

CONTENTS OF VOLUME 47

Number 1

- 1 Measurement of stress and strain during tensile testing of gellan gum gels: effect of deformation speed
M. TERATSUBO, Y. TANAKA & S. SAEKI (FUKUI, JAPAN)
- 7 Polymeric asymmetric reducing agents: preparation and reducing performance of chitosan/
dihydronicotinamide conjugates having L- and D-phenylalanine spacer arms
K. KURITA, M. HAYAKAWA, Y. NISHIYAMA & M. HARATA (TOKYO, JAPAN)
- 15 Structural studies on polygalacturonate gels: an EXAFS investigation combined with molecular modelling
M. BOSCO, S. MIERTUS (TRIESTE, ITALY), S. TURCHINI, T. PROSPERI (MONTEROTONDO
STAZIONE, ITALY), I. ASCONE (ORSAY, FRANCE) & R. RIZZO (TRIESTE, ITALY)
- 27 Structural characterization and antitussive activity of a glucuronoxylan from *Mahonia aquifolium* (Pursh)
Nutt.
A. KARDOŠOVÁ, A. MALOVÍKOVÁ, V. PÄTOPRSTÝ (BRATISLAVA, SLOVAK REPUBLIC), G. NOSÁ
L'OVÁ & T. MATAKOVÁ (MARTIN, SLOVAK REPUBLIC)
- 35 Microwave assisted dissolution of β -glucan in water — implications for the characterisation of this polymer
Q. WANG, P. J. WOOD & W. CUI (GUELPH, CANADA)
- 39 The degree of acetylation of chitosans and its effect on the chain conformation in aqueous solution
G. BERTH (POTSDAM, GERMANY) & H. DAUTZENBERG (GOLM, GERMANY)
- 53 Preparation and characterisation of linear dextrans and their use as substrates in in vitro studies of starch
branching enzymes
L. ANDERSSON, U. RYDBERG, H. LARSSON, R. ANDERSSON & P. ÅMAN (UPPSALA, SWEDEN)
- 59 Exploring chitin morphologies in cuticle fragments of *Xiphopenaeus kroyeri* by atomic force microscopy
C. T. ANDRADE, K. M. SILVA, R. A. SIMÃO & C. ACHETE (RIO DE JANEIRO, BRAZIL)
- 73 Influence of the nature and treatment of starch on aroma retention
A. BOUTBOUL, P. GIAMPAOLI (MASSY, FRANCE), A. FEIGENBAUM (REIMS, FRANCE) & V. DUCRUET
(JOUY-EN-JOSAS, FRANCE)

Short Communication

- 83 The glucomannan from ramie
Z. HONGSHU, Y. JINGGAN & Z. YAN (GUANZHOU, PEOPLE'S REPUBLIC OF CHINA)

Book Reviews

- 87 Essentials of Carbohydrate Chemistry and Biochemistry
- 87 ROMPP Encyclopedia Natural Products
- 88 Methods in Non-Aqueous Enzymology
- 88 The Science of Sugar Confectionery

89 Trends in Food Product Engineering

89 High-fiber ingredients

91 Bibliography

97 Calendar

Number 2

99 Enzymatic modifications of pectins and the impact on their rheological properties
T. SCHMELTER (VLAARDINGEN, THE NETHERLANDS), R. WIENTJES (ENSCHDEDE, THE NETHERLANDS), R. VREEKER & W. KLAFFKE (VLAARDINGEN, THE NETHERLANDS)

109 NMR velocity imaging of the flow behaviour of hyaluronan solutions
S. G. HARDING, O. WIK, A. HELANDER, N.-O. AHNFELT & L. KENNE (UPPSALA, SWEDEN)

121 Wet-spun blend biofibers of cellulose–silk fibroin and cellulose–chitin–silk fibroin
S. HIRANO, T. NAKAHIRA, M. ZHANG, M. NAKAGAWA, M. YOSHIKAWA & T. MIDORIKAWA (TOTTORI, JAPAN)

125 Oxygen permeability of amylose and amylopectin films
P. FORSSELL, R. LAHTINEN, M. LAHELIN & P. MYLLÄRINEN (ESPOO, FINLAND)

131 Preparation of ion-exchangers by cross-linking of starch or polygalacturonic acid with 1,3-bis(3-chloro-2-hydroxypropyl)imidazolium hydrogen sulphate
I. SIMKOVIC, M. HRICOVÍNI & V. SASINKOVÁ (BRATISLAVA, SLOVAKIA)

137 An alkali stable cellulase by chemical modification using maleic anhydride
R. K. BUND & R. S. SINGHAL (MUMBAI, INDIA)

143 Isolation and characterization of high molar mass water-soluble arabinoxylans from barley and barley malt
G. DERVILLY (NANTES, FRANCE), C. LECLERCQ, D. ZIMMERMANN, C. ROUE (STRASBOURG, FRANCE), J.-F. THIBAUT & L. SAULNIER (NANTES, FRANCE)

151 The free reducing oligosaccharides of gum arabic: aids for structural assignments in the polysaccharide
C. A. TISCHER, P. A. J. GORIN & M. IACOMINI (CURITIBA, BRAZIL)

159 Molecular structure and some physicochemical properties of waxy and low-amylose barley starches
Y. YOSHIMOTO, T. TAKENOCHI & Y. TAKEDA (KAGOSHIMA, JAPAN)

