

## Bibliography of carbohydrate polymers

(6 weeks journals. Search completed at 28th. Aug. 2002)

### 1. Books, reviews & symposia

Hedley CL, Bogracheva TY, Wang TL// John Innes Inst, Metab Biol Dept, Norwich Res Pk, Coloney Lane, Norwich NR4 7UH, England  
*Starch* 2002 **54** (6) 235

A genetic approach to studying the morphology, structure and function of starch granules using pea as a model (Review)

Meister JJ// Forest Prod Res Ctr, 2008 Hendola Dr NE, Albuquerque, NM 87110, USA

*J Polym Sci A-Polym Chem* 2002 **C42** (2) 235  
Modification of lignin

Ratnayake WS, Hoover R\*, Warkentin T// \*Mem Univ Newfoundland, Dept Biochem, St Johns, Newfoundland, Canada A1B 3K9

*Starch* 2002 **54** (6) 217  
Pea-starch: Composition, structure and properties - A review

Tonnesen HH, Karlsen J\*// \*Univ Oslo, Inst Pharm, POB 1068 Blindern, NO-0316 Oslo, Norway

*Drug Dev Ind Pharm* 2002 **28** (6) 621  
Alginate in drug delivery systems (Review)

Turpie AGG// Hamilton Gen Hosp, Hamilton Hlth Sci, 237 Barton St East, Hamilton, Ontario, Canada L8L 2X2

*Semin Hematol* 2002 **39** (3) 158  
Pentasaccharides

### 2. Cellulose

Bontea D// Petru Poni Inst Macromol Chem, Aleca Grigore Ghica Voda 41A, RO-6600 Iasi, Romania

*J Appl Polym Sci* 2002 **85** (14) 2875  
A structural-thermodynamic study of triphenylsilylcellulose

Chae DW, Kim BC\*, Lee WS// \*Hanyang Univ, Div Chem Engn, 17 Haengdang, Seoul 133791, South Korea

*J Appl Polym Sci* 2002 **86** (1) 216  
Rheological characterization of cellulose solutions in *N*-methyl morpholine *N*-oxide monohydrate

Chaudry MA// Pakistan Inst Nucl Sci & Technol, POB 1356, Islamabad, Pakistan

*J Membr Sci* 2002 **206** (1-2 Spec Iss) 319  
Water and ions transport mechanism in hyperfiltration with symmetric cellulose acetate membranes

Chen XM, Zou HF\*, Zhang Q, Ni JY, Zhang ZZ// \*Acad Sinica, Dalian Inst Chem Phys, Natl Chromatog Res & Anal Ctr, CN-116011 Dalian, Peoples Rep China

*J Chromatogr Sci* 2002 **40** (6) 315  
Synthesis of chemically bonded cellulose trisphenylcarbamate chiral stationary phases for enantiomeric separation

Chen Y, Xiong XP, Yang GA, Zhang LN\*, Lei SL, Liang H// \*Wuhan Univ, Coll Chem & Mol Sci, CN-430072 Wuhan, Peoples Rep China

*Chin J Polym Sci* 2002 **20** (4) 369  
Characterization of regenerated cellulose membranes hydrolyzed from cellulose acetate

De Brabander C, Van den Mooter G, Vervaeke C, Remon JP\*// \*State Univ Ghent, Pharmaceut Technol Lab, Harelbekestr 72, BE-9000 Ghent, Belgium  
*J Pharm Sci* 2002 **91** (7) 1678

Characterization of ibuprofen as a nontraditional plasticizer of ethyl cellulose

Edwards JV, Eggleston G, Yager DR, Cohen IK, Diegelmann RF, Bopp AF// USDA/ARS, Stn Reg Res Ctr, Cotton Textile Chem, 100 Robert E Lee Blvd, New Orleans, La 70124, USA

*Carbohydr Polym* 2002 **50** (3) 305  
Design, preparation and assessment of citrate-linked monosaccharide cellulose conjugates with elastase-lowering activity

Godinho MH, Fonseca JG, Ribeiro AC, Melo LV, Brogueira P// Univ Nova Lisboa, Dept Ciencia Mat, Fac Ciencias & Tecnol, PT-2829-516 Caparica, Portugal

*Macromolecules* 2002 **35** (15) 5932  
Atomic force microscopy study of hydroxypropylcellulose films prepared from liquid crystalline aqueous solutions

Gospodinova N, Grelard A, Jeannin M, Chitanu GS, Carpov A, Thierry V, Besson T// Univ La Rochelle, UFR Sci Fondamentales & Sci Ingn, Grp Chim Organ, Lab Genie Prot & Cellulaire, FR-17042 La Rochelle 1, France

*Green Chem* 2002 **4** (3) 220  
Efficient solvent-free microwave phosphorylation of microcrystalline cellulose

Hassan MA, Shehata AB// Natl Inst Stand, Tersa St, POB 136, El Haram, EG-12211 Giza, Egypt

*J Appl Polym Sci* 2002 **85** (14) 2808  
Studies on some acrylamido polymers and copolymer as stabilizers for nitro-cellulose

Hoekstra H, Vermant J\*, Mewis J, Narayanan T// \*Katholieke Univ Leuven, Dept Chem Engn, De Croylaan 46, BE-3001 Louvain, Belgium

*Langmuir* 2002 **18** (15) 5695  
Rheology and structure of suspensions in liquid crystalline hydroxypropyl-cellulose solutions

Idris A, Ismail AF\*, Noordin MY, Shilton SJ// \*UTM, Fac Chem & Nat Resources Engn, Membrane Res Unit, MY-81310 Skudai, Johor Bahru, Malaysia

*J Membr Sci* 2002 **205** (1-2) 223  
Optimization of cellulose acetate hollow fiber reverse osmosis membrane production using Taguchi method

Kacurakova M, Smith AC, Gidley MJ, Wilson RH\*// \*Inst Food Res, Norwich Lab, Norwich Res Pk, Colney Lane, Norwich NR4 7UA, England

*Carbohydr Res* 2002 **337** (12) 1145  
Molecular interactions in bacterial cellulose composites studied by 1D FT-IR and dynamic 2D FT-IR spectroscopy

Karlson L, Thuresson K, Lindman B// Akzo Nobel Surf Chem AB, SE-44485 Stenungsund, Sweden

*Carbohydr Polym* 2002 **50** (3) 219  
A rheological investigation of the complex formation between hydrophobically modified ethyl (hydroxy ethyl) cellulose and cyclodextrin

Kelley SS, Filley J, Greenberg AR, Peterson R, Krantz WB// Natl Renewable Energy Lab, 1617 Cole Blvd, Golden, Co 80401, USA

*Int J Polym Anal Charact* 2002 **7** (1-2) 162  
Chemical modification of cellulose acetate with titanium isopropoxide

Khanvilkar KH, Huang Y\*, Moore AD// \*Mallinckrodt Inc, St Louis, Mo 63147, USA

*Drug Dev Ind Pharm* 2002 **28** (5) 601  
Influence of hydroxypropyl methylcellulose mixture, apparent viscosity, and tablet hardness on drug release using a 2<sup>3</sup> full factorial design

Kono H, Yunoki S, Shikano T, Fujiwara M, Erata T\*, Takai M// \*Hokkaido Univ, Grad Sch Engn, Div Mol Chem, Sapporo, Hokkaido 060 862, Japan  
*J Am Chem Soc* 2002 **124** (25) 7506

As a service to subscribers of the journal, this bibliography contains newly published material in the field of carbohydrate polymers. The bibliography is divided into thirteen sections: 1 Books, reviews & symposia; 2 Cellulose; 3 Cellulose-degrading enzymes; 4 Chitin/Chitosan; 5 Cyclodextrins; 6 Lignin; 7 Lipopolysaccharides; 8 Pectin; 9 Starch; 10 Starch-degrading enzymes; 11 Polysaccharides - Microbial; 12 Polysaccharides - Plant; 13 Polysaccharides - Other. Within each section, articles are listed in alphabetical order with respect to author. When there are no publications to appear under one of these headings, that section will be omitted.

