

Bibliography of carbohydrate polymers

(6 weeks journals. Search completed at 9th. March. 2005)

1. Books, reviews & symposia

Ind Crops Products 2004 **20** (2)
Special issue: 6th International Lignin Institute Conference

2. Cellulose

Alekseeva OV, Rozhkova OV, Prusov AN, Padokhin VA, Anikin YA// Inst Chem Solut, Ivanovo, Russia

Russ J Appl Chem Eng Tr 2004 **77** (3) 476
Viscosity of cellulose ether solutions as influenced by mechanical impact intensity

Arous O, Amara M, Kerdjoudj H// Univ Sci & Technol Houari Boumediene, Fac Chim, Lab Hydromet & Chim Inorgan Mol, BP 32 EL Alia, Bab Ezzouar, Algiers, Algeria
J Appl Polym Sci 2004 **93** (3) 1401

Synthesis and characterization of cellulose triacetate and poly(ethylene imine) membranes containing a polyether macrobicyclic: Their application to the separation of copper(II) and silver(I) ions

Braun M, Sun YY// *Univ Texas, Dept Hum Ecol, Austin, Tx 78712, USA
J Polym Sci A-Polym Chem 2004 **42** (15) 3818
Antimicrobial polymers containing melamine derivatives. I. Preparation and characterization of chloromelamine-based cellulose

Chen SL, Wang SF, Lucia LA// *Georgia Inst Technol, Inst Paper Sci & Technol, 500 10th St NW, Atlanta, Ga 30332, USA
J Colloid Interface Sci 2004 **275** (2) 392
New insights into the fundamental nature of lignocellulosic fiber surface charge

Ciesla K, Rahier H, Zakrzewska-Trznadel G// Inst Nucl Chem & Technol, ul Dorodna 16, PL-03195 Warsaw, Poland
J Therm Anal Calorim 2004 **77** (1) 279

Interaction of water with the regenerated cellulose membrane studied by DSC
Dahiya JB, Rana S// Guru Jambheshwar Univ, Dept Appl Chem, IN-125001 Hisar, Haryana, India
Polym Int 2004 **53** (7) 995

Thermal degradation and morphological studies on cotton cellulose modified with various arylphosphorodichloridites

De la Orden MU, Matias C, Urreaga JM// *Univ Politecnica Madrid, ETSI Ind, Dept Ingn Quim Ind & Medio Ambiente, ES-28006 Madrid, Spain
Polym Degrad Stabil 2004 **85** (1) 697
Discoloration of celluloses treated with polyethylenimines

Gonzalez I, Vecino M, Munoz ME, Santamaria A*, Pomposo JA// *UPV/EHU, Fac Chem, Polym Sci Inst POLYMAT, Polym Sci & Technol Dept, POB 1072, ES-20080 San Sebastian, Spain
Macromol Chem Phys 2004 **205** (10) 1379
Electrically conducting gels formed from polyaniline/ethylcellulose/*m*-cresol ternary solutions

Huang YB, Tsai YH, Yang WC, Chang JS, Wu PC// *Kaohsiung Med Coll, Sch Pharm, Kaohsiung 80708, Taiwan
J Appl Polym Sci 2004 **93** (4) 1886

Influence of formulation variables and manufacturing process on propranolol extended release profile from HPMC matrices tablets

Jin FM, Cao JX, Zhou ZY, Moriya T, Enomoto H// Tohoku Univ, Grad Sch Environm Studies, Dept Environm Sci & Technol, Aoba ku, Sendai, Miyagi 980 8579, Japan

Chem Lett 2004 **33** (7) 910

Effect of lignin on acetic acid production in wet oxidation of lignocellulosic wastes

Jin H, Nishiyama Y, Wada M, Kuga S// East China Univ Sci & Technol, Chem Engn Coll, CN-200237 Shanghai, Peoples Rep China

Colloid Surface A 2004 **240** (1-3) 63
Nanofibrillar cellulose aerogels

Kim DB, Jo SM, Lee WS, Pak JJ// *Korea Univ, Sch Elect Engrn, Seoul 136 791, South Korea

J Appl Polym Sci 2004 **93** (4) 1687

Physical agglomeration behavior in preparation of cellulose-*N*-methyl morpholine *N*-oxide hydrate solutions by simple mixing

Kitamura M, Ohtsuki C, Iwasaki H, Ogata S, Tanihara M, Miyazaki T// Nara Inst Sci & Technol, Grad Sch Mat Sci, 8916-5 Takayama cho, Ikoma, Nara 630 0192, Japan

J Mater Sci-Mater Med 2004 **15** (10) 1153

The controlled resorption of porous α -tricalcium phosphate using a hydroxy-propylcellulose coating

Kono H, Numata Y, Erata T, Takai M// Bruker BioSpin Co Ltd, Tsukuba, Ibaraki 305 0051, Japan

Macromolecules 2004 **37** (14) 5310

¹³C and ¹H resonance assignment of mercerized cellulose II by two-dimensional MAS NMR spectroscopies

Ksiazczak A, Ostrowski M// Warsaw Univ Technol, Dept Chem, Noakowskiego 3, PL-00664 Warsaw, Poland

J Therm Anal Calorim 2004 **77** (1) 341

DSC studies on long-term properties of nitrocellulose and *sym*-diphenylurea system

Laskar J, Vidal F*, Fichet O, Gauthier C, Teyssie D// *Univ Cergy Pontoise, LPP1, 5 Mail Gay-Lussac, Neuville-sur-Oise, FR-95031 Cergy-Pontoise, France

Polymer 2004 **45** (15) 5047

Synthesis and characterization of interpenetrating networks from polycarbonate and cellulose acetate butyrate

Lemeune S, Jameel H, Chang HM, Kadla JF// *Univ Brit Columbia, Dept Wood Sci, 4034 Forest Sci Ctr, 2424 Main Mall, Vancouver Brit Columbia, Canada V6T 1Z4

J Appl Polym Sci 2004 **93** (3) 1219

Effects of ozone and chlorine dioxide on the chemical properties of cellulose fibers

Martin-Dupont F, Gloaguen V*, Granet R, Guilloton M, Krausz P// *Univ Limoges, Fac Sci & Tech, Lab Chim Subst Nat, 123 Ave Albert Thomas, FR-87060 Limoges, France

Separ Sci Technol 2004 **39** (7) 1595

Chemical modifications of Douglas fir bark, a lignocellulosic by-product - Enhancement of their lead(II) binding capacities

Nakamur K, Minagaw Y, Hatakeyam T, Hatakeyama H// Otsuma Womens Univ, 12 Sanban cho, Chiyoda ku, Tokyo 102 8357, Japan

Thermochim Acta 2004 **416** (1-2) 135

DSC studies on bound water in carboxymethylcellulose-polylysine complexes

Queyroy S, Muller-Plathe F, Brown D// *Univ Savoie, UMR CNRS 5041, Lab Mat Organ Proprietes Specifiques, Bat IUT, Campus Sci, FR-73376 Le Bourget-du-Lac, France

Macromol Theory Simul 2004 **13** (5) 427

Molecular dynamics Simulations of cellulose oligomers: Conformational analysis

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.