169 Gradual enzymatic modification of barley and potato amylopectin
T. FRIGÅRD, R. ANDERSSON & P. ÅMAN (UPPSALA, SWEDEN)

181 Study of a preparative-scale process for the production of amylose
W. VORWERG, S. RADOSTA & E. LEIBNITZ (GOLM, GERMANY)

191 Chemical modification of chitosan 8: preparation of chitosan–dendrimer hybrids via short spacer
H. SASHIWA (OTTAWA, CANADA), Y. SHIGEMASA (TOTTORI, JAPAN) & R. ROY (OTTAWA, CANADA)

201 Chemical modification of chitosan. Part 9: Reaction of N-carboxyethylchitosan methyl ester with diamines of acetal ending PAMAM dendrimers
H. SASHIWA (OTTAWA, CANADA), Y. SHIGEMASA (TOTTORI, JAPAN) & R. ROY (OTTAWA, CANADA)

Correspondence

209 Letter to the Editors
J. KARKALAS

Book Reviews

211 Principles and Methods in Supramolecular Chemistry

211 Good Laboratory Practices

212 Chromatography in food science and technology

213 Bibliography

217 Calendar

Number 3

219 Prediction of the nonlinear transient and oscillatory rheological behavior of flour suspensions using a strain-separable integral constitutive equation
C. J. CARRIERE, A. J. THOMAS & G. E. INGLET (PEORIA, IL, USA)

233 Effect and mechanism of ultrahigh hydrostatic pressure on the structure and properties of starches
H. KATOPO, Y. SONG & J.-L. JANE (AMES, IA, USA)

245 The preparation and characterisation of a series of chemically modified potato starches
J. M. FANG, P. A. FOWLER, J. TOMKINSON & C. A. S. HILL (GWYNEDD, UK)

253 Characterization of free sugars and xyloglucan-type polysaccharides of two tropical legumes
J. C. ONWELUZO (NSUKKA, NIGERIA), H. P. RAMESH & R. N. THARANATHAN (MYSORE, INDIA)

259 Mechanical properties and structure of swollen crosslinked high amylose starch tablets
F. RAVENELLE, R. H. MARCHESSAULT, A. LÉGARÉ & M. D. BUSCHMANN (MONTRÉAL, QUÉ., CANADA)

267 Anticoagulant sulfated polysaccharides: Part I. Synthesis and structure–activity relationships of new pullulan sulfates
S. ALBAN, A. SCHAUERTE & G. FRANZ (REGENSBURG, GERMANY)

277 Studies on the optimisation of preparation of succinate derivatives from corn and amaranth starches
P. N. BHANDARI & R. S. SINGHAL (MUMBAI, INDIA)

285 Preparation and characterisation of methylated hemicelluloses from wheat straw
J. M. FANG, P. FOWLER, J. TOMKINSON & C. A. S. HILL (BANGOR, UK)

295 Bibliography

301 Calendar

Number 4

303 Synthesis of amphiphilic amylose and starch derivatives
K. B. WESSLÉN & B. WESSLÉN (LUND, SWEDEN)

313 Description of the thermodynamic incompatibility of the guar–dextran aqueous two-phase system by light scattering
F. SIMONET, C. GARNIER & J.-L. DOUBLIER (NANTES, FRANCE)

323 Succinoylation of sago starch in the *N,N*-dimethylacetamide/lithium chloride system
R. SUN (GUANGZHOU, PEOPLE'S REPUBLIC OF CHINA) & X. F. SUN (YANGLING, PEOPLE'S REPUBLIC OF CHINA)

331 Comparison of potato amylopectin starches and potato starches — influence of year and variety
K. SVEGMARK, K. HELMERSSON, G. NILSSON, P.-O. NILSSON (KRISTIANSTAD, SWEDEN), R. ANDERSSON (UPPSALA, SWEDEN) & E. SVENSSON (LUND, SWEDEN)

341 Molecular interaction studies of the hyaluronan derivative, hylan A using atomic force microscopy
S. AL-ASSAF, G. O. PHILLIPS (WREXHAM, UK), A. P. GUNNING & V. J. MORRIS (NORWICH, UK)

347 Shear-thickening and shear-induced pattern formation in starch solutions
S. KIM, J. L. WILLETT, C. J. CARRIERE & F. C. FELKER (PEORIA, IL, USA)

357 New flourinated chitin derivatives: synthesis, characterization and cytotoxicity assessment
K. S. CHOW & E. KHOR (SINGAPORE, SINGAPORE)

- 365 Effect of succinylation on the rheological profile of starch pastes
P. N. BHANDARI, R. S. SINGHAL & D. D. KALE (MUMBAI, INDIA)
- 373 Improved solubility of β -cyclodextrin inclusion complexes by using liquid ammonia as a solvent and the possibility of asymmetric reduction
K. MATSUOKA, H. TAKAHASHI, Y. SAITO, D. TERUNUMA & H. KUZUHARA (SAITAMA, JAPAN)
- 377 Spectrophotometric detection of methyl cellulose–manganate(VI) intermediate complex in the oxidation of methyl cellulose by alkaline permanganate
R. M. EL-KHATIB (SOHAG, EGYPT)

Short Communication

- 387 Synthesis and conformational properties of cyanoethyl–Scleroglucan
R. GIANNI, F. DELBEN, G. LIUT, S. BERNSTORFF (TRIESTE, ITALY), H. AMENITSCH (GRAZ, AUSTRIA) & R. RIZZO (TRIESTE, ITALY)

Book Reviews

- 393 Brewing
- 393 Enzymes for Carbohydrate Engineering
- 394 Phytochemicals as Bioactive Agents
- 395 Calendar
- 397 Volume Contents