## SUBJECT INDEX

- Acarbose and adiposin-2, total synthesis of, 309 Acetylation at O-3 of galacturonic acid in the rhamnose-rich portion of pectins, 261
- N-Acetyl-\(\beta\)-D-glucosaminidase H, endo-, purification by substrate-affinity chromatography of, 289
- Adenosines. Preparative applications of the deoxygenative [1,2]-hydride shift and  $\beta$ -elimination reactions of O-sulfonylated adenosines, synthesis of 2'- and 3'-azido-2',3'-dideoxy, 87
- Aldohexopyranose derivatives, reactions of phenyl chlorosulfate at OH-1, -4, and -6 of, and formation of 1,2-oxazoline and 4,6-cyclic sulfate rings, 123
- D-Allonodithioate, ethyl 2,5-anhydro-6-O-benzoyl-, synthesis of nitrogen-bridged, purinelike C-nucleosides from, 149
- Alpha-dextrins, partial characterisation of amylopectin, 181
- Amphiphilic liposaccharides, synthesis of, 341
- Amylopectin alpha-dextrins, fractional precipitation of, using methanol, 169
- Amylopectin alpha-dextrins, partial characterisation of, 181
- Amylopectin, investigation of the fine structure of, using alpha- and beta-amylase, 195
- Amylose-V, crystallization behavior and structure-property relationships of, 31
- Anti-complementary pectic polysaccharide from the roots of *Bupleurum falcatum* L., structural characterisation of an, 209
- Antigenic O-chain of Salmonella ohio (O:6,7), structure of lipopolysaccharide of, 161
- Antitumor activity, of O-(carboxymethyl)ated derivatives of (1→3)-α-D-glucan from an alkaline extract of Agrocybe cylindracea, 273
- Attempt to derive a new Karplus-type equation of vicinal proton-carbon coupling constants for C-O-C-H segment of bonded atoms, 359
- Bacteriophages  $\phi$ 41 and  $\phi$ 12, action on the capsular polysaccharides from *Klebsiella* K41 and K12, 237
- Benzyl glycosides, separation by liquid chromatography of, 13
- Carbohydrate-urea-phenol-based adhesives: transient formation of mono- and di-D-glucosylurea, 103

- 5,6-O-(1-Carboxyethylidene)-D-galactofuranose units in the capsular polysaccharide of Klebsiella K12. 247
- Characterisation of amylopectin alpha-dextrins, partial, 181
- Chitin-chitosan, the degree of N-acetylation of, determination of, with picric acid, 363
- Chromatography, liquid, of milk-oligosaccharides, 1
- Chromic acid oxidation in the synthesis of uronic acids. Use of the *O*-levulinoyl group to minimize acyl-migration, 135
- Colorimetric method for the estimation of 2deoxy-3-C-methyl-branched sugars, 368
- Convenient, high-yield synthesis of L-oleandrose and L-oleandral, 113
- Coupling constants for C-O-C-H segment of bonded atoms, an attempt to derive a new Karplus-type equation of vicinal protoncarbon, 359
- Crystallization behavior of amylose-V complexes: structure-property relationships, 31
- 4,6-Cyclic sulfate rings, formation of, in reactions of phenyl chlorosulfate with aldohexo-pyranose derivatives, 123
- Deoxygenative [1,2]-hydride shift and  $\beta$ -elimination reactions of O-sulfonylated adenosines, synthesis of 2'- and 3'-azido-2',3'-dideoxyadenosines. Preparative applications of the, 87
- 6-Deoxy-D-talose, identification of, in an extracellular polysaccharide produced by *Butyri*vibrio fibriosolvens strain X6C61, 281
- Determination of the degree of N-acetylation of chitin-chitosan with picric acid, 363
- Dextrins, fractional precipitation of alpha-, using methanol, 169
- 1-O-(E-3,7-Dimethyl-2,6-octadienyloxycarbonyl)-β-rutinose hexaacetate, synthesis of, 331
- Disaccharide derivatives having a furanose as the reducing unit, a new approach to the synthesis of, 79
- Endo-N-acetyl-β-D-glucosaminidase H, purification by substrate-affinity chromatography of, 289
- Fractional precipitation of amylopectin alphadextrins using methanol, 169