- Samir MASA, Alloin F, Gorecki W, Sanchez JY, Dufresne A*// *Inst Natl Polytech Grenoble, Ecole Francaise Papeterie & Ind Graph, LEPMI, BP 75, FR-38402 St Martin d'Heres, France
J Phys Chem B 2004 **108** (30) 10845
 Nanocomposite polymer electrolytes based on poly(oxyethylene) and cellulose nanocrystals
- Samir MASFA, Alloin F, Sanchez JY, Dufresne A*// *Address as above
Macromolecules 2004 **37** (13) 4839
 Cross-linked nanocomposite polymer electrolytes reinforced with cellulose whiskers
- Shen Q, Wang ZX, Hu JF, Gu QF// Donghua Univ, Cent Lab Mat Sci, 1882 Yan An Rd West, CN-200051 Shanghai, Peoples Rep China
Colloid Surface A 2004 **240** (1-3) 107
 Re-characterization of the surface properties of non-ionic cellulose ethers by means of column wicking technique
- Sikorski P, Wada M*, Heux L, Shintani H, Stokke BT// *Univ Tokyo, Grad Sch Agr & Life Sci, Dept Biomater Sci, Yayoi 1-1-1, Bunkyo ku, Tokyo 113 8657, Japan
Macromolecules 2004 **37** (12) 4547
 Crystal structure of cellulose triacetate I
- Smotrina TV, Kynin AT, Grebennikov SF// Mari State Tech Univ, Mari El, Russia
Russ J Appl Chem Eng Tr 2004 **77** (3) 480
 Effect of thermal treatment on the fine structure of cellulose materials
- Sun JX, Sun XF, Zhao H, Sun RC*// *Sth China Univ Technol, State Key Lab Pulp & Paper Engn, CN-510640 Guangzhou, Peoples Rep China
Polym Degrad Stabil 2004 **84** (2) 331
 Isolation and characterization of cellulose from sugarcane bagasse
- Uhumwangho MU, Okor RS// Univ Benin, Dept Pharmaceut, Benin, Nigeria
Int J Pharm 2004 **284** (1-2) 69
 Anomalous effect of compression pressure on the brittle fracture tendency of α -cellulose tablets
- Wach RA, Mitomo H, Yoshii F// Univ Tokyo, Nucl Engr Res Lab, 2-22 Shirakata Shirane, Ibaraki 319 1188, Japan
J Radioanal Nucl Chem 2004 **261** (1) 113
 ESR investigation on gamma-irradiated methylcellulose and hydroxyethyl-cellulose in dry state and in aqueous solution
- Wolszakiewicz T, Ksiazczak A*, Ksiazczak T// *Warsaw Univ Technol, Dept Chem, Noakowskiego 3, PL-00664 Warsaw, Poland
J Therm Anal Calorim 2004 **77** (1) 353
 Thermochemistry of the binary system nitrocellulose+2,4-dinitrotoluene
- Yakunin NA, Zavadskii AE// Russian Acad Sci, Inst Nonaqueous Solut Chem, ul Akademicheskaya 1, RU-153045 Ivanovo, Russia
Polym Sci Ser A 2004 **46** (6) 634
 Structural changes in the amorphous phase of cotton cellulose upon its interaction with water vapor
- Yurkshtovich NK, Golub NV, Kaputskii FN, Yurkshtovich TL, Kosterova RI// Belarussian State Univ, Res Inst Physicochem Problems, Minsk, Byelarus
Russ J Appl Chem Eng Tr 2004 **77** (3) 471
 Complexation of chromium, aluminium, and iron ions with monocarboxy cellulose
- Zghida H, Gauthier R*, Helal A// *Univ Lyon 1, UMR CNRS 5627, Lab Mat Polymeres & Biomat, 43 Blvd 11 Novembre 1918, FR-69622 Villeurbanne, France
Adsorpt Sci Technol 2004 **22** (4) 275
 Cationized lignocelluloses as scavengers for anionic surfactants II. Hydrophobic interactions
- Zhang YB, Tun Z, Ritcey AM*// *Univ Laval, Dept Chem, St Foy, Quebec, Canada G1K 7P4
Langmuir 2004 **20** (15) 6187
 X-ray and neutron reflectometry investigation of Langmuir-Blodgett films of cellulose ethers
- Zubov VP, Serebryakova NV, Arutyunov IA, Kuz'kina IF, Bulychev NA, Khrustalev YA// Lomonosov Moscow State Acad Fine Chem Technol, pr Vernadskogo 86, RU-117571 Moscow, Russia
Colloid J Engl Tr 2004 **66** (3) 302
 The effect of mechanical activation of the surface of inorganic pigments on the stability of their aqueous dispersions in the presence of ethylhydroxyethyl cellulose

3. Cellulose-degrading enzymes

- Pazarlioglu NK, Sariisik M, Telefoncu A// Ege Univ, Fac Sci, Biochem Dept, TR-35100 Bornova-Izmir, Turkey
Process Biochem 2005 **40** (2) 767
 Treating denim fabrics with immobilized commercial cellulases

- Roncero MB, Torres AL, Colom JF, Vidal T// Polytech Univ Catal, ETSEIT, Dept Text & Paper Engn, Colom 11, ES-08222 Terrassa, Spain
Bioresource Technol 2005 **96** (1) 21
 The effect of xylanase on lignocellulosic components during the bleaching of wood pulps
- Weber J, Agblevor FA*// *Virginia Polytech Inst & State Univ, Dept Biol Syst Engr, 212 Seitz Hall, Blacksburg, Va 24061, USA
Process Biochem 2005 **40** (2) 669
 Microbubble fermentation of *Trichoderma reesei* for cellulase production

