SUBJECT INDEX

- Acetal rings in bis(methyl 4,6-O-benzylidene-α-D-glucopyranosido)-18-crown-6, cleavage of the, 31
- Aconitan A, a hypoglycemic glycan of Aconitum carmichaeli roots, structure of, 160
- Allopyranosyl β -D-fructofuranoside, synthesis of 3-deoxy- and 3-deoxy-3-fluorosucrose, and α -D-, 149
- 2-Amino-2,6-dideoxy-D-glucopyranose-6-sulphonic acid, synthesis of, 325
- Amylopectins, polymodal distribution of the chain lengths of, and its significance, 342
- 2,5-Anhydro-L-iditol, the X-ray crystal structure of, 169
- Approaches to higher-carbon sugars, based on the use of sugar derived stabilized Wittig reagents, 59
- Arabinose and L-(2-¹³C, 5-²H)arabinose and identification of the intermediates by ²H- and ¹³C- n.m.r. spectroscopy, syntheses of L-(4-²H)erythrose, L-(1-¹³C, 5-²H), 247
- Arabinoxylan from the mucilage of the leaves of Litsea polyantha, An, 165
- Bacterium Alcaligenes (ATCC 31555) species, structure of the extracellular polysaccharide produced by the, 295
- Bis(methyl 4,6-O-benzylidene-α-D-glucopyranosido)-18-crown-6, cleavage of the acetal rings in, 31
- Boric acid and related compounds from solutions of carbohydrates with a boron-selective resin (IRA-743), removal of, 39
- Carbohydrate moiety attached to one site in the first domain of turkey ovomucoid: elucidation by ¹H-n.m.r. spectroscopy, structures of the, 21
- Carbohydrates, transport of, in bacteria, mechanisms and regulation of (book review),
- Carbohydrates with a boron-selective resin (IRA-743), removal of boric acid and related compounds from solutions of, 39
- Chain lengths of amylopectins, polymodal distribution of the, and its significance, 342
- Cleavage of the acetal rings in bis(methyl 4,6-O-benzylidene-α-D-glucopyranosido)-18-crown-6, 31
- Comparative structural studies of lignin-carbohydrate complexes from pangola grass before and after chlorite delignification, 101

- Complexes of borate ions and some cyclitols, a study by ¹¹B-n.m.r. spectroscopy of the, 191
- Conformational states of maltose in aqueous solution, nuclear Overhauser effects for methyl β -maltoside and the, 175
- Conjugated cyclohexenones included in native or modified cyclomalto-oligosaccharides, induced circular dichroism of, 205
- Crystal structure of 2,5-anhydro-L-iditol, the X-ray, 169
- Crystal structure of trisodium β-D-fructofuranose 1,6-diphosphate octahydrate, 183
- Cyclomalto-oligosaccharides, induced circular dichroism of conjugated cyclohexenones included in native or modified, 205
- Dehydroascorbic acid, a study of the acetate and benzoate of dimeric, in the crystalline and the solute state, 11
- Dextransucrase from Leuconostoc mesenteroides NRRL B-521F, milligram to gram scale purification and characterization, 119
- Dermatan sulfates from different origins, structural differences of, 87
- Dialdehydes, synthesis of C-glycopyranosylfuran derivatives by reaction of cyanoacetamide with, 237
- Difference in mode of inhibition between α-D-xylosyl β-D-fructoside and α-isomaltosyl β-D-fructoside in synthesis of glucan by Streptococcus mutans D-glucosyltransferase, 135
- Differences of dermatan sulfates from different origins, structural, 87
- Disaccharide component of actinoidins, synthesis of a derivative (phenyl β -acobioside) of the, 211
- (+)-Disparlure, an enantiospecific synthesis of, from carbohydrate precursors, 145
- Effect of galactose-substitution-patterns on the interaction properties of galactomannans, 275
- Enantiospecific synthesis of (+)-disparlure from carbohydrate precursors, 145
- Fine structure of $(1\rightarrow 3)$, $(1\rightarrow 4)$ - β -D-glucan from Zea shoot cell-walls, 69
- Flavologlycan: a novel glycoconjugate from leaves of mangrove (Rhizophora stylosa Griff), 315
- Fluorosucrose, and α -D-allopyranosyl β -D-fructofuranoside, synthesis of 3-deoxy- and 3-deoxy-3-, 149
- β-D-Fructofuranose 1,6-diphosphate octahydrate, crystal structure of trisodium, 183