- CP/MAS  $^{13}\text{C}$  NMR study of cellulose and cellulose derivatives. I. Complete assignment of the CP/MAS  $^{13}\text{C}$  NMR spectrum of the native cellulose  
Kono H, Erata T\*, Takai M// \*Address as above.  
*J Am Chem Soc* 2002 **124** (25) 7512
- CP/MAS  $^{13}\text{C}$  NMR study of cellulose and cellulose derivatives. II. Complete assignment of the  $^{13}\text{C}$  resonance for the ring carbons of cellulose triacetate polymorphs  
Koo YS, Wang YS, You SH, Kim HD\*// \*Pusan Natl Univ, Coll Engr, Dept Text Engr, Pusan 609735, South Korea  
*J Appl Polym Sci* 2002 **85** (8) 1634
- Preparation and properties of chemical cellulose from ascidian tunic and their regenerated cellulose fibers  
Kulvanich P, Leesawat P, Patomchaiviat V// Chulalongkorn Univ, Fac Pharmaceut Sci, Dept Ind Pharm, TH-10330 Bangkok, Thailand  
*Drug Dev Ind Pharm* 2002 **28** (6) 727
- Release characteristics of the matrices prepared from co-spray-dried powders of theophylline and ethylcellulose  
Kumar V, Yang D// Univ Iowa, Coll Pharm, Div Pharmaceut, Iowa City, IA 52242, USA  
*J Biomater Sci-Polym Ed* 2002 **13** (3) 273
- Oxidized cellulose esters: I. Preparation and characterization of oxidized cellulose acetates - A new class of biodegradable polymers  
Kutsenko LI, Ivanova NP, Karetnikova EB, Bobasheva AS, Bocek AM, Panarin EF// Russian Acad Sci, Inst Macromol Cpds, RU-199004 St Petersburg, Russia  
*Russ J Appl Chem-Eng Tr* 2002 **75** (2) 305
- Characteristics of aqueous solutions of methyl cellulose-polymethacrylamidoglucose mixtures  
Li L// Nanyang Technol Univ, Sch Mech & Prod Engr, 50 Nanyang Ave, SG-639798 Singapore, Rep Singapore  
*Macromolecules* 2002 **35** (15) 5990
- Thermal gelation of methylcellulose in water: Scaling and thermoreversibility  
Li W, Yan LF\*, Lin W, Zhu QS// \*Univ Sci & Technol China, Open Lab Bond Select Chem, CN-230026 Hefei, Peoples Rep China  
*Chem J Chinese Univ-Chinese* 2002 **23** (7) 1450
- Self-assembly and AFM study of ultra-thin films of cellulose sulfate salt and chitosan  
Liu RCW, Morishima Y, Winnik FM\*// \*Univ Montreal, Fac Pharm, CP 6128 Succursale Ctr-Ville, Montreal, Quebec, Canada H3C 3J7  
*Polym J* 2002 **34** (5) 340
- Rheological properties of mixtures of oppositely charged polyelectrolytes. A study of the interactions between a cationic cellulose ether and a hydrophobically modified poly[sodium 2-(acrylamido)-2-methylpropanesulfonate]  
Matsuoka T, Fujimura S, Nakamura Y, Koda S, Nomura H\*// \*Nagoya Univ, Grad Sch Engr, Dept Mol Design & Engr, Chikusa ku, Nagoya, Aichi 464 8603, Japan  
*Jpn J Appl Phys Pt 1* 2002 **41** (5B) 3181
- Effect of molecular weight and degree of substitution on the shear modulus of methyl cellulose gel by means of surface wave method  
Ou YF, Huang QL// Chinese Acad Sci, Guangzhou Inst Chem, Lab Cellulose & Lignocellulose Chem, CN-510650 Guangzhou, Peoples Rep China  
*J Appl Polym Sci* 2002 **85** (12) 2535
- Thermal degradation of cellulose-based complex material  
Palma G, Alvear M, Salazar I// Univ La Frontera, Dept Quim, Fac Ingn Ciencias & Adm, Casilla 54-D, Temuco, Chile  
*Bol Soc Chil Quim* 2002 **47** (2) 175
- Use of cellulosic wastes in preparation of controlled release formulations of simazine and trifluraline herbicides (Spanish, English Abstract)  
Pekny MR, Greenberg AR\*, Khare V, Zartman J, Krantz WB, Todd P// \*Univ Colorado, Dept Mech Engr, Boulder, Co 80309, USA  
*J Membr Sci* 2002 **205** (1-2) 11
- Macrovoid pore formation in dry-cast cellulose acetate membranes: buoyancy studies  
Pose-Vilarnovo B, Sanchez CRT, Perez-Marcos MB, Torres-Labandeira JJ\*// \*Univ Santiago de Compostela, Dept Farm & Tecnol Farmaceut, Campus Sur, ES-15706 Santiago de Compostela, Spain  
*J Therm Anal Calorim* 2002 **68** (2) 657
- Sulphamethizole-cyclodextrin-hydroxy propylmethyl cellulose multicomponent complexes  
Seo M, Kumacheva E\*// \*Univ Toronto, Dept Chem, 80 St George St, Toronto, Ontario, Canada M5S 3H6  
*Colloid Polym Sci* 2002 **280** (7) 607
- Response of adsorbed layers of hydroxypropyl cellulose to variations in ambient humidity  
Solinis MA, De la Cruz Y, Hernandez RM, Gascon AR, Calvo B, Pedraz JL\*// \*Univ Basque Country, Fac Pharm, Lab Pharm & Pharmaceut Technol, Paseo Univ N7, ES-01006 Vitoria, Spain  
*Int J Pharm* 2002 **239** (1-2) 61
- Release of ketoprofen enantiomers from HPMC K100M matrices: Diffusion studies  
Stana-Kleinschek K, Ribitsch V, Kreze T, Fras L// Univ Maribor, Fac Mech Engr, Lab Characterizat & Proc Polymers, Smetanova 17, SL-2000 Maribor, Slovenia  
*Mater Res Innov* 2002 **6** (1) 13
- Determination of the adsorption character of cellulose fibres using surface tension and surface charge  
Sun RC, Min ST, Sun XF// Univ Wales, BioComposites Ctr, Bangor LL57 2UW, Wales  
*Int J Polym Anal Charact* 2002 **7** (1-2) 130
- Preparation and characterization of wheat straw hemicellulosic succinates  
Sun RC, Tomkinson J// Address as above  
*Carbohydr Polym* 2002 **50** (3) 263
- Characterization of hemicelluloses obtained by classical and ultrasonically assisted extractions from wheat straw  
Take H, Yamanaka S, Ishihara M, Yoshino K// Osaka Univ, Grad Sch Engr, Dept Elect Engr, 2-1 Yamadaoka, Suita, Osaka 565 0871, Japan  
*Jpn J Appl Phys Pt 1* 2002 **41** (5A) 3137
- Anode performance of pyrolyzed bacterial cellulose in secondary lithium-ion batteries and the effect of added metal phthalocyanines  
Varma AJ, Kulkarni MP// Natl Chem Lab, Div Chem Engr, IN-411008 Pune, India  
*Polym Degrad Stabil* 2002 **77** (1) 25
- Oxidation of cellulose under controlled conditions  
Vogrin N, Stropnik C, Musil V, Brumen M// Univ Maribor, Fac Chem & Chem Engr, Smetanova 17, SI-2000 Maribor, Slovenia  
*J Membr Sci* 2002 **207** (1) 139
- The wet phase separation: the effect of cast solution thickness on the appearance of macrovoids in the membrane forming ternary cellulose acetate/acetone/water system  
Wu J, Yuan Q\*// \*Chinese Acad Sci, Dalian Inst Chem Phys, CN-116023 Dalian, Peoples Rep China  
*J Membr Sci* 2002 **204** (1-2) 185
- Gas permeability of a novel cellulose membrane  
Yue Z, Cowie JMG\*// Heriot Watt Univ, Dept Chem, Riccarton Campus, Edinburgh EH14 4AS, Scotland  
*Polymer* 2002 **43** (16) 4453
- Synthesis and characterization of ion conducting cellulose esters with PEO side chains  
Zhang LN, Ruan D, Gao SJ// Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep China  
*J Polym Sci B-Polym Phys* 2002 **40** (14) 1521
- Dissolution and regeneration of cellulose in NaOH/thiourea aqueous solution  
Zhou XS, Huang Y\*// \*Chinese Acad Sci, Guangzhou Inst Chem, Lab Cellulose & Lignocellulose Chem, CN-510650 Guangzhou, Peoples Rep China  
*J Polym Sci B-Polym Phys* 2002 **40** (13) 1334
- Temperature dependence of the phase separation in ethyl cyanoethyl cellulose /poly(acrylic acid)/4'-pentyl-4-cyano-biphenyl composite films

### 3. Cellulose-degrading enzymes

- Nomachi W, Urago KI, Oka T, Ekino K, Matsuda M, Goto M, Furukawa K\*// \*Kyushu Univ, Fac Agr, Dept Biosci & Biotechnol, Fukuoka 812 8581, Japan  
*J Biosci Bioeng* 2002 **93** (4) 382
- Molecular breeding of *Aspergillus kawachii* overproducing cellulase and its application to brewing barley shochu

### 4. Chitin/Chitosan

- Alsarra IA, Betigeri SS, Zhang H, Evans BA, Neau SH\*// \*Univ Missouri, Sch Pharm, Div Pharmaceut Sci, 108E Katz Pharm Bldg, 5100 Rockhill Rd, Kansas City, Mo 64110, USA  
*Biomaterials* 2002 **23** (17) 3637
- Molecular weight and degree of deacetylation effects on lipase-loaded chitosan bead characteristics  
Chen TH, Embree HD, Wu LQ, Payne GF\*// \*Univ Maryland, Inst Biotechnol, Agr Biotechnol Ctr, 5115 Plant Sci Bldg, College Park, Md 20742, USA  
*Biopolymers* 2002 **64** (6) 292
- In vitro protein-polysaccharide conjugation: Tyrosinase-catalyzed conjugation

of gelatin and chitosan

Dyer AM, Hinchcliffe M, Watts P, Castile J, Jabbal-Gill I, Nankervis R, Smith A, Illum L\*// \*Drug Delivery & Clin Res Ctr Ltd, Albert Einstein Ctr, West Pharmaceut Serv, Nottingham NG7 2TN, England  
*Pharmaceut Res* 2002 **19** (7) 998

Nasal delivery of insulin using novel chitosan based formulations: A comparative study in two animal models between simple chitosan formulations and chitosan nanoparticles

El Saharty YS, Bary AA// Cairo Univ, Fac Pharm, Dept Analyt Chem, Kasr El-Aini St, EG-11562 Cairo, Egypt  
*Anal Chim Acta* 2002 **462** (1) 125

High-performance liquid chromatographic determination of nutraceuticals, glucosamine sulphate and chitosan, in raw materials and dosage forms

Fang J, Huang JC, Guo QH, Volkov VI// Chinese Acad Sci, Guangzhou Inst Chem, CN-510650 Guangzhou, Peoples Rep China  
*Chin J Polym Sci* 2002 **20** (4) 317

Studies on the self-diffusion of water ethanol mixture in chitosan pervaporation membrane with pulsed field gradient NMR data

Filipkowska U, Klimiuk E, Grabowski S, Siedlecka E// Univ Warmia & Mazury, Fac Environm Sci & Fisheries, Olsztyn, Poland  
*Pol J Environ Stud* 2002 **11** (4) 315

Adsorption of reactive dyes by modified chitin from aqueous solutions

Hu Y, Jiang XQ, Ding Y, Ge HX, Yuan YY, Yang CZ\*// \*Nanjing Univ, Coll Chem & Chem Engr, Dept Polymer Sci & Engr, Lab Mesoscop Mat, 22 Hankou Rd, CN-210093 Nanjing, Peoples Rep China  
*Biomaterials* 2002 **23** (15) 3193