4. Chitin/Chitosan

- Avadi MR, Sadeghi AMM, Tahzibi A, Bayati K, Pouladzadeh M, Zohuriaan-Mehr MJ, Rafiee-Tehrani M*// *Tehran Univ Med Sci, Fac Pharm, Tehran, Iran
Eur Polym J 2004 **40** (7) 1355
 Diethylmethyl chitosan as an antimicrobial agent: Synthesis, characterization and antibacterial effects
- Bel'nikovich NG, Bobrova NV, Bronnikov SV, Kalyuzhnaya LM, Budtova TV// Russian Acad Sci, Inst Macromol Cpds, RU-199004 St Petersburg, Russia
Russ J Appl Chem-Eng Tr 2004 **77** (2) 313
 Properties of some chitosan-containing blends and films therefrom
- Cardenas G, Cabrera G, Taboada E, Miranda SP// Concepcion Univ, Fac Ciencias Quim, Dept Polimeros, Edmundo Larenas 129, Concepcion, Chile
J Appl Polym Sci 2004 **93** (4) 1876
 Chitin characterization by SEM, FTIR, XRD, and ^{13}C cross polarization/mass spinning NMR
- Da Silva KMP, Da Silva MIP*// *Pontificia Univ Catolica Rio de Janeiro, Dept Quim, Rua Marques Sao Vicente 225, Rio de Janeiro, Brazil
Colloid Surface A 2004 **237** (1-3) 15
 Copper sorption from diesel oil on chitin and chitosan polymers
- Dergunov SA, Nam IK*, Doldina MK, Nurkeeva ZS, Shaikhutdinov EM// *Kazakh Natl Univ, Dept Chem Phys & Macromol Chem, Karasai Batyr 95, KZ-480012 Almaty, Kazakhstan
Colloid Surface A 2004 **238** (1-3) 13
 Swelling behavior of chitosan-polyHEA hydrogels in anionic surfactant solutions and their thermosensitivity
- Dong YM, Ruan YH, Wang HW, Zhao YG, Bi DX// Xiamen Univ, Dept Mat Sci & Engr, State Key Lab Phys Chem Solid Surfaces, CN-361005 Xiamen, Peoples Rep China
J Appl Polym Sci 2004 **93** (4) 1553
 Studies on glass transition temperatures of chitosan with four techniques
- Fei C, Guangsheng L*, Fangyu W, Yujun W// *Tsing Hua Univ, Dept Chem Engr, State Key Lab Chem Engr, CN-100084 Beijing, Peoples Rep China
J Microencapsul 2004 **21** (5) 513
 Adsorption and recovery of Cu(II) with polysulphone microcapsules containing chitosan gel
- Gholap SG, Badiger MV*// *Natl Chem Lab, Div Chem Engr, Polymer Sci & Engr Grp, IN-411008 Pune, India
J Appl Polym Sci 2004 **93** (3) 1454
 Synthesis and characterization of polyamphoteric hydrogel membrane based on chitosan
- Jang MK, Kong BG, Jeong YI, Lee CH, Nah JW*// *Sunchon Natl Univ, Dept Polymer Sci & Engr, Sunchon, Jeonnam 540 742, South Korea
J Polym Sci A-Polym Chem 2004 **42** (14) 3423
 Physicochemical characterization of α -chitin, β -chitin, and γ -chitin separated from natural resources
- Kim SJ, Lee KJ, Kim SI*// *Hanyang Univ, Dept Biomed Engr, Seoul 133 791, South Korea
J Appl Polym Sci 2004 **93** (3) 1097
 Swelling behavior of polyelectrolyte complex hydrogels composed of chitosan and hyaluronic acid
- Ko YG, Choi US*, Sung BH// *Korea Inst Sci & Technol, Tribology Res Ctr, POB 131, Cheongryang, Seoul 130 650, South Korea
J Appl Polym Sci 2004 **93** (4) 1559
 Chemical structure designing to enhance the yield stress of electrorheological fluids based on modified chitosan compounds
- Lecourt T, Sinay P, Chassenieux C, Rinaudo M, Auzely-Velty R*// *Univ Grenoble 1, Ctr Rech Macromol Vegetales, CNRS, BP 53, FR-38041 Grenoble, France
Macromolecules 2004 **37** (12) 4635
 Complexation between a hydrophobically modified chitosan and cyclodextrin homodimers singly or doubly connected through their primary sides: Effects of their molecular architecture on the polymer properties in solution
- Li H, Yan GP, Wu SN, Wang ZJ, Lam KY// Natl Univ Singapore, Inst High

- Performance Comp, 1 Sci Pk Rd, 01-01 The Capricorn, Singapore Sci Pk II, SG-117528 Singapore, Rep Singapore
J Appl Polym Sci 2004 **93** (4) 1928
- Numerical simulation of controlled nifedipine release from chitosan microgels
 Mahdavinia GR, Pourjavadi A*, Hosseinzadeh H, Zohuriaan MJ// *Sharif Univ Technol, Dept Chem, Polymer Res Lab, Azadi Ave, POB 11365-9516, Tehran, Iran
Eur Polym J 2004 **40** (7) 1399
- Modified chitosan 4. Superabsorbent hydrogels from poly(acrylic acid-co-acrylamide) grafted chitosan with salt- and pH-responsiveness properties
 Mao C, Yuan J, Mei H, Zhu AP, Shen J*, Lin S// *Nanjing Univ, Res Ctr Surface & Interface Chem & Engn Technol, CN-210093 Nanjing, Peoples Rep China
Mater Sci Eng C Biomim Supramol Syst 2004 **24** (4) 479
- Introduction of photocrosslinkable chitosan to polyethylene film by radiation grafting and its blood compatibility
 Mao C, Zhu JJ, Hu YF, Ma QQ, Qiu YZ, Zhu AP, Zhao WB, Shen J*// *Nanjing Normal Univ, Coll Chem & Environm Sci, CN-210097 Nanjing, Peoples Rep China
Colloid Surface B 2004 **38** (1-2) 47
- Surface modification using photocrosslinkable chitosan for improving hemocompatibility
 Miyama T, Yonezawa Y// Sekisui Chem Co Ltd, R&D & Technol Ctr, Dev Ctr, Mishima, Osaka 618 8589, Japan
Langmuir 2004 **20** (14) 5918
- Aggregation of photolytic gold nanoparticles at the surface of chitosan films
 Montebault A, Viton C*, Domard A// *UMR CNRS 5627, Lab Mat Polymères & Biomat, Domaine Sci La Doua, 15 Blvd A Latarjet, Bat ISTIL, FR-69622 Villeurbanne, France
Biomaterials 2004 **26** (8) 933
- Physico-chemical studies of the gelation of chitosan in a hydroalcoholic medium
 Nawani NN, Kapadnis BP*// *Univ Pune, Dept Microbiol, IN-411007 Pune, India
Process Biochem 2005 **40** (2) 651
- Optimization of chitinase production using statistics based experimental designs
 Novikov VY// Knipovich Arct Res Inst Fishery & Oceanog, Murmansk, Russia
Russ J Appl Chem Eng Tr 2004 **77** (3) 484
- Acid hydrolysis of chitin and chitosan
 Park PJ, Je JY, Jung WK, Ahn CB, Kim SK*// *Pukyong Natl Univ, Dept Chem, Pusan 608 737, South Korea
Eur Food Res Technol 2004 **219** (5) 529
- Anticoagulant activity of heterochitosans and their oligosaccharide sulfates
 Park SB, Kang HW, Haam S*, Park HY, Kim WS// *Yonsei Univ, Coll Engr, Dept Chem Engr, Seoul 120 749, South Korea
J Microencapsul 2004 **21** (5) 485
- Ca-alginate microspheres encapsulated in chitosan beads
 Park SB, Jeon YJ, Haam S*, Park HY, Kim WS// *Yonsei Univ, Coll Engr, Dept Chem Engr, Seoul 120 749, South Korea
J Microencapsul 2004 **21** (5) 539
- Preparation of chitosan microspheres using membrane emulsification and its size modelling
 Ramnani SP, Chaudhari CV, Patil ND, Sabharwal S*// *Bhabha Atom Res Ctr, HIRUP, Radiat Technol Dev Sect, Radiochem & Isotope Grp, IN-400085 Mumbai, India
J Polym Sci A-Polym Chem 2004 **42** (15) 3897
- Synthesis and characterization of crosslinked chitosan formed by gamma irradiation in the presence of carbontetrachloride as a sensitizer
 Sato M, Koshino T, Kajitani Y, Inamura I, Kubo Y// Shimane Univ, Fac Sci & Engr, Dept Mat Sci, 1060 Nishikawatsu, Matsue, Shimane 690 8504, Japan
J Appl Polym Sci 2004 **93** (4) 1616
- Miscibility study of polymer blends composed of semirigid thermotropic liquid crystalline polycarbonate, poly(vinyl alcohol), and chitosan
 Teotia S, Lata R, Gupta MN*// *Indian Inst Technol, Dept Chem, IN-110016 New Delhi, India
J Chromatogr A 2004 **1052** (1-2) 85
- Chitosan as a macroaffinity ligand - Purification of chitinases by affinity precipitation and aqueous two-phase extractions
 Wang ML, Qian SH*, Mo SB, Huang GQ, Wang HY// *Wuhan Univ, Coll Resource & Environm Sci, CN-430072 Wuhan, Peoples Rep China
J Appl Polym Sci 2004 **93** (3) 1326
- Application of crosslinked chitosan in the analysis of butyl tin speciation
 Wang T, Turhan M, Gunasekaran S*// *Univ Wisconsin, Dept Biol Syst Engr, Madison, WI 53706, USA
Polym Int 2004 **53** (7) 911
- Selected properties of pH-sensitive, biodegradable chitosan-poly(vinyl alcohol) hydrogel
 Wu YS, Seo TH, Maeda S, Dong YM, Sasaki T, Irie S, Sakurai K*// *Fukui Univ, Fac Engr, Dept Mat Sci & Engr, Fukui 910 8507, Japan
J Polym Sci B-Polym Phys 2004 **42** (14) 2747
- Spectroscopic studies of the conformational properties of naphthoyl chitosan in dilute solutions
 Yang MH, Yang YH, Liu B, Shen GL*, Yu RQ// *Hunan Univ Chem & Chem Engr Coll, State Key Lab Chemo Biosensing & Chemometr, CN-410082 Changsha, Peoples Rep China
Sensor Actuator B-Chem 2004 **101** (3) 269
- Amperometric glucose sensor based on chitosan with improved selectivity and stability

