## SUBJECT INDEX

- 2-Acetamido-2-deoxy-β-D-glycopyranosylamines, synthesis of, C1
- N-Acetylneuraminic acid, glycoside formation with secondary hydroxyl groups of, 147
- L-Acosamine, synthesis of N-trifluoroacetyl-, 193
- L-Acosamine, 1-thio analog, synthesis of, 193
- Action pattern of mannuronan C-5-epimerase: generation of block-copolymeric structures in alginates by a multiple-attack mechanism, 342
- Activity of branched dextrans in the acceptor reaction of a glucosyltransferase (GTF-I) from *Streptococcus mutans* OMZ176, 259
- Alditols and some aldoses on O-(carboxymethyl)cellulose paper in lanthanum, calcium, and barium forms, 141
- Aldoses on O-(carboxymethyl)cellulose paper in lanthanum, calcium, and barium forms, 141
- Alginates, generation of block-copolymeric structures in, by multiple attack by mannuronan C-5-epimerase, 342
- 2-Amino-3,4-dihydroxy-5-(hydroxymethyl)-1-cy-clohexyl] β-D-glucopyranoside, synthesis of [(IS)-(1,2,4/3,5), 167
- Amino sugar β-D-glycosylamines, synthesis of, C1 Amino, 2,3,2'-tri-, 2,3,3'-tri-, and 2,3,2',3'-tetra, disaccharides of the trehalose type, synthesis of, 73
- 2-(and 3-)-Amino-2-(and 3-)-deoxy-α-D-mannopyranosyl α-D-mannopyranoside, synthesis of, 63
- Anhydro sugars using hydride and azide as nucleophiles, ring-opening reactions of some branched-chain, 160
- Apiose, a convenient synthesis of, 335
- Application of n.m.r. spectroscopy (including n.O.e. studies) to the O-specific polysaccharide from *Pseudomonas cepacia* strain IMV 3181, 346
- Arabinoglucan from the fruits of *Cordia dichotoma* (Forst), some structural features of an, 350
- Bioactive chitin derivatives. Activation of mouse peritoneal macrophages by *O*-(carboxymethyl)chitins, 251
- Branched-chain anhydro sugars using hydride and azide as nucleophiles, ring-opening reactions of some, 160
- (Carboxymethyl)chitins, bioactive chitin derivatives. Activation of mouse peritoneal macrophages by O-, 251

- Catalytic versatility of trehalase: synthesis of  $\alpha$ -D-glucopyranosyl  $\alpha$ -D-xylopyranoside from  $\beta$ -D-glucosyl fluoride and  $\alpha$ -D-xylose, 39
- Chemical shifts of the methyl groups in di-O-isopropylidene furanoses, and their relationship to molecular conformation and site of ring fusion. Spin-lattice relaxation measurements, and motional characteristics, 177
- Chitin derivatives. Activation of mouse peritoneal macrophages by *O*-(carboxymethyl)chitins, bioactive, 251
- Chondroitin 6-sulfate, depolymerization with diazomethane of, 271
- Chromatographic separation of alditols and some aldoses on *O*-(carboxymethyl)cellulose paper in lanthanum, calcium, and barium forms, 141
- Chromogenic substrates for the assay of glycosidases, 3-methoxy-4-(2-nitrovinyl)phenyl glycosides as potential, 241
- Conformation-dependent *O*-glycosylation of threonine-containing dipeptides, 174
- Convenient synthesis of apiose, a, 335
- Cyclic platelet-activating factor analogues derived from 2-deoxy-D-*erythro*-pentose, 89
- Cytosine and cytidine, F.t.-i.r. and laser-Raman spectra, 1
- L-Daunosamine, synthesis of N-trifluoroacetyl-, 193
- 193 L-Daunosamine, 1-thio analog, synthesis of, 193
- 2-Deoxy-D-erythro-pentose, cyclic plateletactivating factor analogues derived from, 89
- 3-Deoxy-D-manno-oct-2-ulosonic acid (KDO), synthesis of methyl pyranosides and furanosides of, 219
- Dermatan sulfate, depolymerization with diazomethane of, 271
- Dextrans in the acceptor reaction of a glucosyltransferase (GTF-I) from *Streptococcus mutans* OMZ176, activity of branched, 259
- Diazomethane, depolymerization of chondroitin 6-sulfate and dermatan sulfate with, 271
- Disaccharides of trehalose-type, synthesis of 2,3,2'-tri-, and 2,3,2',2'-tetra-amino, 73
- 6-Epipurpurosamine B, synthesis of protected purpurosamine B and, 51
- Fructosyl transfer in concentrated solutions of sucrose, invertase-catalysed, 154
- Fruits of *Cordia dichotoma* Forst, some structural features of an arabinoglucan from the, 350