C8 SUBJECT INDEX

- Galactomannans, effect of galactose-substitutionpatterns on the interaction properties of, 275
- Galactose by N-bromosaccharin in aqueous acetic acid, kinetic study of oxidation of D-, 155
- Galactose-substitution-patterns, effect on the interaction properties of galactomannans of, 275
- Glucan from \overline{Zea} shoot cell-walls, fine structure of $(1\rightarrow 3), (1\rightarrow 4)-\beta$ -D-, 69
- β-D-Glucans, synthesis of the tri- and tetrasaccharides related to the fine structures of lichenan and cereal. 265
- D-Glucan, synthesis of, by *Streptococcus mutans* D-glucosyltransferase, difference in mode of inhibition between α-D-xylosyl β-D-fructoside and α-isomaltosyl β-D-fructoside, 135
- D-Glucose 1-phosphate derivatives, synthesis of some substituted, and their reactivity towards nucleophilic substitution, 330
- Glycoconjugate (flavologlycan), a novel, from leaves of mangrove (*Rhizophora stylosa* Griff), 315
- C-Glycopyranosylfuran derivatives, synthesis of, by reaction of dialdehydes with cyanoacetamide, 237
- Heparin pentasaccharide fragment having high affinity for antithrombin III, synthesis of a, 221 Higher-carbon sugars: a novel approach, c1
- Hypoglycemic glycan of Aconitum carmichaeli roots, structure of aconitan A, a, 160
- Induced circular dichroism of conjugated cyclohexenones included in native or modified cyclomalto-oligosaccharides, 205
- Kinetic study of oxidation of p-galactose by N-bromosaccharin in aqueous acetic acid, 155
- Lignin-carbohydrate complexes from pangola grass before and after chlorite delignification, comparative structural studies of, 101
- Litsea polyantha, an arabinoxylan from the mucilage of the leaves of, 165
- α -D-Mannopyranoside, methyl 4,6-di-O-benzyl-, selective esterification of, 337
- Mechanisms and regulation of carbohydrate transport in bacteria (book review), c1
- Methyl β -maltoside, nuclear Overhauser effects for, and the conformational states of maltose in aqueous solution, 175
- Milligram to gram scale purification and characterization of dextransucrase from *Leuconostoc mesenteroides* NRRL B-512F, 119
- Mucilage of the leaves of *Litsea polyantha*, an arabinoxylan from the, 165
- ¹¹B-N.m.r. spectroscopy, a study of the complexes of borate ions and some cyclitols using, 191

