

## Contents

### Regular papers

|                                                                                                                                                                                                                                                                                                                              |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Synthesis of disaccharide glycosyl donors suitable for introduction of the $\beta$ -D-Gal p-(1 $\rightarrow$ 3)- $\alpha$ - and - $\beta$ -D-Gal pNAc groups<br>M. Wilstermann and G. Magnusson (Lund, Sweden) . . . . .                                                                                                     | 1   |
| Synthesis of the saccharide moiety of galactosylgloboside (SSEA-3) and its conjugation to bovine serum albumin and Sepharose<br>U. Nilsson and G. Magnusson (Lund, Sweden) . . . . .                                                                                                                                         | 9   |
| Synthesis of 1,5-dideoxy-1,5-imino-D-arabinitol (5- <i>nor</i> -L-fuco-1-deoxynojirimycin) and its application for the affinity purification and characterisation of $\alpha$ -L-fucosidase<br>G. Legler (Köln, Germany), A.E. Stütz (Graz, Austria) and H. Immich (Köln, Germany) . . . . .                                 | 17  |
| Thermodynamics of the interaction of cyclodextrins with aromatic and $\alpha$ , $\omega$ -amino acids in aqueous solutions: a calorimetric study at 25°C<br>G. Castronuovo, V. Elia, D. Fessas, A. Giordano and F. Velleca (Naples, Italy) . . . . .                                                                         | 31  |
| Extraction of phenolic-carbohydrate complexes from graminaceous cell walls<br>G. Wallace, W.R. Russell, J.A. Lomax (Aberdeen, UK) M.C. Jarvis (Glasgow, UK) C. Lapierre (Thiverval-Grignon, France) and A. Chesson (Aberdeen, UK) . . . . .                                                                                  | 41  |
| Characterisation of 4-deoxy- $\beta$ -L- <i>threo</i> -hex-4-enopyranosyluronic acid attached to xylan in pine kraft pulp and pulping liquor by $^1\text{H}$ and $^{13}\text{C}$ NMR spectroscopy<br>A. Teleman, V. Harjunpää, M. Tenkanen, J. Buchert, T. Hausalo, T. Drakenberg and T. Vuorinen (Espoo, Finland) . . . . . | 55  |
| NMR reinvestigation of two <i>N</i> -acetylneuraminic acid-containing O-specific polysaccharides (O56 and O24) of <i>Escherichia coli</i><br>V.I. Torgov, A.S. Shashkov, B. Jann and K. Jann (Freiburg, Germany) . . . . .                                                                                                   | 73  |
| Binding of galactomannans to kappa-carrageenan after cold mixing<br>A. Parker, D. Lelimosin, C. Miniou and P. Boulenger (Carentan, France) . . . . .                                                                                                                                                                         | 91  |
| Purification and characterization of extracellular alpha-amylase from <i>Aspergillus fumigatus</i><br>V. Planchot and P. Colonna (Nantes, France) . . . . .                                                                                                                                                                  | 97  |
| <b>Notes</b>                                                                                                                                                                                                                                                                                                                 |     |
| Synthesis of 2-acetamido-2-deoxy-5-thio- $\beta$ -D-altropyranose<br>N.A.L. Al-Masoudi (Basrah, Iraq) N.A. Hughes (Newcastle upon Tyne, UK) and N.J. Tooma (Basrah, Iraq) . . . . .                                                                                                                                          | 111 |

