



Bibliography of carbohydrate polymers

(5 weeks journals. Search completed July 2010)

1. Reviews

Caramella C, Ferrari F, Bonferoni MC, Rossi S, Sandri G// Univ Pavia, Dept Pharmaceut Chem, Viale Taramelli 12, IT-27100 Pavia, Italy
J Drug Deliv Sci Technol 2010 **20** (1) 5
Chitosan and its derivatives as drug penetration enhancers

Carreira AS, Goncalves FAMM, Mendonca PV, Gil MH, Coelho JFJ// *Univ Coimbra, Chem Engn Dept, Polo II, Pinhal de Marrocos, PT-3030-290 Coimbra, Portugal
Carbohydr Polym 2010 **80** (3) 618
Temperature and pH responsive polymers based on chitosan: Applications and new graft copolymerization strategies based on living radical polymerization

Dona AC, Pages G, Gilbert RG, Kuchel PW// *Univ Sydney, Sch Mol & Microbial Biosci, Sydney, NSW 2006, Australia
Carbohydr Polym 2010 **80** (3) 599

Digestion of starch: *In vivo* and *in vitro* kinetic models used to characterise oligosaccharide or glucose release

Esmaili F, Heuking S, Junginger HE, Borchard G// *Univ Geneva, Sch Pharmaceut Sci, CH-1211 Geneva 4, Switzerland
J Drug Deliv Sci Technol 2010 **20** (1) 53
Progress in chitosan-based vaccine delivery systems

Gaffney J, Matou-Nasri S, Grau-Olivares M, Slevin M// Manchester Metropolitan Univ, Sch Biol Chem & Hlth Sci, Chester St, Manchester M1 5GD, England
Mol Biosyst 2010 **6** (3) 437
Therapeutic applications of hyaluronan

Grenha A, Al-Qadi S, Seijo B, Remunan-Lopez C// *Univ Santiago de Compostela, Fac Pharm, Dept Pharmaceut Technol, ES-15782 Santiago de Compostela, Spain
J Drug Deliv Sci Technol 2010 **20** (1) 33
The potential of chitosan for pulmonary drug delivery

Onishi H// Hoshi Univ, Dept Drug Delivery Res, 2-4-41 Ebara, Shinagawa ku, Tokyo 142 8501, Japan
J Drug Deliv Sci Technol 2010 **20** (1 S1) 15
Chitosan nanoparticles

Sajomsang W// Nat Sci & Technol Dev Agcy, Nanodelivery System Lab, Nat Nanotechnol Ctr, Thailand Sci Park, TH-12120 Pathumthani, Thailand
Carbohydr Polym 2010 **80** (3) 631
Synthetic methods and applications of chitosan containing pyridylmethyl moiety and its quaternized derivatives: A review

Sakloetsakun D, Bernkop-Schnurch A// *Innsbruck Univ, Inst Pharm, Dept Pharmaceut Technol, Innrain 52, Josef Moller Haus, AT-6020 Innsbruck, Austria
J Drug Deliv Sci Technol 2010 **20** (1) 63
Thiolated chitosans

Senel S// Hacettepe Univ, Fac Pharm, Dept Pharmaceut Technol, TR-06100 Ankara, Turkey
J Drug Deliv Sci Technol 2010 **20** (1) 23
Potential applications of chitosan in oral mucosal delivery

Zambito Y, Di Colo G// Univ Pisa, Dept Pharmaceut Sci, Via Bonanno 33, IT-56126 Pisa, Italy
J Drug Deliv Sci Technol 2010 **20** (1) 45
Chitosan and its derivatives as intraocular penetration enhancers

2. Cellulose

Agoda-Tandjawa G, Durand S, Berot S, Blassel C, Gaillard C, Garnier C*, Doublier JL// *INRA UR 1268 Unite Biopolym Interactions Assemblages, FR-44300 Nantes, France
Carbohydr Polym 2010 **80** (3) 677
Rheological characterization of microfibrillated cellulose suspensions after freezing

Almeida EVR, Frollini E, Castellan A, Coma V// *Univ Bordeaux 1, INRA, CNRS UMR 5103 Unite Sci Bois & Biopolym - US2B, 351 Cours de la Liberation, FR-33405 Talence, France

Carbohydr Polym 2010 **80** (3) 655
Chitosan, sisal cellulose, and biocomposite chitosan/sisal cellulose films prepared from thiourea/NaOH aqueous solution

Bian J, Peng F, Xu F*, Sun RC, Kennedy JF// *Beijing Forestry Univ, Inst Biomass Chem & Technol, CN-100083 Beijing, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 753
Fractional isolation and structural characterization of hemicelluloses from *Caragana korshinskii*

Bodvik R, Dedinaite A, Karlson L, Bergstrom M, Baverback P, Pedersen JS, Edward K, Karlsson G, Varga I, Claesson PM// Royal Inst Technol, Dept Chem Surface & Corrosion Sci, Drottning Kristinas Vag 51, SE-10044 Stockholm, Sweden
Colloid Surface A 2010 **354** (1-3) 162

Aggregation and network formation of aqueous methylcellulose and hydroxypropylmethylcellulose solutions

Brackmann C, Bodin A, Akeson M, Gatenholm P, Enejder A// *Chalmers Univ Technol, Dept Biol & Chem Engn, Kemivagen 10, SE-41296 Gothenburg, Sweden
Biomacromolecules 2010 **11** (3) 542
Visualization of the cellulose biosynthesis and cell integration into cellulose scaffolds

Budarin VL, Clark JH*, Lanigan BA, Shuttleworth P, Macquarrie DJ// *Univ York, Green Chem Ctr Excellence, York YO10 5DD, England
Bioresour Technol 2010 **101** (10) 3776
Microwave assisted decomposition of cellulose: A new thermochemical route for biomass exploitation

Castillo-Ortega MM, Romero-Garcia J, Rodriguez F, Najera-Luna A, Herrera-Franco PJ// Univ Sonora, Dept Invest Polimeros & Materiales, AP 130, MX-83000 Hermosillo, Sonora, Mexico
J Appl Polym Sci 2010 **116** (4) 1873
Fibrous membranes of cellulose acetate and poly(vinyl pyrrolidone) by electrospinning method: Preparation and characterization

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 Reviews; 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.