5. Cyclodextrins

- Aki H, Niiya T, Iwase Y, Kawasaki Y, Kumai K, Kimura T// Fukuoka Univ, Fac Pharmaceut Sci, 8-19-1 Nanakuma, Jonan ku, Fukuoka 814 0180, Japan
Thermochim Acta 2004 **416** (1-2) 87
- Multimodal inclusion complexes of ampicillin with β -cyclodextrins in aqueous solution
 Alcaro S, Battaglia D, Ortuso F// Univ Magna Graecia Catanzaro, Dipt Sci Farmacobiol, Drug Design Lab, IT-88021 Roccelletta di Borgia, CZ, Italy
ARKIVOC 2004 (5) 107
- Molecular modeling of β -cyclodextrin inclusion complexes with pharmaceutical compounds
 Banerjee R, Chakraborty H, Sarkar M*// *Saha Inst Nucl Phys, Chem Sci Div, 1/AF, Bidhannagar, IN-700064 Calcutta, India
Biopolymers 2004 **75** (4) 355
- Host-guest complexation of oxicam NSAIDs with β -cyclodextrin
 Caira MR, Bourne SA, Vilakazi SL, Reddy L// Univ Cape Town, Dept Chem, ZA-7701 Rondebosch, Rep Sth Africa
Supramol Chem 2004 **16** (4) 279
- Inclusion of anesthetics in cyclodextrins: Structural investigation of solid inclusion complexes of butamben
 Chen W, Chang CE, Gilson MK*// *Univ Maryland, Maryland Biotechnol Inst, Ctr Adv Res Biotechnol, Rockville, Md 20850, USA
Biophys J 2004 **87** (5) 3035
- Calculation of cyclodextrin binding affinities: Energy, entropy, and implications for drug design
 Chmurski K, Temeriusz A, Bilewicz R*// *Univ Warsaw, Dept Chem, Pasteura 1, PL-02093 Warsaw, Poland
J Inclusion Phenom Macrocycl Chem 2004 **49** (1-2) 187
- Measurement of ibuprofen binding to mixed monolayers containing β -cyclodextrin active sites
 Dodziuk H, Demchuk CM, Bielejewska A, Kozminski W, Dolgonos G// Polish Acad Sci, Inst Phys Chem, Kasprzaka 44, PL-01224 Warsaw, Poland
Supramol Chem 2004 **16** (4) 287
- A study of multiple complexation of α -, β - and γ -cyclodextrins: Surprisingly differing stoichiometries of β - and γ -cyclodextrin complexes
 Fujita K, Fujioka T, Shimada H, Ohta K, Yoshino A, Okabe Y, Fukudome M, Yuan DQ// Nagasaki Univ, Grad Sch Biomed Sci, Dept Mol Med Sci, Nagasaki 852 8521, Japan
Eur J Org Chem 2004 (14) 3113
- Construction of a fused polycyclic wall within the cyclodextrin belt to ensure a distorted cavity: An unusual *trans*-diequatorial ring-opening reaction of cyclodextrin epoxide rings
 Gao ZW, Zhao XP*// *Northwestern Polytech Univ, Inst Electrorheol Technol 141, Dept Appl Phys, CN-710072 Xian, Peoples Rep China
J Appl Polym Sci 2004 **93** (4) 1681
- Preparation and electrorheological characteristics of β -cyclodextrin-epichlorohydrin-starch polymer suspensions
 Hattori Y, Hashimoto C, Lashaise J, Graciaa A, Ushiki H// Tokyo Univ Agr & Technol, Grad Sch Bioapplicat & Syst Engr, 3-5-8 Saiwai cho, Tokyo 183 8509, Japan
Colloid Surface A 2004 **240** (1-3) 141
- Integral transformation method for sedimentation behaviours of aggregates - Part I. α -Cyclodextrin/poly(ethylene glycol)/water system
 Hu J, Li SJ, Wang DQ, Liu BL// Chinese Acad Sci, Chengdu Inst Organ Chem, CN-610041 Chengdu, Peoples Rep China
Polym Int 2004 **53** (7) 1003
- Influence of cyclodextrin and its glucose units on polymerization of styrene
 Ibrahim HM, Yusoff WMW*, Hamid AA, Illias RM, Hassan O, Omar O// *Univ Kebangsaan Malaysia, Fac Sci & Technol, Sch Biosci & Biotechnol,

MY-43600 UKM Bangi, Selangor, Malaysia

Process Biochem 2005 **40** (2) 753

Optimization of medium for the production of β -cyclodextrin glucanotransferase using Central Composite Design (CCD)

Michishita T, Takashima Y, Harada A*// *Osaka Univ, Grad Sch Sci, Dept Macromol Sci, Toyonaka, Osaka 560 0043, Japan

Macromol Rapid Commun 2004 **25** (12) 1159

Complex formation between polyisoprene and cyclodextrins

Onclin S, Mulder A, Huskens J, Ravoo BJ, Reinhoudt DN*// *Univ Twente, MESA Inst Nanotechnol, POB 217, NL-7500 AE Enschede, The Netherlands

Langmuir 2004 **20** (13) 5460

Molecular printboards: Monolayers of β -cyclodextrins on silicon oxide surfaces

Pagliari S, Corradini R*, Galaverna G, Sforza S, Dossena A, Montalti M, Prodi L, Zaccheroni N, Marchelli R// *Univ Parma, Dipt Chim Organ & Ind, Parco Area Sci 17/A, IT-43100 Parma, Italy