C10 SUBJECT INDEX

- F.t.-i.r. and laser-Raman spectra of cytosine and cytidine, 1
- F.t.-i.r. and laser-Raman spectra of guanine and guanosine, 15
- Furan from the acid decomposition of isomaltol, preparation and structure of an unusual dimeric, 107
- Furanoses, and their relationship to molecular conformation and site of ring fusion. Spin-lattice relaxation measurements, and motional characteristics, chemical shifts of the methyl groups in di-O-isopropylidene, 177
- Galabiose  $[O-\alpha\text{-D-galactopyranosyl-}(1\rightarrow 4)\text{-D-galactopyranose}]$ , X-ray crystal structure of, 29
- Galactofuranose, synthesis of 5-O-methyl-D-, 233  $O \alpha D$  Galactopyranosyl  $(1 \rightarrow 4)$  D-galactopyranosyl  $(1 \rightarrow 4)$
- O-α-D-Galactopyranosyl-(1→4)-D-galactopyranose (galabiose), X-ray crystal structure of, 29
- Glucopyranoside, synthesis of [(IS)-(1,2,4/3,5)-2-amino-3,4-dihydroxy-5-(hydroxymethyl)-1-cyclohexyl] β-D-glucopyranoside, 167
- α-D-Glucopyranoside α-D-xylopyranoside from α-D-glucosyl fluoride and α-D-xylose, catalytic versatility of trehalase: synthesis of, 39
- Glucosyltransferase (GTF-I) from Streptococcus mutans OMZ176, activity of branched dextrans in the acceptor reaction of a, 259
- Glucuronoarabinoxylan from developing maize coleoptiles, a highly-substituted, 129
- Glycoside formation of *N*-acetylneuraminic acid with secondary hydroxyl groups, 147
- Glycosidases, 3 methoxy-4-(2-nitrovinyl)phenyl glycosides as potential chromogenic substrates for the assay of, 241
- β-D-Glycosylamines, of 2-acetamido-2-deoxyhexoses, synthesis of, c1
- O-Glycosylation of threonine-containing dipeptides, conformation-dependent, 174
- Guanine and guanosine, F.t.-i.r. and laser-Raman spectra. 15
- Highly-substituted glucuronoarabinoxylan from developing maize coleoptiles, a, 129
- Invertase-catalysed fructosyl transfer in concentrated solutions of sucrose, 154
- Isolevoglucosenone, synthesis and thermal chemistry of, 113
- Isomaltol, preparation and structure of an unusual dimeric furan from the acid decomposition of, 107
- Kinetic study, metal-ion oxidation reactions of monosaccharides, a, 97
- Laser-Raman spectra of cytosine and cytidine, F.t.-i.r. and, 1