- Cheng HN, Dowd MK, Selling GW, Biswas A// USDA/ARS, Sthn Reg Res Ctr, 1100 Robert E Lee Blvd, New Orleans, La 70124, USA
Carbohydr Polym 2010 **80** (2) 449
 Synthesis of cellulose acetate from cotton byproducts
- Ciacco GT, Morgado DL, Frollini E*, Possidonio S, El Seoud OA// *Univ Sao Paulo, Inst Chem, POB 780, BR-13560-970 Sao Carlos, SP, Brazil
J Brazil Chem Soc 2010 **21** (1) 71
 Some aspects of acetylation of untreated and mercerized sisal cellulose
- Cunha AG, Freire CSR, Silvestre AJD*, Neto CP, Gandini A// *Univ Aveiro, CICECO & Dept Chem, Aveiro, Portugal
Carbohydr Polym 2010 **80** (4) 1048
 Preparation and characterization of novel highly omniphobic cellulose fibers organic-inorganic hybrid materials
- Deng H, Zhou X, Wang X, Zhang C, Ding B, Zhang Q, Du Y*// *Wuhan Univ, Sch Resource & Environm Sci, CN-430079 Wuhan, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 474
 Layer-by-layer structured polysaccharides film-coated cellulose nanofibrous mats for cell culture
- El-Khouly AS, Takahashi Y, Takada A, Safaan AA, Kenawy E, Hafiz YA// Tanta Univ, Fac Sci, Dept Chem, Tanta, Egypt
J Appl Polym Sci 2010 **116** (3) 1788
 Characterization and thermal stability of cellulose-graft-polyacrylonitrile prepared by using KMnO₄/citric acid redox system
- El-Rafie MH, Mohamed AA, Shaheen TI, Hebeish A// Nat Res Ctr, Textile Res Div, Dokki, Cairo, Egypt
Carbohydr Polym 2010 **80** (3) 779
 Antimicrobial effect of silver nanoparticles produced by fungal process on cotton fabrics
- Elanthikkal S, Gopalakrishnanapanicker U*, Varghese S, Guthrie JT// *Nat Inst Technol, Dept Chem, IN-673601 Calicut, India
Carbohydr Polym 2010 **80** (3) 852
 Cellulose microfibrils produced from banana plant wastes: Isolation and characterization
- Fu DB, Mazza G*, Tamaki Y// *Agric & Agri-Food Canada, Pacific Agri-Food Research Centre, 4200 Highway 97, Summerland, Brit Columbia, Canada V0H 1Z0
J Agric Food Chem 2010 **58** (5) 2915
 Lignin extraction from straw by ionic liquids and enzymatic hydrolysis of the cellulosic residues
- Han S, Yoshida D, Kanamoto T, Nakashima H, Uryu T, Yoshida T*// *Kitami Inst Technol, Dept Bio & Environm Chem, 165 Koen-cho, Kitami 090 8507, Hokkaido, Japan
Carbohydr Polym 2010 **80** (4) 1111
 Sulfated oligosaccharide cluster with polylysine core scaffold as a new anti-HIV dendrimer
- Hasegawa T, Matsui T, Matsumoto K// Japan Tobacco Inc, Tobacco Sci Res Ctr, 6-2 Umegaoka, Aoba ku, Kanagawa 227 8512, Japan
J Appl Polym Sci 2010 **116** (3) 1552
 Application of confocal laser scanning microscope technique to visualize dynamic sorption behavior of perylene in cellulose acetate film
- Hasegawa T, Matsui T, Matsumoto K// Japan Tobacco Inc, Tobacco Sci Res Ctr, 6-2 Umegaoka, Aoba ku, Kanagawa 227 8512, Japan
J Appl Polym Sci 2010 **116** (3) 1710
 Comparative study of additives on visualized dynamic sorption behavior of perylene in cellulose acetate film by confocal laser scanning microscope technique
- Jeong TS, Um BH, Kim JS, Oh KK*// *Dankook Univ, Dept Appl Chem Engr, Cheonan 330 714, Chungnam, South Korea
Appl Biochem Biotechnol 2010 **161** (1-8) 22
 Optimizing dilute-acid pretreatment of rapeseed straw for extraction of hemicellulose
- Jung HI, Jeong JH, Lee OM, Park GT, Kim KK, Park HC, Lee SM, Kim YG, Son HJ*// *Pusan Natl Univ, Dept Life Sci & Environm Biochem, Miryang 627 706, South Korea
Bioresour Technol 2010 **101** (10) 3602
 Influence of glycerol on production and structural-physical properties of cellulose from *Acetobacter* sp V6 cultured in shake flasks
- Klemencic D, Simonic B*, Tomsic B, Orel B// *Univ Ljubljana, Fac Nat Sci & Engr, Dept Textiles, Snezniska 5, SI-1000 Ljubljana, Slovenia
Carbohydr Polym 2010 **80** (2) 426
 Biodegradation of silver functionalised cellulose fibres
- Lahiji RR, Xu X, Reifenger R, Raman A, Rudie A, Moon RJ// Purdue Univ, Birck Nanotechnol Ctr, 1205 West State St, West Lafayette, In 47907, USA
Langmuir 2010 **26** (6) 4480
 Atomic force microscopy characterization of cellulose nanocrystals
- Mao X, Ding B*, Wang M, Yin Y// *Donghua Univ, MoE Key Lab Textile Sci & Technol, CN-201620 Shanghai, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 839
 Self-assembly of phthalocyanine and polyacrylic acid composite multilayers on cellulose nanofibers
- Meireles CDS, Filho GR*, Ferreira MF, Cerqueira DA, Assuncao RMN, Ribeiro EAM, Poletto P, Zeni M// *Univ Fed Uberlandia, Inst Quim, Lab Reciclagem Polim, Campus Santa Monica, Av Joao Naves de Avila 2121, Caixa Postal 593, BR-38400-902 Uberlandia, MG, Brazil
Carbohydr Polym 2010 **80** (3) 954
 Characterization of asymmetric membranes of cellulose acetate from biomass: Newspaper and mango seed
- Nguyen VT, Flanagan B, Mikkelsen D, Ramirez S, Rivas L, Gidley MJ, Dykes GA*// *Food Sci Australia, PO Box 3312, Tingalpa DC, Qld 4173, Australia
Carbohydr Polym 2010 **80** (2) 337
 Spontaneous mutation results in lower cellulose production by a *Gluconacetobacter xylinus* strain from Kombucha
- Nunnery GA, Jacob KI, Tannenbaum R*// *Georgia Inst Technol, Sch Materials Sci & Engr, Atlanta, Ga 30332, USA
Polymer 2010 **51** (5) 1082
 Physical gelation of cellulose acetate propionate solutions mediated by metal carbonyl complexes
- Peresin MS, Habibi Y, Zoppe JO, Pawlak JJ, Rojas OJ*// *Nth Carolina State Univ, Dept Forest Biomaterials, Campus Box 8005, Raleigh, NC 27695, USA
Biomacromolecules 2010 **11** (3) 674
 Nanofiber composites of polyvinyl alcohol and cellulose nanocrystals: Manufacture and characterization
- Rajab M, Jouma M, Neubert RH, Dittgen M// POB 1401, Damascus, Syria
Pharmazie 2010 **65** (2) 97
 Optimization of a metformin effervescent floating tablet containing hydroxypropylmethylcellulose and stearic acid
- Ren Q, Zhao T*// *Donghua Univ, MoE Key Lab Textile Sci & Technol, CN-201620 Shanghai, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 381
 Synthesis and application of modified vegetable oils in water-repellent finishing of cotton fabrics
- Rinaldi R, Meine N, vom Stein J, Palkovits R, Schuth F// Max Planck Inst Kohlenforschung, Dept Heterogeneous Catalysis, Kaiser Wilhelm Pl 1, DE-45470 Mulheim, Germany
ChemSusChem 2010 **3** (2) 266
 Which controls the depolymerization of cellulose in ionic liquids: The solid acid catalyst or cellulose?
- Rusli R, Shanmuganathan K, Rowan SJ, Weder C, Eichhorn SJ*// *Univ Manchester, Sch Materials, Materials Sci Ctr, Grosvenor St, Manchester M1 7HS, England
Biomacromolecules 2010 **11** (3) 762
 Stress-transfer in anisotropic and environmentally adaptive cellulose whisker nanocomposites
- Saljoughi E, Amirilargani M, Mohammadi T*// *Iran Univ Sci & Technol, Dept Chem Engr, Res Ctr Membrane Separation Process, Tehran, Iran
J Appl Polym Sci 2010 **116** (4) 2251
 Asymmetric cellulose acetate dialysis membranes: Synthesis, characterization, and performance
- Schmidt VCR, Laurindo JB*// *Univ Fed Santa Catarina, Dept Quim & Engr Alimentos, BR-88040-900 Florianopolis, SC, Brazil
Braz Arch Biol Technol 2010 **53** (1) 185
 Characterization of foams obtained from cassava starch, cellulose fibres and Dolomitic limestone by a thermopressing process
- Suppakul P, Jutakorn K, Bangchokedee Y// Kasetsart Univ, Fac Agro-Ind, Dept Packaging Technol & Materials, 50 Phaholyothin Rd, TH-10900 Bangkok, Thailand
J Food Eng 2010 **98** (2) 207
 Efficacy of cellulose-based coating on enhancing the shelf life of fresh eggs
- Takacs E, Wojnarovits L, Borsa J, Racz I// Hungarian Acad Sci, Inst Isotopes, Budapest, Hungary
Radiat Phys Chem 2010 **79** (4) 467
 Hydrophilic/hydrophobic character of grafted cellulose

Wang M, Xu L*, Li CC, Yue ZY, Zhai ML, Li JQ// *Peking Univ, Coll Chem & Mol Engr, Dept Appl Chem, Beijing Natl Lab Mol Sci, CN-100871 Beijing, Peoples Rep China
Colloid Surface A 2010 **356** (1–3) 89
 Antipolyelectrolyte swelling of amphiphilic hydroxypropyl methylcellulose phthalate gels

Wang Y, Tian H, Zhang L*// *Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 665
 Role of starch nanocrystals and cellulose whiskers in synergistic reinforcement of waterborne polyurethane

Wang YX, Chang CY, Zhang LN*// *Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep China
Macromol Mater Eng 2010 **295** (2) 137
 Effects of freezing/thawing cycles and cellulose nanowhiskers on structure and properties of biocompatible starch/PVA sponges

Watanabe H// Kanagawa Environm Res Ctr, 1-3-39 Shinomiya, Hiratsuka, Kanagawa 254 0014, Japan
Carbohydr Polym 2010 **80** (4) 1168
 The study of factors influencing the depolymerisation of cellulose using a solid catalyst in ionic liquids

Xie K, Wang Y, Xu L// Donghua Univ, Modern Textile Inst, CN-200051 Shanghai, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 480
 Modification of cellulose with reactive polyhedral oligomeric silsesquioxane and nano-crosslinking effect on color properties of dyed cellulose materials

Yang Q, Pan XJ*, Huang F, Li KC// *Univ Wisconsin, Dept Biol System Engr, 460 Henry Mall, Madison, WI 53706, USA
J Phys Chem C 2010 **114** (9) 3811

Fabrication of high-concentration and stable aqueous suspensions of graphene nanosheets by noncovalent functionalization with lignin and cellulose derivatives

Zhou M, Duan X, Ma Y, Zhou Y, Pei C*, Luo Q// *Southwest Univ Sci & Technol, Sch Materials Science & Engr, CN-621010 Mianyang, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 551

Morphology control and optical properties of organic nanostructures based on thermotropic liquid crystalline benzoylated bacterial cellulose

Zhu J, Dong XT, Wang XL*, Wang YZ// *Sichuan Univ, Coll Chem, State Key Lab Polym Materials Engr, Ctr Degradable & Flame-Retardant Polymeric Materials, 29 Wangjiang Rd, CN-610064 Chengdu, Peoples Rep China

Carbohydr Polym 2010 **80** (2) 350
 Preparation and properties of a novel biodegradable ethyl cellulose grafting copolymer with poly(*p*-dioxanone) side-chains

3. Cellulose-degrading enzymes

Barros RRO, Oliveira RA, Gottschalk LMF, Bon EPS// Univ Fed Rio de Janeiro, Rio de Janeiro, Brazil

Appl Biochem Biotechnol 2010 **161** (1–8) 448
 Production of cellulolytic enzymes by fungi *Acrophialophora nainiana* and *Ceratocystis paradoxa* using different carbon sources

Du FY, Wolger E, Wallace L, Liu A, Kaper T, Kelemen B// Genencor Inc, 925 Page Mill Rd, Palo Alto, CA 94304, USA

Appl Biochem Biotechnol 2010 **161** (1–8) 313
 Determination of product inhibition of CBH1, CBH2, and EG1 using a novel cellulase activity assay

Hardiman E, Gibbs M, Reeves R, Bergquist P*// *Macquarie Univ, Dept Chem & Biomol Sci, Biomol Frontiers Res Ctr, Sydney, NSW 2109, Australia
Appl Biochem Biotechnol 2010 **161** (1–8) 301

Directed evolution of a thermophilic β -glucosidase for cellulosic bioethanol production

Smith BT, Knutsen JS, Davis RH*// *Univ Colorado, Dept Biol & Chem Engr, Boulder, CO 80309, USA

Appl Biochem Biotechnol 2010 **161** (1–8) 468
 Empirical evaluation of inhibitory product, substrate, and enzyme effects during the enzymatic saccharification of lignocellulosic biomass

Wang W, Kang L, Lee YY*// *Auburn Univ, Dept Chem Engr, Auburn, AL 36849, USA

Appl Biochem Biotechnol 2010 **161** (1–8) 382
 Production of cellulase from kraft paper mill sludge by *Trichoderma reesei* RUT C-30

Zhao J, Xia LM*// *Zhejiang Univ, Dept Chem & Biochem Engr, CN-310027 Hangzhou, Peoples Rep China
Biochem Eng J 2010 **49** (1) 28
 Ethanol production from corn stover hemicellulosic hydrolysate using immobilized recombinant yeast cells

4. Chitin/Chitosan

Bayramoglu G, Arica MY// Gazi Univ, Fac Arts & Sci, Biochem Process & Biomaterial Res Lab, TR-06500 Ankara, Turkey
J Mol Catal B Enzym 2010 **62** (3–4) 297