Chem-Eur J 2004 **10** (11) 2749

Enantioselective fluorescence sensing of amino acids by modified cyclodextrins: Role of the cavity and sensing mechanism

Sian HK, Said M, Hassan O, Kamaruddin K, Ismail AF, Rahman RA, Mahmood NAN, Illias RM*// *Univ Technol Malaysia, Fac Chem Engrg & Nat Resource Engrg, MY-81310 Skudai, Johor, Malaysia

Process Biochem 2005 **40** (3–4) 1101

Purification and characterization of cyclodextrin glucanotransferase from alkalophilic *Bacillus* sp. G1

Takashima Y, Osaki M, Harada A*// *Osaka Univ, Grad Sch Sci, Dept Macromol Sci, Toyonaka, Osaka 560 0043, Japan

J Am Chem Soc 2004 **126** (42) 13588

Cyclodextrin-initiated polymerization of cyclic esters in bulk: Formation of polyester-tethered cyclodextrins

Taneri F, Guneri T, Aigner Z, Berkesi O, Kata M// Univ Ege, Fac Pharm, Dept Pharmaceut Technol, TR-35100 Izmir, Turkey

J Therm Anal Calorim 2004 **76** (2) 471

Thermoanalytical studies on complexes of clotrimazole with cyclodextrins

Yamaguchi I, Kashiwagi K, Yamamoto T// Tokyo Inst Technol, Chem Resources Lab, 4259 Nagatsuta, Midori ku, Yokohama, Kanagawa 226 850, Japan

Macromol Rapid Commun 2004 **25** (12) 1163

β -Cyclodextrin pseudopolyrotaxanes with π -conjugated polymer axles

6. Lignin

Crist RH, Martin JR, Crist DR*// *Georgetown Univ, Dept Chem, Washington, DC 20057, USA

Separ Sci Technol 2004 **39** (7) 1535

Use of a novel formulation of kraft lignin for toxic metal removal from process waters

Doka O, Bicanic D*, Bunzel M// *Univ Wageningen & Res Ctr, Dept Agrotechnol & Food Sci, Biophys Div, Laser Lab Photothermal Sci, NL-6700 HA Wageningen, The Netherlands

Anal Chim Acta 2004 **514** (2) 235

Quantification of lignin in synthetic mixtures of xylan and cellulose powders by photoacoustic spectroscopy

Karmanov AP, Kuz'min DV, Shamshina IN, Belyaev VY, Kocheva LS, Matveev DV, Monakov YB// Russian Acad Sci, Ural Div, Inst Chem, Komi Res Ctr, Pervomaiskaya ul 48, RU-167982 Syktyvkar, Russia

Polym Sci Ser A 2004 **46** (6) 613

Hydrodynamic and conformational properties of lignins from *Sorbus aucuparia* and *Robinia pseudoacacia* woody plants

Maximova N, Osterberg M, Laine J, Stenius P// Helsinki Univ Technol, Lab Forest Prod Chem, POB 6300, FI-02015 Espoo, Finland

Colloid Surface A 2004 **239** (1–3) 65

The wetting properties and morphology of lignin adsorbed on cellulose fibres and mica

Rachkova NG, Shuktomova II, Taskaev AI// Russian Acad Sci, Ural Div, Inst Biol, Komi Sci Ctr, Syktyvkar, Russia

Russ J Appl Chem Eng Tr 2004 **77** (3) 467

Influence of acidity and uranyl nitrate concentration on the efficiency of recovery of uranium(VI) from aqueous solutions with hydrolytic wood lignin

7. Lipopolysaccharides

Banoub J, Aneed AE, Cohen A, Martin P// Dept Fisheries & Ocean, Sci Branch, Special Projects, PO Box 5667, St John's, Newfoundland, Canada A1C 5X1

Eur J Mass Spectrom 2004 **10** (5) 715

Characterization of the *O*-4 phosphorylated and *O*-5 substituted Kdo reducing end group and sequencing of the core oligosaccharide of *Aeromonas salmonicida* ssp *salmonicida* lipopolysaccharide using tandem mass spectrometry

8. Pectin

Monge ME, Bulone D, Giacomazza D, Bernik DL, Negri RM*// *Univ Buenos Aires, Fac Ciencias Exactas & Nat, Inst Quim Fis Mat Ambiente & Energia, Buenos Aires, DF, Argentina

Sensor Actuator B-Chem 2004 **101** (1–2) 28

Detection of flavour release from pectin gels using electronic noses

Rehman ZU, Salariya AM, Habib F, Shah WH// Biotechnol & Food Res Ctr, PCSIR Labs Complex, Ferozepur Rd, PK-54600 Lahore, Pakistan

J Chem Soc Pakistan 2004 **26** (1) 73

Utilization of mango peels as a source of pectin

9. Starch

Bidzinska E, Dyrek K*, Fortuna T, Labanowska M, Pietrzyk S// *Jagiellonian Univ, Fac Chem, Ingardena 2, PL-30060 Krakow, Poland

Starch 2004 **56** (10) 461

EPR studies of thermally treated oxidized corn starch

Choi H, Kim W, Shin M*// *Chonnam Natl Univ, Dept Food & Nutr, 300 Yongbongdong, Kwangju 500 757, South Korea

Starch 2004 **56** (10) 469

Properties of Korean amaranth starch compared to waxy millet and waxy sorghum starches

Funami T, Kataoka Y, Omoto T, Goto Y, Asai I, Nishinari K// San-Ei Gen FFI Inc, Hydrocolloid Lab, 1-1-11 Sanwa-cho, Toyonaka, Osaka 561 8588, Japan

Food Hydrocolloid 2005 **19** (1) 15

Food hydrocolloids control the gelatinization and retrogradation behavior of starch. 2a. Functions of guar gums with different molecular weights on the gelatinization behavior of corn starch

Gonzalez-Soto RA, Agama-Acevedo E, Solorza-Feria J, Rendon-Villalobos R, Bello-Perez LA*// *IPN, Ctr Desarrollo Prod Bioticos, Carr Yauatepec-Jojutla km 8.5, Colonia San Isidro, AP 24, MX-62731 Yauatepec, Morelos, Mexico

Starch 2004 **56** (10) 495

Resistant starch made from banana starch by autoclaving and debranching

Herrero-Martinez JM, Schoenmakers PJ, Kok WT*// *Univ Amsterdam, Dept Chem Engrg, Polymer Anal Grp, Nieuwe Achtergracht 166, NL-1018 WV Amsterdam, The Netherlands

J Chromatogr A 2004 **1053** (1–2) 227

Determination of the amylose-amylopectin ratio of starches by iodine-affinity capillary electrophoresis

Ichinose I, Hashimoto Y, Kunitake T*// *RIKEN, Frontier Res Syst, 2-1 Hirosawa, Wako, Saitama 351 0198, Japan

Chem Lett 2004 **33** (6) 656

Wrapping of bio-macromolecules (dextran, amylopectin, and horse heart cytochrome *c*) with ultrathin silicate layer

Liu YL, Himmelsbach DS, Barton FE*// *USDA/ARS, Richard B Russell Res Ctr, Athens, Ga 30604, USA

