

Contents

Regular papers

Separation of cyclodextrins and their derivatives by thin-layer and preparative column chromatography J. Jindrich, J. Pitha (Baltimore, MD, USA) and B. Lindberg (Stockholm, Sweden)	1
Crystal structures of methyl 6- <i>O</i> -acyl- α -D-galactopyranosides Y. Abe (Ibaraki, Japan), M. Fujiwara, K. Ohbu (Tokyo, Japan) and K. Harata (Ibaraki, Japan).	9
Synthesis of methyl 3,6-dibromo-3,6-dideoxy- β -D-allopyranoside and -glucopyranoside, and their interconversion in the presence of bromide ion K. Furuhata, N. Aoki, S. Suzuki, N. Arai, H. Ishida (Tokyo, Japan), Y. Saegusa, S. Nakamura (Yokohama, Japan) and M. Sakamoto (Tokyo, Japan)	17
Liquid-crystal properties of octyl 6'- <i>O</i> -alkylmelibiosides L.M. Wingert, G.A. Jeffrey (Pittsburgh, PA, USA), D. Cabaret and M. Wakselman (Versailles, France)	25
Synthesis of 1D-(1,3,5/2,4)-4-acetamido-5-amino-1,2,3- cyclohexanetriol and its incorporation into a pseudo-disaccharide L.-X. Wang (Shanghai, P.R. China), N. Sakairi (Sapporo, Japan) and H. Kuzuhara (Urawa, Japan)	33
Carbohydrates with relevance to the structure of glycosaminoglycans: The crystal structures of 2-deoxy-2-(sulfoamino)- α -D-glucopyranose sodium salt dihydrate, 2-amino-2-deoxy- α , β -D-glucopyranose 3-(hydrogen sulfate) monohydrate, and 2-amino-2-deoxy- α -D-glucopyranose 6-(hydrogen sulfate) monohydrate W.H. Ojala, K.E. Albers, W.B. Gleason and C.G. Choo (Minneapolis, MN, USA)	49
Synthesis and structural analysis of disaccharides of 4- <i>O</i> - β -D-glucopyranosyl-D-glucosamine and 4- <i>O</i> - β -glucopyranosyl-2-deoxy-D-glucose M.A. Tariq, K. Hayashi, K. Tokuyasu and T. Nagata (Ibaraki, Japan)	67
Crystal structure of anhydrous heptakis-(2,6-di- <i>O</i> -methyl)cyclomaltoheptaose (dimethyl- β -cyclodextrin) T. Steiner and W. Saenger (Berlin, Germany)	73
Stereoselective synthesis of L-vancosamine methyl β -glycoside by addition of an organocerium reagent to <i>O</i> -benzyloxime ethers R. Greven, P. Jütten and H.-D. Scharf (Aachen, Germany)	83
Synthesis and reactions of 1-(5-azido-5-deoxy-3- <i>O</i> -p-toluenesulfonyl- β -D-xylofuranosyl) derivatives of 5-alkyl- and 5-halo-pyrimidines N.A. Al-Masoudi (Basrah, Iraq) and W. Pfeleiderer (Konstanz, Germany)	95