Reversible immobilization of catalase on fibrous polymer grafted and metal chelated chitosan membrane

Chang PR, Jian R, Yu J, Ma X*// *Tianjin Univ, Sch Sci, CN-300072 Tianjin, Peoples Rep China
Food Chem 2010 **120** (3) 736

Fabrication and characterisation of chitosan nanoparticles/plasticised-starch composites

Chang PR, Jian R, Yu J, Ma X*// *Tianjin Univ, Sch Sci, CN-300072 Tianjin, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 420

Starch-based composites reinforced with novel chitin nanoparticles

Chanthateyanonth R, Ruchirawat S, Srisithirakul C// Mahidol Univ, Inst Mol Biosci, Nakhon Pathom, Thailand
J Appl Polym Sci 2010 **116** (4) 2074

Preparation of new water-soluble chitosan containing hyperbranched-vinylsulfonic acid sodium salt and their antimicrobial activities and chelation with metals

Chen XC, Song H, Fang T, Bai JX, Xiong J, Ying HJ*// *Nanjing Univ Technol, Coll Life Sci & Pharmaceut Engr, State Key Lab Materials-Oriented Chem Engr, CN-210009 Nanjing, Peoples Rep China

J Appl Polym Sci 2010 **116** (3) 1342
 Preparation, characterization and drug-release properties of pH/temperature-responsive poly (*N*-isopropylacrylamide)/chitosan semi-IPN hydrogen particles

Dang QF, Yan JQ, Li Y, Cheng XJ, Liu CS, Chen XG*// *Ocean Univ China, Coll Marine Life Sci, CN-266003 Qingdao, Peoples Rep China
J Food Sci 2010 **75** (2) S125

Chitosan acetate as an active coating material and its effects on the storing of *Prunus avium* L

Darras V, Nelea M, Winnik FM, Buschmann MD*// *Ecole Polytech Montreal, Chem Engr Dept, Biomaterials & Cartilage Lab, PO Box 6079, Station Centre-Ville, Montreal, Quebec, Canada H3C 3A7

Carbohydr Polym 2010 **80** (4) 1137
 Chitosan modified with gadolinium diethylenetriaminepentaacetic acid for magnetic resonance imaging of DNA/chitosan nanoparticles

De Alvarenga ES, De Oliveira CP, Bellato CR// Univ Fed Vicosa, Dept Quim, BR-36570-000 Vicosa, Minas Gerais, Brazil
Carbohydr Polym 2010 **80** (4) 1155

An approach to understanding the deacetylation degree of chitosan

Dev A, Binulal NS, Anitha A, Nair SV, Furuike T, Tamura H, Jayakumar R*// *Amrita Vishwa Vidyapeetham Univ, Amrita Inst Med Sci & Res Ctr, Amrita Ctr Nanosci & Mol Med, IN-682041 Cochin, India

Carbohydr Polym 2010 **80** (3) 833
 Preparation of poly(lactic acid)/chitosan nanoparticles for anti-HIV drug delivery applications

Duan K, Chen H, Huang J, Yu J*, Liu S, Wang D, Li Y// *East China Normal Univ, Inst Advanced Interdisciplinary Res, CN-200062 Shanghai, Peoples Rep China

Carbohydr Polym 2010 **80** (2) 498
 One-step synthesis of amino-reserved chitosan-graft-polycaprolactone as a promising substance of biomaterial

El-Sherbiny IM// Univ Texas Austin, Coll Pharm, Austin, TX 78712, USA
Carbohydr Polym 2010 **80** (4) 1125

Enhanced pH-responsive carrier system based on alginate and chemically modified carboxymethyl chitosan for oral delivery of protein drugs: Preparation and *in-vitro* assessment

Fajardo AR, Piai JF, Rubira AF, Muniz EC*// *Univ Estadual Maringa, Dept Quim, Grp Materiais Polimericos & Compositos, Av Colombo 5790, BR-87020-900 Maringa, Parana, Brazil

Carbohydr Polym 2010 **80** (3) 934
 Time- and pH-dependent self-rearrangement of a swollen polymer network based on polyelectrolytes complexes of chitosan/chondroitin sulfate

- Fan LH, Yu L, Xu YM, Yi CH, Cai J, Li M, Huang J// Wuhan Univ Technol, Coll Chem Engn, CN-430070 Wuhan, Peoples Rep China
J Appl Polym Sci 2010 **116** (4) 2151
The novel alginate/*N*-succinyl-chitosan antibacterial blend fibers
- Fernandez-Saiz P, Ocio MJ, Lagaron JM// *IATA - CSIC, Novel Materials & Nanotechnol Lab, Apdo Correos 73, ES-46100 Burjassot, Valencia, Spain
Carbohydr Polym 2010 **80** (3) 874
Antibacterial chitosan-based blends with ethylene-vinyl alcohol copolymer
- Fisher A, Watling M, Smith A, Knight A// Archimedes Dev Ltd, Albert Einstein Ctr, Nottingham Sci & Technol Pk, Nottingham NG7 2TN, England
Int J Clin Pharmacol Ther 2010 **48** (2) 138
Pharmacokinetic comparisons of three nasal fentanyl formulations; pectin, chitosan and chitosan-poloxamer 188
- Ganji F, Abdekhoodaie MJ// *Sharif Univ Technol, Dept Chem Engn, Tehran, Iran
Carbohydr Polym 2010 **80** (3) 740
Chitosan-*g*-PLGA copolymer as a thermosensitive membrane
- Gazori T, Harririan I, Fouladdel S, Namazi A, Nomani A, Azizi E// *Tehran Univ Med Sci, Fac Pharm, Dept Pharmacol & Toxicol, Mol Res Lab, PO Box 14155-6451, Tehran, Iran
Carbohydr Polym 2010 **80** (4) 1042
Inhibition of EGFR expression with chitosan/alginate nanoparticles encapsulating antisense oligonucleotides in T47D cell line using RT-PCR and immunocytochemistry
- Gouda M, Keshik SMAS// Nat Res Ctr, Textile Res Div, Cairo, Egypt
Carbohydr Polym 2010 **80** (2) 504
Evaluation of multifunctional properties of cotton fabric based on metal/chitosan film
- Grenha A, Gomes ME, Rodrigues M, Santo VE, Mano JF, Neves NM, Reis RL// Univ Minho, IBB - Inst Biotechnol & Bioengn, Dept Polymer Engn, Res Grp 3Bs, PT-4719 Braga, Portugal
J Biomed Mater Res A 2010 **92A** (4) 1265
Development of new chitosan/carrageenan nanoparticles for drug delivery applications
- Hirase R, Higashiyama Y, Mori M, Takahara Y, Yamane C// Hyogo Prefectural Inst Technol, 3-1-12 Yukihira-cho, Suma ku, Kobe, Hyogo 654 8585, Japan
Carbohydr Polym 2010 **80** (3) 993
Hydrated salts as both solvent and plasticizer for chitosan
- Hu HB, Yu L, Tan SW*, Tu KH, Wang LQ// *Zhejiang Univ, Dept Polymer Sci & Engn, Key Lab Macromol Synth & Functionalization, CN-310027 Hangzhou, Zhejiang, Peoples Rep China
Carbohydr Res 2010 **345** (4) 462
Novel complex hydrogels based on *N*-carboxyethyl chitosan and quaternized chitosan and their controlled *in vitro* protein release property
- Huang SM, Hwang JJ*, Lin LH, Liu HJ, Yeh TC// *Army Acad, Dept Chem Engn, Chungli 320, Taiwan
J Appl Polym Sci 2010 **116** (4) 2227
Interfacial properties of chitosan and nonylphenol polyoxyethylene ether
- Huang YJ, Li LB*, Fang YE// *Univ Sci & Technol China, Natl Synchrotron Radiat Lab, CN-230026 Hefei, Peoples Rep China
J Mater Sci Mater Med 2010 **21** (2) 557
Self-assembled particles of *N*-phthaloylchitosan-*g*-polycaprolactone molecular bottle brushes as carriers for controlled release of indometacin
- Jayasuriya AC, Kibbe S// Univ Toledo, Dept Orthopaedics, 3065 Arlington Ave, Toledo, Oh 43614, USA
J Mater Sci Mater Med 2010 **21** (2) 393
Rapid biomineralization of chitosan microparticles to apply in bone regeneration
- Kadir MFZ, Majid SR, Arof AK// *Univ Malaya, Fac Sci, Dept Phys, MY-50603 Kuala Lumpur, Malaysia
Electrochim Acta 2010 **55** (4) 1475
Plasticized chitosan-PVA blend polymer electrolyte based proton battery
- Kang J, Liu HJ*, Zheng YM, Qu JH, Chen JP// *Chinese Acad Sci, State Key Lab Environm Aquat Chem, Ecoenvironm Sci Res Ctr, 18 Shuangqing Rd, CN-100085 Beijing, Peoples Rep China
J Colloid Interface Sci 2010 **344** (1) 117
Systematic study of synergistic and antagonistic effects on adsorption of tetracycline and copper onto a chitosan
- Kornilova NA, Lipatova IM// Russian Acad Sci, Inst Solution Chem, Ivanovo, Russia
Russ J Appl Chem Eng Tr 2010 **83** (1) 139
Effect of hydroacoustic treatment on structural organization of chitosan solutions
- Kumar PTS, Abhilash S, Manzoor K, Nair SV, Tamura H, Jayakumar R// *Amrita Vishwa Vidyapeetham Univ, Amrita Inst Med Sci & Res Ctr, Amrita Ctr Nanosci, IN-682026 Kochi, India
Carbohydr Polym 2010 **80** (3) 761
Preparation and characterization of novel β -chitin/nanosilver composite scaffolds for wound dressing applications
- Kumar S, Dutta PK*, Sen P// *Motilal Nehru Nat Inst Technol, Dept Chem, IN-211004 Allahabad, India
Carbohydr Polym 2010 **80** (2) 563
Preparation and characterization of optical property of crosslinkable film of chitosan with 2-thiophenecarboxaldehyde
- Li G, Du Y*, Tao Y, Liu Y, Li S, Hu X, Yang J// *Wuhan Univ, Sch Resource & Environm Sci, CN-430079 Wuhan, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 970
Dilute solution properties of four natural chitin in NaOH/urea aqueous system
- Li Y, Wang Y, Wu D, Zhang K, Hu Q// *Zhejiang Univ, Dept Polym Sci & Engn, Zhejiang, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 408
A facile approach to construct three-dimensional oriented chitosan scaffolds with *in-situ* precipitation method
- Li Y, Wu K, Zhitomirsky I// *McMaster Univ, Dept Materials Sci & Engn, 1280 Main St West, Hamilton, Ontario, Canada L8S 4L7
Colloid Surface A 2010 **356** (1-3) 63
Electrodeposition of composite zinc oxide-chitosan films
- Liao F, Chen YY, Li ZB, Wang YN, Shi B, Gong ZC, Cheng XR// *Wuhan Univ, Sch Stomatol, Dept Prosthodont, CN-430072 Wuhan, Peoples Rep China
J Mater Sci Mater Med 2010 **21** (2) 489
A novel bioactive three-dimensional β -tricalcium phosphate/chitosan scaffold for periodontal tissue engineering
- Lipatova I, Makarova LI// RAS, Inst Solution Chem, Ivanovo, Russia
Russ J Appl Chem Eng Tr 2010 **83** (1) 145
Mechanical activation of chitin in aqueous and alcoholic suspensions
- Liu HT, He JL, Li WM, Yang Z, Wang YX, Bai XF, Yu C, Du YG// *CAS, Dalian Inst Chem Phys, Lab Nat Prod & Glyco-Engn Res, 457 Zhong-Shan Rd, CN-116023 Dalian, Peoples Rep China
Carbohydr Polym 2010 **80** (4) 1062
Chitosan oligosaccharides protect human umbilical vein endothelial cells from hydrogen peroxide-induced apoptosis
- Ma PL, Buschmann MD, Winnik FM// *Univ Montreal, Dept Chem, PO 6128, Succ Ctr-ville, Montreal, Quebec, Canada H3C 3J7
Biomacromolecules 2010 **11** (3) 549
One-step analysis of DNA/chitosan complexes by field-flow fractionation reveals particle size and free chitosan content
- Madhumathi K, Kumar PTS, Abhilash S, Sreeja V, Tamura H, Manzoor K, Nair SV, Jayakumar R// *Amrita Vishwa Vidyapeetham Univ, Amrita Inst Med Sci, Amrita Ctr Nanosci, IN-682026 Kochi, India
J Mater Sci Mater Med 2010 **21** (2) 807
Development of novel chitin/nanosilver composite scaffolds for wound dressing applications
- Manrich A, Komesu A, Adriano WS, Tardioli PW, Giordano RLC// *Univ Fed Sao Carlos, Dept Chem Engn, Rod Washington Luz km 235, BR-13565-905 Sao Carlos, SP, Brazil
Appl Biochem Biotechnol 2010 **161** (1-8) 455
Immobilization and stabilization of xylanase by multipoint covalent attachment on agarose and on chitosan supports
- Martins GV, Mano JF, Alves NM// Univ Minho, 3B's Res Grp, AvePark, PT-4806-909 Caldas das Taipas, Guimaraes, Portugal
Carbohydr Polym 2010 **80** (2) 570
Nanostructured self-assembled films containing chitosan fabricated at neutral pH
- Mathew ME, Mohan JC, Manzoor K, Nair SV, Tamura H, Jayakumar R// *Amrita Vishwa Vidyapeetham Univ, Amrita Inst Med Sci & Res Ctr, Amrita Ctr Nanosci & Mol Med, IN-682026 Kochi, India
Carbohydr Polym 2010 **80** (2) 442
Folate conjugated carboxymethyl chitosan-manganese doped zinc sulphide nanoparticles for targeted drug delivery and imaging of cancer cells
- Meng XH, Qin GZ, Tian SP// *Chinese Acad Sci, Inst Bot, Key Lab Photosynth & Environm Mol Physiol, Nanxincun 20, CN-100093 Beijing, Peoples Rep China
LWT Food Sci Technol 2010 **43** (4) 596
Influences of preharvest spraying *Cryptococcus laurentii* combined with postharvest chitosan coating on postharvest diseases and quality of table grapes in storage