Appl Spectrosc 2004 **58** (6) 745

Two-dimensional Fourier transform Raman correlation spectroscopy determination of the glycosidic linkages in amylose and amylopectin

Ma XF, Yu JG// Tianjin Univ, Sch Sci, CN-300072 Tianjin, Peoples Rep China

Acta Chim Sin 2004 **62** (12) 1180

Hydrogen bond of thermoplastic starch and effects on its properties

Ma XF, Yu JG*// *Tianjin Univ, Sch Sci, CN-300072 Tianjin, Peoples Rep China

J Appl Polym Sci 2004 **93** (4) 1769

Formamide as the plasticizer for thermoplastic starch

Mostafa KM, Morsy MS// King Abdulaziz Univ, Inst Res & Consultat, POB 80271, SA-21589 Jeddah, Saudi Arabia

Polym Int 2004 **53** (7) 885

Modification of carbohydrate polymers via grafting of methacrylonitrile onto pregelated starch using potassium monopersulfate/Fe²⁺ redox pair

Najgebauer D, Grega T, Sady M, Tomasik P*// *Univ Agr, Dept Chem, Mickiewicz Ave 21, PL-31120 Krakow, Poland

Molecules 2004 **9** (7) 550

Polymeric complexes of cornstarch and waxy cornstarch phosphates with milk casein and their performance as biodegradable materials

Naveena BJ, Altaf M, Bhadraraya K, Madhavendra SS, Reddy G*// *Osmania

- Univ, Dept Microbiol, IN-500007 Hyderabad, India
Process Biochem 2005 **40** (2) 681
 Direct fermentation of starch to L(+) lactic acid in SSF by *Lactobacillus amylophilus* GV6 using wheat bran as support and substrate: Medium optimization using RSM
- Shin M, Song JY, Seib PA// Chonnam Natl Univ, Dept Food & Nutr, 300 Yongbongdong, Kwangju 500 757, South Korea
Starch 2004 **56** (10) 478
In vitro digestibility of cross-linked starches - RS4
- Sikora M, Juszczak L, Sady M, Krawontka J// Univ Agr, Dept Carbohydrate Technol, ul Balicka 233, PL-30149 Krakow, Poland
Food Sci Technol Int 2004 **10** (5) 347
 Use of modified starches as thickeners of cocoa syrups
- Tomasik P, Anderegg JW, Schilling CH// Univ Agr, Dept Chem, Mickiewicz Ave 21, PL-31120 Krakow, Poland
Molecules 2004 **9** (7) 583
 Complexes of 3.6 kDa maltodextrin with some metals
- Van den Einde R, Van der Linden E, Van der Goot AJ, Boom R*// *Univ Wageningen & Res Ctr, Dept Agrotechnol & Food Sci, Food & Bioproc Engn Grp, Bomenweg 2, NL-6703 HD Wageningen, The Netherlands
Polym Degrad Stab 2004 **85** (1) 589
 A mechanistic model of the relation between molecular structure of amylopectin and macromolecular degradation during heating-shearing processes
- Wang XL, Yang KK, Wang YZ*, Zhou ZX, Zin YD// *Sichuan Univ, Coll Chem, Ctr Degradable & Flame Retardant Polymer Mat, CN-610064 Chengdu, Peoples Rep China
J Polym Sci A-Polym Chem 2004 **42** (14) 3417
 Synthesis and nuclear magnetic resonance analysis of starch-g-poly(1,4-dioxan-2-one) copolymers
- Yang JH, Park J*, Kim D, Lee D// *Seoul Natl Univ, Dept Nat Fiber Sci, Seoul 151 742, South Korea
J Appl Polym Sci 2004 **93** (4) 1762
 Effects of calcium carbonate as the expanding inhibitor on the structural and mechanical properties of expanded starch/polyvinyl alcohol blends
- Zasyupkin D, Porzio M*// *McCormick & Co Inc, Tech Innovat Ctr, 204 Wight Ave, Hunt Valley, Md 21031, USA
J Microencapsul 2004 **21** (4) 385
 Glass encapsulation of flavours with chemically modified starch blends
- Zhou JH, Hanna MA*// *Univ Nebraska, Ind Agr Prod Ctr, Lincoln, Ne 68583, USA
Starch 2004 **56** (10) 484
 Extrusion of starch-acetate with mixed blowing agents

10. Starch-degrading enzymes

- Apar DK, Ozbek B*// *Yildiz Tech Univ, Dept Chem Engr, Davutpasa Campus, TR-34210 Esenler/Istanbul, Turkey
Process Biochem 2005 **40** (3-4) 1367
 α -Amylase inactivation during rice starch hydrolysis
- Bajpai AK, Shrivastava J// Govt Autonomous Sci Coll, Dept Chem, Bose Mem Res Lab, IN-482001 Jabalpur, Madhya Pradesh, India
J Macromol Sci Pure Appl Chem 2004 **A41** (8) 949
 α -Amylase induced enhanced enzymatic degradation of binary polymeric blends of crosslinked starch and gelatin
- Bryjak J, Ciesielski K, Zbicinski I// Wroclaw Tech Univ, Inst Chem Engr & Heating Equipment, ul Norwida 4-6, PL-50373 Wroclaw, Poland
J Biotechnol 2004 **114** (1-2) 177
 Modelling of glucoamylase thermal inactivation in the presence of starch by artificial neural network
- Silva RN, Asquieri ER, Fernandes KF*// Univ Fed Goias, Dept Ciencias Fisiol, Lab Quim Protein, Cx Postal 131, BR-74001-970 Goiania, GO, Brazil
Process Biochem 2005 **40** (3-4) 1155
 Immobilization of *Aspergillus niger* glucoamylase onto a polyaniline polymer
- Sodhi HK, Sharma K, Gupta JK, Soni SK*// *Punjab Univ, Dept Microbiol, IN-160014 Chandigarh, India
Process Biochem 2005 **40** (2) 525
 Production of a thermostable α -amylase from *Bacillus* sp. PS-7 by solid state fermentation and its synergistic use in the hydrolysis of malt starch for alcohol production
- Star A, Joshi V, Han TR, Altos MVP, Gruner G, Stoddart JF// Nanomix Inc, 5980 Horton St, Suite 600, Emeryville, Ca 94608, USA
Org Lett 2004 **6** (13) 2089
 Electronic detection of the enzymatic degradation of starch
- Tatsumi H, Katano H// Fukui Prefectural Univ, Dept Biosci, Fukui 910 1195, Japan

- Chem Lett* 2004 **33** (6) 692
 Kinetic analysis of enzymatic hydrolysis of raw starch by glucoamylase using an amperometric glucose sensor