β-Elimination of protected aldono-1,4-lactones as a general approach to the synthesis of 2-keto-3-deoxyaldonic acids containing four to six carbon atoms G. Limberg and J. Thiem (Hamburg, Germany)	107
Synthesis and crystal structure of methyl 4,6-dideoxy-4-(3-deoxy-L-glycero-tetronamido)- 2-O-methyl- α -D-mannopyranoside, the methyl α -glycoside of the terminal unit, and presumed antigenic determinant, of the O-specific polysaccharide of <i>Vibrio cholerae</i> O:1, serotype Ogawa P. Lei, Y. Ogawa (Bethesda, MD, USA), J.L. Flippen-Anderson (Washington, DC, USA) and P. Kováč (Bethesda, MD, USA)	117
Chain conformation in concentrated pectic gels: evidence from ^{13}C NMR M.C. Jarvis (Glasgow, UK) and D.C. Apperley (Durham, UK)	131
Structure of the capsular polysaccharide from <i>Alteromonas</i> sp. CMM 155 V.A. Zubkov, E.L. Nazarenko, R.P. Gorshkova, E.P. Ivanova (Vladivostok, Russian Federation), A.S. Shashkov, Y.A. Knirel, N.A. Paramonov (Moscow, Russian Federation) and Y.S. Ovodov (Vladivostok, Russian Federation)	147
Structure of the repeating units in the rhamnogalacturonic backbone of apple, beet and citrus pectins C.M.G.C. Renard, M.-J. Cr��peau and J.-F. Thibault (Nantes, France)	155
Lignin-ferulate cross-links in grasses: active incorporation of ferulate polysaccharide esters into ryegrass lignins J. Ralph, J.H. Grabber and R.D. Hatfield (Madison, WI, USA)	167
<i>Notes</i>	
Synthesis of 1-thioglycosides P. Li, L. Sun, D.W. Landry and K. Zhao (New York, NY, USA)	179
Complete assignments of ^{13}C NMR resonances to all the carbon atoms of the trimannosido-di-N-acetylchitobiosyl structure in a pentaantennary deca-saccharide glycopeptide T. Taguchi, K. Kitajima, T. Niimi, Y. Muto, S. Yokoyama, S. Inoue and Y. Inoue (Tokyo, Japan)	185
Isolation and characterization of a new β -galactose-specific lectin from the sea worm <i>Chaetopterus variopedatus</i> L.V. Mikheyskaya, E.V. Evtushenko, R.G. Ovodova, N.I. Belogortseva and Y.S. Ovodov (Vladivostok, Russian Federation)	193
The structure of the O-specific polysaccharide chain of <i>Proteus penneri</i> strain 42 lipopolysaccharide Y.A. Knirel, A.S. Shashkov, E.V. Vinogradov (Moscow, Russian Federation), A. Swierzko and Z. Sidorczyk (Lodz, Poland)	201
Purification and characterization of a β -mannanase from the digestive tract of the edible snail <i>Helix lucorum</i> L. V. Flari (Thessaloniki, Greece), M. Matoub and C. Rouland (Cr��teil, France).	207
Differential activities of a lipase and a protease toward straight- and branched-chain acyl donors in transesterification to carbohydrates in an organic medium T. Watanabe, R. Matsue, Y. Honda and M. Kuwahara (Kyoto, Japan)	215
<i>Regular papers</i>	
Synthesis of pentasaccharide analogues of the N-glycan substrates of N-acetylglucosaminyltransferases III, IV and V using tetrasaccharide precursors and recombinant β -(1 $\rightarrow$ 2)-N-acetylglucosaminyltransferase II F. Reck (Toronto, Canada), E. Meinjohanns (Hamburg, Germany), J. Tan, A.A. Grey (Toronto, Canada), H. Paulsen (Hamburg, Germany) and H. Schachter (Toronto, Canada)	221