- Millotti G, Samberger C, Frohlich E, Sakloetsakun D, Bernkop-Schnurch A// *Leopold Franzens Univ Innsbruck, Inst Pharm, Dept Pharmaceut Technol, Innrain 52c, AT-6020 Innsbruck, Austria
J Mater Chem 2010 **20** (12) 2432
Chitosan-4-mercaptopbenzoic acid: Synthesis and characterization of a novel thiolated chitosan
- Monier M, Wei Y, Sarhan AA, Ayad DM// Drexel Univ, Coll Art & Sci, Dept Chem, Philadelphia, Pa 19104, USA
Polymer 2010 **51** (5) 1002
Synthesis and characterization of photo-crosslinkable hydrogel membranes based on modified chitosan
- Monier M, Wei Y, Sarhan AA// Drexel Univ, Dept Chem, Philadelphia, Pa 19104, USA
J Mol Catal B Enzym 2010 **63** (1-2) 93
Evaluation of the potential of polymeric carriers based on photo-crosslinkable chitosan in the formulation of lipase from *Candida rugosa* immobilization
- Peng HL, Xiong H*, Li JH, Xie MY, Liu YZ, Bai CQ, Chen LX// *Nanchang Univ, State Key Lab Food Sci & Technol, CN-330047 Nanchang, Peoples Rep China
Food Chem 2010 **121** (1) 23
Vanillin cross-linked chitosan microspheres for controlled release of resveratrol
- Peter M, Ganesh N, Selvamurugan N, Nair SV, Furuike T, Tamura H, Jayakumar R// *Amrita Vishwa Vidyapeetham University, Amrita Institute Medical Science & Research Ctr, Amrita Ctr Nanosci & Mol Med, IN-682041 Kochi, India
Carbohydr Polym 2010 **80** (3) 687
Preparation and characterization of chitosan-gelatin/nanohydroxyapatite composite scaffolds for tissue engineering applications
- Quinones JP, Garcia YC, Curiel H, Covas CP// Univ Havana, Fac Chem, Ctr Nat Prod, Havana, Cuba
Carbohydr Polym 2010 **80** (3) 915
Microspheres of chitosan for controlled delivery of brassinosteroids with biological activity as agrochemicals
- Roldo M, Power K, Smith JR, Cox PA, Papagelis K, Bouropoulos N, Fatouros DG// *Univ Portsmouth, Sch Pharm & Biomed Sci, St Michaels Bldg, White Swan Rd, Portsmouth PO1 2DT, England
Nanoscale 2009 **1** (3) 366
N-octyl-O-sulfate chitosan stabilises single wall carbon nanotubes in aqueous media and bestows biocompatibility
- Saber A, Strand SP, Ulfendahl M// Karolinska University Hosp, Dept Otolaryngol, Ctr Hearing & Commun Res, Bldg M1, SE-17176 Stockholm, Sweden
Eur J Pharm Sci 2010 **39** (1-3) 110
Use of the biodegradable polymer chitosan as a vehicle for applying drugs to the inner ear
- Shalumon KT, Anulekha KH, Girish CM, Prasanth R, Nair SV, Jayakumar R// *Amrita Vishwa Vidyapeetham Univ, Amrita Inst Med Sci & Res Ctr, Amrita Ctr Nanosci & Mol Med, IN-682041 Kochi, India
Carbohydr Polym 2010 **80** (2) 413
Single step electrospinning of chitosan/poly(caprolactone) nanofibers using formic acid/acetone solvent mixture
- Srivastava A, Mishra DK, Behari K// *Univ Allahabad, Dept Chem, Polym Sci Res Lab, IN-211002 Allahabad, India
Carbohydr Polym 2010 **80** (3) 790
Graft copolymerization of N-vinyl-2-pyrrolidone onto chitosan: Synthesis, characterization and study of physicochemical properties
- Thanpitcha T, Sirivat A, Jamieson AM, Rujiravanit R// *Chulalongkorn Univ, Petr & Petrochem Coll, Conduct & Electroact Polymers Res Unit, TH-10330 Bangkok, Thailand
J Appl Polym Sci 2010 **116** (3) 1626
Fabrication and properties of solution-cast polyaniline/carboxymethylchitin blend films
- Tsai HS, Wang YZ, Lin JJ, Lien WF// *Nat'l Yunlin Univ Sci & Technol, Dept Cultural Heritage Conservation, Yunlin 640, Taiwan
J Appl Polym Sci 2010 **116** (3) 1686
Preparation and properties of sulfopropyl chitosan derivatives with various sulfonation degree
- Wan MW, Kan CC, Rogel BD, Dalida MLP// Chia-Nan Univ Pharm & Sci, Dept Environm Engn & Sci, Tainan 71710, Taiwan
Carbohydr Polym 2010 **80** (3) 891
Adsorption of copper (II) and lead (II) ions from aqueous solution on chitosan-coated sand
- Xie HG, Li XX, Lv GJ, Xie WY, Zhu J, Luxbacher T, Ma R, Ma XJ// *Chinese Acad Sci, Dalian Inst Chem Phys, Div Biotechnol, Lab Biomed Materials Engn, CN-116023 Dalian, Peoples Rep China
J Biomed Mater Res A 2010 **92A** (4) 1357
Effect of surface wettability and charge on protein adsorption onto implantable alginate-chitosan-alginate microcapsule surfaces
- Xie Y, Hu JG, Wei Y, Hong XW// Nanchang Hangkong Univ, Coll Environm & Chem Engn, 696 Fenghe Stn Rd, CN-330063 Nanchang, Jiangxi, PR China
Polym Degrad Stabil 2009 **94** (10) 1895
Preparation of chitoooligosaccharides by the enzymatic hydrolysis of chitosan
- Yang B, Li X, Shi S, Kong X, Guo G, Huang M, Luo F, Wei Y, Zhao X, Qian Z// *West China Hosp, Sichuan Univ, West China Med Sch, State Key Lab Biotherapy & Canc Ctr, CN-610041 Chengdu, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 860
Preparation and characterization of a novel chitosan scaffold
- Yang Y, Liu X, Yu W, Zhou H, Li X, Ma X// *Chinese Acad Sci, Dalian Inst Chem Phys, Lab Biomed Material Engn, 457 Zhongshan Rd, CN-116023 Dalian, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 733
Homogeneous synthesis of GRGDY grafted chitosan on hydroxyl groups by photochemical reaction for improved cell adhesion
- Yoshida CMP, Bastos CEN, Franco TT// UNICAMP, Fac Chem Engn, Biochem Engn Lab, CP 6066, BR-13081-970 Campinas, SP, Brazil
LWT Food Sci Technol 2010 **43** (4) 584
Modeling of potassium sorbate diffusion through chitosan films
- Zamani A, Henriksson D, Taherzadeh MJ// Univ Boras, Sch Engn, SE-50190 Boras, Sweden
Carbohydr Polym 2010 **80** (4) 1091
A new foaming technique for production of superabsorbents from carboxymethyl chitosan
- Zawadzki J, Kaczmarek H// *Nicolaus Copernicus Univ, Fac Chem, Gagarin 7, PL-87100 Torun, Poland
Carbohydr Polym 2010 **80** (2) 394
Thermal treatment of chitosan in various conditions
- Zhang HL, Wu SH, Tao Y, Zang LQ, Su ZQ// *Guangdong Pharmaceut Univ, Coll Publ Hlth, CN-510240 Guangzhou, Guangdong, Peoples Rep China
J Nanomater 2010 898910
Preparation and characterization of water-soluble chitosan nanoparticles as protein delivery system
- Zhi ZL, Liu B, Jones PM, Pickup JC// KCL, Guys Hosp, Sch Med, Metab Unit, London WC2R 2LS, England
Biomacromolecules 2010 **11** (3) 610
Polysaccharide multilayer nanoencapsulation of insulin-producing beta-cells grown as pseudoislets for potential cellular delivery of insulin
- Zia KM, Zuber M*, Barikani M, Jabbar A, Khosa MK// *GC Univ, Dept Ind Chem, PK-38030 Faisalabad, Pakistan
Carbohydr Polym 2010 **80** (2) 539
XRD pattern of chitin based polyurethane bio-nanocomposites
- Zitouni M, Fortin M, Thibeault JS, Brzezinski R// *Univ Sherbrooke, Fac Sci, Dept Biol, Ctr Etude & Valorisation Diversite Microbienne, Sherbrooke, Quebec, Canada J1K 2R1
Carbohydr Polym 2010 **80** (2) 521
A dye-labelled soluble substrate for the assay of *endo*-chitosanase activity

