

Bibliography of carbohydrate polymers

(4 weeks journals. Search completed at 1st. Feb. 2006)

1. Books, reviews & symposia

- Desvaux M// Univ Birmingham, Inst Biomed Res, Vincent Dr, Birmingham B15 2TT, England
Enzyme Microb Technol 2005 **37** (4) 373
The cellulosome of *Clostridium cellulolyticum*
- Jayakumar R, Prabakaran M, Reis RL, Mano JF// *Univ Minho, 3Bs Res Grp-Biomaat Biodegrad & Biomimetics, Campus Gualtar, PT-4710-057 Braga, Portugal
Carbohydr Polym 2005 **62** (2) 142
Graft copolymerized chitosan - Present status and applications
- McIntosh M, Stone BA*, Stanisich VA// *La Trobe Univ, Dept Biochem, Bundoora, Vic 3086, Australia
Appl Microbiol Biotechnol 2005 **68** (2) 163
Curdlan and other bacterial (1→3)-β-D-glucans
- Naessens M, Cerdobbel A, Soetaert W, Vandamme EJ// *State Univ Ghent, Fac Biosci Engn, Dept Biochem & Microbial Technol, BE-9000 Ghent, Belgium
J Chem Technol Biotechnol 2005 **80** (8) 845
Leuconostoc dextranucrase and dextran: Production, properties and applications
- Nichols CAM, Guezennec J, Bowman JP// Univ Tasmania, Sch Agr Sci, GPO Box 252-54, Hobart, Tas 7000, Australia
Mar Biotechnol 2005 **7** (4) 253
Bacterial exopolysaccharides from extreme marine environments with special consideration of the southern ocean, sea ice, and deep-sea hydrothermal vents: A review
- Noti C, Seeberger PH// *Swiss Fed Inst Technol, Organ Chem Lab, Wolfgang Pauli Str 10, CH-8093 Zurich, Switzerland
Chem Biol 2005 **12** (7) 731
Chemical approaches to define the structure-activity relationship of heparin-like glycosaminoglycans
- Svihus B, Uhlen AK, Harstad OM// Aquaculture Prot Ctr, POB 5003, NO-1432 As, Norway
Anim Feed Sci Technol 2005 **122** (3-4) 303
Effect of starch granule structure, associated components and processing on nutritive value of cereal starch: A review
- Walenga JM, Jeske WP, Fareed JJ// Loyola Univ Med Ctr, Cardiovasc Inst, 2160 Sth 1st Ave, Maywood, IL 60153, USA
Expert Opin Invest Drugs 2005 **14** (7) 847
Short- and long-acting synthetic pentasaccharides as antithrombotic agents
- Yamada T, Kawasaki T// Hiroshima Univ, Grad Sch Adv Sci Matter, Dept Mol Biotechnol, 1-3-1 Kagamiyama, Higashi-Hiroshima 739 8530, Japan
J Biosci Bioeng 2005 **99** (6) 521
Microbial synthesis of hyaluronan and chitin: New approaches

- Cancela MA, Alvarez E, Maceiras R// Univ Vigo, ETSEL, Dept Chem Engn, ES-36200 Vigo, Spain
J Food Eng 2005 **71** (4) 419
Effects of temperature and concentration on carboxymethylcellulose with sucrose rheology
- De Silva DJ, Olver JM// *Western Eye Hosp, Oculoplast & Orbital Serv, Marylebone Rd, London NW1 5YE, England
Ophthalmic Plast Reconstr Surg 2005 **21** (4) 301
Hydroxypropyl methylcellulose (HPMC) lubricant facilitates insertion of porous spherical orbital implants
- DeMerlis CC, Schoneker DR, Borzelleca JF// Colorcon, West Point, Pa, USA
Food Chem Toxicol 2005 **43** (9) 1355
A subchronic toxicity study in rats and genotoxicity tests with an aqueous ethylcellulose dispersion
- Jung JY, Park JK*, Chang HN// *Kyungpook Natl Univ, Dept Chem Engn, Taegu 702 701, South Korea
Enzyme Microb Technol 2005 **37** (3) 347
Bacterial cellulose production by *Gluconacetobacter hansenii* in an agitated culture without living non-cellulose producing cells
- Maskat MY, Yip HH, Mahali HM// Univ Kebangsaan Malaysia, Sch Chem Sci & Food Technol, Food Sci Prog, MY-43600 Bangi, Selangor, Malaysia
Int J Food Sci Technol 2005 **40** (8) 811
The performance of a methyl cellulose-treated coating during the frying of a poultry product
- Nemoto J, Uraki Y*, Kishimoto T, Sano Y, Funada R, Obata N, Yabu H, Tanaka M, Shimomura M// *Hokkaido Univ, Grad Sch Agr, Kita 9, Nishi 9, Kita ku, Sapporo, Hokkaido 060 858, Japan
Bioresource Technol 2005 **96** (17) 1955
Production of mesoscopically patterned cellulose film
- Ruenraroengsak P, Florence AT// *Univ London, Sch Pharm, Ctr Drug Delivery Res, 29-39 Brunswick Sq, London WC1N 1AX, England
Int J Pharm 2005 **298** (2) 361
The diffusion of latex nanospheres and the effective (microscopic) viscosity of HPMC gels
- Van der Weerd J, Kazarian SG// *Univ London, Imperial Coll Sci Technol & Med, Dept Chem Engn & Chem Technol, London SW7 2AZ, England
J Pharm Sci 2005 **94** (9) 2096
Release of poorly soluble drugs from HPMC tablets studied by FTIR imaging and flow-through dissolution tests
- Vinatier C, Magne D, Weiss P, Trojani C, Rochet N, Carle GF, Vignes-Colombeix C, Chadichristos C, Galera P, Daculsi G, Guicheux J// *Univ Nantes, Sch Dent Surg, Res Ctr Mat Biol Interest, INSERM EM 9903, 1 Pl Alexis Ricordeau, FR-44042 Nantes, France
Biomaterials 2005 **26** (33) 6643
A silanized hydroxypropyl methylcellulose hydrogel for the three-dimensional culture of chondrocytes

3. Cellulose-degrading enzymes

- Lim WJ, Hong SY, An CL, Cho KM, Choi BR, Kim YK, An JM, Kang JM, Lee SM, Cho SJ, Kim H, Yun HD// *Gyeongsang Natl Univ, Div Appl Life Sci, Chinju 660701, South Korea
Appl Microbiol Biotechnol 2005 **68** (1) 46
Construction of minimum size, cellulase (Cel5Z) from *Pectobacterium chrysanthemi* PY35 by removal of the C-terminal region

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.

