

Contents

Regular papers

- Improved protocol for the formation of *N*-(*p*-nitrobenzyloxy)aminoalditol derivatives of oligosaccharides
M. Pauly, W.S. York, R. Guillen, P. Albersheim and A.G. Darvill (Athens, GA, USA) 1
- Molecular dynamics simulations of glycosides in aqueous solution
N.W.H. Cheetham and K. Lam (Sydney, Australia) 13
- On the sweetness properties of aldoses: characterization of molecular active sites by computer simulation
E.I. Howard and J.R. Grigera (La Plata, Argentina). 25
- Synthesis and structural characterization of 6¹,6¹¹-diamino-6¹,6¹¹-dideoxy-cyclomaltoheptaose, a difunctionalized β -cyclodextrin
B. Di Blasio (Potenza, Italy), S. Galdiero, M. Saviano, C. Pedone, E. Benedetti (Naples, Italy), E. Rizzarelli, S. Pedotti, G. Vecchio (Catania, Italy) and W.A. Gibbons (London, UK) 41
- Crystal structure of anhydrous hexakis-(2,3,6-tri-*O*-methyl)-cyclomaltohexaose (permethyl- α -cyclodextrin) grown from hot water and from cold NaCl solutions
T. Steiner and W. Saenger (Berlin, Germany). 53
- Polymerized cyclomaltoheptaose (β -cyclodextrin, β -CD_n) inclusion complex formation with chlorogenic acid: solvent effects on thermochemistry and enthalpy–entropy compensation
P.L. Irwin, G. King and K.B. Hicks (Wyndmoor, PA, USA) 65
- Synthesis and iron binding studies of *myo*-inositol 1,2,3-trisphosphate and ($\pm$)-*myo*-inositol 1,2-bisphosphate, and iron binding studies of all *myo*-inositol tetrakisphosphates
I.D. Spiers, C.J. Barker (Birmingham, UK), S.-K. Chung, Y.-T. Chang (Pohang, South Korea), S. Freeman (Birmingham, UK), J.M. Gardiner (Manchester, UK), P.H. Hirst (Bath, UK), P.A. Lambert, R.H. Michell, D.R. Poyner, C.H. Schwalbe (Birmingham, UK), A.W. Smith (Bath, UK) and K.R.H. Solomons (Manchester, UK) 81
- Chemical synthesis of a hexasaccharide comprising the Lewis^x determinant linked β -(1 $\rightarrow$ 6) to a linear trimannosyl core and the precursor pentasaccharide lacking fucose
R.K. Jain and K.L. Matta (Buffalo, NY, USA) 101
- Synthesis of sulfated octadecyl ribo-oligosaccharides with potent anti-AIDS virus activity by ring-opening polymerization of a 1,4-anhydroribose derivative
Y. Choi (Tokyo, Japan), T. Yoshida (Sapporo, Japan), T. Mimura, Y. Kaneko (Tokyo, Japan), H. Nakashima (Yamanashi, Japan), N. Yamamoto and T. Uryu (Tokyo, Japan) 113