Synthesis and characterization of chitosan-poly(acrylic acid) nanoparticles

Jang MK, Jeong YI, Cho CS, Yang SH, Kang YE, Nah JW\*// \*Sunchon Natl Univ, Dept Polymer Sci & Engr, Jeonnam 540742, South Korea  
*Bull Korean Chem Soc* 2002 **23** (6) 914

The preparation and characterization of low molecular and water soluble free-amine chitosan

Johnson SB, Dunstan DE, Franks GV\*// \*Univ Newcastle, Dept Chem Engr, Newcastle, NSW 2308, Australia  
*J Am Ceram Soc* 2002 **85** (7) 1699

Rheology of cross-linked chitosan-alumina suspensions used for a new gel-casting process

Kim IY, Kim SJ, Shin MS, Lee YM, Shin DI, Kim SI\*// \*Hanyang Univ, Dept Biomed Engr, Seoul 133791, South Korea  
*J Appl Polym Sci* 2002 **85** (13) 2661

pH- and thermal characteristics of graft hydrogels based on chitosan and poly(dimethylsiloxane)

Kim SJ, Park SJ, Shin MS, Lee YH, Kim NG, Kim SI\*// \*POB 55, Seoul 133605, South Korea  
*J Appl Polym Sci* 2002 **85** (9) 1956

Thermal characteristics of IPNs composed of polyallylamine and chitosan

Kurita K, Nishibori T, Harata M// Seikei Univ, Fac Engr, Dept Appl Chem, Musashino, Tokyo 180 8633, Japan  
*Biomacromolecules* 2002 **3** (4) 705

Synthesis and asymmetric reducing performance of chitin/dihydronicotinamide conjugates having glycine or L-leucine spacer arms

Larez C, Canelon F, Millan E, Katime I// Univ Los Andes, Fac Ciencias, Dept Quim, Grp Polimeros, VE-5101 Merida, Venezuela  
*Polym Bull* 2002 **48** (4-5) 361

Interpolymeric complexes of poly(itaconic acid) and chitosan

Li JJ, Xu ZH\*// \*Univ Alberta, Dept Chem Engr, Edmonton, Alberta, Canada T6G 2G6  
*J Pharm Sci* 2002 **91** (7) 1669

Physical characterization of a chitosan-based hydrogel delivery system

Liu Q, Xue WM, Yu WT, Liu XD// Chinese Acad Sci, Dalian Inst Chem Phys, CN-116023 Dalian, Peoples Rep China  
*Chem J Chinese Univ-Chinese* 2002 **23** (7) 1417

Studies on the membrane strength of alginate/chitosan microcapsule prepared by emulsification/internal gelation method

Mi FL, Lin YM, Wu YB, Shyu SS\*, Tsai YH// \*Natl Cent Univ, Dept Chem Engr, Chungli 320, Taiwan  
*Biomaterials* 2002 **23** (15) 3257

Chitin/PLGA blend microspheres as a biodegradable drug-delivery system: phase-separation, degradation and release behavior

Nho YC, Park KR// Korea Atom Energy Res Inst, Taejeon 305606, South Korea  
*J Appl Polym Sci* 2002 **85** (8) 1787

Preparation and properties of PVA/PVP hydrogels containing chitosan by radiation

No HK, Park NY, Lee SH, Hwang HJ, Meyers SP// Catholic Univ Daegu,

Dept Food Sci & Technol, Hayang 712702, South Korea

*J Food Sci* 2002 **67** (4) 1511

Antibacterial activities of chitosans and chitosan oligomers with different molecular weights on spoilage bacteria isolated from tofu

Oztop HN, Saraydin D, Cetinus S// Cumhuriyet Univ, Dept Chem, Biochem Res Lab, TR-58140 Sivas, Turkey  
*Appl Biochem Biotechnol* 2002 **101** (3) 239

pH-sensitive chitosan films for baker's yeast immobilization

Pochanavanich P, Suntornsuk W\*// \*King Mongkut's Univ Technol Thonburi, Fac Sci, Dept Microbiol, TH-10140 Bangkok, Thailand  
*Lett Appl Microbiol* 2002 **35** (1) 17

Fungal chitosan production and its characterization

Ruiz M, Sastre A, Guibal E\*// \*Ecole Mines Ales, Lab Genie Environm Ind, 6 Ave Clavieres, FR-30319 Ales, France  
*Separ Sci Technol* 2002 **37** (9) 2143

Pd and Pt recovery using chitosan gel beads. I. Influence of the drying process on diffusion properties

Sagoo S, Board R, Roller S\*// \*Sth Bank Univ, Sch Appl Sci, 103 Borough Rd, London SE1 0AA, England  
*Food Microbiol* 2002 **19** (2-3) 175

Chitosan inhibits growth of spoilage micro-organisms in chilled pork products

Sashiwa H, Kawasaki N, Nakayama A, Muraki E, Yamamoto N, Arvanitoyannis I, Zhu H, Aiba S// Natl Inst Adv Ind Sci & Technol, Special Div Human Life Technol, Green Biotechnol Res Grp, Osaka 563 8577, Japan  
*Chem Lett* 2002 (6) 598

Chemical modification of chitosan 12: Synthesis of organo-soluble chitosan derivatives toward palladium absorbent for chemical plating

Shumilina EV, Shchipunov YA// Russian Acad Sci, Inst Chem, Far East Div, RU-690022 Vladivostok, Russia  
*Colloid J-Engl Tr* 2002 **64** (3) 372

Chitosan-carrageenan gels

Uragami T, Takuno M, Miyata T// Kansai Univ, Fac Engr, Suita, Osaka 564 8680, Japan  
*Macromol Chem Phys* 2002 **203** (9) 1162

Evaporation characteristics of cross-linked quaternized chitosan membranes for the separation of an ethanol/water azeotrope

Wang XH, Ma JB\*, Wang YN, He BL// \*Nankai Univ, Inst Polymer Chem, State Key Lab Funct Polymer Mat Adsorpt & Separat, CN-300071 Tianjin, Peoples Rep China

*Chin J Polym Sci* 2002 **20** (4) 325

Reinforcement of calcium phosphate cements with phosphorylated chitin

Xie WM, Xu PX\*, Wang W, Liu Q// \*Zhejiang Univ, Dept Chem, Yoquan Campus, CN-310027 Hangzhou, Peoples Rep China  
*J Appl Polym Sci* 2002 **85** (7) 1357

Preparation of water-soluble chitosan derivatives and their antibacterial activity

Zhang H, Alsarra IA, Neau SH\*// \*Univ Missouri, Sch Pharm, Div Pharmaceut Sci, 5100 Rockhill Rd, Kansas City, Mo 64110, USA  
*Int J Pharm* 2002 **239** (1-2) 197

An *in vitro* evaluation of a chitosan-containing multiparticulate system for macromolecule delivery to the colon

Zhao F, Yin YJ, Lu WW, Leong JC, Zhang WJ, Zhang JY, Zhang MF, Yao KD\*// \*Tianjin Univ, Res Inst Polymer Mat, CN-300072 Tianjin, Peoples Rep China  
*Biomaterials* 2002 **23** (15) 3227

Preparation and histological evaluation of biomimetic three-dimensional hydroxyapatite/chitosan-gelatin network composite scaffolds

## 5. Cyclodextrins

Aigner Z, Kezsmarki A, Kata M, Novak C, Eros I// Univ Szeged, Dept Pharmaceut Technol, Eotvos u 6, HU-6720 Szeged, Hungary  
*J Inclusion Phenom Macrocycl Chem* 2002 **42** (3-4) 227

Investigation of tenoxicam and  $\gamma$ -cyclodextrin binary and ternary complexes

Bettinetti G, Novak C, Sorrenti M// Univ Pavia, Dipt Chim Farmaceut, via Taramelli 12, IT-27100 Pavia, Italy  
*J Therm Anal Calorim* 2002 **68** (2) 517

Thermal and structural characterization of commercial ( $\alpha$ ,  $\beta$  and  $\gamma$ -cyclodextrins

Brown ME, Glass BD, Worthington MS// Rhodes Univ, Dept Chem, POB 94, ZA-6140 Grahamstown, Rep Sth Africa  
*J Therm Anal Calorim* 2002 **68** (2) 631

Binary systems of nifedipine and various cyclodextrins in the solid state: Thermal, FTIR, XRD studies