Song H, Clarke WP, Blackall LL// Univ Queensland, Sch Engr, St Lucia, Qld 4072, Australia

Biotechnol Bioeng 2005 **91** (3) 369

Concurrent microscopic observations and activity measurements of cellulose hydrolyzing and methanogenic populations during the batch anaerobic digestion of crystalline cellulose

4. Chitin/Chitosan

Aktas Y, Andrieux K*, Alonso MJ, Calvo P, Gursoy RN, Couvreur P, Capan Y// *Univ Paris Sud, Fac Pharm, UMR CNRS 8612, FR-92296 Chateaufort Malabry, France

Int J Pharm 2005 **298** (2) 378

Preparation and *in vitro* evaluation of chitosan nanoparticles containing a caspase inhibitor

Albertini B, Passerini N, Rodriguez L// Univ Bologna, Dept Pharmaceut Sci, V S Donato 19/2, IT-40127 Bologna, Italy

J Pharm Pharmacol 2005 **57** (7) 821

Evaluation of ultrasonic atomization as a new approach to prepare ionically cross-linked chitosan microparticles

Bhattarai N, Edmondson D, Veishe O, Matsen FA, Zhang MQ*// *Univ Washington, Dept Mat Sci & Engr, Seattle, Wa 98195, USA

Biomaterials 2005 **26** (31) 6176

Electrospun chitosan-based nanofibers and their cellular compatibility

Cabrera JC, Van Cutsem P*// *Fac Univ Notre Dame Paix, Unite Rech Biol Cellulaire Vegetale, Namur, Belgium

Biochem Eng J 2005 **25** (2) 165

Preparation of chitooligosaccharides with degree of polymerization higher than 6 by acid or enzymatic degradation of chitosan

Chen LY, Subirade M*// *Univ Laval, Fac Sci Agr & Alimentat, INAF/STELA, Pavillon Paul Comtois, Ste Foy, Quebec, Canada G1K 7P4

Biomaterials 2005 **26** (30) 6041

Chitosan/ β -lactoglobulin core-shell nanoparticles as nutraceutical carriers

Chung DH, Kim SM, Kim WT, Shin IS, Park H// Kangnung Natl Univ, Fac Marine Biosci & Technol, Gangneung 210 702, Gangwon, South Korea

Food Sci Biotechnol 2005 **14** (3) 433

Characteristics of films based on chitosans isolated from *Todarodes pacificus*

Crompton KE, Prankerd RJ, Paganin DM, Scott TF, Horne MK, Finkelstein DI, Gross KA, Forsythe JS*// *Monash Univ, Sch Phys & Mat Engr, Wellington Rd, Clayton, Vic 3800, Australia

Biophys Chem 2005 **117** (1) 47

Morphology and gelation of thermosensitive chitosan hydrogels

Decker EM, Von Ohle C, Weiger R, Wiech I, Brex M// ZMK-Klinik, Abt Poliklin Zahnerhaltung, Oslanderstr 2-8, DE-72076 Tübingen, Germany

J Periodontol Res 2005 **40** (5) 373

A synergistic chlorhexidine/chitosan combination for improved antiplaque strategies

Fu JH, Ji J*, Yuan WY, Shen JC// *Zhejiang Univ, Dept Polymer Sci & Engr, CN-310027 Hangzhou, Peoples Rep China

Biomaterials 2005 **26** (33) 6684

Construction of anti-adhesive and antibacterial multilayer films *via* layer-by-layer assembly of heparin and chitosan

Funakoshi T, Majima T, Iwasaki N, Suenaga N, Sawaguchi N, Shimode K, Minami A, Harada K, Nishimura S// Hokkaido Univ, Sch Med, Dept Orthopaed Surg, Kita 15 Nishi 7, Kutsu, Sapporo, Hokkaido 060 863, Japan

Am J Sports Med 2005 **33** (8) 1193

Application of tissue engineering techniques for rotator cuff regeneration using a chitosan-based hyaluronan hybrid fiber scaffold

Gallstedt M, Brottman A, Hedenqvist MS*// *Royal Inst Technol, Dept Fibre & Polymer Technol, SE-10044 Stockholm, Sweden

Packag Technol Sci 2005 **18** (4) 161

Packaging-related properties of protein- and chitosan-coated paper

Gan Q, Wang T, Cochrane C, McCarron P// Queens Univ Belfast, Sch Chem Engr, Belfast BT9 5AG, Northern Ireland

Colloid Surface B 2005 **44** (2-3) 65

Modulation of surface charge, particle size and morphological properties of chitosan-TPP nanoparticles intended for gene delivery

Gobin AS, Froude VE, Mathur AB*// *Univ Texas, MD Anderson Canc Ctr, Dept Plast Surg, Unit 602, POB 301402, Houston, Tx 77230, USA

J Biomed Mater Res Pt A 2005 **74A** (3) 465

Structural and mechanical characteristics of silk fibroin and chitosan blend scaffolds for tissue regeneration

Grenha A, Seijo B, Remunan-Lopez C*// *Univ Santiago de Compostela, ES-15782 Santiago de Compostela, Spain

Eur J Pharm Sci 2005 **25** (4-5) 427

Microencapsulated chitosan nanoparticles for lung protein delivery

Haque T, Chen H, Ouyang W, Martoni C, Lawuyi B, Urbanska A, Prakash S*// *McGill Univ, Fac Med, Dept Biomed Engr, Biomed Technol & Cell Therapy Res Lab, 3775 Univ St, Montreal, Quebec, Canada H3A 2B4

Int J Artif Organs 2005 **28** (6) 631

Investigation of a new microcapsule membrane combining alginate, chitosan, polyethylene glycol and poly-L-lysine for cell transplantation applications

Huang RH, Mendis E, Kim SK*// *Pukyong Natl Univ, Dept Chem, Pusan 608 737, South Korea

Int J Biol Macromol 2005 **36** (1-2) 120

Factors affecting the free radical scavenging behavior of chitosan sulfate

Lee MY, Hong KJ, Kajiuchi T, Yang JW// Rensselaer Polytech Inst, Dept Chem & Biol Engr, 110 8th St, Troy, NY 12180, USA

Int J Biol Macromol 2005 **36** (3) 152

Synthesis of chitosan-based polymeric surfactants and their adsorption properties for heavy metals and fatty acids

Lima IS, Lazarin AM, Airolidi C*// *Univ Estadual Campinas, Inst Quim, Caixa Postal 6154, BR-13084-971 Campinas, Brazil

Int J Biol Macromol 2005 **36** (1-2) 79

Favorable chitosan/cellulose film combinations for copper removal from aqueous solutions

Lin WC, Yu DG, Yang MC// Natl Taiwan Univ Sci & Technol, Dept Polymer Engr, Taipei, Taiwan

Colloid Surface B 2005 **44** (2-3) 82

Blood compatibility of thermoplastic polyurethane membrane immobilized with water-soluble chitosan/dextran sulfate

Lin WC, Yu DG, Yang MC// Address as above

Colloid Surface B 2005 **44** (2-3) 143

pH-sensitive polyelectrolyte complex gel microspheres composed of chitosan/sodium tripolyphosphate/dextran sulfate: Swelling kinetics and drug delivery properties

Mao SR, Shuai XT, Unger F, Wittmar M, Xie XL, Kissel T*// *Univ Marburg, Dept Pharmaceut & Biopharm, Ketzerbach 63, DE-35032 Marburg, Germany

Biomaterials 2005 **26** (32) 6343

Synthesis, characterization and cytotoxicity of poly(ethylene glycol)-graft-trimethyl chitosan block copolymers

Neto CGT, Giacometti JA, Job AE, Ferreira FC, Fonseca JLC, Pereira MR*// *Univ Fed Rio Grande do Norte, Dept Quim, Lagoa Nova, CP 1662, BR-59078-970 Natal, RN, Brazil