Synthetic mucin fragments: synthesis of <i>O</i> -sulfo and <i>O</i> -methyl derivatives of allyl <i>O</i> -(β -D-galactopyranosyl)-(1 $\rightarrow$ 3)-2-acetamido-2-deoxy- α -D-galactopyranoside as potential compounds for sulfo-transferases R.K. Jain, C.F. Piskorz and K.L. Matta (Buffalo, NY, USA)	231
Spin-labelled glycolipid analogues: D-glucose series J.M.J. Tronchet, M. Zsély and M. Geoffroy (Geneva, Switzerland)	245
Synthesis, conformation and glycosylation reaction of substituted 2,6-dioxabicyclo[3.1.1]heptanes: 1,3-anhydro-2,4-di- <i>O</i> -benzyl- α -L-arabinopyranose Y. Du and F. Kong (Beijing, P.R. China)	259
The N-7 regioisomer of 2-chloro-2'-deoxyadenosine: synthesis, crystal structure, conformation, and stability V.L. Worthington, W. Fraser and C.H. Schwalbe (Birmingham, UK)	275
Structural analysis of the O-antigen of the lipopolysaccharide of <i>Rhizobium tropici</i> CIAT899 A.M. Gil-Serrano, I. González-Jiménez, P. Tejero Mateo (Seville, Spain), M. Bernabé, J. Jiménez-Barbero (Madrid, Spain), M. Megías and M.J. Romero-Vázquez (Seville, Spain)	285
Characterization of a monoclonal antibody that recognizes an arabinosylated (1 $\rightarrow$ 6)- β -D-galactan epitope in plant complex carbohydrates W. Steffan (Athens, GA, USA), P. Kováč (Bethesda, MD, USA), P. Albersheim, A.G. Darvill and M.G. Hahn (Athens, GA, USA)	295
Analysis of cationic starches: determination of the substitution pattern of <i>O</i> -(2-hydroxy-3-trimethylammonium)propyl ethers O. Wilke and P. Mischnick (Hamburg, Germany)	309
Structure of an exocellular polysaccharide of <i>Lactobacillus helveticus</i> TN-4, a spontaneous mutant strain of <i>Lactobacillus helveticus</i> TY1-2 Y. Yamamoto (Gifu, Japan), T. Nunome (Hyougo, Japan), R. Yamauchi, K. Kato (Gifu, Japan) and Y. Sone (Osaka, Japan)	319
Structural elucidation of the capsular polysaccharide of <i>Bacteroides fragilis</i> strain 23745M1 V. Pavliak, D. Uhrin, J.-R. Brisson (Ottawa, Canada), A.O. Tzianabos, D.L. Kasper (Boston, MA, USA) and H.J. Jennings (Ottawa, Canada)	333
Different populations of pectic hairy regions occur in apple cell walls H.A. Schols, E. Vierhuis, E.J. Bakx and A.G.J. Voragen (Wageningen, The Netherlands)	343
Structural analysis of starch from normal and <i>shx</i> (shrunk endosperm) barley (<i>Hordeum vulgare</i> L.) A.H. Schulman (Helsinki, Finland), S. Tomooka (Kagoshima, Japan), A. Suzuki (Sakai, Japan), P. Myllärinen (Helsinki, Finland) and S. Hizukuri (Kagoshima, Japan)	361
The structure of the acidic exopolysaccharide produced by <i>Pseudomonas</i> "gingeri" strain Pf9 P. Cescutti, S.F. Osman, W.F. Fett (Philadelphia, PA, USA) and D. Weisleder (Peoria, IL, USA)	371
Notes	
Gradient-enhanced homonuclear 2D NMR techniques applied to oligosaccharides containing mannohexoses provide improved correlations for protons coupled by small 3J A. Otter, O. Hindsgaul and D.R. Bundle (Edmonton, Canada)	381

Conformational analysis of sucrose octasulfate by high resolution nuclear magnetic resonance spectroscopy U.R. Desai, I.R. Vlahov, A. Pervin and R.J. Linhardt (Iowa City, IA, USA)	391
Synthese von modifizierten Tetrasacchariden als analoge Akzeptor-Inhibitoren der <i>N</i> -Acetylglucosaminyltransferase II H. Paulsen, M. Springer (Hamburg, Deutschland), F. Reck, I. Brockhausen and H. Schachter (Toronto, Canada)	403
Synthesis and unusual glycosidic coupling reaction of substituted 2,7-dioxabicyclo[4.1.0]heptanes: 1,2-anhydro-3,4-di- <i>O</i> -benzyl- α -D-fucopyranose Y. Du and F. Kong (Beijing, P.R. China)	413
Regioselective chlorination study of unprotected pentitols: syntheses of some 1,5-dichloro-1,5-dideoxypentitol derivatives M. Benazza, M. Massoui (Kénitra, Morocco), R. Uzan and G. Demailly (Amiens, France).	421
Inactivation of two D-glucosyltransferases from Serotype c <i>Streptococcus mutans</i> 103220T by 1,2-epoxy-3-(α -D-glucopyranosyl)propane S. Bombard, M. Maillet and M.-L. Capmau (Paris, France)	433
<i>Author index</i>	C3
<i>Subject index</i>	C5
<i>Contents</i>	C13