- Buvari-Barcza A, Csampai A, Barcza L// Lorand Eotvos Univ, Dept Inorgan & Analyt Chem, HU-1518 Budapest, Hungary  
*J Inclusion Phenom Macrocycl Chem* 2002 **42** (3-4) 209
- Ternary  $\beta$ -cyclodextrin complexes as models of allosteric effects  
 Caira MR, Dodds DR, Nassimbeni LR// Univ Cape Town, Dept Chem, ZA-7701 Rondebosch, Rep Sth Africa  
*J Therm Anal Calorim* 2002 **68** (2) 647
- Polymorphism and cyclodextrin inclusion of salbutamol laurate  
 Charoenchaitrakool M, Dehghani F, Foster NR// \*Univ New Sth Wales, Sch Chem Engn & Ind Chem, Sydney, NSW 2052, Australia  
*Int J Pharm* 2002 **239** (1-2) 103
- Utilization of supercritical carbon dioxide for complex formation of ibuprofen and methyl- $\beta$ -cyclodextrin  
 Choi SH, Kim MS, Ryoo JJ, Lee KP\*, Shin HD, Kim SH, Lee YH// \*Kyungpook Natl Univ, Grad Sch, Dept Chem, Taegu 702701, South Korea  
*J Appl Polym Sci* 2002 **85** (11) 2451
- Immobilization of a cyclodextrin glucanotransferase (CGTase) onto polyethylene film with a carboxylic acid group and production of cyclodextrins from corn starch using CGTase-immobilized PE film  
 Cvetkovskii A, Bettini R\*, Tasic L, Stupar M, Casini I, Rossi A, Giordano F// \*Univ Parma, Dept Pharm, Parco Area Sci 27/A, IT-43100 Parma, Italy  
*J Therm Anal Calorim* 2002 **68** (2) 669
- Thermal properties of binary mixtures of  $\beta$ -cyclodextrin with carbamazepine polymorphs  
 Iyengar S, Biewer MC// \*Univ Texas, Dept Chem, Box 830668, Richardson, Tx 75083, USA  
*Chem Commun* 2002 (13) 1398
- Observation of photochromic  $\gamma$ -cyclodextrin host-guest inclusion complexes  
 Jain AC, Aungst BJ, Adeyeye MC// \*Duchesne Univ, Grad Sch Pharmaceut Sci, 441 Mellon Hall, Pittsburgh, Pa 15282, USA  
*J Pharm Sci* 2002 **91** (7) 1659
- Development and *in vivo* evaluation of buccal tablets prepared using danazol-sulfobutylether 7  $\beta$ -cyclodextrin (SBE 7) complexes  
 Juvancz Z, Szejtli J// Vituki PLC, Kvassay J ut 1, HU-1095 Budapest, Hungary  
*Trends Anal Chem* 2002 **21** (5) 379
- The role of cyclodextrins in chiral selective chromatography  
 Kawakita H, Sugita K, Saito K\*, Tamada M, Sugo T, Kawamoto H// \*Japan Sci & Technol Corp, 1-18-9 Midori, Chiba 263 0023, Japan  
*J Membr Sci* 2002 **205** (1-2) 175
- Optimization of reaction conditions in production of cycloisomaltooligosaccharides using enzyme immobilized in multilayers onto pore surface of porous hollow-fiber membranes  
 Kida T, Michinobu T, Zhang WB, Nakatsuji Y, Ikeda I// Osaka Univ, Grad Sch Engn, Dept Mol Chem, 2-1 Yamadaoka, Suita, Osaka 565 0871, Japan  
*Chem Commun* 2002 (15) 1596
- A facile synthesis of novel types of cyclodextrin derivatives by insertion of an aromatic dicarbonyl spacer into a permethylated  $\alpha$ -cyclodextrin skeleton  
 Laverde A, Da Conceicao GJA, Queiroz SCN, Fujiwara FY, Marsaioli AJ// Univ Estadual Campinas, Inst Quim, CP 6154, BR-13083-970 Campinas, SP, Brazil  
*Magn Reson Chem* 2002 **40** (7) 433
- An NMR tool for cyclodextrin selection in enantiomeric resolution by high-performance liquid chromatography  
 Martel B, Le Thuaut P, Bertini S, Crini G, Bacquet M, Torri G, Morcellet M// Univ Sci & Technol Lille, UPRESA CNRS 8009, Lab Chim Macromol, FR-59650 Villeneuve d'Ascq, France  
*J Appl Polym Sci* 2002 **85** (8) 1771
- Grafting of cyclodextrins onto polypropylene nonwoven fabrics for the manufacture of reactive filters. III. Study of the sorption properties  
 Mele A, Mendichi R, Selva A\*, Molnar P, Toth G// \*CNR, Ist Chim Riconoscimento Mol, via Mancinelli 7, IT-20131 Milan, Italy  
*Carbohydr Res* 2002 **337** (12) 1129
- Non-covalent associations of cyclomaltooligosaccharides (cyclodextrins) with carotenoids in water. A study on the  $\alpha$ - and  $\beta$ -cyclodextrin/ $\psi$ , $\psi$ -carotene (lycopene)-systems by light scattering, ionspray ionization and tandem mass spectrometry  
 Minns JW, Khan A// \*Penn State Univ, Dept Chem, Du Bois, Pa 15801, USA  
*J Phys Chem A* 2002 **106** (26) 6421
- $\alpha$ -Cyclodextrin- $I_3^-$  host-guest complex in aqueous solution: Theoretical and experimental studies  
 Shi XY, Guo HC, Wang M\*, Jiang SR// \*Chinese Agr Sci, Coll Appl Chem, CN-100094 Beijing, Peoples Rep China  
*Chromatographia* 2002 **55** (11-12) 755
- Synthesis of three new cyclodextrin derivatives and their application as chiral stationary phases in the determination of optical purity by capillary gas chromatography  
 Singh M, Agarwal SP// \*Jamia Hamdard Hamdard Univ, Dept Pharmaceut, IN-110062 New Delhi, India  
*Pharmazie* 2002 **57** (7) 505
- Preparation and characterization of sparfloxacin- $\beta$ -cyclodextrin complexes  
 Szeman J, Gerloczy A, Csabai K, Szejtli J, Kis GL, Su P, Chau RY, Jacober A// CYCLOLAB, Cyclodextrin Res & Dev Lab Ltd, Illatos u 7, POB 435, HU-1525 Budapest, Hungary  
*J Chromatogr B* 2002 **774** (2) 157
- High-performance liquid chromatographic determination of 2-hydroxypropyl- $\gamma$ -cyclodextrin in different biological fluids based on cyclodextrin enhanced fluorescence  
 Veiga MD, Merino M, Fernandez D, Lozano R// Univ Complutense Madrid, Fac Farm, Dept Farm & Tecnol Farmaceut, Ciudad Univ, ES-28040 Madrid, Spain  
*J Therm Anal Calorim* 2002 **68** (2) 511
- Characterization of some cyclodextrin derivatives by thermal analysis

## 6. Lignin

- Gu RJ, Xie YM\*, Zeng SQ, Wu H, Yasuda S// \*China Univ Technol, State Key Lab Pulp & Paper Engn, CN-510640 Guangzhou, Peoples Rep China  
*Chem J Chinese Univ-Chinese* 2002 **23** (6) 1073
- Carbon-13 enrichment of rice stalk lignin traced by solid state  $^{13}\text{C}$  NMR spectroscopy  
 Sun RC, Sun XF// Univ Wales, BioComposites Ctr, Bangor LL57 2UW, Wales  
*Separ Sci Technol* 2002 **37** (10) 2433
- Fractional separation and structural characterization of lignins and hemicelluloses by a two-stage treatment from rice straw  
 Sun RC, Sun XF, Lu Q// Address as above  
*Int J Polym Anal Charact* 2002 **7** (3) 244
- Analysis of lignins solubilized in two-stage organosolv and alkaline peroxide treatments from *Haloxylon ammodendron* and *Elaeagnus angustifolia*

## 7. Lipopolysaccharides

- Baucheron S, Grayon M, Zygmunt MS, Cloeckaert A// \*INRA, Unite Pathol Aviaire & Parasitol, FR-37380 Nouzilly, France  
*Res Microbiol* 2002 **153** (5) 277
- Lipopolysaccharide heterogeneity in *Brucella* strains isolated from marine mammals  
 De Castro C, De Castro O, Molinaro A, Parrilli M// Univ Naples, Dipt Chim Organ & Biochem, via Cintia 4, IT-80126 Naples, Italy  
*Eur J Biochem* 2002 **269** (12) 2885
- Structural determination of the O-chain polysaccharide from *Agrobacterium tumefaciens*, strain DSM 30205  
 Eserstam R, Rajaguru TP, Jansson PE\*, Weintraub A, Albert MJ// \*Huddinge Hosp, Karolinska Inst, Novum, Clin Res Ctr, Analyt Unit, SE-14186 Huddinge, Sweden  
*Eur J Biochem* 2002 **269** (13) 3289
- The structure of the O-chain of the lipopolysaccharide of a prototypal diarrheagenic strain of *Hafnia alvei* that has characteristics of a new species under the genus *Escherichia*  
 Gorshkova RP, Nazarenko EL, Zubkov VA, Ivanova EP, Gorshkova NM, Isakov VV// Russian Acad Sci, Pacific Inst Bioorgan Chem, Far East Branch, pr 100 Letiya Vladivostoka 159, RU-690022 Vladivostok, Russia  
*Biochemistry (Mosc)* 2002 **67** (6) 672
- Structure of O-specific polysaccharide from *Pseudalteromonas nigrifaciens* strain KMM 161  
 Landersjö C, Widmalm G// \*Stockholm Univ, Dept Organ Chem, Arrhenius Lab, SE-10691 Stockholm, Sweden  
*Biopolymers* 2002 **64** (6) 283
- Solution structure of a pentasaccharide representing the repeating unit of the O-antigen polysaccharide from *Escherichia coli* O142: NMR spectroscopy and molecular simulation studies  
 Sidorezyk Z, Zych K, Toukach FV, Arbatsky NP, Zablotni A, Shashkov AS, Knirel YA// Univ Lodz, Dept Gen Microbiol, Inst Microbiol & Immunol, PL-90237 Lodz, Poland  
*Eur J Biochem* 2002 **269** (5) 1406
- Structure of the O-polysaccharide and classification of *Proteus mirabilis* strain G1 in *Proteus* serogroup O3

Vinogradov E, Fridrich E, MacLean LL, Perry MB, Petersen BO, Duus JO, Whitfield C// Natl Res Council Canada, Inst Biol Sci, 100 Sussex Dr, Ottawa, Ontario, Canada K1A 0R6

*J Biol Chem* 2002 **277** (28) 25070

Structures of lipopolysaccharides from *Klebsiella pneumoniae*: Elucidation of the structure of the linkage region between core and polysaccharide O chain and identification of the residues at the non-reducing termini of the O chains

## 8. Pectin

Barrera AM, Ramirez JA, Gonzalez-Cabriaes JJ, Vazquez M\*// \*Univ Santiago de Compostela, Escuela Politecnica Superior, Dept Quim Analit, Area Tecnol Alimentos, Campus de Lugo, ES-27002 Lugo, Spain

*Food Hydrocolloid* 2002 **16** (5) 441

Effect of pectins on the gelling properties of surimi from silver carp

Gusakov AV, Markov AV, Grishutin SG, Semenova MV, Kondratyeva EG, Sinitsyn AP// Moscow MV Lomonosov State Univ, Sch Chem, RU-119992 Moscow, Russia