Carbohydr Polym 2005 **62** (2) 97

Thermal analysis of chitosan based networks

No HK, Prinyawiwatkul W, Meyers SP// Catholic Univ Daegu, Dept Food Sci & Technol, Hayang 712 702, South Korea

J Food Sci 2005 **70** (6) S377

Comparison of shelf life of eggs coated with chitosans prepared under various deproteinization and demineralization times

Peng YF, Han BQ, Liu WS, Xu XJ// Ocean Univ Qingdao, Dept Marine Biol Engr, CN-266003 Qingdao, Peoples Rep China

Carbohydr Res 2005 **340** (11) 1846

Preparation and antimicrobial activity of hydroxypropyl chitosan

Qi WT, Yu WT, Xie YB, Ma XJ*// *Dalian Inst Chem Phys, Lab Biomed Mat Engr, 457 Zhongshan Rd, CN-116023 Dalian, Peoples Rep China

Biochem Eng J 2005 **25** (2) 151

Optimization of *Saccharomyces cerevisiae* culture in alginate-chitosan-alginate microcapsule

Rao MS, Stevens WF// Asian Inst Technol, POB 4, TH-12120 Pathum Thani, Thailand

J Chem Technol Biotechnol 2005 **80** (9) 1080

Chitin production by *Lactobacillus* fermentation of shrimp biowaste in a drum reactor and its chemical conversion to chitosan

Read RC, Naylor SC, Potter CW, Bond J, Jabbar-Gill I, Fisher A, Illum L, Jennings R// Univ Sheffield Sch Med, Div Genom Med, Acad Unit Infect & Immun, Beech Hill Rd, Sheffield S10 2RX, England

Vaccine 2005 **23** (35) 4367

Effective nasal influenza vaccine delivery using chitosan

Sriupayo J, Supaphol P, Blackwell J, Rujiravanit R*// *Chulalongkorn Univ, Petroleum & Petrochem Coll, Soi Chula 12, Phayathai Rd, Pathumwan, TH-10330 Bangkok, Thailand

Carbohydr Polym 2005 **62** (2) 130

Preparation and characterization of α -chitin whisker-reinforced chitosan nanocomposite films with or without heat treatment

Subramanian A, Vu D, Larsen GF, Lin HY// Univ Nebraska, Dept Chem Engr, 207 Othmer Hall, Lincoln, Ne 68588, USA

J Biomater Sci Polym Ed 2005 **16** (7) 861

Preparation and evaluation of the electrospun chitosan/PEO fibers for potential applications in cartilage tissue engineering

Twu YK, Chang IT, Ping CC// Da-Yeh Univ, Dept Bioind Technol, 112 Shan-Jiau Rd, Da-Tsuen, Chang-Hua 51505, Taiwan
Carbohydr Polym 2005 **62** (2) 113
 Preparation of novel chitosan scaffolds by electrochemical process
 Xing RG, Liu S, Yu HH, Zhang QB, Li Z, Li PC// *Chinese Acad Sci, Inst Oceanol, CN-266071 Qingdao, Peoples Rep China
Carbohydr Res 2004 **339** (15) 2515
 Preparation of low-molecular-weight and high-sulfate-content chitosans under microwave radiation and their potential antioxidant activity *in vitro*
 Ye SQ, Wang CY, Liu XX, Tong Z// *Sth China Univ Technol, Res Inst Mat Sci, CN-510640 Ghangzhou, Peoples Rep China
J Biomater Sci Polym Ed 2005 **16** (7) 909
 Multilayer nanocapsules of polysaccharide chitosan and alginate through layer-by-layer assembly directly on PS nanoparticles for release
 Zhang YQ, Xue CH*, Xue Y, Gao RC, Zhang XL// *Ocean Univ Qingdao, Dept Food Sci & Engn, CN-266003 Qingdao, Peoples Rep China
Carbohydr Res 2005 **340** (11) 1914
 Determination of the degree of deacetylation of chitin and chitosan by X-ray powder diffraction

5. Cyclodextrins

Fraschini C, Greffe L, Driguez H, Vignon MR// *Ctr Rech Macromol Vegetales, FR CNRS 2607, BP 53, FR-38041 Grenoble, France
Carbohydr Res 2005 **340** (11) 1893
 Chemoenzymatic synthesis of 6'-modified maltooligosaccharides from cyclodextrin derivatives
 Inoue H, Kawashita T, Nakayama H, Tshako M// *Kobe Pharmaceut Univ, Dept Funct Mol Chem, Kobe, Hyogo 658 8558, Japan
Carbohydr Res 2005 **340** (11) 1766
 Regioselective phosphorylation of branched cyclodextrins with cyclo-mono- μ -imidotriphosphate
 Kanjickal D, Lopina S*, Evancho-Chapman MM, Schmidt S, Donovan D// *Univ Akron, Dept Chem Engrg, Akron, Oh 44325, USA
J Biomed Mater Res Pt A 2005 **74A** (3) 454
 Improving delivery of hydrophobic drugs from hydrogels through cyclodextrins
 Kirschner DL, Green TK// *Univ Alaska Fairbanks, Dept Chem & Biochem, Fairbanks, Ak 99775, USA
Carbohydr Res 2005 **340** (11) 1773
 Nonaqueous synthesis of a selectively modified, highly anionic sulfopropyl ether derivative of cyclomaltoheptose (β -cyclodextrin) in the presence of 18-crown-6
 Liu YY, Fan XD// Northwestern Polytech Univ, Sch Sci, Dept Appl Chem, CN-710072 Xian, Peoples Rep China
Biomaterials 2005 **26** (32) 6367
 Synthesis, properties and controlled release behaviors of hydrogel networks using cyclodextrin as pendant groups
 Vaccher MP, Lipka E, Bonte JP, Foulon C, Goossens JF, Vaccher C// *Univ Lille 2, Fac Sci Pharmaceut & Biol, Lab Chim Anal, EA 1043, BP 83-3, rue Pr Laguesse, FR-59006 Lille, France
Electrophoresis 2005 **26** (15) 2974
 Enantiomeric analysis of baclofen analogs by capillary zone electrophoresis, using highly sulfated cyclodextrins: Inclusion ionization constant pK_a determination

6. Lignin

Yang JS, Yuan HL*, Wang HX, Chen WX// *China Agr Univ, Coll Biol Sci, Minist Agr Key Lab Agromicrobial Resource & Applicat, CN-100094 Beijing, Peoples Rep China
World J Microbiol Biotechnol 2005 **21** (4) 435
 Purification and characterization of lignin peroxidases from *Penicillium decumbens* P6

7. Lipopolysaccharides

Ali T, Urbina F, Weintraub A, Widmalm G// *Stockhom Univ, Dept Organ Chem, Arrhenius Lab, SE-10691 Stockholm, Sweden
Carbohydr Res 2005 **340** (12) 2010
 Structural studies of the O-antigenic polysaccharides from the entero-aggregative *Escherichia coli* strain 522/C1 and the international type strain from *Escherichia coli* O178
 Completo GC, Ponto JA, Lowary TL// *Univ Alberta, Alberta Ingenu Ctr Carbohydrate Sci, Edmonton, Alberta, Canada T6G 2G2

