2-amino-2-deoxyhexoses, with increased sensitivity, 201
- Bordetella pertussis* endotoxin, 2-amino-6-*O*-(2-amino-2-deoxy- $\beta$ -D-glucopyranosyl)-2-deoxy-D-glucose as constituent of, 95
- Boron trifluoride etherate-induced glycosidation: formation of alkyl glycosides and thio-glycosides of 2-deoxy-2-phthalimidoglycopyranoses, 328
- Branched (1→4)- $\alpha$ -D-glucans, the unit-chain distribution profiles of, 338
- Capsular polysaccharide from *Streptococcus pneumoniae* type 12A, structural studies of the, 257
- Chemistry, organic, oxidation in (*book review*), c4
- Chlorodeoxyhexofuranoid derivatives, the synthesis of, 21
- Chromatofocusing, purification of glucan hydrolases from a commercial preparation of *Trichoderma viride* by, 343
- Colorimetric analysis of cyclomalto-octaose ( $\gamma$ -cyclodextrin), 303
- Competitive formation of peracetylated  $\alpha$ -L-arabinopyranosides and  $\beta$ -L-arabinopyranose 1,2-(alkyl orthoacetates) in Koenigs-Knorr condensations, 209
- Crystal structure of methyl 3,4-*O*-isopropylidene-2,6-di-*O*-(2,3,4,6-tetra-*O*-acetyl- $\beta$ -D-galactopyranosyl)- $\alpha$ -D-galactopyranoside at 97 K, 169
- Cyclic (1→2)- $\beta$ -D-glucan and the octasaccharide repeating-units of extracellular acidic polysaccharides produced by *Rhizobium*, 277
- $\gamma$ -Cyclodextrin (cyclomalto-octaose), colorimetric analysis of, 303
- Cyclomalto-octaose ( $\gamma$ -cyclodextrin), colorimetric analysis of, 303
- O*-(2,2-Dialkoxyethyl)glycolaldehydes, synthesis and properties of some, 297
- Diazomethane, the reaction of 1,2:5,6-di-*O*-isopropylidene- $\alpha$ -D-*ribo*-hexofuranos-3-ulose with, 311
- 1,2:5,6-Di-*O*-isopropylidene- $\alpha$ -D-*ribo*-hexofuranos-3-ulose, the reaction of diazomethane with, 311
- Elson-Morgan assay for 2-amino-2-deoxyhexoses, an automated, with increased sensitivity, 201
- Endo-(1→3)- $\beta$ -D-glucanase II from *Flavobacterium dormitator* var. *glucanolyticae* FA-5, amino acid residues involved in the action of, 137
- Equilibration of alditol anhydrides in acetic acid, 11
- Ethyl acetate, acetylation with sodium hydride and, 153

- Flavobacterium dormitator* var. *glucanolyticae* FA-5, amino acid residues involved in the action of endo-(1→3)- $\beta$ -D-glucanase II from, 137
- Formation of alkyl glycosides and thioglycosides of 2-deoxy-2-phthalimidoglycopyranoses by boron trifluoride etherate-induced glycosidation, 328
- D-Fructopyranose 5-sulphate, a novel preparation of, 331
- Galactitol, 1,5-anhydro-D-, selective tosylation of, 335
- D-Galactopyranoside, crystal structure at 97 K of methyl 3,4-O-isopropylidene-2,6-di-O-(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)- $\alpha$ -, 169
- D-Galactose, 2-amino-2-deoxy-, analog of the blood-group O(H) determinant, type 2, and its precursors, 53
- Glucan, cyclic (1→2)- $\beta$ -D-, produced by *Rhizobium*, 277
- Glucan hydrolases from a commercial preparation of *Trichoderma viride*, purification of, by chromatofocusing, 343
- D-Glucans, the unit-chain distribution profiles of branched (1→4)- $\alpha$ -, 338
- $\alpha$ -D-Glucopyranosyl- $\alpha$ -D-galactopyranoside, synthesis of *p*-trifluoroacetamidophenyl 4-O- and 6-O-, 322
- $\alpha$ -D-Glucosidase, inhibitor of, synthesis of a 4-amino-4',6'-dideoxymaltose derivative as a synthon of, 63
- Glycoconjugates, the (book review), c3
- Glycolaldehydes, synthesis and properties of some *O*-[2,2-bis(alkylthio)ethyl]-, 287
- Glycolaldehydes, synthesis and properties of some *O*-(2,2-dialkoxyethyl)-, 297
- Glycoprotein, synthesis of a hexasaccharide that forms part of an alveolar, 317
- Glycosides and thioglycosides of 2-deoxy-2-phthalimidoglycopyranoses, formation of alkyl-, by boron trifluoride etherate-induced glycosidation, 328
- Heptonic acids, 2-amino- and 2-(benzylamino)-2-deoxy-, syntheses of, 158