5. Cyclodextrins

- Csmpesz F, Sule A, Puskas I// Eotvos Lorand Univ, Inst Chem, Lab Colloid & Supramol System, POB 32, HU-1518 Budapest, Hungary
Colloid Surface A 2010 **354** (1-3) 308
Induced surface activity of supramolecular cyclodextrin-statin complexes: Relevance in drug delivery
- Dong T, Mori T, Aoyama T, Inoue Y// *Tokyo Inst Technol, Dept Biomol Engn, Nagatsuta 4259-B55, Midori-ku, Yokohama 226 8501, Japan
Carbohydr Polym 2010 **80** (2) 387
Rapid crystallization of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) copolymer accelerated by cyclodextrin-complex as nucleating agent
- Gunaratne A, Kong XL, Corke H// *Univ Hong Kong, Sci Biol Sci, Pokfulam Rd, Hong Kong, Peoples Rep China
Starch 2010 **62** (2) 69
Functional properties and retrogradation of heat-moisture treated wheat and potato starches in the presence of hydroxypropyl β -cyclodextrin

Hui ZY, Zhang XL, Yu JH, Huang J*, Liang ZS, Wang DX, Huang HT, Xu PH// *Wuhan Univ Technol, Coll Chem Engr, CN-430070 Wuhan, PR China
J Appl Polym Sci 2010 **116** (4) 1894

Carbon nanotube-hybridized supramolecular hydrogel based on PEO-*b*-PPO-*b*-PEO/ α -cyclodextrin as a potential biomaterial

Moya-Ortega MD, Alvarez-Lorenzo C*, Sigurdsson HH, Concheiro A, Loftsson T// *Univ Santiago de Compostela, Fac Pharm, Dept Farm & Tecnol Farmaceut, ES-15782 Santiago de Compostela, Spain
Carbohydr Polym 2010 **80** (3) 900

γ -Cyclodextrin hydrogels and semi-interpenetrating networks for sustained delivery of dexamethasone

Pavlov GM, Korneeva EV, Smolina NA, Schubert US// Eindhoven Univ Technol, Lab Macromol Chem & Nanosci, POB 513, NL-5600 MB Eindhoven, The Netherlands

Eur Biophys J Biophys Lett 2010 **39** (3) 371

Hydrodynamic properties of cyclodextrin molecules in dilute solutions

Tian Y, Yang N, Li Y, Xu X, Zhan J, Jin Z*// *Jiangnan Univ, Sch Food Sci & Technol, 1800 Lihu Rd, CN-214122 Wuxi, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 581

Potential interaction between β -cyclodextrin and amylose-lipid complex in retro-graded rice starch

Zhang G, Liang F, Song X, Liu D, Li M, Wu Q*// *Liaoning Univ, Coll Chem, Educat Dept Liaoning Prov, Key Lab Green Synthesis & Preparative Chem Advanced Materials, CN-110036 Shenyang, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 885

New amphiphilic biodegradable β -cyclodextrin/poly(L-leucine) copolymers: Synthesis, characterization, and micellization

Zhao J, Lin DQ, Wang YC, Yao SJ*// *Zhejiang Univ, Dept Chem & Biol Engr, CN-310027 Hangzhou, Peoples Rep China
Carbohydr Polym 2010 **80** (4) 1085

A novel β -cyclodextrin polymer/tungsten carbide composite matrix for expanded bed adsorption: Preparation and characterization of physical properties

6. Lignin

El Hage R, Brosse N*, Chrusciel L, Sanchez C, Sannigrahi P, Ragauskas A// *Nancy Univ, Fac Sci & Tech, Lab Etud & Rech Materiau Bois, Blvd Aiguillettes, FR-54500 Vandoeuvre-les-Nancy, France
Polym Degrad Stabil 2009 **94** (10) 1632

Characterization of milled wood lignin and ethanol organosolv lignin from *Miscanthus*

Mohamad Ibrahim MN, Ahmed-Haras MR, Sipaut CS, Aboul-Enein HY, Mohamed AA// USM, Sch Chem Sci, MY-11800 Pulau Pinang, Malaysia
Carbohydr Polym 2010 **80** (4) 1102

Preparation and characterization of a newly water soluble lignin graft copolymer from oil palm lignocellulosic waste

8. Pectin

Gharsallaoui A, Yamauchi K, Chambin O, Cases E, Saurel R*// *Univ Bourgogne, ENSBANA, Eau Mol Actives Macromol Activite, 1 Esplanade Erasme, FR-21000 Dijon, France

Carbohydr Polym 2010 **80** (3) 817

Effect of high methoxyl pectin on pea protein in aqueous solution and at oil/water interface

Marounek M, Volek Z, Skrivanova E, Tuma J// Inst Anim Sci, CZ-10400 Prague, Czech Republic
Carbohydr Polym 2010 **80** (3) 989

Effects of amidated pectin alone and combined with cholestyramine on cholesterol homeostasis in rats fed a cholesterol-containing diet

Qiu LP, Zhao GL, Wu H, Jiang L, Li XF*, Liu JJ// *Sth China Univ Technol, Coll Light Ind & Food Sci, State Key Lab Pulp & Paper Engr, CN-510640 Guangzhou, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 126

Investigation of combined effects of independent variables on extraction of pectin from banana peel using response surface methodology

Round AN, Rigby NM, MacDougall AJ, Morris VJ// Univ East Anglia, Sch Pharm, Norwich NR4 7TJ, England
Carbohydr Res 2010 **345** (4) 487

A new view of pectin structure revealed by acid hydrolysis and atomic force microscopy

Saravanan M, Rao KP// Monash Univ, Med & Hlth Sci, Sunway Campus, MY-46150 Sunway, Malaysia

Carbohydr Polym 2010 **80** (3) 808

Pectin-gelatin and alginate-gelatin complex coacervation for controlled drug delivery: Influence of anionic polysaccharides and drugs being encapsulated on physicochemical properties of microcapsules

Sun Y, Cui SW, Tang J, Gu X// Yuncheng Univ, Dept Life Sci, CN-044000 Yuncheng, Peoples Rep China

Carbohydr Polym 2010 **80** (2) 544

Structural features of pectic polysaccharide from *Angelica sinensis* (Oliv.) Diels

Tiwari BK, Muthukumarappan K, O'Donnell CP*, Cullen PJ// Univ Coll Dublin, UCD Sch Agric Food Sci & Veterinary Med, Dublin 4, Rep Ireland
Int J Food Prop 2010 **13** (2) 223

Rheological properties of sonicated guar, xanthan and pectin dispersions

9. Starch

Arocas A, Sanz T, Salvador A, Varella P, Fiszman SM*// *CSIC, Inst Agroquim & Tecnol Alimentos, Apartado Correos 73, ES-46100 Valencia, Spain

J Food Sci 2010 **75** (2) S132

Sensory properties determined by starch type in white sauces: Effects of freeze/thaw and hydrocolloid addition

Butrim SM, Bil'dyukevich TD, Butrim NS, Yurkshtovich TL// Belarusian State Univ, Res Inst Physicochem Problems, BY-220050 Minsk, Byelarus
Russ J Appl Chem Eng Tr 2010 **83** (1) 134

Sulfation of carboxy starch with sodium pyrosulfate in dimethyl sulfoxide

Cao XD, Tao YZ, Lucia LA*, Zhang LN// *Nth Carolina State Univ, Dept Wood & Paper Sci, Raleigh, NC 27695, USA

J Appl Polym Sci 2010 **116** (3) 1299

Preparation and properties of polyurethane/benzyl amylose semi-interpenetrating networks

Chan HT, Bhat R, Karim AA*// *Univ Sains Malaysia, Sch Ind Technol, Food Technol Div, Food Biopolymer Sci Res Grp, MY-11800 Minden, Penang, Malaysia

Food Chem 2010 **120** (3) 703

Effects of sodium dodecyl sulphate and sonication treatment on physicochemical properties of starch