C14 SUBJECT INDEX

- $\beta$ -D-Fructopyranose, 5-O- $\alpha$ -D-glucopyranosyl-, synthesis and crystal structure of, 65
- $\alpha$ -L-Fucp-(1 $\rightarrow$ 3)- $\beta$ -D-GlcpNAc-(1 $\rightarrow$ 6)-D-Gal-NAc, synthesis of, 21
- Furanose as the reducing unit, a new approach to the synthesis of disaccharide derivatives having a, 79
- L-Galactose in sulfated polysaccharides from tunicates, 374
- Galacturonic acid, 3-O-acetyl-, in the rhamnoserich portion of pectins, 261
- $\beta$ -D-Galp-(1 $\rightarrow$ 3)- $\beta$ -D-GlcpNAc-(1 $\rightarrow$ 6)- $\alpha$ -D-GalpNAcOBzl, synthesis of, 21
- 1-O-Geranyloxycarbonyl-β-rutinose, 2,3,4, 2',3',4'-hexa-O-acetyl-, synthesis of, 331
- (1→3)-α-D-Glucan from an alkaline extract of Agrocybe cylindracea, and antitumour activity of its O-(carboxymethyl)ated derivatives, 273
- β-D-Glucosaminidase H, N-acetyl-, endo-, purification by substrate-affinity chromatography of, 289
- Glyceraldehyde, reactivity of model peptides with, 49
- Identification of 6-deoxy-D-talose in an extracellular polysaccharide produced by *Butyrivibrio* fibrisolvens strain X6C61, 281
- Investigation of the fine structure of amylopectin using alpha- and beta-amylase, 195
- Karplus-type equation of vicinal proton-carbon coupling constants for C-O-C-H segment of bonded atoms, an attempt to derive a new, 359
- Kdo-containing disaccharides using phenylselenyl triflate, a new and stereospecific approach to, C1
- Klebsiella K12 polysaccharide, 5,6-O-(1-carboxyethylidene)-p-galactofuranose units in, 247
- Klebsiella K41 and K12 polysaccharides, action of bacteriophages  $\phi$ 41 and  $\phi$ 12 on, 237
- Leucrose, synthesis and crystal structure of 5-O- $\alpha$ -D-glucopyranosyl- $\beta$ -D-fructopyranose, synthesis and crystal structure of, 65
- O-Levulinoyl group to minimize acyl-migration, chromic acid oxidation in the synthesis of uronic acids. use of the, 135
- Lipopolysaccharide antigenic O-chain of Salmonella ohio (O:6,7), structure of, 161
- Liposaccharides, amphiphilic, synthesis of, 341 Liquid chromatography of benzyl and nitrophenyl glycosides, 13

- Manninotrionate group, production and characterization of antisera raised to the, 301
- D-Mannose and D-galactose methylhydrazones, new pentahydroxypentylpyrazoles from the reactions of nitroalkenes with, 349
- Melibiose, 6'-O-octyl-, synthesis of, 341
- Methylhydrazones, new pentahydroxypentylpyrazoles from the reactions of D-mannose and D-galactose, with nitroalkenes, 349
- Milk oligosaccharides, liquid chromatography of, 1
- Molecular structures of rice starch, 227 Mucin fragments, synthesis of, 21
- New and stereospecific approach to Kdo-containing disaccharides using phenylselenyl triflate, a Cl
- New approach to the synthesis of disaccharide derivatives having a furanose as the reducing unit, 79
- Nitrophenyl glycosides, separation by liquid chromatography of, 13
- C-Nucleosides, nitrogen-bridged purine-like, synthesis of, from ethyl 2,5-anhydro-6-O-ben-zoyl-D-allonodithioate, 149
- 6-O-Octyl- $\alpha$ -D-galactopyranosyl-, synthesis of, 341
- L-Oleandral, a convenient high-yield synthesis of, 113
- L-Oleandrose, a convenient high-yield synthesis of, 113
- Oligosaccharides of milk, liquid chromatography of, 1
- 1,2-Oxazoline rings, formation of, in reactions of phenyl chlorosulfate with aldohexopyranose derivatives, 123
- Pectins, the rhamnose-rich portion of, the acetylation at O-3 of galacturonic acid in, 261
- Penta-N, O-acetyl derivatives of some pseudo-3amino-3-deoxy-DL-hexopyranoses and -DLhexopyranosylamine derivatives, synthesis of the, 323
- Pentahydroxypentylpyrazoles from the reactions of D-mannose and D-galactose methylhydrazones with nitroalkenes, 349
- Peptides, model, reactivity with glyceraldehyde of, 49
- Phenyl chlorosulfate, reactions of, at OH-1, -4, and -6 of aldohexopyranoses, and formation of 1,2-oxazoline and 4,6-cyclic sulfate rings, 123