J Carbohydr Chem 2005 **24** (4-6) 517
 Synthesis of oligosaccharide fragments of the lipoarabinomannan from *Rhodococcus ruber*
 Dag S, Niedziela T, Dzieciatkowska M, Lukasiewicz J, Jachymek W, Lugowski C, Kenne L// *Swedish Univ Agr Sci, Dept Chem, POB 7015, SE-75007 Uppsala, Sweden
Carbohydr Res 2004 **339** (15) 2521
 The O-acetylation patterns in the O-antigens of *Hafnia alvei* strains PCM 1200 and 1203, serologically closely related to PCM 1205
 De Castro C, Molinaro A*, Lanzetta R, Holst O, Parrilli M// *Univ Naples Federico II, Dipt Chim Organ & Biochim, IT-80126 Naples, Italy
Carbohydr Res 2005 **340** (11) 1802
 The linkage between O-specific caryan and core region in the lipopolysaccharide of *Burkholderia caryophylli* is furnished by a primer monosaccharide
 Katzenellenbogen E, Kocharova NA, Zatonsky GV, Shashkov AS, Bogulska M, Knirel YA// Polish Acad Sci, L Hirsfeld Inst Immunol & Expt Therapy, Weigla 12, PL-53114 Wroclaw, Poland
FEMS Immunol Med Microbiol 2005 **45** (2) 269
 Structures of the biological repeating units in the O-chain polysaccharides of *Hafnia alvei* strains having a typical lipopolysaccharide outer core region
 Ovchinnikova OG, Kocharova NA, Bakinovskiy LV, Torzewska A, Shashkov AS, Knirel YA, Rozalski A// Russian Acad Sci, ND Zelinskii Organ Chem Inst, RU-119991 Moscow, Russia
Carbohydr Res 2004 **339** (15) 2621
 The structure of the O-polysaccharide from the lipopolysaccharide of *Providencia stuartii* 047
 Tinnert AS, Mansson M, Yildirim HH, Hood DW, Schweda EKH// *Karolinska Inst, NOVUM, Clin Res Ctr, SE-14186 Huddinge, Sweden
Carbohydr Res 2005 **340** (11) 1900
 Structural investigation of lipopolysaccharides from nontypeable *Haemophilus influenzae*: Investigation of inner-core phosphoethanolamine addition in NTHi strain 981
 Zablotni A, Perepelov AV, Knirel YA, Sidorczyk Z// *Univ Lodz, Inst Microbiol & Immunol, PL-90237 Lodz, Poland
Carbohydr Res 2005 **340** (11) 1908
 Structure of the O-polysaccharide of *Proteus mirabilis* OC (CCUG 10702) from a new proposed *Proteus* serogroup O75

8. Pectin

Dourado F, Madureira P, Carvalho V, Coelho R, Coimbra MA, Vilanova M, Mota M, Gama FM// *Univ Minho, Ctr Engrg Biol, Largo Paco, PT-4710-057 Braga, Portugal
Carbohydr Res 2004 **339** (15) 2555
 Purification, structure and immunobiological activity of an arabinan-rich pectic polysaccharide from the cell walls of *Prunus dulcis* seeds
 Ha MA, Viator RJ, Jardine GD, Apperley DC, Jarvis MC// *Univ Glasgow, Chem Dept, Glasgow G12 8QQ, Scotland
Phytochemistry 2005 **66** (15) 1817
 Conformation and mobility of the arabinan and galactan side-chains of pectin
 Nergard CS, Kiyohara H, Reynolds JC, Thomas-Oates JE, Matsumoto T, Yamada H, Michaelsen TE, Diallo D, Paulsen BS// Univ Oslo, Sch Pharm, Dept Pharmacognosy, POB 1068, Blindern, NO-0316 Oslo, Norway
Carbohydr Res 2005 **340** (11) 1789
 Structure-immunomodulating activity relationships of a pectic arabinogalactan from *Vernonia kotschyana* Sch Bip. ex Walp
 Ralet MC, Cabrera JC, Bonnin E, Quemener B, Hellin P, Thibault JF// INRA, Unite Biopolym Interact Assemblages, BP 71627, FR-44316 Nantes, France
Phytochemistry 2005 **66** (15) 1832
 Mapping sugar beet pectin acetylation pattern

9. Starch

Agama-Acevedo E, Ottenhof MA, Farhat IA, Paredes-Lopez O, Ortiz-Cereceres J, Bello-Perez LA// IPN, Ctr Desarrollo Prod Bioticos, Km 8.5 Carretera Yautepec-Jojutla, Apartado Postal 24, Colonia San Isidro, MX-62731 Yautepec, Morelos, Mexico
Agrociencia 2005 **39** (4) 419
 Isolation and characterization of starch from pigmented maize
 Agustiniño-Osornio JC, Gonzalez-Soto RA, Flores-Huicochea E, Manrique-Quevedo N, Sanchez-Hernandez L, Bello-Perez LA// *IPN, Ctr Desarrollo Prod Bioticos, Km 8.5 Carr Yautepec-Jojutla, Apartado Postal 24, Colonia San Isidro, MX-62731 Morelos, Mexico
J Sci Food Agric 2005 **85** (12) 2105
 Resistant starch production from mango starch using a single-screw extruder