Chantaro P, Pongsawatmanit R*// *Kasetsart Univ, Fac Agro-Ind, Prod Dev Dept, 50 Phaholyothin Rd, TH-10900 Bangkok, Thailand

J Food Eng 2010 **98** (1) 44

Influence of sucrose on thermal and pasting properties of tapioca starch and xanthan gum mixtures

Chung HJ, Liu Q*, Hoover R// *Agric & Agri-Food Canada, Guelph Food Res Ctr, 93 Stone Rd West, Guelph, Ontario, Canada N1G 5C9

Food Res Int 2010 **43** (2) 501

Effect of single and dual hydrothermal treatments on the crystalline structure, thermal properties, and nutritional fractions of pea, lentil, and navy bean starches

Chung YL, Lai HM*// *Nat Taiwan Univ, Dept Agric Chem, 1 Roosevelt Rd Sec 4, Taipei 10617, Taiwan

Carbohydr Polym 2010 **80** (2) 525

Preparation and properties of biodegradable starch-layered double hydroxide nanocomposites

Dai HG, Chang PR, Yu JG*, Geng FY, Ma XF// *Tianjin Univ, Sch Sci, CN-300072 Tianjin, Peoples Rep China

Starch 2010 **62** (2) 86

Relationship of thermoplastic starch crystallinity to plasticizer structure

Das AB, Singh G, Singh S, Riar CS*// *SLIET, Dept Food Engr & Technol, IN-148106 Longowal, India

Carbohydr Polym 2010 **80** (3) 725

Effect of acetylation and dual modification on physico-chemical, rheological and morphological characteristics of sweet potato (*Ipomoea batatas*) starch

Deleo C, Goetz J, Young B, Velankar SS*// *Univ Pittsburgh, Dept Chem Engr, Pittsburgh, Pa 15261, USA

J Appl Polym Sci 2010 **116** (3) 1775

Renewable elastomers based on blends of maleated polypropylene and plasticized starch

Freire C, Podczek F, Ferreira D, Veiga F, Sousa J, Pena A// Univ Coimbra, Fac Pharm, PT-3000-548 Coimbra, Portugal

J Pharm Pharmacol 2010 **62** (1) 55

Assessment of the *in-vivo* drug release from pellets film-coated with a dispersion of high amylose starch and ethylcellulose for potential colon delivery

- Geng F, Chang PR, Yu J*, Ma X// *Tianjin Univ, Sch Sci, CN-300072 Tianjin, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 360
 The fabrication and the properties of pretreated corn starch laurate
- Guardeno LM, Catala-Civera JM, Plaza-Gonzalez P, Sanz T, Salvador A, Fiszman SM*, Hernando I// *CSIC, Inst Agroquim & Tecnol Alimentos, Apartado Correos 73, ES-46100 Valencia, Spain
J Food Eng 2010 **98** (1) 34
 Dielectrical, microstructural and flow properties of sauce model systems based on starch, gums and salt
- Guessasma S, Chaunier L, Lourdin D// INRA, BIA, rue Geraudiere, FR-44130 Nantes, France
J Food Eng 2010 **98** (2) 150
 Finite element modelling of the mechanical behaviour of vitreous starch/protein composite
- Herceg Z, Batur V, Jambrak AR, Badanjak M, Brncic SR, Lalas V// Univ Zagreb, Fac Food Technol & Biotechnol, Pierottijeva 6, Zagreb, Croatia
Carbohydr Polym 2010 **80** (4) 1072
 Modification of rheological, thermophysical, textural and some physical properties of corn starch by tribomechanical treatment
- Iturriaga LB, De Mishima BL, Anon MC// FAYA-UNSE, Inst Ciencias Quim, Av Belgrano S 1912, AR-4200 Santiago del Estero, Argentina
LWT Food Sci Technol 2010 **43** (4) 670
 A study of the retrogradation process in five Argentine rice starches
- Jiang H, Horner HT, Pepper TM, Blanco M, Campbell M, Jane JL*// *Iowa State Univ, Dept Food Sci & Human Nutr, Ames, Ia 50011, USA
Carbohydr Polym 2010 **80** (2) 533
 Formation of elongated starch granules in high-amylose maize
- Jiang Y, Ju B*, Zhang S, Yang J// *Dalian Univ Technol, State Key Lab Fine Chem, CN-116012 Dalian, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 467
 Preparation and application of a new cationic starch ether - starch-methylene dimethylamine hydrochloride
- Lee SH, Hwang SO, Shin M*// *Chonnam Natl Univ, Dept Food & Nutr, Kwangju 500 757, South Korea
Food Sci Biotechnol 2010 **19** (1) 63
 Properties of novel starch isolated from *Castanopsis cuspidate* fruit in a subtropical zone of Korea
- Li X, Gao WY*, Huang LJ, Wang YL, Huang LQ, Liu CX// *Tianjin Univ, Sch Pharmaceut Sci & Technol, CN-300072 Tianjin, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 768
 Preparation and physicochemical properties of carboxymethyl *Fritillaria ussuriensis* Maxim. starches
- Lundstrom-Hamala L, Johansson E, Wagberg L*// *KTH Div Fibre Technol, Teknikringen 58, SE-10044 Stockholm, Sweden
Starch 2010 **62** (2) 102
 Polyelectrolyte multilayers from cationic and anionic starch: Influence of charge density and salt concentration on the properties of the adsorbed layers
- Mahkam M// Azarbaijan Univ Tarbiat Moallem, Dept Chem, Tabriz, Iran
J Biomed Mater Res A 2010 **92A** (4) 1392
 Starch-based polymeric carriers for oral-insulin delivery
- Moreira S, Da Costa RMG, Guardao L, Gartner F, Vilanova M, Gama M*// *Univ Minho, Inst Biotechnol & Bioengn - IBB, Ctr Biol Engn, Campus Gualtar, PT-4710-057 Braga, Portugal
J Bioact Compat Polym 2010 **25** (2) 141
 In vivo biocompatibility and biodegradability of dextrin-based hydrogels
- Mu CD, Liu F, Cheng QS, Li HL, Wu B, Zhang GZ, Lin W*// *Sichuan Univ, Dept Pharmaceut & Bioengn, Natl Engn Lab Clean Technol Leather Manufacture, CN-610065 Chengdu, Sichuan, Peoples Rep China
Macromol Mater Eng 2010 **295** (2) 100
 Collagen cryogel cross-linked by dialdehyde starch
- Najemi L, Jeanmaire T, Zerroukhi A*, Raihane M// *Univ St Etienne, Dept Chim, 23 rue Dr Paul Michelon, FR-42023 St Etienne 2, France
Starch 2010 **62** (2) 90
 Isocyanate-free route to starch-graft-polycaprolactone via carbonyldiimidazole (CDI)-mediated end group conversion
- Peerapattana J, Phuvarit P, Srijesdaruk V, Preechagoon D, Tattawasart A// Khon Kaen Univ, Dept Pharmaceut Technol, TH-40002 Khon Kaen, Thailand
Carbohydr Polym 2010 **80** (2) 453
 Pregelatinized glutinous rice starch as a sustained release agent for tablet preparations
- Phetwarotai W, Potiyaraj P, Aht-Ong D*// *Chulalongkorn Univ, Fac Sci, Dept Materials Sci, TH-10330 Bangkok, Thailand
J Appl Polym Sci 2010 **116** (4) 2305
 Properties of compatibilized polylactide blend films with gelatinized corn and tapioca starches
- Pielichowska K, Pielichowski K// AGH Univ Sci & Technol, Fac Materials Sci & Ceramics, Dept Biomaterials, Al Mickiewicza 30, PL-30059 Krakow, Poland
J Appl Polym Sci 2010 **116** (3) 1725
 Novel biodegradable form stable phase change materials: Blends of poly(ethylene oxide) and gelatinized potato starch
- Rakszegi M, Bognar Z, Li Z, Bekes F, Lang L, Bedo Z// Hungarian Acad Sci, Agric Res Inst, POB 19, HU-2462 Martonvasar, Hungary
Starch 2010 **62** (2) 115
 Effect of milling on the starch properties of winter wheat genotypes
- Robin F, Engmann J, Pineau N, Chanvrier H, Bovet N, Della Valle G// Nestle Res Ctr, Dept Food Sci & Technol, POB 44, CH-1000 Lausanne 26, Switzerland
J Food Eng 2010 **98** (1) 19
 Extrusion, structure and mechanical properties of complex starchy foams
- Sakauchi S, Hattori M, Yoshida T, Yagishita T, Ito K, Akemitsu S, Takahashi K*// *Tokyo Univ Agric & Technol, Fac Agric, Dept Appl Biol Sci, Tokyo 183 8509, Japan
J Food Sci 2010 **75** (2) C177
 Thermal behavior of potato starch and water-vaporization behavior of its paste controlled with amino acid and peptide-rich food materials
- Staroszczyk H, Janas P// Gdansk Univ Technol, Chem Fac, Dept Food Chem Technol & Biotechnol, G Narutowicza 11/12, PL-80233 Gdansk, Poland
Carbohydr Polym 2010 **80** (3) 962
 Microwave-assisted synthesis of zinc derivatives of potato starch
- Talou MH, Villar MA, Camerucci MA// UNMDP-CONICET, INTEMA, Div Ceramicos, Lab Materiales Estructurales, Av JB Justo 4302, AR-7600 Mar del Plata, Argentina
Ceram Int 2010 **36** (3) 1017
 Thermogelling behaviour of starches to be used in ceramic consolidation processes
- Vechambre C, Chaunier L, Lourdin D*// *INRA UR1268, Unite Biopolymeres Interactions & Assemblages, FR-44300 Nantes, France
Macromol Mater Eng 2010 **295** (2) 115
 Novel shape-memory materials based on potato starch
- Wang Y, Xie W*// *Henan Univ Technol, Sch Chem & Chem Engr, CN-450052 Zhengzhou, Peoples Rep China
Carbohydr Polym 2010 **80** (4) 1172
 Synthesis of cationic starch with a high degree of substitution in an ionic liquid
- Woehl MA, Canestraro CD, Mikowski A, Sierakowski MR, Ramos LP, Wypych F*// *Univ Fed Parana, Dept Quim, Ctr Pesquisas Quim Aplicada, CP 19081, BR-81531-980 Curitiba, PR, Brazil
Carbohydr Polym 2010 **80** (3) 866
 Bionanocomposites of thermoplastic starch reinforced with bacterial cellulose nanofibres: Effect of enzymatic treatment on mechanical properties
- Xu Y, Ding W, Liu J, Li Y, Kennedy JF, Gu Q, Shao S*// *Chinese Acad Sci, Ningbo Inst Material Technol & Engr, Ningbo Key Lab Polym Materials, CN-315201 Zhejiang, Peoples Rep China
Carbohydr Polym 2010 **80** (4) 1078
 Preparation and characterization of organic-soluble acetylated starch nanocrystals
- Zhang ZM, Zhao SM, Xiong SB*// *Huazhong Agric Univ, Coll Food Sci & Technol, CN-430070 Wuhan, Peoples Rep China
Starch 2010 **62** (2) 78
 Synthesis of octenyl succinic derivative of mechanically activated indica rice starch