- Laser-Raman spectra of guanine and guanosine, F.t.-i.r., 15
- Lectin, purification and saccharide-binding characteristics of a rice, 205
- Maize coleoptiles, a highly-substituted glucuronoarabinoxylan from developing, 129
- α-D-Mannopyranoside, 2-amino-2-deoxy- and 3amino-3-deoxy-α-D-mannopyranosyl, synthesis of 63
- Mannuronan C-5-epimerase, generation of blockcopolymeric structures in alginates by multiple attack by, 342
- Metal-ion oxidation reactions of monosaccharides: a kinetic study, 97
- 3-Methoxy-4-(2-nitrovinyl)phenyl glycosides as potential chromogenic substrates for the assay of glycosidases, 241
- Methyl-D-galactofuranose, synthesis of 5-O-, 233 Methyl groups in di-O-isopropylidene furanoses, and their relationship to molecular conformation and site of ring fusion. Spin-lattice relaxation measurements and motional characteristics, chemical shifts of the, 177
- Methyl pyranosides and furanosides of 3-deoxy-Dmanno-oct-2-ulosonic acid (KDO), synthesis of, 219
- Neuraminic acid, N-acetyl-, glycoside formation with secondary hydroxyl groups of, 147
- N.m.r. spectroscopy, application of, to the Ospecific polysaccharide from *Pseudomonas* cepacia strain IMV 3181, 346
- Oligosaccharides, isolated from the pectic polysaccharide rhamnogalacturonan II, structural characterization of, 279
- Osmylation, sequential, of a dienic disaccharide, 63
- Oxidation reactions of monosaccharides: a kinetic study, metal-ion, 97
- Platelet-activating factor analogues derived from 2-deoxy-D-*erythro*-pentose, cyclic, 89
- Polysaccharides, acidic, secreted by different *Rhizobium* species, are the same, the discernible, structural features of the, 307
- Polysaccharide from *Pseudomonas cepacia* strain IMV 3181, application of n.m.r. spectroscopy to the O-specific, 346
- Polysaccharide, soluble, from *Iridaea mem-branacea*, structural studies on the, 327
- Preparation and structure of an unusual dimeric furan from the acid decomposition of isomaltol, 107
- Purification and saccharide-binding characteristics of a rice lectin, 205

SUBJECT INDEX C11

- Purpurosamine B and 6-epipurpurosamine B, synthesis of protected, 51
- X-Ray crystal structure of galabiose,  $O-\alpha$ -D-galactopyranosyl- $(1\rightarrow 4)$ -D-galactopyranose, 29
- Rhamnogalacturonan II, a pectic polysaccharide, structural characterization of oligosaccharides, isolated from, 279
- Ring-opening reactions of some branched-chain anhydro sugars using hydride and azide as nucleophiles, 160
- Saccharide-binding characteristics of a rice lectin, purification and, 205
- Structural characterization of oligosaccharides isolated from the pectic polysaccharide rhamnogalacturonan II, 279
- Structural features of an arabinoglucan from the fruits of *Cordia dichotoma* Forst, 350
- Structural studies on the soluble polysaccharide from *Iridaea membranacea*, 327
- Sucrose, invertase-catalysed fructosyl transfer in concentrated solutions of, 154
- Synthesis and thermal chemistry of isolevoglucosenone, 113

- Synthesis of [(IS)-(1,2,4/3,5)-2-amino-3,4-dihydroxy-5-(hydroxymethyl)-1-cyclohexyl]  $\beta$ -Dglucopyranoside, 167
- Synthesis of apiose, a convenient, 335
- Synthesis of 5-O-methyl-D-galactofuranose, 233
- Synthesis of methyl pyranosides and furanosides of 3-deoxy-D-manno-oct-2-ulosonic acid (KDO) by acid-catalysed solvolysis of the acetylated derivatives, 219
- Synthesis of protected purpurosamine B and 6-epipurpurosamine B, 51
- The discernible, structural features of the acidic polysaccharides secreted by different *Rhizobium* species are the same, 307
- Threonine-containing dipeptides, conformation-dependent *O*-glycosylation of, 174
- Trehalase: synthesis of  $\alpha$ -D-glucopyranosyl  $\alpha$ -D-xylopyranoside from  $\beta$ -D-glucosyl fluoride and  $\alpha$ -D-xylose, catalytic versatility of, 39
- Trehalose-type disaccharides, synthesis of 2,3,2'-tri-, 2,3,3'-tri-, and 2,3,2',3'-tetra-amino disaccharides of, 73