The crystal structure of 6 ¹ -(6-aminohexyl)amino-6 ¹ -deoxycyclomaltoheptaose D. Mentzafos (Athens, Greece), A. Terzis (Attiki, Greece), A.W. Coleman and C. de Rango (Chatenay-Malabry, France)	125
Sulfoaminoglucitols: synthesis of 2-amino-2,3 (and 2,6)-dideoxy-D-glucitol-3 (and 6)-sulfonic acids and X-ray crystal structure of the monohydrate of the 6-sulfo derivative J.G. Fernández-Bolaños, S. García, J. Fernández-Bolaños, M.J. Diáñez, M.D. Estrada, A. López- Castro and S. Pérez (Seville, Spain)	137
Structure of the O3 antigen of <i>Stenotrophomonas</i> (<i>Xanthomonas</i> or <i>Pseudomonas</i>) <i>maltophilia</i> A.M. Winn, C.T. Miles and S.G. Wilkinson (Hull, UK)	149
Maize starch fine structures affected by ear developmental temperature T.-j. Lu, J.-I. Jane (Ames, IA, USA), P.L. Keeling and G.W. Singletary (Slater, IA, USA)	157
Elucidation of the subsite structure of bacterial saccharifying alpha-amylase and its mode of degrada- tion of maltose T. Suganuma (Kagoshima, Japan), M. Ohnishi (Kyoto, Japan), K. Hiromi (Fukuyama, Japan) and T. Nagahama (Kagoshima, Japan)	171
<i>Notes</i>	
Decarboxylation of a sialic acid derivative J.J. Potter and M. von Itzstein (Parkville, Australia)	181
The acetolysis of D-galactose diethyl dithioacetal L.M. Lerner (New York, USA)	189
<i>Information for authors</i>	C1
<i>Regular papers</i>	
A comparative study of the dielectric relaxation behaviour of glucose, maltose, and their mixtures with water in the liquid and glassy states T.R. Noel, R. Parker and S.G. Ring (Norwich, UK)	193
Novel conversion of aldopyranosides into 5-thiouldopyranosides via acyclic monothioacetals with inversion and retention of configuration at C-5 H. Hashimoto, M. Kawanishi and H. Yuasa (Yokohama, Japan)	207
Effect of gamma irradiation on the macromolecular integrity of guar gum K. Jumel, S.E. Harding and J.R. Mitchell (Sutton Bonington, UK).	223
Radical-mediated bromination of peracetylated 5-thio-D-xylopyranosyl bromides: an easy access to the corresponding anomeric orthothiolactones M. Baudry, M.-N. Bouchu, G. Descotes, J.-P. Praly (Villeurbanne, France) and F. Bellamy (Daix, France)	237
The chemical structure of amylose and amylopectin fractions of starch from tobacco leaves during development and diurnally-nocturnally N.K. Matheson (Sydney, Australia)	247
Structure of the O-specific polysaccharide from <i>Burkholderia pickettii</i> strain NCTC 11149 L. Galbraith, R. George, J. Wyklicky and S.G. Wilkinson (Hull, UK)	263

Extraction, characterisation, and enzymatic degradation of lemon peel pectins J.M. Ros, H.A. Schols and A.G.J. Voragen (Wageningen, The Netherlands)	271
Mannose receptor dependent uptake of ricin A ₁ and A ₂ chains by macrophages F. Riccobono and M.L. Fiani (Rome, Italy)	285
<i>Notes</i>	
4-(Arylamino)phenyl α -D-glucopyranosides as potential anti-HIV agents J.C. Briggs and A.H. Haines (Norwich, UK)	293
Efficient synthesis of pyruvic acetals of carbohydrate vicinal diols: 3,4- <i>O</i> -(1-methoxycarbonyl)ethylidene-D-galactopyranoside and 5,6- <i>O</i> -(1-methoxycarbonyl)ethylidene-D-galactofuranoside, via 1-hydroxy-2-propanone acetals K. Hiruma, J.-i. Tamura and H. Hashimoto (Yokohama 226, Japan)	299
Synthesis of <i>p</i> -toluenesulfinic esters of cellulose and β -cyclodextrin C. Roussel, C. Popescu and L. Fabre (Marseille, France)	307
Synthesis of 1,2-anhydro-D-altropyranose and -D-allopyranose benzyl ethers Y. Du, W. Mao and F. Kong (Beijing, People's Republic of China)	315
Characterization of carbohydrate components of an unusual hydrogel formed by seed coats of <i>Magonia pubescens</i> (Tingui) P.A.J. Gorin, A.Z.A. Teixeira (Curitiba, Brazil), L.R. Travassos (Sao Paulo, Brazil), M.L.S. Labouriau (Brasília, Brazil) and M. Iacomini (Curitiba, Brazil)	325
Author Index	C3
Subject Index	C5
Contents	C11