10. Starch-degrading enzymes

- Monnet D, Joly C, Dole P, Bliard C*// *CNRS UMR 6229 ICMR URCA, CPCB Moulin de la Housse, FR-51687 Reims 2, France
Carbohydr Polym 2010 **80** (3) 747
 Enhanced mechanical properties of partially β -amylase trimmed starch for material applications
- Shrestha AK, Ng CS, Lopez-Rubio A, Blazek J, Gilbert EP, Gidley MJ*// *Univ Queensland, Ctr Nutr & Food Sci, St Lucia, Qld 4072, Australia
Carbohydr Polym 2010 **80** (3) 699
 Enzyme resistance and structural organization in extruded high amylose maize starch

11. Polysaccharides - Microbial

- Bahl MA, Schultheis E, Hempel DC, Nortemann B, Franco-Lara E*// *Tech Univ Braunschweig, Inst Biochem Engn, DE-38106 Braunschweig, Germany
Carbohydr Polym 2010 **80** (4) 1037
Recovery and purification of the exopolysaccharide PS-EDIV from *Sphingomonas pituitosa* DSM 13101
- Chen X, Wang W, Li S, Xue J, Fan L, Sheng Z, Chen Y// YanCheng 1st People Hosp, Dept Obstet & Gynecol, CN-224000 YanCheng City, Jiangsu, PR China
Carbohydr Polym 2010 **80** (3) 944
Optimization of ultrasound-assisted extraction of Lingzhi polysaccharides using response surface methodology and its inhibitory effect on cervical cancer cells
- Don MM, Shoparwe NF// Univ Sains Malaysia, Sch Chem Engn, 14300 Nibong Tebal, Seberang Perai Sth, Penang, Malaysia
Biochem Eng J 2010 **49** (1) 95
Kinetics of hyaluronic acid production by *Streptococcus zooepidemicus* considering the effect of glucose
- Elboutachfai R, Petit E, Beuvain C, Courtois B, Courtis J, Delattre C// Univ Picardie Jules Verne, LPMV, Ave Faculte, Le Bailly, FR-80025 Amiens 1, France
Carbohydr Polym 2010 **80** (2) 485
Development of new ulvan-like polymer by regioselective oxidation of gellan exopolysaccharide using TEMPO reagent
- Feng YL, Li WQ*, Wu XQ, Cheng JW, Ma SY// *Zhejiang Univ, Coll Life Sci, Inst Microbiol, 388 Yuhangtang Rd, CN-310058 Hangzhou, Zhejiang, Peoples Rep China
Biochem Eng J 2010 **49** (1) 104
Statistical optimization of media for mycelial growth and *exo*-polysaccharide production by *Lentinus edodes* and a kinetic model study of two growth morphologies
- Freitas F, Alves VD, Pais J, Carvalheira M, Costa N, Oliveira R, Reis MAM*// *Univ Nova Lisboa, FCT, Dept Chem, ReQuimTe, CQFB, PT-2829-516 Caparica, Portugal
Process Biochem 2010 **45** (3) 297
Production of a new exopolysaccharide (EPS) by *Pseudomonas oleovorans* NRRL B-14682 grown on glycerol
- Gumus T, Demirci AS, Mirik M, Arici M, Aysan Y// Namik Kemal Univ, Fac Agric, Dept Food Engn, TR-59030 Tekirdag, Turkey
Food Sci Biotechnol 2010 **19** (1) 201
Xanthan gum production of *Xanthomonas* spp. isolated from different plants
- Guo X, Zou X, Sun M*// *Southwest Univ, Sch Life Sci, MoE Key Lab Eco-Environm Three Gorges Reservoir Reg, 2 Tian Sheng Rd, Beibei, CN-400715 Chongqing, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 344
Optimization of extraction process by response surface methodology and preliminary characterization of polysaccharides from *Phellinus igniarius*
- HadjSadok A, Moulai-Mostefa N*, Rebiha M// *Univ Yahia Fares Medea, LPTRR, DZ-26001 Ain d'Heb, Medea, Algeria
Int J Food Prop 2010 **13** (2) 369
Rheological properties and phase separation of xanthan-sodium caseinate mixtures analyzed by a response surface method
- Jensen JSRE, Petersen BO, Veselinovic T, Olafsdottir ES, Duus JO, Omarsdottir S*// *Univ Iceland, Fac Pharmaceut Sci, Sch Hlth Sci, Hagi, Hofsvallagata 53, IS-107 Reykjavik, Iceland
Carbohydr Polym 2010 **80** (3) 799
Structural characterisation of a new *O*-methylated heteroglycan, colleman, from the cyanolichen *Collema flaccidum*
- Kishikawa Y, Wiegand S*, Kita R// *Tokai Univ, Dept Phys, Kanagawa 259 1292, Japan
Biomacromolecules 2010 **11** (3) 740
Temperature dependence of sorption coefficient in aqueous and nonaqueous solutions of pullulan
- Lee JS, Kwon JS, Yun JS, Park JW, Shin WC, Lee SY, Hong EK*// *Kangwon Nat Univ, Coll Engn, Dept Bioengn & Technol, 192-1 Hoyoja-2-dong, Chuncheon, Gangwon-do 200 701, South Korea
Carbohydr Polym 2010 **80** (4) 1011
Structural characterization of immunostimulating polysaccharide from cultured mycelia of *Cordyceps militaris*
- Leiva A, Munoz N, Urzua M, Gargallo L, Radic D// Pontificia Univ Catolica Chile, Fac Quim, Dept Quim Fis, Casilla 302, Correo 22, Santiago, Chile
J Brazil Chem Soc 2010 **21** (1) 78
Monolayers and thin films of dextran hydrophobically modified
- Li N, Hu YL, He CX, Hu CJ, Zhou J, Tang GP, Gao JQ*// *Zhejiang Univ, Coll Pharmaceut Sci, Inst Pharmaceut, CN-310058 Hangzhou, Zhejiang, Peoples Rep China
J Pharm Pharmacol 2010 **62** (1) 139
Preparation, characterisation and anti-tumor activity of *Ganoderma lucidum* polysaccharide nanoparticles
- Ma Z, Wang J, Zhang L*, Zhang Y, Ding K// *Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 977
Evaluation of water soluble β -D-glucan from *Auricularia auricular-judae* as potential anti-tumor agent
- Massaldi H, Bessio MI, Suarez N, Texeira E, Rossi S, Ferrera F// Univ Republica, Fac Med, Inst Higiene, Dept Desarrollo Biotecnol & Prod, Montevideo, Uruguay
Biotechnol Appl Biochem 2010 **55** (1) 37
Features of bacterial growth and polysaccharide production of *Streptococcus pneumoniae* serotype 14
- Mundargi RC, Shelke NB, Babu VR, Patel P, Rangaswamy V, Aminabhavi TM*// *Reliance Life Sci PVT Ltd, Ind Biotechnol Grp, Dhirubhai Ambani Life Sci Ctr, IN-400701 Navi Mumbai, India
J Appl Polym Sci 2010 **116** (3) 1832
Novel thermo-responsive semi-interpenetrating network microspheres of gellan gum-poly(*N*-isopropylacrylamide) for controlled release of atenolol
- Pan D, Mei X// Ningbo Univ, Life Sci & Biotechnol Coll, CN-315211 Ningbo, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 908
Antioxidant activity of an exopolysaccharide purified from *Lactococcus lactis* subsp. *lactis* 12
- Pan Y, Hao Y, Chu T, Li C, Zhang Z, Zhou Y*// *Xinqiao Hospital, Third Military Medical Univ, Dept Orthopaedics, CN-400037 Chongqing, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 922
Ultrasonic-assisted extraction, chemical characterization of polysaccharides from Yunzhi mushroom and its effect on osteoblast cells
- Saboktakin MR, Tabatabaie RM, Maharramov A, Ramazanov MA// International Research Inst Arian Chemie Gostar, Nanostruct Materials Synthesis Lab, Tabriz, Iran
Carbohydr Polym 2010 **80** (3) 695
A synthetic macromolecule as MRI detectable drug carriers: Aminodextran-coated iron oxide nanoparticles
- Seesuriyachan P, Techapun C, Shinkawa H, Sasaki K*// *Hiroshima Kokusai Gakuin University, Graduate Sch Engn, 6-20-1 Nakano, Hiroshima 739 0321, Japan
Biosci Biotechnol Biochem 2010 **74** (2) 423
Solid state fermentation for extracellular polysaccharide production by *Lactobacillus confusus* with coconut water and sugar cane juice as renewable wastes
- Seto H, Ohto K, Hardada H, Takisawa N, Kawakita H*// *Saga Univ, Fac Sci & Engn, 1-Honjo, Saga 840 8502, Japan
Carbohydr Polym 2010 **80** (4) 1183
Rheological properties of keto-sugars with high-density carbonyl groups
- Shi WL, Han H, Chen GZ, Chen X, Hong YK, Chen LK, Chen D, Lu Z*// *Taizhou Hosp Zhejiang Province, Dept Cardiol, Taizhou, Zhejiang Prov, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 774
Extraction, characterization of the polysaccharide extracts from Se-enriched *G. lucidum* (Se-GLP) and its inhibition against oxidative damage in ischemic reperfusion mice
- Singh RS, Saini GK, Kennedy JF// Punjabi Univ, Dept Biotechnol, Carbohydr & Protein Biotechnol Lab, IN-147002 Patiala, Punjab, India
Carbohydr Polym 2010 **80** (2) 401
Maltotriose syrup preparation from pullulan using pullulanase
- Sun Y, Li T, Liu J// Qiqihar Med Univ, Dept Med Chem & Biomacromol, CN-161042 Qiqihar, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 377
Structural characterization and hydroxyl radicals scavenging capacity of polysaccharide from the fruiting bodies of *Auricularia polytricha*
- Sun Y, Li X, Yang J, Liu J, Kennedy JF// Qiqihar Med Univ, Dept Med Chem & Biomacromol, CN-161042 Qiqihar, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 720
Water-soluble polysaccharide from the fruiting bodies of *Chroogomphus rutilus* (Schaeff.: Fr) O.K. Miller: Isolation, structural features and its scavenging effect on hydroxyl radical