- Blennow A, Wischmann B, Houborg K, Ahmt T, Jorgensen K, Engelsen SB, Bandsholm O, Poulsen P// Royal Vet & Agr Univ, Dept Plant Biol, Plant Biochem Lab, Ctr Plant Mol Physiol Place, DK-1871 Frederiksberg, Denmark *Int J Biol Macromol* 2005 **36** (3) 159
Structure function relationships of transgenic starches with engineered phosphate substitution and starch branching
- Cao YS, Huang L, Chen JX, Liang J, Long SY, Lu YT// *Shanghai Jiao Tong Univ, Dept Resource & Environm Sci, 2678 Qixin Rd, CN-201101 Shanghai, Peoples Rep China
Int J Pharm 2005 **298** (1) 108
Development of a controlled release formulation based on starch matrix system
- Chung HJ, Yoo B, Lim ST// *Korea Univ, Sch Life Sci & Biotechnol, 5-1 Anam dong, Sungbuk ku, Seoul 136 701, South Korea
Starch 2005 **57** (8) 354
Effects of physical aging on thermal and mechanical properties of glassy normal corn starch
- Fernandez Pierna JA, Volery P, Besson R, Baeten V, Dardenne P// *Walloon Agr Res Ctr, Qual Agr Prod Dept, Chaussee Namur 24, BE-5030 Gembloux, Belgium
J Agric Food Chem 2005 **53** (17) 6581
Classification of modified starches by Fourier transform infrared spectroscopy using support vector machines
- Guan JJ, Eskridge KM, Hanna MA// *Univ Nebraska, Ind Agr Prod Ctr, 208 LW Chase Hall, Lincoln, Ne 68583, USA
Ind Crops Products 2005 **22** (2) 109
Acetylated starch-poly(lactic acid) loose-fill packaging materials
- Hayashi M, Kiribuchi-Otobe C, Seguchi M// *Kobe Womens Univ, Fac Home Econ, Lab Food Technol, 2-1 Aoyama, Suma ku, Kobe, Hyogo 654 8585, Japan
Starch 2005 **57** (8) 384
Ghosts of B-type wheat starch granules in concentrated KI/I₂ solution
- Herrera-Gomez A, Canonico-Franco M, Ramos G// CINVESTAV, Libramiento Norponiente 2000, MX-76230 Queretaro, Mexico
Starch 2005 **57** (7) 301
Aggregate formation and segregation of maize starch granules cooked at reduced moisture conditions
- Jyothi AN, Raiasekharan KN, Moorthy SN, Sreekumar J// Cent Tuber Crops Res Inst, Div Crop Utilizat, Sreekariyam, IN-695017 Thiruvananthapuram, Kerala, India
Starch 2005 **57** (7) 319
Synthesis and characterization of low DS succinate derivatives of cassava (*Manihot esculenta* Crantz) starch
- Kim NH, Yoo SH// *Sejong Univ, Dept Food Sci & Technol, Seoul 143 747, South Korea
Food Sci Biotechnol 2005 **14** (4) 470
Molecular structure and gelatinization properties of turnip starch (*Brassica rapa* L.)
- Larotonda FDS, Matsui KN, Sobral PJA, Laurindo JB// *Univ Fed Santa Catarina, Dept Engr Quim & Engr Alimentos, CTC, Cx Postal 476, BR-88040-900 Florianopolis, SC, Brazil
J Food Eng 2005 **71** (4) 394
Hygroscopicity and water vapor permeability of Kraft paper impregnated with starch acetate
- Liu P, Su Z// Lanzhou Univ, Coll Chem & Chem Engr, Inst Polym Sci & Engr, Tianshui Rd 298, CN-730000 Lanzhou, Peoples Rep China
Carbohydr Polym 2005 **62** (2) 159
Surface-initiated atom transfer radical polymerization (SI-ATRP) of *n*-butyl acrylate from starch granules
- Morais LC, Curvelo AAS*, Zambon MD// *Univ Sao Paulo, Inst Quim Sao Carlos, CP 780, BR-13560-750 Sao Carlos, SP, Brazil
Carbohydr Polym 2005 **62** (2) 104
Thermoplastic starch-lignosulfonate blends. 1. Factorial planning as a tool for elucidating new data from high performance size-exclusion chromatography and mechanical tests
- Nebesny E, Kwasniewska-Karolak I*, Rosicka-Kaczmarek J// *Tech Univ Lodz, Inst Chem Technol Food, Stefanowskiego 4/10, PL-90924 Lodz, Poland
Starch 2005 **57** (8) 378
Dependence of thermodynamic characteristics of amylose-lipid complex dissociation in a variety of wheat
- Patel BK, Waniska RD, Seetharaman K// *Penn State Univ, Dept Food Sci, University Park, Pa 16802, USA
J Cereal Sci 2005 **42** (2) 173
Impact of different baking processes on bread firmness and starch properties in breadcrumb
- Rumpold BA, Knorr D// Berlin Univ Technol, Dept Food Proc Engr & Food Biotechnol, Konigin Luise Str 22, DE-14195 Berlin, Germany
Starch 2005 **57** (8) 370
Effect of salts and sugars on pressure-induced gelatinisation of wheat, tapioca, and potato starches
- Shon KJ, Lim ST, Yoo B// *Dongguk Univ, Dept Food Sci & Technol, 3 Pil dong, Seoul 100 715, South Korea
Starch 2005 **57** (8) 363
Rheological properties of rice starch dispersions in dimethyl sulfoxide
- Siemion P, Kapusniak J, Koziol JJ// Jan Dlugosz Univ, Inst Chem & Environm Prot, Armii Krajowej Avenue 13/15, PL-42200 Czestochowa, Poland
Carbohydr Polym 2005 **62** (2) 182
Solid-state thermal reactions of starch with semicarbazide hydrochloride. Cationic starches of a new generation
- Singh S, Raina CS, Bawa AS, Saxena DC// *Sant Longowal Inst Engr & Technol, Dept Food Technol, Longowal, India
J Food Sci 2005 **70** (6) E373
Effect of heat-moisture treatment and acid modification on rheological, textural, and differential scanning calorimetry characteristics of sweetpotato starch
- Stevenson DG, Biswas A, Inglett GE// USDA/ARS, Natl Ctr Agr Utilizat Res, Cereal Prod & Food Sci Res Unit, 1815 Nth Univ St, Peoria, IL 61604, USA
Starch 2005 **57** (8) 347
Thermal and pasting properties of microwaved corn starch
- Tester RF, Ansell R, Snape CE, Yusuph M// Glasgow Caledonian Univ, Sch Biol & Biomed Sci, Dept Biol & Biomed Sci, Food Res Labs, Cowcaddens Rd, Glasgow G4 0BA, Scotland
Int J Biol Macromol 2005 **36** (1-2) 1
Effects of storage temperatures and annealing conditions on the structure and properties of potato (*Solanum tuberosum*) starch
- Tulyathan V, Boondee K, Mahawanich T// Chulalongkorn Univ, Fac Sci, Dept Food Technol, TH-10330 Bangkok, Thailand
J Food Biochem 2005 **29** (4) 337
Characteristics of starch from water chestnut (*Trapa bispinosa* Roxb.)
- Vermeulen R, Goderis B, Reynaers H, Delcour JA// Katholieke Univ Leuven, Lab Food Chem, Kasteelpark Arenberg 22, BE-3001 Heverlee, Belgium
Carbohydr Polym 2005 **62** (2) 170
Gelatinisation related structural aspects of small and large wheat starch granules
- Villwock VK, BeMiller JN// *Purdue Univ, Dept Food Sci, Whistler Ctr Carbohydrate Res, West Lafayette, In 47907, USA
Starch 2005 **57** (7) 281
Effects of salts on the reaction of normal corn starch with propylene oxide
- Yang P, Haken AE, Niu Y, Chaney SR, Hicks KB, Eckhoff SR, Tumbleson ME, Singh V// *Univ Illinois, Dept Agr Engr, Urbana, IL 61801, USA
Cereal Chem 2005 **82** (4) 420
Effect of steeping with sulfite salts and adjunct acids on corn wet-milling yields and starch properties
- Yoo D, Kim C, Yoo B// Dongguk Univ, Dept Food Sci & Technol, 3 Pil dong, Seoul 100 715, South Korea
Starch 2005 **57** (7) 310
Steady and dynamic shear rheology of rice starch-galactomannan mixtures
- Zhang Z, Feng H*, Niu Y, Eckhoff SR// *Univ Illinois, Dept Food Sci & Human Nutr, Urbana, IL 61801, USA
Cereal Chem 2005 **82** (4) 447
Starch recovery from degermed corn flour and hominy feed using power ultrasound