SUBJECT INDEX C15

Phenylselenyl triflate, a new and stereospecific approach to Kdo-containing disaccharides using, C1

- Polysaccharide, an extracellular, produced by Butyrivibrio fibrisolvens strain X6C61, identification of 6-deoxy-D-talose in, 281
- Polysaccharide, from the roots of *Bupleurum* falcatum L., structural characterization of an anti-complementary pectic, 209
- Polysaccharide of Klebsiella K12, 5,6-O-(1-carboxyethylidene)-D-galactofuranose units in, 247
- Polysaccharides from *Klebsiella* K41 and K12, action of bacteriophages φ41 and φ12 on, 237
- Polysaccharides, sulfated, from tunicates, L-galactose in, 374
- Production and characterization of antisera raised to the manninotrionate group  $[\alpha\text{-D-Gal}p\text{-}(1\rightarrow 6)\text{-}\alpha\text{-D-Gal}p\text{-}(1\rightarrow 6)\text{-D-gluconate}],$  301
- Pseudo-3-amino-3-deoxy-DL-hexopyranoses and -DL-hexopyranosylamine derivatives, synthesis of the penta-N,O-acetyl derivatives of some, 323
- Reactions of phenyl chlorosulfate at OH-1, -4, and -6 of aldohexopyranose derivatives. Formation of 1,2-oxazoline and 4,6-cyclic sulfate rings, 123
- Reactivity, sequence-dependent, of model peptides with glyceraldehyde, 49
- Rice starch, molecular structures of, 227
- β-Rutinose, 2,3,4,2',3',4'-hexa-O-acetyl-1-Ogeranyloxycarbonyl-, synthesis of, 331

- Salmonella ohio (O:6,7), structure of lipopolysaccharide antigenic O-chain of, 161 Starch, molecular structures of rice, 227
- Structural characterisation of an anti-complementary pectic polysaccharide from the roots of *Bupleurum falcatum* L., 209
- Structure of amylopectin, investigation of the fine, using alpha- and beta-amylase, 195
- Sugars, 2-deoxy-3-C-methyl-branched, a colorimetric method for the estimation of, 368 Synthesis of acarbose and adiposin-2, total, 309 Synthesis of 2'- and 3'-azido-2',3'-dideoxy-adenosines. Preparative applications of the deoxygenative [1,2]-hydride shift and  $\beta$ -elimination reactions of O-sulfonylated adenosines. 87
- Synthesis of nitrogen-bridged purine-like C-nucleosides from ethyl 2,5-anhydro-6-O-ben-zoyl-p-allonodithioate, 149
- Synthesis of the penta-*N*, *O*-acetyl derivatives of some pseudo-3-amino-3-deoxy-DL-hexopyranoses and -DL-hexopyranosylamine derivatives, 323

Total synthesis of acarbose and adiposin-2, 309

Uronic acids. use of the *O*-levulinoyl group to minimize acyl-migration, chromic acid oxidation in the synthesis of, 135