- Novel approach to the synthesis of higher-carbon sugars, a, CI
- Nuclear Overhauser effects for methyl β -maltoside and the conformational states of maltose in aqueous solution, 175
- Ovomucoid: elucidation by ¹H-n.m.r. spectroscopy, structures of the carbohydrate moiety attached to one site in the first domain of turkey, 21
- Oxidation of D-galactose by N-bromosaccharin in aqueous acetic acid, kinetic study of, 155
- Pangola grass, comparative structural studies of lignin-carbohydrate complexes from, before and after delignification with chlorite, 101
- Pentasaccharide fragment, synthesis of a heparin, having high affinity for antithrombin III, 221
- Phenyl β -acobioside, synthesis of, a derivative of the disaccharide component of actinoidins, 211
- Pivalic esters of sucrose, use of, for the synthesis of chloro, azido, and anhydro derivatives, 49
- Polymodal distribution of the chain lengths of amylopectins, and its significance, 342
- Polysaccharide produced by the bacterium *Al*caligenes (ATCC 31555) species, structure of the extracellular, 295
- Purification and characterization of dextransucrase from *Leuconostoc mesenteroides* NRRL B-512F, milligram to gram scale, 119
- X-Ray crystal structure of 2,5-anhydro-L-iditol, 169
- Reactivity towards nucleophilic substitution and synthesis of some substituted D-glucose 1-phosphate derivatives, 330
- Removal of boric acid and related compounds from solutions of carbohydrates with a boronselective resin (IRA-743), 39
- Selective esterification of methyl 4,6-di-*O*-benzylα-D-mannopyranoside, 337
- Spectroscopic study of the structure of sucrose in the amorphous state and in aqueous solution, 1
- Spectroscopy, synthesis of L-(4-²H)erythrose, L-(1-¹³C, 5-²H)arabinose and L-(2-¹³C, 5-²H)arabinose and identification of the intermediates by ²H- and ¹³C-N.m.r., 247
- Stability of symmetric dimers of dehydroascorbic acid: a study of the esters in the crystalline and the solute state, 11
- Structural differences of dermatan sulfates from different origins, 87
- Structure of aconitan A, a hypoglycemic glycan of *Aconitum carmichaeli* roots, 160
- Structure of sucrose in the amorphous state and in aqueous solution, spectroscopic study of the, 1

- Structure of the extracellular polysaccharide produced by the bacterium *Alcaligenes* (ATCC 31555) species, 295
- Structures of the carbohydrate moiety attached to one site in the first domain of turkey ovomucoid: elucidation by ¹H-n.m.r. spectroscopy, 21
- Study of the acetate and benzoate of dimeric dehydroascorbic acid in the crystalline and the solute state, 11
- Study of the complexes of borate ions and some cyclitols using ¹¹B-n.m.r. spectroscopy, 191
- Sucrose in the amorphous state and in aqueous solution, spectroscopic study of the structure of, 1
- Sucrose, use of pivalic esters of, for the synthesis of chloro, azido, and anhydro derivatives, 49
- Sugars, a novel approach to the synthesis of higher-carbon, c1
- Sugars, higher-carbon, approaches to, based on the use of sugar-derived stabilized Wittig reagents, 59
- Synthesis of 3-deoxy- and 3-deoxy-3-fluorosucrose, and α -D-allopyranosyl β -Dfructofuranoside, 149
- Synthesis of (+)-disparlure from carbohydrate precursors, an enantiospecific, 145
- Syntheses of L-(4-2H)erythrose, L-(1-13C, 5-2H)arabinose and L-(2-13C, 5-2H)arabinose and identification of the intermediates by 2H- and 13C-n.m.r. spectroscopy, 247

- Synthesis of a heparin pentasaccharide fragment having high affinity for antithrombin III, 221
- Synthesis of 2-amino-2,6-dideoxy-D-glucopyranose-6-sulphonic acid, 325
- Synthesis of *C*-glycopyranosylfuran derivatives by reaction of dialdehydes with cyanoacetamide, 237
- Synthesis of phenyl β -acobioside, a derivative of the disaccharide component of actinoidins, 211
- Synthesis of some substituted D-glucose 1-phosphate derivatives and their reactivity towards nucleophilic substitution, 330
- Synthesis of the tri- and tetra-saccharides related to the fine structures of lichenan and cereal β -D-glucans, 265
- Tri- and tetra-saccharides related to the fine structures of lichenan and cereal β -D-glucans, synthesis of the, 265
- Trisodium β-D-fructofuranose 1,6-diphosphate octahydrate, crystal structure of, 183
- Use of pivalic esters of sucrose for the synthesis of chloro, azido, and anhydro derivatives, 49
- Wittig reagents, sugar-derived stabilized, the use of, in approaches to higher-carbon sugars, 59
- Zea shoot cell-walls, fine structure of $(1\rightarrow 3), (1\rightarrow 4)-\beta$ -D-glucan from, 69