10. Starch-degrading enzymes

- Lo HF, Chen YH, Hsiao NW, Chen HL, Hu HY, Hsu WH, Lin LL// *Natl Chiayi Univ, Dept Appl Chem, Chiayi 60083, Taiwan
World J Microbiol Biotechnol 2005 **21** (4) 411
Stabilization of a truncated *Bacillus* sp strain TS-23 α -amylase by replacing histidine-436 with aspartate
- Manelius R, Nurmi K, Bertoft E// Abo Akad Univ, Dept Biochem & Pharm, BioCity, POB 66, FI-20521 Turku, Finland
Starch 2005 **57** (7) 291
Characterization of dextrans obtained by enzymatic treatment of cationic potato starch
- Mitsuiki S, Mukae K, Sakai M, Goto M, Hayashida S, Furukawa K// Kyushu Sangyo Univ, Dept Ind Chem, Fukuoka 813 8503, Japan
Enzyme Microb Technol 2005 **37** (4) 410
Comparative characterization of raw starch hydrolyzing α -amylases from various *Bacillus* strains

Nebesny E, Rosicka J*, Tkaczyk M// *Tech Univ Lodz, Dept Chem Food Technol, Stefanowski St 4/10, PL-90924 Lodz, Poland
Starch 2005 **57** (7) 325
 Influence of selected parameters of starch gelatinization and hydrolysis on stability of amylose-lipid complexes
 Rao MD, Ratnam BVV, VenkataRamesh D, Ayyanna C// Johns Hopkins Univ Sch Med, Dept Pediat Infect Dis, 720 Rutland Ave, Ross 1135B, Baltimore, Md 21205, USA
World J Microbiol Biotechnol 2005 **21** (3) 371
 Rapid method for the affinity purification of thermostable α -amylase from *Bacillus licheniformis*
 Yoon SH, Robyt JF// *Iowa State Univ, Dept Biochem Biophys & Mol Biol, Lab Carbohydrate Chem & Enzymol, Ames, Ia 50011, USA
Enzyme Microb Technol 2005 **37** (5) 556
 Activation and stabilization of 10 starch-degrading enzymes by Triton X-100, polyethylene glycols, and polyvinyl alcohols

11. Polysaccharides - Microbial

Breierova E, Hromadkova Z, Stratilova E, Sasinkova V, Ebringerova A// Slovak Acad Sci, Inst Chem, Dubravska cesta 9, SK-84538 Bratislava, Slovakia
Z Naturforsch C 2005 **60** (5-6) 444
 Effect of salt-stress on the production and properties of extracellular polysaccharides produced by *Cryptococcus laurentii*
 Chen SC, Lu MK, Cheng JJ, Wang DL// *Acad Sinica, Inst Biomed Sci, Taipei 11529, Taiwan
FEMS Microbiol Lett 2005 **249** (2) 247
 Antiangiogenic activities of polysaccharides isolated from medicinal fungi
 Chen Y, Huang HW, Yu X, Qi L// Chinese Acad Sci, Inst Chem, CN-100080 Beijing, Peoples Rep China
Carbohydr Res 2004 **340** (12) 2024
 Chiral recognition of dextran sulfate with D- and L-cystine studied by multi-wavelength surface plasmon resonance
 Huang QL, Zhang L// *Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep China
Biopolymers 2005 **79** (1) 28
 Solution properties of (1 $\rightarrow$ 3)- α -D-glucan and its sulfated derivative from *Poria cocos* mycelia via fermentation tank
 Icoz DZ, Moraru CI, Kokini JL// *Rutgers Univ, Cook Coll, Dept Food Sci, Ctr Adv Food Technol, 65 Dudley Rd, New Brunswick, NJ 08901, USA
Carbohydr Polym 2005 **62** (2) 120
 Polymer-polymer interactions in dextran systems using thermal analysis
 Kiessling P, Senchenkova SN, Ramm M*, Knirel YA// *Leibniz Inst Nat Prod Res & Infect Biol, Hans Knoll Inst, Dept Mol & Appl Microbiol, DE-07745 Jena, Germany
Carbohydr Res 2005 **340** (11) 1761
 Structural studies on the exopolysaccharide from *Erwinia persicina*
 Li AX, Kong FZ// *Acad Sinica, Ecoenvironm Sci Res Ctr, POB 2871, CN-100085 Beijing, Peoples Rep China
Carbohydr Res 2004 **339** (15) 2499
 Synthesis of an α -linked dimer of the trisaccharide repeating unit of the exopolysaccharide produced by *Pediococcus damnosus* 2.6
 McNally DJ, Jarrell HC, Li J, Khieu NH, Vinogradov E, Szymanski CM, Brisson JR// *Natl Res Council Canada, Inst Biol Sci, 100 Sussex Dr, Ottawa, Ontario, Canada K1A 0R6
FEBS J 2005 **272** (17) 4407
 The HS:1 serostrain of *Campylobacter jejuni* has a complex teichoic acid-like capsular polysaccharide with nonstoichiometric fructofuranose branches and O-methyl phosphoramidate groups
 Ozdemir G, Ceyhan N, Manav E// Ege Univ, Fac Sci, Dept Biol, TR-35100 Bornova, Turkey
Bioresour Technol 2005 **96** (15) 1677
 Utilization of an exopolysaccharide produced by *Chryseomonas luteola* TEM05 in alginate beads for adsorption of cadmium and cobalt ions
 Papalamprou EM, Makri EA, Kiosseoglou VD, Doxastakis GI// *Aristotle Univ Thessaloniki, Sch Chem, Food Chem & Technol Lab, GR-15424 Thessaloniki, Greece
J Sci Food Agric 2005 **85** (12) 1967
 Effect of medium molecular weight xanthan gum in rheology and stability of oil-in-water emulsion stabilized with legume proteins
 Paulovicova E, Bystricky S*, Masarova J, Machova E, Mislovicova D// *Slovak Acad Sci, Institute Chem, Dubravska cesta 9, SK-84538 Bratislava, Slovakia
Int Immunopharmacol 2005 **5** (12) 1693
 Immune response to *Saccharomyces cerevisiae* mannan conjugate in mice

Pavlova K, Panchev I, Hristozova T// Bulgarian Acad Sci, Inst Microbiol, Appl Microbiol Lab, 26 Maritza Blvd, BG-4002 Polydiv, Bulgaria
World J Microbiol Biotechnol 2005 **21** (3) 279
 Physico-chemical characterization of exomannan from *Rhodotorula acheniorum* MC
 Prasongsuk S, Sullivan RF, Kuhirum M, Eveleigh DE, Punnapayak H// *Chulalongkorn Univ, Fac Sci, Dept Bot, Plant Biomass Utilizat Res Unit, TH-10330 Bangkok, Thailand
World J Microbiol Biotechnol 2005 **21** (4) 393
 Thailand habitats as sources of pullulan-producing strains of *Aureobasidium pullulans*
 Sundgren A, Lahmann M, Oscarson S// *Univ Stockholm, Dept Organ Chem, Arrhenius Lab, SE-10691 Stockholm, Sweden
J Carbohydr Chem 2005 **24** (4-6) 379
 Block synthesis of *Streptococcus pneumoniae* type 14 capsular polysaccharide structures
 Torino MI, Mozzi F, Font de Valdez G// *Consejo Nacl Invest Cient & Tecn, Ctr Referencia Lactobacilos, Miguel Tucuman, Chacabuco 145, AR-4000 San Miguel de Tucuman, Argentina
Appl Microbiol Biotechnol 2005 **68** (2) 259
 Exopolysaccharide biosynthesis by *Lactobacillus helveticus* ATCC 15807
 Wang YF, Zhang LN*, Li YQ, Hou XH, Zeng FB// *Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep China
Carbohydr Res 2004 **339** (15) 2567
 Correlation of structure to antitumor activities of five derivatives of a β -glucan from *Poria cocos* sclerotium
 Yoo SH, Lee KH, Lee JS, Cha J, Park CS, Lee HG// *Pusan Natl Univ, Dept Microbiol, 30 Jangjeon dong, Pusan 608 735, South Korea
J Agric Food Chem 2005 **53** (16) 6235
 Physicochemical properties and biological activities of DEAE-derivatized *Sphingomonas gellan*