*Biochemistry (Mosc)* 2002 **67** (6) 676

Viscometric method for assaying of total endodepolymerase activity of pectinases

Ishii T, Ichita J, Matsue H, Ono H, Maeda I// Forestry & Forest Prod Res Int, POB 16, Tsukuba, Ibaraki 305 8687, Japan

*Carbohydr Res* 2002 **337** (11) 1023

Fluorescent labeling of pectic oligosaccharides with 2-aminobenzamide and enzyme assay for pectin

Piccoli-Valle RH, Passos FML, Passos FJV, Silva DO// Univ Fed Lavras, Dept Ciencia Alimentos, Caixa Postal 37, BR-37200-000 Lavras MG, Brazil

*Braz J Microbiol* 2001 **32** (2) 135

Production of pectin lyase by *Penicillium griseoroseum* in bioreactors in the absence of inducer

Yokoi H, Obita T, Hirose J, Hayashi S, Takasaki Y// Miyazaki Univ, Fac Engn, Dept Appl Chem, Miyazaki 889 2192, Japan

*Bioresource Technol* 2002 **84** (3) 287

Flocculation properties of pectin in various suspensions

## 9. Starch

Alebiowu G, Itiola OA\*// \*Univ Ibadan, Coll Med, Fac Pharm, Dept Pharmaceut & Ind Pharm, Ibadan, Nigeria

*Drug Dev Ind Pharm* 2002 **28** (6) 663

Compressional characteristics of native and pregelatinized forms of sorghum, plantain, and corn starches and the mechanical properties of their tablets

Andersson L, Andersson R\*, Andersson RE, Rydberg U, Larsson H, Aman P// \*Swedish Univ Agr Sci, Dept Food Sci, SE-75007 Uppsala, Sweden

*Carbohydr Polym* 2002 **50** (3) 249

Characterisation of the *in vitro* products of potato starch branching enzymes I and II

Barron C, Della Valle G\*, Colonna P, Vergnes B// \*INRA, BP 71627, FR-44316 Nantes 3, France

*J Food Sci* 2002 **67** (4) 1426

Energy balance of low hydrated starches transition under shear

Basu D, Datta C, Banerjee A\*// \*Univ Calcutta, Dept Polymer Sci & Technol, 92 APC Rd, IN-700009 Calcutta, India

*J Appl Polym Sci* 2002 **85** (7) 1434

Biodegradability, mechanical properties, melt flow index, and morphology of polypropylene/amylose/amylose-ester blends

Bindzus W, Fayard G, Van Lengerich B, Meuser F\*// \*Tech Univ Berlin, Inst Lebensmitteltechnol, Seestr 11, DE-13353 Berlin, Germany

*Starch* 2002 **54** (6) 243

Application of an in-line viscometer to determine the shear stress of plasticised wheat starch

Bindzus W, Fayard G, Van Lengerich B, Meuser F\*// \*Tech Univ Berlin, Inst Lebensmitteltechnol, Seestr 11, DE-13353 Berlin, Germany

*Starch* 2002 **54** (6) 252

Description of extrudate characteristics in relation to the shear stress of plasticised starches determined in-line

Butler MF// Unilever Res, Colworth House, Sharnbrook MK44 1LQ, England

*Biomacromolecules* 2002 **3** (4) 676

Mechanism and kinetics of phase separation in a gelatin/maltodextrin mixture studied by small-angle light scattering

Cao YM, Qing XS, Sun J, Zhou FM, Lin SA// Xian Jiaotong Univ, State Key Lab Mech Behav Mat, CN-710049 Xian, Peoples Rep China

*Eur Polym J* 2002 **38** (9) 1921

Graft copolymerization of acrylamide onto carboxymethyl starch

Celik M, Sacak M\*// \*Ankara Univ, Fac Sci, Dept Chem, TR-06100 Ankara, Turkey

*J Appl Polym Sci* 2002 **86** (1) 53

Synthesis and characterization of starch-poly(methyl methacrylate)graft copolymers

Edge S, Belu AM, Potter UJ, Steele DF, Young PM, Price R, Staniforth JN// Univ Bath, Dept Pharm & Pharmacol, Pharmaceut Technol Res Grp, Bath BA2 7AY, England

*Int J Pharm* 2002 **240** (1-2) 67

Chemical characterisation of sodium starch glycolate particles

Fiedorowicz M, Rebilas K// Univ Agr, Dept Chem, Mickiewiczza 24/28, PL-30059 Cracow, Poland

*Carbohydr Polym* 2002 **50** (3) 315

Physicochemical properties of waxy corn starch and corn amylopectin illuminated with linearly polarised visible light

Hu ZH, Zhang LM\*// \*SUNY Stony Brook, Dept Chem, Stony Brook, NY 11794, USA

*J Macromol Sci Pure Appl Chem* 2002 **39** (5) 419

Water-soluble ampholytic grafted polysaccharides. II. Synthesis and characterization of graft terpolymers of starch with acrylamide and [2-(methacryloylox) ethyl dimethyl (3-sulfo)propyl] ammonium hydroxide

Juszczak L, Fortuna T, Wodnicka K// Univ Agr Krakow, Dept Anal & Evaluat Food Qual, 29 Listopada 46 Ave, PL-31425 Krakow, Poland

*J Food Eng* 2002 **54** (2) 103

Characteristics of cereal starch granules surface using nitrogen adsorption

Kadan RS, Pepperman AB// ARS/USDA, Sthn Reg Res Ctr, New Orleans, La 70179, USA

*Cereal Chem* 2002 **79** (4) 476

Physicochemical properties of starch in extruded rice flours

Kizil R, Irudayaraj J\*, Seetharaman K// \*Penn State Univ, Dept Agr & Biol Engn, 227 Agr Engn Bldg, University Park, Pa 16802, USA

*J Agric Food Chem* 2002 **50** (14) 3912

Characterization of irradiated starches by using FT-Raman and FTIR spectroscopy

Letang C, Samson MF, Lasserre TM, Chaurand M, Abecassis J\*// \*INRA/ENSAM, Unite Technol Cereales & Agropolymers, 2 Pl Viala, FR-34060 Montpellier 01, France

*Cereal Chem* 2002 **79** (4) 535

Production of starch with very low protein content from soft and hard wheat flours by jet milling and air classification

Matzinos P, Tserki V, Kontoyiannis A, Panayiotou C\*// \*Aristotle Univ, Dept Chem Engn, GR-54006 Thessaloniki, Greece

*Polym Degrad Stabil* 2002 **77** (1) 17

Processing and characterization of starch/polycaprolactone products

Matzinos P, Tserki V, Gianikouris C, Pavlidou E, Panayiotou C\*// \*Aristotle Univ, Dept Chem Engn, GR-54006 Thessaloniki, Greece

*Eur Polym J* 2002 **38** (9) 1713

Processing and characterization of LDPE/starch/PCL blends

Morikawa K, Nishinari K\*// \*Osaka City Univ, Fac Human Life Sci, Osaka 558 8585, Japan

*J Food Sci* 2002 **67** (4) 1388

Effects of granule size and size distribution on rheological behavior of chemically modified potato starch

Morita N, Maeda T, Miyazaki M, Yamamori M, Miura H, Ohtsuka I// Univ Osaka Prefecture, Grad Sch Agr & Biol Sci, Div Appl Biochem, Food Chem Lab, 1-1 Gakuencho, Sakai, Osaka 599 8531, Japan

*Cereal Chem* 2002 **79** (4) 491

Dough and baking properties of high-amylose and waxy wheat flours

Mukerjee R, Yu LL, Robyt JF\*// \*Iowa State Univ Sci & Technol, Dept Biochem & Biophys, Lab Carbohydrate Chem & Enzymol, Ames, Ia 50011, USA

*Carbohydr Res* 2002 **337** (11) 1015

Starch biosynthesis: Mechanism for the elongation of starch chains

Pabst W, Tynova E, Mikac J, Gregorova E, Havrda J// Inst Chem Technol, Dept Glass & Ceram, Technicka 5, CZ-16628 Prague 6, Czech Republic

*J Mater Sci Lett* 2002 **21** (14) 1101

A model for the body formation in starch consolidation casting

Singh V, Johnston DB// USDA/ARS, Eastern Reg Res Ctr, 600 East Mermaid Lane, Wyndmoor, Pa 19038, USA

*Cereal Chem* 2002 **79** (4) 523

Pasting properties and surface characteristics of starch obtained from an enzymatic corn wet-milling process

Suh DS, Chang PS, Kim KO\*// \*Ewha Woman's Univ, Dept Nutr & Food Sci, Seoul 120750, South Korea