|                                                                                                                                                                                                                                                                                                         |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Chemical structure of fungal cell-wall polysaccharides isolated from <i>Microsporium gypseum</i> and related species of <i>Microsporium</i> and <i>Trychophyton</i><br>J. Jiménez-Barbero, A. Prieto, B. Gómez-Miranda, J.A. Leal and M. Bernabé (Madrid, Spain) . . .                                  | 121 |
| <i>Corrigendum</i> . . . . .                                                                                                                                                                                                                                                                            | C1  |
| <i>Erratum</i> . . . . .                                                                                                                                                                                                                                                                                | C3  |
| <i>Regular papers</i>                                                                                                                                                                                                                                                                                   |     |
| The X-ray crystal structure of <i>N</i> -(1-hexadecyl)-D-gluconamide and powder diffraction studies on its lower and higher homologues ( $n = 9-18$ )<br>C. André, P. Luger, T. Gutberlet, D. Vollhardt and J.-H. Fuhrhop (Berlin, Germany). . . . .                                                    | 129 |
| Eclipsed exocyclic carbon-oxygen bonds in the hexamethyl ether of <i>scyllo</i> -inositol. X-Ray crystallographic and NMR studies<br>J.E. Anderson (London, UK), S.J. Angyal and D.C. Craig (Sydney, NSW, Australia) . . . . .                                                                          | 141 |
| Stereoselective glycosylation using fully benzylated pyrimidin-2-yl 1-thio- $\beta$ -D-glycopyranosides<br>Q. Chen and F. Kong (Beijing, China) . . . . .                                                                                                                                               | 149 |
| Synthetic and structural studies of $\alpha$ -sialyl-(2 $\rightarrow$ 6) and $\alpha$ -sialyl-(2 $\rightarrow$ 3) 1-deoxynojirimycin derivatives potentially useful for biomedical applications<br>M. Kiso, K. Ando, H. Inagaki, H. Ishida and A. Hasegawa (Gifu, Japan) . . . . .                      | 159 |
| The chemical synthesis of <i>Leishmania donovani</i> phosphoglycan via polycondensation of a glycobiosyl hydrogenphosphonate monomer<br>A.V. Nikolaev, J.A. Chudek and M.A.J. Ferguson (Dundee, UK) . . . . .                                                                                           | 179 |
| The role of deoxyhexonic acids in the hydrothermal decarboxylation of carbohydrates<br>G.C.A. Luijckx, F. van Rantwijk, H. van Bekkum (Delft, The Netherlands) and M.J. Antal, Jr (Honolulu, HI, USA). . . . .                                                                                          | 191 |
| The reaction between epichlorohydrin and polysaccharides: structural elements in a cross-linked dextran, Sephadex <sup>®</sup> G-25<br>L. Holmberg (Uppsala, Sweden), B. Lindberg (Stockholm, Sweden) and B. Lindqvist (Uppsala, Sweden) . . . . .                                                      | 203 |
| Structural studies of the saccharide part of the cell envelope lipooligosaccharide from <i>Haemophilus influenzae</i> strain galEgalK<br>E.K.H. Schweda, P.-E. Jansson (Huddinge, Sweden), E.R. Moxon (Oxford, UK) and A.A. Lindberg (Wayne, NJ, USA) . . . . .                                         | 213 |
| Structure of the O6 antigen of <i>Stenotrophomonas</i> ( <i>Xanthomonas</i> or <i>Pseudomonas</i> ) <i>maltophilia</i><br>A.M. Winn and S.G. Wilkinson (Hull, UK). . . . .                                                                                                                              | 225 |
| Characterization of a lipopolysaccharide O antigen containing two different trisaccharide repeating units from <i>Burkholderia cepacia</i> serotype E (O2)<br>L.M. Beynon (Ottawa, Canada), A.D. Cox (Ottawa, Canada), C.J. Taylor, S.G. Wilkinson (Hull, UK) and M.B. Perry (Ottawa, Canada) . . . . . | 231 |
| Isolation and partial characterization of feruloylated oligosaccharides from maize bran<br>L. Saulnier, J. Vigouroux and J.-F. Thibault (Nantes, France) . . . . .                                                                                                                                      | 241 |

*Note*

- Direct transformation of D-idose and D-altrose with potassium cyanate into cyclic carbamates of derived glycosylamines  
J. Kovács, I. Pintér (Budapest, Hungary) and P. Köll (Oldenburg, Germany) . . . . . 255

*Preliminary communications*

- Novel aminocyclitol antibiotics derived from natural carbohydrates  
I.F. Pelyvás, M. Mádi-Puskás, Z.G. Tóth, Z. Varga, G. Batta and F. Sztaricskai (Debrecen, Hungary) . . . . . C5

- N*-Amidino-3,4,5-trihydroxypiperidine, a new efficient competitive  $\beta$ -glucosidase inhibitor  
J. Lehmann and B. Rob (Freiburg, Germany) . . . . . C11

- Erratum* . . . . . C15

- Author index* . . . . . C17

- Subject index* . . . . . C19

- Contents* . . . . . C25