12. Polysaccharides - Plant

Adams EL, Kroon PA, Williamson G, Morris VJ// *Inst Food Res, Norwich Res Pk, Colney Lane, Norwich NR4 7UA, England
Carbohydr Res 2005 **340** (11) 1841
 AFM studies of water-soluble wheat arabinoxylans - Effects of esterase treatment
 Balakrishnan B, Mohanty M, Umashankar PR, Jayakrishnan A// *Sree Chitra Tirunal Inst Med Sci & Technol, Div Polymer Chem, Satelmond Palace Campus, IN-695012 Trivandrum, Kerala, India
Biomaterials 2005 **26** (32) 6335
 Evaluation of an *in situ* forming hydrogel wound dressing based on oxidized alginate and gelatin
 Barrias CC, Lamghari M, Granja PL, Miranda MCS, Barbosa MA// Inst Biomed Engn, Lab Biomat, Rua Campo Alegre 823, PT-4150-180 Oporto, Portugal
J Biomed Mater Res Pt A 2005 **74A** (4) 545
 Biological evaluation of calcium alginate microspheres as a vehicle for the localized delivery of a therapeutic enzyme
 Beauprand J, Chambat G, Wong VWK, Goubet F, Remond C, Paes G, Benamrouche S, Debeire P, O'Donohue M, Chabbert B// *Inst Natl Rech Agron, UMR FARE 614, Ctr Rech Agron, 2 Esplanade Roland Garros, BP 224, FR-51686 Reims, France
Carbohydr Res 2004 **339** (15) 2529
 Impact and efficiency of GH10 and GH11 thermostable endoxylanases on wheat bran and alkali-extractable arabinoxylans
 Cho SH, Oh SH, Lee JH// *Hannam Univ, Dept Polymer Sci & Engr, 113 Ojeong dong, Taejeon 305 791, South Korea
J Biomater Sci Polym Ed 2005 **16** (8) 933
 Fabrication and characterization of porous alginate/polyvinyl alcohol hybrid scaffolds for 3D cell culture
 Dias PF, Siqueira JM, Vendruscolo LF, Neiva TD, Gagliardi AR, Maraschin M, Ribeiro-do-Valle RM// *Univ Fed Santa Catarina, Dept Pharmacol, Biol Sci Ctr, Block D, Univ Campus Trindade, BR-88049-900 Florianopolis, SC, Brazil
Cancer Chemother Pharmacol 2005 **56** (4) 436
 Antiangiogenic and antitumoral properties of a polysaccharide isolated from the seaweed *Sargassum stenophyllum*
 Estevez JM, Cancia M, Cerezo AS// *Univ Buenos Aires, Fac Ciencias Exactas & Nat, Dept Quim Organ, CIHIDECAR-CONICET, AR-1428 Buenos Aires, DF, Argentina
Carbohydr Res 2004 **339** (15) 2575
 The systems of galactans of the red seaweed, *Kappaphycus alvarezii*, with emphasis on its minor constituents