*Cereal Chem* 2002 **79** (4) 576

- Physicochemical properties of corn starch selectively oxidized with 2,2,6,6-tetramethyl-1-piperidinyloxyammonium ion  
Tari TA, Singhal RS// \*Univ Mumbai, Dept Chem Technol, Food & Ferment Technol Div, IN-400019 Matunga, Mumbai, India  
*Carbohydr Polym* 2002 **50** (3) 279  
Starch based spherical aggregates: Reconfirmation of the role of amylose on the stability of a model flavouring compound, vanillin  
Tiravanti G, Marani D, Pagano M, Presicce DS, Passino R// CNR/IRSA, via F de Blasio 5, IT-70123 Bari, Italy  
*Ann Chim (Rome)* 2002 **92** (7-8) 677  
Lead removal and recovery from battery industry wastewaters by soluble starch xanthate  
Travers I, Jacquet A\*, Brisset A, Maite C// \*Univ Caen, UMR, INRA, Physiol & Biochim Veg, Esplanade Paix, FR-14032 Caen, France  
*J Sci Food Agric* 2002 **82** (9) 983  
Relationship between the enzymatic determination of starch and the starch iodine index in two varieties of cider apple  
Willett JL, Doane WM// USDA/ARS, Natl Ctr Agr Utilizat Res, Plant Polymer Res Unit, 1815 Nth Univ St, Peoria, IL 61604, USA  
*Polymer* 2002 **43** (16) 4413  
Effect of moisture content on tensile properties of starch/poly(hydroxyester ether) composite materials  
Wittgren B, Wahlund KG, Andersson M, Arfvidsson C// AstraZeneca R&D Molndal, SE-43183 Molndal, Sweden  
*Int J Polym Anal Charact* 2002 **7** (1-2) 19  
Polysaccharide characterization by flow field-flow fractionation-multiangle light scattering: Initial studies of modified starches  
Yao WR, Yao HY// Sthn Yangtze Univ, Sch Food Sci & Technol, CN-214036 Wuxi, Jiangsu, Peoples Rep China  
*Starch* 2002 **54** (6) 260  
Adsorbent characteristics of porous starch  
Yoengyongbuddhagal S, Noomhorm A// \*Asian Inst Technol, Sch Environm Resources & Dev, Proc Technol Program, TH-12120 Pathum Thani, Thailand  
*Cereal Chem* 2002 **79** (4) 481  
Effect of physicochemical properties of high-amylose Thai rice flours on vermicelli quality  
Zhai M, Yoshii F\*, Kume T, Hashim K// \*Japan Atomic Energy Res Inst, Takasaki Radiat Chem Res Estab, 1233 Watanuki-machi, Takasaki-shi, Gunma-ken 370 12, Japan  
*Carbohydr Polym* 2002 **50** (3) 295  
Syntheses of PVA/starch grafted hydrogels by irradiation  
Zhang LM, Chen DQ// SUNY Stony Brook, Dept Chem, Stony Brook, NY 11794, USA  
*Colloid Surface A* 2002 **205** (3) 231  
An investigation of adsorption of lead(II) and copper (II) ions by water-insoluble starch graft copolymers
- Inst Rd, Worcester, Ma 01609, USA  
*Biomacromolecules* 2002 **3** (4) 661  
Heterogeneity in bacterial surface polysaccharides, probed on a single-molecule basis  
Chiu HC, Lin YF, Hung SH// Natl Chung Hsing Univ, Dept Chem Engr, Taichung 402, Taiwan  
*Macromolecules* 2002 **35** (13) 5235  
Equilibrium swelling of copolymerized acrylic acid- methacrylated dextran networks: Effects of pH and neutral salt  
Daas PJH, Grolle K, Van Vliet T, Schols HA\*, De Jongh HHJ// \*Univ Wageningen & Res Ctr, Dept Agrotechnol & Food Sci, Labs Food Chem & Food Phys, Bomenweg 2, NL-6703 HD Wageningen, The Netherlands  
*J Agric Food Chem* 2002 **50** (15) 4282  
Toward the recognition of structure-function relationships in galactomannans  
Kasapis S, Abeysekera R, Atkin N, Deszczynski M, Mitchell JR// Sultan Qaboos Univ, Coll Agr, Dept Food Sci & Nutr, PO Box 34, OM-123 Al-Khod, Oman  
*Carbohydr Polym* 2002 **50** (3) 259  
Tangible evidence of the transformation from enthalpic to entropic gellan networks at high levels of co-solute  
Kazy SK, Sar P, Singh SP, Sen AK, D'Souza SF// \*Bhabha Atom Res Ctr, Nucl Agr & Biotechnol Div, IN-400085 Trombay, India  
*World J Microbiol Biotechnol* 2002 **18** (6) 583  
Extracellular polysaccharides of a copper-sensitive and a copper-resistant *Pseudomonas aeruginosa* strain: Synthesis, chemical nature and copper binding  
Kogan G, Sandula J, Korolenko TA, Falameeva OV, Poteryaeva ON, Zhanaeva SY, Levina OA, Filatova TG, Kaledin VI// Slovak Acad Sci, Inst Chem, Dubravská cesta 9, SK-84238 Bratislava, Slovakia  
*Int Immunopharmacol* 2002 **2** (6) 775  
Increased efficiency of Lewis lung carcinoma chemotherapy with a macrophage stimulator: Yeast carboxymethyl glucan  
Kogan G, Matulova M, Michalkova E// Slovak Acad Sci, Inst Chem, Dubravská cesta 9, SK-84238 Bratislava, Slovakia  
*Z Naturforsch C* 2002 **57** (5-6) 452  
Extracellular polysaccharides of *Penicillium vermiculatum*  
Landersjö C, Yang ZN, Huttenen E, Widmalm G// \*Univ Stockholm, Arrhenius Lab, Dept Organ Chem, SE-10691 Stockholm, Sweden  
*Biomacromolecules* 2002 **3** (4) 880  
Structural studies of the exopolysaccharide produced by *Lactobacillus rhamnosus* strain GG (ATCC 53103)  
Lazaridou A, Roukas T, Biliaderis CG\*, Vaikousi H// \*Aristotle Univ, Sch Agr, Lab Food Chem & Biochem, Dept Food Sci & Technol, POB 256, GR-54006 Thessaloniki, Greece  
*Enzyme Microb Technol* 2002 **31** (1-2) 122  
Characterization of pullulan produced from beet molasses by *Aureobasidium pullulans* in a stirred tank reactor under varying agitation  
Lee HC, Brant DA// \*Univ Calif Irvine, Dept Chem, Irvine, Ca 92697, USA  
*Biomacromolecules* 2002 **3** (4) 742  
Rheology of concentrated isotropic and anisotropic xanthan solutions: III. Temperature dependence  
Leng XJ, Startchev K, Buffle J// Univ Geneva, Dept Inorgan Analyt & Appl Chem, Caba Analyt & Biophys Environm Chem, CH-1211 Geneva 4, Switzerland  
*J Colloid Interface Sci* 2002 **251** (1) 64  
Application of fluorescence correlation spectroscopy: A study of flocculation of rigid rod-like biopolymer (schizophyllan) and colloidal particles  
Miyamoto K, Sugihara K, Abe Y, Nobori T, Tokita M, Komai T// Mie Univ, Fac Engineering, Dept Chem Mat, 1515 Kamihama cho, Tsu, Mie 514 8507, Japan  
*Int J Biol Macromol* 2002 **30** (3-4) 197  
Novel plasma-separation dilayer gellan-gellan-sulfate adsorber for direct removal of extra domain A containing fibronectin from the blood of rheumatoid arthritis patients  
Morales E, Rodriguez M, Garcia D, Loreto C, Marco E// Univ Zulia, Fac Ciencias, Dept Biol, VE-4011 Maracaibo, Venezuela  
*Interciencia* 2002 **27** (7) 373  
Effect of pH and CO<sub>2</sub> on growth, pigments and exopolysaccharides production from cyanobacteria *Anabaena* sp PCC 7120 (Spanish, English Abstract)  
Ronen M, Guterman H, Shabtai Y// Ben Gurion Univ Negev, Fac Engr Sci, Unit Biotechnol, POB 653, IL-84105 Beer Sheva, Israel  
*J Biochem Biophys Methods* 2002 **51** (3) 243  
Monitoring and control of pullulan production using vision sensor  
Rosado FR, Carbonero ER, Kemmelmeier C, Tischer CA, Gorin PAJ, Iacomini M// \*Univ Estadual Maringa, Dept Bioquim, Avda Colombo 5790,

## 10. Starch-degrading enzymes

- Carrin ME, Ceci L, Lozano J// \*UNS, Consejo Nacl Invest Cient & Tecn, PLAPIQUI, AR-8000 Bahia Blanca, Buenos Aires, Argentina  
*J Food Process Preserv* 2002 **26** (2) 153  
Kinetic studies of an amylase used commercially for the clarification of apple juice  
Cordeiro CAM, Martins MLL\*, Luciano AB// \*Univ Estadual Norte Fluminense, Ctr Ciencias & Tecnol, Agropecuarias, Avda Alberto Lemego 2000, BR-28015-620 Campos dos Goytacazes, RJ, Brazil  
*Braz J Microbiol* 2002 **33** (1) 57  
Production and properties of  $\alpha$ -amylase from thermophilic *Bacillus* sp  
Rao MD, Purnima A, Ramesh DV, Ayyanna C// Univ Sth Dakota, Dept Biol, 414 East Clark St, Vermillion, SD 57069, USA  
*World J Microbiol Biotechnol* 2002 **18** (6) 547  
Purification of  $\alpha$ -amylase from *Bacillus licheniformis* by chromatofocusing and gel filtration chromatography  
Yook C, Robyt JF// \*Iowa State Univ Sci & Technol, Lab Carbohydrate Chem & Enzymol, 4252 Mol Biol Bldg, Ames, Ia 50011, USA  
*Carbohydr Res* 2002 **337** (12) 1113  
Reactions of  $\alpha$  amylases with starch granules in aqueous suspension giving products in solution and in a minimum amount of water giving products inside the granule