11. Polysaccharides - Microbial

- Aksan A, Toner M// Harvard Univ, Massachusetts Gen Hosp, Ctr Engr Med, 51 Blossom St, Boston, Ma 02114, USA
Langmuir 2004 **20** (13) 5521
 Isothermal desiccation and vitrification kinetics of trehalose-dextran solutions
- Anada T, Matsunaga H, Karinaga R, Koumoto K, Mizu M, Nakano K, Shinkai S, Sakurai K*// *Univ Kitakyushu, Dept Chem Proc & Environm, 1-1 Hibikino, Wakamatsu ku, Kitakyushu, Fukuoka 808 0135, Japan
Bioorg Med Chem Lett 2004 **14** (22) 5655
 Proposal of new modification technique for linear double-stranded DNAs using the polysaccharide schizophyllan
- Castillo E, Lopez-Munguia A*// *UNAM, Inst Biotechnol, Dept Ingn Celular & Biocatalisis, Apdo Postal 510-3, MX-62271 Cuernavaca, Morelos, Mexico
J Biotechnol 2004 **114** (1-2) 209
 Synthesis of levan in water-miscible organic solvents
- Chauvierre C, Vauthier C*, Labarre D, Hommel H// *Univ Paris Sud, Fac Pharm, CNRS UMR 8612, 5 rue Jean Baptiste Clement, FR-92296 Chateaufort Malabry, France
Colloid Polym Sci 2004 **282** (9) 1016
 Evaluation of the surface properties of dextran-coated poly(isobutylcyanoacrylate) nanoparticles by spin-labelling coupled with electron resonance spectroscopy
- Guner A// Hacettepe Univ, Fac Sci, Dept Chem, Beytepe Campus, TR-06532 Ankara, Turkey
Eur Polym J 2004 **40** (7) 1587
 The algorithmic calculations of solubility parameter for the determination of interactions in dextran/certain polar solvent systems
- Hsieh C, Hsu TH, Yang FC// DaYeh Univ, Dept Bioind Technol, Chang-Hwa 51505, Taiwan
Process Biochem 2005 **40** (2) 909
 Production of polysaccharides of *Ganoderma lucidum* (CCRC36021) by reusing thin stillage
- Kogan G, Srobarova A, Tamas L// Slovak Acad Sci, Inst Chem, SK-84538 Bratislava, Slovakia
Chem Pap-Chem Zvesti 2004 **58** (2) 139
 Effect of externally applied fungal polysaccharides on fusariosis in tomato plants
- Koumoto K, Kobayashi H, Mizu M, Kimura T, Sakurai K, Kunitake T, Shinkai S*// *Kyushu Univ, Grad Sch Engr, Dept Chem & Biochem, Fukuoka 812 8581, Japan
Polym J 2004 **36** (5) 380
 Molecular weight control of curdlan (β -1,3-glucan polysaccharide) provides unique polynucleotide binding properties
- Liu CX, Zachara JM, Felmy A, Gorby Y// Pacific NW Natl Lab, POB 999, MSIN K8-96, Richland, Wa 99352, USA
Colloid Surface B 2004 **38** (1-2) 55
 An electrostatics-based model for ion diffusion in microbial polysaccharides
- Moon CJ, Lee JH*// *Chosun Univ, Dept Chem Engr, Dong-gu, Gwangju 501-759, Korea
Process Biochem 2005 **40** (3-4) 1279
 Use of curdlan and activated carbon composed adsorbents for heavy metal removal
- Nouvel C, Frochot C, Sadtler V, Dubois P, Dellacherie E, Six JL*// *INPL, Lab Chim Phys Macromol, CNRS UMR 7568, Grp ENSIC, 1 rue Grandville, BP 451, FR-54000 Nancy, France
Macromolecules 2004 **37** (13) 4981
 Polylactide-grafted dextrans: Synthesis and properties at interfaces and in solution
- Sakai T, Kawai T, Kato I// Takara Bio Inc, Biotechnol Res Labs, Seta 3-4-1, Otsu, Shiga 520 2193, Japan
Mar Biotechnol 2004 **6** (4) 335
 Isolation and characterization of a fucoidan-degrading marine bacterial strain and its fucoidanase
- Tissi L, Puliti M, Bistoni F, Mosci P, Kozel TR, Vecchiarelli A*// *Univ Perugia, Dept Expt Med & Biochem Sci, Microbiol Sect, Via Giochetto, IT-06122 Perugia, Italy
Infect Immun 2004 **72** (11) 6367
 Glucuronoxylomannan, the major capsular polysaccharide of *Cryptococcus neoformans*, inhibits the progression of group B streptococcal arthritis
- Wagner R, Mitchell DA*, Sasaki GL, Amazonas MALD// *Univ Fed Parana,

Dept Bioquim & Biol Mol, Ctr Politecn, Caixa Postal 19046, BR-81530-990 Curitiba, Parana, Brazil
J Biotechnol 2004 **114** (1–2) 153
 Links between morphology and physiology of *Ganoderma lucidum* in submerged culture for the production of exopolysaccharide
 Wang YX, Lu ZX*// *Nanjing Agr Univ, Coll Food Sci & Technol, CN-210095 Nanjing, Jiangsu Prov, Peoples Rep China
Process Biochem 2005 **40** (3–4) 1043
 Optimization of processing parameters for the mycelial growth and extracellular polysaccharide production by *Boletus* spp. ACCC 50328

12. Polysaccharides - Plant

Brito ACF, Silva DA, De Paula RCM*, Feitosa JPA// *Univ Fed Ceara, Dept Quim Organ & Inorgan, CP 12-200, BR-60455-760 Fortaleza, Ceara, Brazil
Polym Int 2004 **53** (8) 1025
Sterculia striata exudate polysaccharide: Characterization, rheological properties and comparison with *Sterculia urens* (karaya) polysaccharide
 Cheng WT, Liu CH, Kuo CM, Chen JC*// *Nat'l Taiwan Ocean Univ, Coll Life & Resource Sci, Dept Aquaculture, Chilung 202, Taiwan
Fish Shellfish Immunol 2005 **18** (1) 1
 Dietary administration of sodium alginate enhances the immune ability of white shrimp *Litopenaeus vannamei* and its resistance against *Vibrio alginolyticus*
 Doumeche B, Kuppers M, Stapf S, Blumich B, Hartmeier W, Ansorge-Schumacher MB*// *Univ Aachen, Rhein Westfal TH Aachen, Dept Biotechnol, DE-52056 Aachen, Germany
J Microencapsul 2004 **21** (5) 565
 New approaches to the visualization, quantification and explanation of acid-induced water loss from Ca-alginate hydrogel beads
 Fen L, Liu YH, Meng YW, Min Y, He KZ*// *Chinese Acad Sci, Chengdu Inst Biol, CN-610041 Chengdu, Peoples Rep China
Antiviral Res 2004 **63** (3) 183
 Structure of polysaccharide from *Polygonatum cyrtoneura* Hua and the antiherpetic activity of its hydrolyzed fragments
 Ghosh P, Ghosal P, Thakur S, Lerouge P, Loutelier-Bourhis C, Driouch A, Ray B*// *Univ Burdwan, Dept Chem, Nat Prod Lab, IN-713104 Burdwan, India
Food Chem 2005 **90** (4) 719
 Polysaccharides from *Sesamum indicum* meal: Isolation and structural features
 Golubowska G// Agr Univ Wroclaw, Fac Food Sci, Dept Food Storage & Technol, ul CK Norwida 25, PL-50375 Wroclaw, Poland
Food Chem 2005 **90** (4) 847
 Changes of polysaccharide content and texture of potato during French fries production
 Hatakeyama T, Naoi S, Hatakeyama H// Otsu Women's Univ, 12 Sanbancho, Chiyoda ku, Tokyo 102 8357, Japan
Thermochim Acta 2004 **416** (1–2) 121
 Liquid crystallization of glassy guar gum with water
 Kalil SJ, Maugeri-Filho F, Rodrigues MI// Fundacao Univ Rio Grande, Dept Chem, Rua Engenheiro Alfredo Huch 475, CP 474, BR-96201-900 Rio Grande, RS, Brazil
Process Biochem 2005 **40** (2) 581
 Ion exchange expanded bed chromatography for the purification of an extracellular inulinase from *Kluyveromyces marxianus*
 Kariduraganavar MY, Kittur AA, Kulkarni SS, Ramesh K// Karnatak Univ, Dept Chem, IN-580003 Dharwad, India
J Membr Sci 2004 **238** (1–2) 165
 Development of novel pervaporation membranes for the separation of water-isopropanol mixtures using sodium alginate and NaY zeolite
 Kobayashi M, Matsushita H, Shioya I, Nagai M, Tsukiyama R, Saito M, Sugita T, Sugimura T, Yamamoto K// Higashima Shoyu Co Ltd, Res Lab, 100-3 Tominaga, Tatsuno cho, Tatsuno, Hyogo 679 4167, Japan
Int J Mol Med 2004 **14** (5) 885
 Quality of life improvement with soy sauce ingredients, Shoyu polysaccharides, in perennial allergic rhinitis: A double-blind placebo-controlled clinical study
 Lee JB, Hayashi K*, Maeda M, Hayashi T// *Toyama Med & Pharmaceut Univ, Fac Pharmaceut Sci, 2630 Sugitani, Toyama 930 0194, Japan
Planta Med 2004 **70** (9) 813
 Antiherpetic activities of sulfated polysaccharides from green algae
 Lee SB, Seo SM, Lim YM, Cho SK, Lee YM, Nho YC// Hanyang Univ, Coll Engn, Sch Chem Engn, Seoul 133 791, South Korea
Macromol Res 2004 **12** (3) 269
 Preparation of alginate/poly(*N*-isopropylacrylamide) hydrogels using gamma-ray irradiation grafting