- Hexasaccharide that forms part of an alveolar glycoprotein, synthesis of a, 317
- Hexasaccharide, unit of a complex type of glycan chain of a glycoprotein, synthesis of, 225
- Immunochemical studies on *Shigella dysenteriae* type 9 bacterial polysaccharide, 123
- Intermediates, standardized, synthesis of oligosaccharides from, 43, 53
- Isolation and alkaline degradation of some mono-*O*-methylsugars, 306
- Levoglucosenone, additional reactions of, 71
- Lipopolysaccharide, of *Aeromonas hydrophila* (Chemotype II), structural investigations on the core oligosaccharide of, 267
- Location of tetrasaccharide units in pullulan, 237
- Maltose, 4'-amino-4',6'-dideoxy-, synthesis of a derivative of, as a synthon of an  $\alpha$ -D-glucosidase inhibitor, 63
- O*- $\alpha$ -D-Mannopyranosyl-(1→2)-*O*- $\alpha$ -D-mannopyranosyl-(1→2)-D-mannose, synthesis of the repeating unit of the O8-antigen of *Escherichia coli*, 35
- Methyl 3,4-O-isopropylidene-2,6-di-O-(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)- $\alpha$ -D-galactopyranoside, crystal structure at 97 K of, 169
- <sup>31</sup>P- and <sup>13</sup>C-N.m.r.-spectral and chemical characterization of the end-group and repeating-unit components of oligosaccharides derived by acid hydrolysis of *Haemophilus influenzae* type b capsular polysaccharide, 103
- <sup>13</sup>C-N.m.r.-spectral study of two *O*-D-galactosylated tripeptides, 147
- <sup>1</sup>H-N.m.r. study of peracetylated, reduced derivatives of three oligosaccharides isolated from human milk, two-dimensional, 1
- Novel preparation of D-fructopyranose 5-sulphate, 331
- Octasaccharide repeating-units, of extracellular acidic polysaccharides produced by *Rhizobium*, 277
- Oligosaccharide, core, of *Aeromonas hydrophila* (Chemotype II) lipopolysaccharide, structural investigations on the, 267
- Oligosaccharides, derived by acid hydrolysis of *Haemophilus influenzae* type b capsular polysaccharide, <sup>31</sup>P- and <sup>13</sup>C-n.m.r.-spectral and chemical characterization of the end-group and repeating-unit components of, 103
- Oligosaccharides from "standardized intermediates", Synthesis of a branched tetrasaccharide glycoside isomeric with the blood-group B, type 2 determinant, 43
- Oligosaccharides from "standardized intermediates", The 2-amino-2-deoxy-D-galactose analog of the blood-group O(H) determinant, type 2, and its precursors, 53
- Oligosaccharides isolated from human milk, two-dimensional, <sup>1</sup>H-n.m.r. study of peracetylated, reduced derivatives of three, 1

- 1,2-Orthoacetates, competitive formation of peracetylated  $\alpha$ -L-arabinopyranosides and  $\beta$ -L-arabinopyranose, in Koenigs-Knorr condensations, 209
- Oxidation, in organic chemistry (*book review*), c4
- Polysaccharide, antitumor, from *Microellobosporia grisea*, structural studies on an, 245
- Polysaccharide, antitumor, produced by *Microellobosporia grisea*, preparation, general characterization, and antitumor activity of, 164
- Polysaccharide, bacterial, of *Shigella dysenteriae*, immunochemical studies on, 123
- Polysaccharide, capsular, of *Haemophilus influenzae* type b,  $^{31}\text{P}$ - and  $^{13}\text{C}$ -n.m.r.-spectral and chemical characterization of the end-group and repeating-unit components of oligosaccharides derived by acid hydrolysis of, 103
- Polysaccharide from *Pseudomonas elodea*, rheology and microstructure of solutions of the microbial, 181
- Polysaccharides, extracellular acidic, produced by *Rhizobium*, 277
- Preparation of D-fructopyranose 5-sulphate, a novel, 331
- Pseudomonas elodea*, rheology and microstructure of solutions of the microbial polysaccharide from, 181
- Pullulan, the location of tetrasaccharide units in, 237
- Purification of glucan hydrolases from a commercial preparation of *Trichoderma viride* by chromatofocusing, 343