## 11. Polysaccharides - Microbial

- Camesano TA, Abu-Lail NI// Worcester Polytech Inst, Dept Chem Engr, 100

- BR-81531-990 Maringa, Parana, Brazil  
*FEMS Microbiol Lett* 2002 **212** (2) 261  
 A partially 3-*O*-methylated (1→4)-linked  $\alpha$ -D-galactan and  $\alpha$ -D-mannan from *Pleurotus ostreatus* Sing
- Shashkov AS, Torgov VI, Nazarenko EL, Zubkov VA, Gorshkova NM, Gorshkova RP, Widmalm G\*// \*Stockholm Univ, Dept Organ Chem, Arrhenius Lab, SE-10691 Stockholm, Sweden  
*Carbohydr Res* 2002 **337** (12) 1119  
 Structure of the phenol-soluble polysaccharide from *Shewanella putrefaciens* strain A6
- Tang YJ, Zhong JJ\*// \*East China Univ Sci & Technol, State Key Lab Bioreactor Engn, 130 Meilong Rd, CN-200237 Shanghai, Peoples Rep China  
*Enzyme Microb Technol* 2002 **31** (1-2) 20  
 Fed-batch fermentation of *Ganoderma lucidum* for hyperproduction of polysaccharide and ganoderic acid
- Thanardkit P, Khunrae P, Suphantharika M, Verduyn C\*// \*Mahidol Univ, Fac Sci, Dept Biotechnol, Rama VI Rd, TH-10400 Bangkok, Thailand  
*World J Microbiol Biotechnol* 2002 **18** (6) 527  
 Glucan from spent brewer's yeast: Preparation, analysis and use as a potential immunostimulant in shrimp feed
- Zamora F, Gonzalez MC, Duenas MT, Irastorza A, Velasco S, Ibarburu I// Univ Pais Vasco, Fac Quim, Dept Ciencia & Tecnol Polimeros, Apdo 1072, ES-20018 San Sebastian, Spain  
*J Macromol Sci Phys* 2002 **B41** (3) 473  
 Thermodegradation and thermal transitions of an exopolysaccharide produced by *Pediococcus damnosus* 2.6
- ## 12. Polysaccharides - Plant
- Becker TA, Kipke DR\*// \*Univ Michigan, Dept Biomed Engn, 3304 G G Brown, 2350 Hayward, Ann Arbor, MI 48109, USA  
*J Biomed Mater Res* 2002 **61** (4) 533  
 Flow properties of liquid calcium alginate polymer injected through medical microcatheters for endovascular embolization
- Berteau O, McCort I, Goasdoue N, Tissot B, Daniel R\*// \*Univ Paris 13, Lab Rech Macromol, UMR 7540 CNRS, Ave JB Clement, FR-93430 Villetteuse, France  
*Glycobiology* 2002 **12** (4) 273  
 Characterization of a new  $\alpha$ -L-fucosidase isolated from the marine mollusk *Pecten maximus* that catalyzes the hydrolysis of  $\alpha$ -L-fucose from algal fucoidan (*Ascopyllum nodosum*)
- Brylev AN, Adylov DK, Tukhtaeva GG, Kamalidina NA, Abidova LD, Rakhimov DA// Uzmashprom Assoc, Sci Res Inst Chem Technol, UZ-702174 Tashkent, Uzbekistan  
*Chem Nat Compd* 2001 **37** (6) 569  
 Polysaccharides of rice straw
- Cacais AOG, Silveira FQD, Ferreira EXF\*// \*Univ Brasilia, Dept Biol Celular, Enzymol Lab, BR-70910 Brasilia, DF, Brazil  
*Braz J Microbiol* 2001 **32** (2) 141  
 Production of xylan-degrading enzymes by a *Trichoderma harzianum* strain
- Capek P, Alföldi J, Liskova D// Slovak Acad Sci, Inst Chem, Dubravska cesta 9, SK-84238 Bratislava, Slovakia  
*Carbohydr Res* 2002 **337** (11) 1033  
 An acetylated galactoglucomannan from *Picea abies* L. Karst
- Choi BY, Park HJ\*, Hwang SJ, Park JB\*// \*Korea Univ, Grad Sch Biotechnol, Seoul 136701, South Korea  
*Int J Pharm* 2002 **239** (1-2) 81  
 Preparation of alginate beads for floating drug delivery system: Effects of CO<sub>2</sub> gas-forming agents
- Chronakis LS, Ramzi M// Swedish Inst Fiber & Polymer Res, IFP Res, Box 104, SE-43122 Molndal, Sweden  
*Biomacromolecules* 2002 **3** (4) 793  
 Isotropic-nematic phase equilibrium and phase separation of  $\kappa$ -carrageenan in aqueous salt solution: Experimental and theoretical approaches
- Courtin CM, Delcour JA// Katholieke Univ Leuven, Food Chem Lab, Kasteelpk Arenberg 20, BE-3001 Louvain, Belgium  
*J Cereal Sci* 2002 **35** (3) 225  
 Arabinoxylans and endoxylanases in wheat flour bread-making
- Dobie K, Smith G, Sloan AJ, Smith AJ\*// \*Univ Birmingham, Sch Dent, St Chads Queensway, Birmingham B4 6NN, England  
*Connect Tissue Res* 2002 **43** (2-3) 387  
 Effects of alginate hydrogels and TGF- $\beta$ 1 on human dental pulp repair *in vitro*
- Duarte MER, Nosedá MD, Cardoso MA, Tulio S, Cerezo AS\*// \*Univ Buenos Aires, Fac Ciencias Exactas & Nat, CONICET, Dept Quim Organ, CIHIDECAR, Ciudad Univ, AR-1428 Buenos Aires, DF, Argentina  
*Carbohydr Res* 2002 **337** (12) 1137  
 The structure of a galactan sulfate from the red seaweed *Bostrychia montagnei*
- Ferreiro MG, Tillman L, Hardee G, Bodmeier R\*// \*Free Univ Berlin, Coll Pharm, Kelchstr 31, DE-12169 Berlin, Germany  
*Int J Pharm* 2002 **239** (1-2) 47  
 Characterization of alginate/poly-L-lysine particles as antisense oligonucleotide carriers
- Ghosh AK, Jana ML, Naskar AK, Chatterjee R, Sengupta S\*// \*Indian Inst Chem Biol, Dept Appl Biochem, 4 Raja SC Mullick Rd, IN-700032 Kolkata, India  
*Biotechnol Lett* 2002 **24** (15) 1249  
 Removal of carboxymethyl cellulase activity from the culture filtrate of *Termitomyces clypeatus* producing xylanase
- Jia Y, Kanno Y, Xie ZP// Yamanashi Univ, Dept Mech Syst Engn, Kofu, Yamanashi 400, Japan  
*J Eur Ceram Soc* 2002 **22** (12) 1911  
 New gel-casting process for alumina ceramics based on gelation of alginate
- Kaji T, Fujiwara Y, Hamada C, Yamamoto C, Shimada S, Lee JB, Hayashi T// Hokuriku Univ, Fac Pharmaceut Sci, Dept Environm Hlth, Ho-3 Kanagawa machi, Kanazawa, Ishikawa 920 118, Japan  
*Planta Med* 2002 **68** (6) 505  
 Inhibition of cultured bovine aortic endothelial cell proliferation by sodium spirulan, a new sulfated polysaccharide isolated from *Spirulina platensis*
- Kokol V// Univ Maribor, Fac Mech Engn, Inst Textile Chem Ecol & Colorimetry, PO Box 224, Smetanova 17, SL-2000 Maribor, Slovenia  
*Carbohydr Polym* 2002 **50** (3) 227  
 Interactions between polysaccharide polymer thickener and biofunctional bireactive dye in the presence of nonionic surfactants. Part I: Surface tension and rheological behavior of different polysaccharide solutions
- Kokol V// Address as above.  
*Carbohydr Polym* 2002 **50** (3) 237  
 Interactions between polysaccharide polymer thickener and bifunctional bireactive dye in the presence of nonionic surfactants. Part II. Investigation of interactions using SEC method
- Lai LS, Chiang HF// Providence Univ, Dept Food & Nutr, 200 Chungchi Rd, Shalu, Taichung 433, Taiwan  
*Food Hydrocolloid* 2002 **16** (5) 427  
 Rheology of decolorized hsian-tso leaf gum in the dilute domain
- Maes C, Delcour JA// Katholieke Univ Leuven, Food Chem Lab, Kasteelpk Arenberg 20, BE-3001 Louvain, Belgium  
*J Cereal Sci* 2002 **35** (3) 315  
 Structural characterisation of water-extractable and water-unextractable arabinoxylans in wheat bran
- Marathe RM, Annapure US, Singhal RS, Kulkarni PR// Univ Dept Chem Technol, Food & Fermentation Technol Div, IN-400019 Matunga, Mumbai, India  
*Food Hydrocolloid* 2002 **16** (5) 423  
 Gelling behaviour of polyose from tamarind kernel polysaccharide
- Miller IJ// Carina Chem Labs Ltd, POB 30366, Lower Hutt 6315, New Zealand  
*Bot Mar* 2002 **45** (4) 373  
 The structures of the polysaccharides from two *Lophurella* species as determined by <sup>13</sup>C NMR spectroscopy
- Mutwiri G, Bowersock T, Kidane A, Sanchez M, Gerdt V, Babiuk LA, Griebel P// Univ Saskatchewan, Vet Infect Dis Org, 120 Vet Rd, Saskatoon, Saskatchewan, Canada S7K 5E3  
*Vet Immunol Immunopathol* 2002 **87** (3-4) 269  
 Induction of mucosal immune responses following enteric immunization with antigen delivered in alginate microspheres
- Nakamura A, Furuta H, Maeda H, Takao T, Nagamatsu Y// Fuji Oil Co Ltd, Tsukuba R&D Ctr, 4-3 Kinunodai, Yawara, Ibaraki 300 2497, Japan  
*Biosci Biotechnol Biochem* 2002 **66** (6) 1301  
 Structural studies by stepwise enzymatic degradation of the main backbone of soybean soluble polysaccharides consisting of galacturonan and rhamnogalacturonan
- Odeku OA, Itiola OA// Univ Ibadan, Coll Med, Fac Pharm, Dept Pharmaceut & Ind Pharm, Ibadan, Nigeria  
*Drug Dev Ind Pharm* 2002 **28** (3) 329  
 Characterization of khaya gum as a binder in a paracetamol tablet formulation
- Picout DR, Ross-Murphy SB, Jumel K, Harding SE// KCL, Div Life Sci, Biopolymers Grp, Franklin Wilkins Bldg, 150 Stamford St, London SE1 9NN, England  
*Biomacromolecules* 2002 **3** (4) 761  
 Pressure cell assisted solution characterization of polysaccharides. II. Locust

bean gum and tara gum

Rezende MI, Barbosa AD, Vasconcelos AFD, Endo AS// Rua Pio XII 856-1304, BR-86020-381 Londrina PR, Brazil

*Braz J Microbiol* 2002 **33** (1) 67

Xylanase production by *Trichoderma harzianum* Rifai by solid state fermentation on sugarcane bagasse