Liu CH, Xiao CB*// *Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep China
J Appl Polym Sci 2004 **93** (4) 1868
 Characterization of konjac glucomannan-quaternized poly(4-vinyl-*N*-butyl)pyridine blend films and their preservation effect
 Nair PKR, Rodriguez S, Ramachandran R, Alamo A, Melnick SJ, Escalon E, Garcia PI, Wnuk SF, Ramachandran C*// *Miami Childrens Hosp, Res Inst, 3100 SW 62nd Ave, Miami, FL 33155, USA
Int Immunopharmacol 2004 **4** (13) 1645
 Immune stimulating properties of a novel polysaccharide from the medicinal plant *Tinospora cordifolia*
 Parente E, Piraino P, Fidaleo M, Moresi M*// *Univ Tuscia, Dipt Sci & Tecnol Agroalimentari, Via San Camillo de Lellis, IT-01100 Viterbo, Italy
Biotechnol Appl Biochem 2004 **40** (2) 133
 Overall volumetric oxygen transfer coefficient in an aerated bench-top stirred fermenter in aqueous dispersions of sodium alginate
 Pourjavadi A, Harzandi AM, Hosseinzadeh H// Sharif Univ Technol, Polymer Res Lab, Dept Chem, Azadi Ave, POB 11365-9516, Tehran, Iran
Eur Polym J 2004 **40** (7) 1363
 Modified carrageenan 3. Synthesis of a novel polysaccharide-based superabsorbent hydrogel via graft copolymerization of acrylic acid onto κ -carrageenan in air
 Sakugawa K, Ikeda A, Takemura A*, Ono H// *Univ Tokyo, Grad Sch Agr & Life Sci, Dept Biomater Sci, 1-1-1 Yayoi, Bunkyo ku, Tokyo 113 8657, Japan
J Appl Polym Sci 2004 **93** (3) 1372
 Simplified method for estimation of composition of alginates by FTIR
 Simas FF, Gorin PAJ, Guerrini M, Naggi A, Sassaki GL, Delgobo CL, Iacomini M*// *Univ Fed Parana, Dept Bioquim, CP 19046, BR-81531-990 Curitiba, Parana, Brazil
Phytochemistry 2004 **65** (16) 2347
 Structure of a heteroxylan of gum exudate of the palm *Scheelea phalerata* (uricuri)
 Totosaus A, Alfaro-Rodriguez RH, Perez-Chabela ML// Tecnol Estudios Super Ecatepec, Edificio J, Food Sci Lab, Avda Valle Mayo & Avda H Gonzalez, MX-55210 Ecatepec, Mexico
Int J Food Sci Nutr 2004 **55** (5) 371
 Fat and sodium chloride reduction in sausages using κ -carrageenan and other salts
 Weinbreck F, Rollemans HS, Tromp RH, De Kruif CG// NIZO Food Res, POB 20, NL-6710 BA, Ede, The Netherlands
Langmuir 2004 **20** (15) 6389
 Diffusivity of whey protein and gum arabic in their coacervates
 Yu MS, Lai SW, Lin KF, Fang JN, Yuen WH, Chang RCC*// *Univ Hong Kong, Fac Med, Dept Anat, Lab Neurodegenerat Dis, 21 Sassoon Rd, Hong Kong, Peoples Rep China
Int J Mol Med 2004 **14** (5) 917
 Characterization of polysaccharides from the flowers of *Nerium indicum* and their neuroprotective effects

13. Polysaccharides - Other

Hahn SK, Jelacic S, Maier RV, Stayton PS, Hoffman AS// Chugai Pharmaceut Co Ltd, Fuji Gotemba Res Labs, 1-135 Komakado, Shizuoka 412 8513, Japan
J Biomater Sci-Polym Ed 2004 **15** (9) 1111
 Anti-inflammatory drug delivery from hyaluronic acid hydrogels
 Li G, Xin XL, Geng MY*, Ding J// *Ocean Univ China, Dept Pharmacol, Marine Drug & Food Inst, CN-266003 Qingdao, Peoples Rep China
Biol Pharm Bull 2004 **27** (10) 1532
 Immunogenic comparison of two coupling methods of marine polysaccharide to bovine serum albumin
 Sibikina OV, Iozep AA, Passet BV// St Petersburg State Acad Pharmaceut Chem, St Petersburg, Russia
Russ J Appl Chem-Eng Tr 2004 **77** (2) 263
 Reactions of carboxymethyl polysaccharides and their ethyl esters with amines
 Ueno H, Kaneko M*// *Ibaraki Univ, Fac Sci, Dept Chem, 2-1-1 Bunkyo, Mito, Ibaraki 310 8512, Japan
J Electroanal Chem 2004 **568** (1–2) 87
 Investigation of a nanostructured polysaccharide solid medium for electrochemistry
 Xin XJ, Borzacchiello A*, Netti PA, Ambrosio L, Nicolais L// *Univ Naples Federico II, CNR, Inst Composite & Biomed Mat, Piazzale Tecchio 80, IT-80125 Naples, Italy
J Biomater Sci-Polym Ed 2004 **15** (9) 1223
 Hyaluronic-acid-based semi-interpenetrating materials