- 2-Pyrimidone, 1-(4-deoxy-3-O-methyl- $\beta$ -DL-erythro- and - $\alpha,\beta$ -DL-threo-pentopyranosyl)-4-methoxy, synthesis of, 193
- Pyrimidyline nucleotides synthesis from 1,2-anhydro-4-deoxy-3-O-methylpentopyranoses of, 193
- Reaction of 1,2:5,6-di-O-isopropylidene- $\alpha$ -D-ribo-hexofuranos-3-ulose with diazomethane, 311
- Repeating unit of the O8-antigen of *Escherichia coli*, synthesis of O- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)-D-mannose, 35
- Rheology and microstructure of solutions of the microbial polysaccharide from *Pseudomonas elodea*, 181
- L-Rubranitrose (2,3,6-trideoxy-3-C-methyl-4-O-methyl-3-nitro-L-xylo-hexopyranose) and the naturally occurring D enantiomer, syntheses of, c1
- Selective tosylation of 1,5-anhydro-D-galactitol, 335
- Sodium hydride, acetylation with ethyl acetate and, 153
- Streptococcus pneumoniae* type 12A, structural studies of the capsular polysaccharide from, 257
- Structural investigations on the core oligosaccharide of *Aeromonas hydrophila* (Chemotype II) lipopolysaccharide, 267
- Structural studies on an antitumor polysaccharide from *Microellobosporia grisea*, 245
- Structural studies of the capsular polysaccharide from *Streptococcus pneumoniae* type 12A, 257
- Sucrose, some monomethyl ethers of, isolation and degradation of, 306
- Sulfuryl chloride and glucofuranoid precursors, the synthesis of some chlorodeoxyhexofuranoid derivatives from, 21
- Syntheses of 2-amino- and 2-(benzylamino)-2-deoxyheptonic acids, 158
- Syntheses of L-rubranitrose (2,3,6-trideoxy-3-C-methyl-4-O-methyl-3-nitro-L-xylo-hexopyranose) and the naturally occurring D enantiomer, c1
- Syntheses of p-trifluoroacetamidophenyl 4-O- $\alpha$ -D-glucopyranosyl- $\alpha$ -D-galactopyranoside and 6-O- $\alpha$ -D-glucopyranosyl- $\alpha$ -D-galactopyranoside, 322
- Synthesis and properties of some O-[2,2-bis-(alkylthio)ethyl]glycolaldehydes, 287
- Synthesis and properties of some O-(2,2-dialkoxyethyl)glycolaldehydes, 297
- Synthesis of a 4'-amino-4',6'-dideoxymaltose derivative as a synthon of an  $\alpha$ -D-glucosidase inhibitor, 63
- Synthesis of a hexasaccharide that forms part of an alveolar glycoprotein, 317
- Synthesis of a hexasaccharide unit of a complex type of glycan chain of a glycoprotein, 225
- Synthesis of chlorodeoxyhexofuranoid derivatives, 21
- Synthesis of O- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)-O- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 2)-D-mannose, the repeating unit of the O8-antigen of *Escherichia coli*, 35
- Synthesis of 1,2,4-tri-O-acetyl-5-deoxy-5-C-[(R and S)-methoxyphosphinyl]-3-O-methyl- $\alpha$ - and - $\beta$ -D-xylopyranose, and their structural analysis by 400-MHz, proton nuclear magnetic resonance spectroscopy, 83
- Tetrasaccharide units in pullulan, the location of, 237

- 2,3,6-Trideoxy-3-*C*-methyl-4-*O*-methyl-3-nitro-*L*-xylo-hexopyranose (*L*-rubranitrose) and the naturally occurring *D* enantiomer, syntheses of, c1
- p*-Trifluoroacetamidophenyl 4-*O*- $\alpha$ -*D*-glucopyranosyl- $\alpha$ -*D*-galactopyranoside and 6-*O*- $\alpha$ -*D*-glucopyranosyl- $\alpha$ -*D*-galactopyranoside, syntheses of, 322
- Tripeptides, two *O*-*D*-galactosylated,  $^{13}\text{C}$ -n.m.r.-spectral study of, 147
- Trisaccharide glycoside, branched, isomeric with the blood-group B, type 2 determinant, synthesis of, 43
- Two-dimensional,  $^1\text{H}$ -n.m.r. study of peracetylated, reduced derivatives of three oligosaccharides isolated from human milk, 1
- Unit-chain distribution profiles of branched (1 $\rightarrow$ 4)- $\alpha$ -*D*-glucans, 338
- D*-Xylopyranose, 1,2,4-tri-*O*-acetyl-5-deoxy-5-*C*-[(*R* and *S*)-methoxyphosphinyl]-3-*O*-methyl- $\alpha$ -, and - $\beta$ -, synthesis of, and their structural analysis by 400-MHz, proton nuclear magnetic resonance spectroscopy, 83