- Goncalves S, Romano A*// *Univ Algarve, Fac Engn Recursos Nat, Campus Gambelas, PT-8005-139 Faro, Portugal
Sci Hort Amsterdam 2005 **106** (1) 129
 Locust bean gum (LBG) as a gelling agent for plant tissue culture media
- Heck JX, Soares LHD, Ayub MAZ*// *Univ Fed Rio Grande Sul, Inst Food Sci & Technol, Av Bento Goncalves 9500, POB 15090, BR-91501-970 Porto Alegre, RS, Brazil
Enzyme Microb Technol 2005 **37** (4) 417
 Optimization of xylanase and mannanase production by *Bacillus circulans* strain BL53 on solid-state cultivation
- Hoffman M, Jia ZH, Pena MJ, Cash M, Harper A, Blackburn AR, Darvill A, York WS*// *Univ Georgia, Complex Carbohydrate Res Ctr, 315 Riverbend Rd, Athens, Ga 30602, USA
Carbohydr Res 2005 **340** (11) 1826
 Structural analysis of xyloglucans in the primary cell walls of plants in the subclass Asteridae
- Ikeda S, Funami T, Zhang G// Osaka City Univ, Dept Food & Human Life Sci, 3-3-138 Sugimoto, Sumiyoshi-ku, Osaka 558 8585, Japan
Carbohydr Polym 2005 **62** (2) 192
 Visualizing surface active hydrocolloids by atomic force microscopy
- Li AX, Kong FZ*// *Chinese Acad Sci, Ecoenvironm Sci Res Ctr, CN-100085 Beijing, Peoples Rep China
Carbohydr Res 2005 **340** (12) 1949
 Syntheses of β -(1 $\rightarrow$ 6)-branched β -(1 $\rightarrow$ 3)-linked D-galactans that exist in the rhizomes of *Arctostaphylos lancea* DC
- Mao WJ, Li Y, Wu LG, Wang HQ, Zhang Y, Zang XX, Zhang HJ// Ocean Univ China, Inst Marine Drugs & Foods, CN-266003 Qingdao, Peoples Rep China
J Appl Phycol 2005 **17** (4) 349
 Chemical characterization and radioprotective effect of polysaccharide from *Monostroma angicava* (Chlorophyta)
- Marichamy S, Mattiasson B// Lund Univ, Dept Biotechnol, POB 124, Lund, Sweden
Enzyme Microb Technol 2005 **37** (5) 497
 Rapid production of cellulase-free xylanases by solventogenic clostridia from rumen
- Maruyama H, Tamauchi H, Hashimoto M, Nakano T// Kitasato Univ, Sch Allied Hlth Sci, Dept Pathol, 1-15-1 Kitasato, Kanagawa 228 8555, Japan
Int Arch Allergy Immunol 2005 **137** (4) 289
 Suppression of Th2 immune responses by mekabu fucoidan from *Undaria pinnatifida* sporophylls
- Mukhopadhyay D, Reid M, Saville D, Tucker IG*// *Univ Otago, Sch Pharm, POB 913, Dunedin, New Zealand
Int J Pharm 2005 **299** (1-2) 134
 Cross-linking of dried paracetamol alginate granules - Part 1. The effect of the cross-linking process variables
- Murtas S, Capuani G, Dentini M, Manetti C, Masci G, Massimi M, Miccheli A, Crescenzi V*// *Univ Roma la Sapienza, Dept Chem, IT-00185 Rome, Italy
J Biomater Sci Polym Ed 2005 **16** (7) 829
 Alginate beads as immobilization matrix for hepatocytes perfused in a bioreactor: Physicochemical characterization
- Navarro DA, Stortz CA*// *UBA, Fac Ciencias Exactas Naturales, Dept Quim Organ-CIHIDECAR, Ciudad Univ, AR-1428 Buenos Aires, Argentina
Carbohydr Polym 2005 **62** (2) 187
 Microwave-assisted alkaline modification of red seaweed galactans
- Nerurkar J, Jun HW*, Price JC, Park MO// *Univ Georgia, RC Wilson Coll Pharm, Dept Pharmaceut & Biomed Sci, Rm 214, Athens, Ga 30602, USA
Eur J Pharm Biopharm 2005 **61** (1-2) 56
 Controlled-release matrix tablets of ibuprofen using cellulose ethers and carrageenans: Effect of formulation factors on dissolution rates
- Papageorgiou M, Lakhara N, Lazaridou A, Biliaderis CG*, Izydorczyk MS// *Aristotle Univ Thessaloniki Sch Agr, Dept Food Sci & Technol, Lab Food Chem & Biochem, POB 256, GR-54124 Thessaloniki, Greece
J Cereal Sci 2005 **42** (2) 213
 Water extractable (1 $\rightarrow$ 3,1 $\rightarrow$ 4)- β -D-glucans from barley and oats: An inter-varietal study on their structural features and rheological behaviour
- Parvathy KS, Susheelamma NS, Tharanathan RN*, Gaonkar AK// *Ctr Food Technol Res Inst, Dept Biochem & Nutr, IN-570020 Mysore, India
Carbohydr Polym 2005 **62** (2) 137
 A simple non-aqueous method for carboxymethylation of galactomannans
- Pereira MG, Benevides NMB, Melo MRS, Valente AP, Melo FR, Mourao PAS*// *Univ Fed Rio de Janeiro, Hosp Univ, Hosp Univ Clementino Fraga Filho, Lab Tecido Conjuntivo, BR-21941-590 Rio de Janeiro, Brazil
Carbohydr Res 2005 **340** (12) 2015
 Structure and anticoagulant activity of a sulfated galactan from the red alga, *Gelidium crinale*. Is there a specific structural requirement for the anticoagulant action?
- Rajoka MI// Natl Inst Biotechnol & Genet Engn, POB 577, Faisalabad, Pakistan
World J Microbiol Biotechnol 2005 **21** (4) 463
 Regulation of synthesis of endo-xylanase and β -xylosidase in *Cellulomonas flavigena*: A kinetic study
- Wolf R, Zimmermann D, Weber P, Fellen P, Ehrhart F, Jungjohann MS, Katsen A, Behringer P, Gessner P, Pliess L, Steinbach A, Spitz J, Vasquez JA, Schneider S, Bamberg E, Weber MM, Zimmermann U*, Zimmermann H// *Univ Wurzburg, Lehrstuhl Biotechnol, Biozentrum, DE-97074 Wurzburg, Germany
Biomaterials 2005 **26** (32) 6386
 Real-time 3-D dark-field microscopy for the validation of the cross-linking process of alginate microcapsules
- Xu ZH, Bai YL, Xu X, Shi JS, Tao WY*// *Sthn Yangtze Univ, Sch Biotechnol, 170 Huihe Rd, CN-214036 Wuxi, Peoples Rep China
World J Microbiol Biotechnol 2005 **21** (4) 575
 Production of alkali-tolerant cellulase-free xylanase by *Pseudomonas* sp WLUN024 with wheat bran as the main substrate
- Yang F, Wang K, He ZM*// *Tianjin Univ, Enzyme Technol Lab, Chem Engn Res Ctr, CN-300072 Tianjin, Peoples Rep China
Int J Pharm 2005 **298** (1) 206
 Two new plate nozzles for the production of alginate microspheres
- Yang JH, Du YM*, Huang RH, Wan YY, Wen Y// *Wuhan Univ, Coll Resource & Environm Sci, Dept Environm Sci, CN-430072 Wuhan, Peoples Rep China
Int J Biol Macromol 2005 **36** (1-2) 9
 The structure-anticoagulant activity relationships of sulfated lacquer polysaccharide - Effect of carboxyl group and position of sulfation
- Yim JH, Son E, Pyo S, Lee HK*// *KORDI, Korea Polar Res Inst, POB 29, Seoul 425 600, South Korea
Mar Biotechnol 2005 **7** (4) 331
 Novel sulfated polysaccharide derived from red-tide microalga *Gyrodinium impudicum* strain KG03 with immunostimulating activity *in vivo*

13. Polysaccharides - Other

- Barbosa MIMJ, Borsarelli CD, Mercadante AZ*// *Univ Estadual Campinas, Fac Food Engn, Dept Food Sci, POB 6121, BR-13083-970 Campinas, SP, Brazil
Food Res Int 2005 **38** (8-9) 989
 Light stability of spray-dried bixin encapsulated with different edible polysaccharide preparations
- Buffet MAJ, Rich JR, McGavin RS, Reimer KB*// *Univ Nthn British Columbia, Dept Chem, 3333 Univ Way, Prince George, Brit Columbia, Canada V2N 4Z9
Carbohydr Res 2004 **339** (15) 2507
 Synthesis of a disaccharide fragment of rhamnogalacturonan II
- Huang HZ, Yang XR*// *Chinese Acad Sci, Changchun Inst Appl Chem, State Key Laboratory Electroanal Chem, Changchun, Jilin, Peoples Rep China
Carbohydr Res 2004 **339** (15) 2627
 Synthesis of polysaccharide-stabilized gold and silver nanoparticles: A green method
- Katayama T, Nakauma M, Todoriki S, Tada M// Okayama Univ, Grad Sch Nat Sci & Technol, 3-1-1 Tsushima naka, Okayama 700 8530, Japan
J Jpn Soc Food Sci Technol 2005 **52** (8) 373
 Effects of irradiation by electron beam on physical properties of food polysaccharides (Japanese, English Abstract)
- Kuhn AV, Ozegowski JH, Peschel G, Neubert RHH*// *Univ Halle Wittenberg, Inst Pharmaceut & Biopharmaceut, Wolfgang Langenbeck Str 4, DE-06120 Halle/Saale, Germany
Carbohydr Res 2004 **339** (15) 2541
 Complementary exploration of the action pattern of hyaluronate lyase from *Streptococcus agalactiae* using capillary electrophoresis, gel-permeation chromatography and viscosimetric measurements
- Pirc ET, Arcon I, Kodre A, Bukovec P// Univ Ljubljana, Fac Chem & Chem Technol, Askercveva 5, SI-1000 Ljubljana, Slovenia
Carbohydr Res 2004 **339** (15) 2549
 Metal-ion environment in solid Mn(II), Co(II) and Ni(II) hyaluronates
- Zhang CX, Huang KX*// *Huazhong Univ Sci & Technol, Dept Chem, 1037 Luoyu Rd, CN-430074 Wuhan, Peoples Rep China
J Ethnopharmacol 2005 **99** (3) 385
 Apoptosis induction on HL-60 cells of a novel polysaccharide from the mucus of the loach, *Misgurnus anguillicaudatus*