Ruiz-Angel MJ, Simo-Alfonso EF, Mongay-Fernandez C, Ramis-Ramos G\*\*// \*Univ Valencia, Fac Chem, Dept Analyt Chem, C/ Dr Moliner 50, ES-46100 Burjassot, Spain

*Electrophoresis* 2002 **23** (11) 1709

Identification of Leguminosae gums and evaluation of carob-guar mixtures by capillary zone electrophoresis of protein extracts

Sakai S, Ono T, Ijima H, Kawakami K// Kyushu Univ, Grad Sch Engr, Dept Mat Proc Engr, Higashi ku, 6-10-1 Hakozaki, Fukuoka 812 8581, Japan

*J Membr Sci* 2002 **205** (1-2) 183

Permeability of alginate/sol-gel synthesized aminopropyl-silicate/alginate membrane templated by calcium-alginate gel

Sanghi R, Bani BA, Singh V// Indian Inst Technol, Facil Ecol & Analyt Testing, Sthn Labs 302, IN-208016 Kanpur, Uttar Pradesh, India

*Green Chem* 2002 **4** (3) 252

*Cassia angustifolia* seed gum as an effective natural coagulant for decolourisation of dye solutions

Serp D, Mueller M, Von Stockar U, Marison IW\*\*// \*Swiss Fed Inst Technol, Dept Chem, Lab Chem & Biol Engr, CH-1015 Lausanne, Switzerland

*Biotechnol Bioeng* 2002 **79** (3) 243

Low-temperature electron microscopy for the study of polysaccharide ultrastructures in hydrogels. I. Theoretical and technical considerations

Serp D, Mueller M, Von Stockar U, Marison IW\*\*// \*Address as above.

*Biotechnol Bioeng* 2002 **79** (3) 253

Low-temperature electron microscopy for the study of polysaccharide ultrastructures in hydrogels. II. Effect of temperature on the structure of Ca<sup>2+</sup> alginate beads

Simeone M, Mole F, Guido S// Univ Napoli Federico II, Dipt Ingn Chim, Lab Giovanni Astarita, Ple V Tecchio 80, IT-80125 Naples, Italy

*Food Hydrocolloid* 2002 **16** (5) 449

Measurement of average drop size in aqueous mixtures of Na-alginate and Na-caseinate by linear oscillatory tests

Takemasa M, Chiba A, Date M// Waseda Univ, Sch Sci & Engr, Dept Appl Phys, Shinjuku ku, 3-4-1 Okubo, Tokyo 169 8555, Japan

*Macromolecules* 2002 **35** (14) 5595

Counterion dynamics of K<sup>+</sup> and t-carrageenan aqueous solutions investigated by the dielectric properties

Toti US, Aminabhavi TM\*\*// \*Karnatak Univ, Ctr Excellence Polymer Sci, IN-580003 Dharwad, Karnataka, India

*J Appl Polym Sci* 2002 **85** (9) 2014

Pervaporation separation of water-isopropyl alcohol mixtures with blend membranes of sodium alginate and poly (acrylamide)-grafted guar gum

Watanabe Y, Fang X, Minemoto Y, Adachi S\*, Matsuno R// \*Kyoto Univ, Grad Sch Agr, Div Food Sci & Biotechnol, Sakyo ku, Kyoto 606 8502, Japan

*J Agric Food Chem* 2002 **50** (14) 3984

Suppressive effect of saturated acyl L-ascorbate on the oxidation of linoleic acid encapsulated with maltodextrin or gum arabic by spray-drying

Watt DK, O'Neill SA, Percy AE, Brasch DJ// Industrial Research Ltd, PO Box 31-310, Lower Hutt, New Zealand

*Carbohydr Polym* 2002 **50** (3) 283

Isolation and characterisation of a partially methylated galacto-glucurono-xyloglycan, a unique polysaccharide from the red seaweed *Apophloeae lyallii*

Yokosawa MM, Frollini E\*\*// \*Univ Sao Carlos, Inst Quim Sao Paulo, CP 780, BR-13560-970 Sao Carlos, SP, Brazil

*J Macromol Sci* 2002 **39** (7) 709

Effect of the addition of a cationic derivative of the natural polysaccharide guar gum on the stability of an aqueous dispersion of alumina

Yoshikawa M, Masaki K, Ishikawa M// Kyoto Inst Technol, Dept Polymer Sci & Engr, Kyoto 606 8585, Japan

*J Membr Sci* 2002 **205** (1-2) 293

Pervaporation separation of aqueous organic mixtures through agarose membranes

### 13. Polysaccharides - Other

Cheng TJ, Lin TM, Chang HC\*\*// \*Nat'l Cheng Kung Univ, Inst Biomed Engr, 1 Ta Hsueh Rd, Tainan 70101, Taiwan

*Anal Chim Acta* 2002 **462** (2) 261

Physical adsorption of protamine for heparin assay using a quartz crystal microbalance and electrochemical impedance spectroscopy

Haller MF, Boons GJ\*\*// \*Univ Georgia, Complex Carbohydrate Res Ctr, 220 Riverbend Rd, Athens, Ga 30602, USA

*Eur J Org Chem* 2002 (13) 2033

Selectively protected disaccharide building blocks for modular synthesis of heparin fragments

Kirker KR, Luo Y, Nielson JH, Shelby J, Prestwich GD\*\*// \*Univ Utah, Dept Med Chem, 419 Wakara Way, Suite 205, Salt Lake City, Ut 84108, USA

*Biomaterials* 2002 **23** (17) 3661

Glycosaminoglycan hydrogel films as bio-interactive dressings for wound healing

Lam SN, Gervay-Hague J\*\*// \*Univ Calif Davis, Dept Chem, Davis, Ca 95616, USA

*Org Lett* 2002 **4** (12) 2039

Solution-phase hexasaccharide synthesis using glucosyl iodides

Lee JK, Kim SY, Kim SU, Kim JH\*\*// \*KAIST, Dept Biol Sci, Taejeon 305701, South Korea

*Biotechnol Appl Biochem* 2002 **35** (3) 181

Synthesis of cationic polysaccharide derivatives and their hypocholesterolaemic capacity

Liu YC, Li H, Otter A, Kamath VP, Streiff MB, Palcic MM\*\*// \*Univ Alberta, Dept Chem, Edmonton, Alberta, Canada T6G 2G2

*Can J Chem* 2002 **80** (6) 540

Chemo-enzymatic synthesis of trimeric sialyl Lewis<sup>x</sup> pentadecasaccharide

Masarova J, Mislovicova D\*, Soltes L// \*Slovak Acad Sci, Inst Chem, Dubravska cesta 9, SK-84238 Bratislava, Slovakia

*Int J Polym Anal Charact* 2002 **7** (1-2) 106

Investigation of the conjugation reaction of mannan with albumin

Matveev YI, Ablett S// Russian Acad Sci, Inst Biochem Phys, Vavilov St 28, RU-117813 Moscow, Russian Federation

*Food Hydrocolloid* 2002 **16** (5) 419

Calculation of the C<sub>g</sub>' and T<sub>g</sub>' intersection point in the state diagram of frozen solutions

Meunier F, Wilkinson KJ\*\*// \*CABE, 30 Quai Ernest Ansermet, CH-1211 Geneva 4, Switzerland

*Biomacromolecules* 2002 **3** (4) 857

Nonperturbing fluorescent labeling of polysaccharides

Rabenstein DL// Univ Calif Riverside, Dept Chem, Riverside, Ca 92521, USA

*Nat Prod Rep* 2002 **19** (3) 312

Heparin and heparan sulfate: structure and function

Roger O, Collic-Jouault S, Ratiskol J, Sinquin C, Guezennec J, Fischer AM, Chevolot L\*\*// \*IFREMER, Dept Valorisation Products, Lab Biochim & Mol Marines, Unite Rech Marine 2, rue de l'Ile d'Yeu, BP 21105, FR-44311 Nantes 3, France

*Carbohydr Polym* 2002 **50** (3) 273

Polysaccharide labelling: Impact on structural and biological properties

Stile RA, Barber TA, Castner DG, Healy KE\*\*// \*Univ Calif Berkeley, Dept Bioengn, 465 Evans Hall 1762, Berkeley, Ca 94720, USA

*J Biomed Mater Res* 2002 **61** (3) 391

Sequential robust design methodology and X-ray photoelectron spectroscopy to analyze the grafting of hyaluronic acid to glass substrates

Sun XL, Faucher KM, Houston M, Grande D, Chaikof EL// Emory Univ, Sch Med, Dept Surg, Lab Biomol Mat Res, Atlanta, Ga 30322, USA

*J Am Chem Soc* 2002 **124** (25) 7258

Design and synthesis of biotin chain-terminated glycopolymers for surface glycoengineering

Tadmor R, Chen NH, Israelachvili JN\*\*// \*Univ Calif Santa Barbara, Mat Res Lab, Santa Barbara, Ca 93106, USA

*J Biomed Mater Res* 2002 **61** (4) 514

Thin film rheology and lubricity of hyaluronic acid solutions at a normal physiological concentration

Toyotama A, Yamanaka J, Yonese M\*\*// \*Nagoya City Univ, Fac Pharmaceut Sci, 3-1 Tanabe, Nagoya, Aichi 467 8603, Japan

*Colloid Polym Sci* 2002 **280** (6) 539

Photocontrol of polyion complex formation between polylysine and chondroitin sulfate in the presence of pararosaniline leucohydroxide

Trudel J, Massia SP\*\*// \*Arizona State Univ, Dept Chem Bio & Mat Engr, POB 876006, Tempe, Az 85287, USA

*Biomaterials* 2002 **23** (16) 3299

Assessment of the cytotoxicity of photocrosslinked dextran and hyaluronan-based hydrogels to vascular smooth muscle cells

Zhao XP, Duan X// Northwestern Polytech Univ, Dept Appl Phys, Inst Electrorheol Technol, CN-710072 Xian, Peoples Rep China

*J Colloid Interface Sci* 2002 **251** (2) 376

In situ sol-gel preparation of polysaccharide/titanium oxide hybrid colloids and their electrorheological effect