Wang ZY, Zhang ZQ, McCallum SA, Linhardt RJ// *Rensselaer Polytech Inst, Biotechnol Ctr, 110 8th St, Troy, NY 12180, USA
Anal Biochem 2010 **398** (2) 275

Nuclear magnetic resonance quantification for monitoring heparosan K5 capsular polysaccharide production

Wu SJ, Chen HQ, Jin ZY*, Tong QY// *Jiangnan Univ, Sch Food Sci & Technol, 1800 Lihu Rd, CN-214122 Wuxi, Peoples Rep China
World J Microbiol Biotechnol 2010 **26** (4) 737

Effect of two-stage temperature on pullulan production by *Aureobasidium pullulans*

Zhao L, Dong Y, Chen G, Hu Q*// *Nanjing Agric Univ, Coll Food Sci & Technol, CN-210095 Weigang, Nanjing, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 783

Extraction, purification, characterization and antitumor activity of polysaccharides from *Ganoderma lucidum*

Zhu D, Damodaran S, Lucey JA*// *Univ Wisconsin, Dept Food Sci, 1605 Linden Dr, Madison, WI 53706, USA
J Agric Food Chem 2010 **58** (5) 2988

Physicochemical and emulsifying properties of whey protein isolate (WPI)-dextran conjugates produced in aqueous solution

12. Polysaccharides - Plant

Alves-Prado HF, Pavezzi FC, Leite RSR, De Oliveira VM, Sette LD, DaSilva R// UNESP - Sao Paulo State Univ, Fac Engn, DFTASE, Ave Brasil 56, BR-15385-000 Sao Paulo, Brazil

Appl Biochem Biotechnol 2010 **161** (1-8) 333

Screening and production study of microbial xylanase producers from Brazilian cerrado

Brun-Graepi AKAS, Richard C, Bessodes M, Scherman D, Narita T, Ducouret G, Merten OW*// *Genethon, 1 bis rue Internationale, BP 60, FR-91002 Evry, France

Carbohydr Polym 2010 **80** (2) 555

Study on the sol-gel transition of xyloglucan hydrogels

Chang MC, Chien WF, Chao CH, Lu MK*// *Nat Res Inst Chinese Med, 155-1 Li-Nung St Sec 2, Shipai, Peitou, Taipei 112, Taiwan

Carbohydr Polym 2010 **80** (2) 373

Effects of cold stress on alterations of physicochemical and chemical properties of rice polysaccharides

Chen R, Meng F, Liu Z*, Chen R, Zhang M// *Chinese Acad Sci, Changchun Inst Appl Chem, CN-130022 Changchun, Peoples Rep China

Carbohydr Polym 2010 **80** (3) 845

Antitumor activities of different fractions of polysaccharide purified from *Ornithogalum caudatum* Ait

Doyle JP, Giannouli P, Rudolph B, Morris ER*// *Univ Coll Cork, Dept Food & Nutr Sci, Cork, Rep Ireland

Carbohydr Polym 2010 **80** (3) 648

Preparation, authentication, rheology and conformation of τ carrageenan

Duan J, Lu Q, Chen R, Duan Y, Wang L, Gao L, Pan S*// *Huazhong Agric University, Coll Food Sci & Technol, CN-430070 Wuhan, Hubei, Peoples Rep China

Carbohydr Polym 2010 **80** (2) 436

Synthesis of a novel flocculant on the basis of crosslinked konjac glucomannan-graft-polyacrylamide-co-sodium xanthate and its application in removal of Cu^{2+} ion

El-Meligy MG, Mohamed SH, Mahani RM// Nat Res Ctr, Cell & Paper Dept, Dokki, Cairo, Egypt

Carbohydr Polym 2010 **80** (2) 366

Study mechanical, swelling and dielectric properties of prehydrolysed banana fiber - waste polyurethane foam composites

Fenoradosa TA, Ali G, Delattre C, Laroche C, Petit E, Wadouachi A, Michaud P*// *Univ Clermont Ferrand, Lab Genie Chim & Biochim, Ave Landais, FR-63174 Aubiere, France

J Appl Phycol 2010 **22** (2) 131

Extraction and characterization of an alginate from the brown seaweed *Sargassum turbinarioides* Grunow

Karmakar P, Pujol CA, Damonte EB, Ghosh T, Ray B*// *Univ Burdwan, Dept Chem, Nat Prod Lab, IN-713104 Burdwan, West Bengal, India

Carbohydr Polym 2010 **80** (2) 513

Polysaccharides from *Padina tetrastrum*: Structural features, chemical modification and antiviral activity

Kim C, Ryu HJ, Kim SH, Yoon JJ, Kim HS*, Kim YJ// *Kyung Hee Univ, Dept Chem, Seoul 130 701, South Korea

Bull Korean Chem Soc 2010 **31** (2) 511

Acidity tunable ionic liquids as catalysts for conversion of agar into mixed sugars

Kuang X, Kuang R, Zheng X, Wang Z*// *Univ Jinan, Coll Chem & Chem Engrn, CN-250022 Jinan, Peoples Rep China

Carbohydr Polym 2010 **80** (3) 927

Mechanical properties and size stability of wheat straw and recycled LDPE composites coupled by waterborne coupling agents

Leick S, Henning S, Degen P, Suter D, Rehage H// Tech Univ Dortmund, Dept Phys Chem II, Otto Hahn Str 6, DE-44227 Dortmund, Germany

Phys Chem Chem Phys 2010 **12** (12) 2950

Deformation of liquid-filled calcium alginate capsules in a spinning drop apparatus

Lin HY, Ciou SY// Nat Taipei Univ Technol, Dept Chem Engrn & Biotechnol, 1 Sec 3 Zhongxiao East Rd, Taipei 106, Taiwan

Carbohydr Polym 2010 **80** (2) 574

Modifications of alginate-based scaffolds and characterizations of their pentoxifylline release properties

Liu S, Elmer C, Low NH, Nickerson MT*// *University Saskatchewan, Dept Food & Bioprod Sci, 51 Campus Dr, Saskatoon, Saskatchewan, Canada S7N 5A8

Food Res Int 2010 **43** (2) 489

Effect of pH on the functional behaviour of pea protein isolate-gum Arabic complexes

Machida-Sano I, Matsuda Y, Namiki H// Waseda Univ, Sch Educat, Dept Biol, 2-2 Wakamatsu cho, Shinjuku ku, Tokyo 162 8480, Japan

Biotechnol Appl Biochem 2010 **51** (1) 1

A novel harvesting method for cultured cells using iron-cross-linked alginate films as culture substrates

Marcuzzo E, Sensidoni A, Debeaufort F*, Voilley A// *IUT-Dijon, Dept BioEngrn, Blvd Docteur Petitjean, BP 17867, FR-21078 Dijon, France

Carbohydr Polym 2010 **80** (3) 984

Encapsulation of aroma compounds in biopolymeric emulsion based edible films to control flavour release

Papageorgiou SK, Kouvelos EP, Favvas EP, Sapalidis AA, Romanos GE, Katsaros FK// NCSR Demokritos, Inst Phys Chem, GR-15310 Aghia Paraskevi, Greece

Carbohydr Res 2010 **345** (4) 469

Metal-carboxylate interactions in metal-alginate complexes studied with FTIR spectroscopy

Pongjanyakul T, Suksri H// Khon Kaen Univ, Fac Pharmaceut Sci, TH-40002 Khon Kaen, Thailand

Carbohydr Polym 2010 **80** (4) 1018

Nicotine-loaded sodium alginate-magnesium aluminum silicate (SA-MAS) films: Importance of SA-MAS ratio

Raphael E, Avellaneda CO, Manzolli B, Pawlicka A*// *Univ Sao Paulo, IQSC, CP 780, BR-13560-970 Sao Carlos, SP, Brazil

Electrochim Acta 2010 **55** (4) 1455

Agar-based films for application as polymer electrolytes

Sand A, Yadav M, Mishra DK*, Behari K// *Univ Allahabad, Dept Chem, Polym Sci Res Lab, IN-211002 Allahabad, India

Carbohydr Polym 2010 **80** (4) 1147

Modification of alginate by grafting of *N*-vinyl-2-pyrrolidone and studies of physicochemical properties in terms of swelling capacity, metal-ion uptake and flocculation

Song H, Zhang Q*, Zhang Z, Wang J// *Chinese Acad Sci, Inst Oceanol, CN-266071 Qingdao, Peoples Rep China

Carbohydr Polym 2010 **80** (4) 1057

In vitro antioxidant activity of polysaccharides extracted from *Bryopsis plumosa*

Sun Y, Liu J, Kennedy JF// Qiqihar Med Univ, Dept Med Chem & Biomacromol, CN-161042 Qiqihar, Peoples Rep China

Carbohydr Polym 2010 **80** (3) 949

Application of response surface methodology for optimization of polysaccharides production parameters from the roots of *Codonopsis pilosula* by a central composite design

Swain MR, Ray RC*// *Cent Tuber Crops Res Inst, Reg Ctr, PO Dumuduma, IN-751019 Bhubaneswar, Orissa, India

Food Biotechnol 2010 **24** (1) 37

Production, characterization and application of a thermostable *exo*-polygalacturonase by *Bacillus subtilis* CM5

- Takei T, Kishihara N, Sakai S, Kawakami K// Kyushu Univ, Grad Sch Engr, Dept Chem Engr, 744 Motooka, Nishi ku, Fukuoka 819 0395, Japan
Biochem Eng J 2010 **49** (1) 143
Novel technique to control inner and outer diameter of calcium-alginate hydrogel hollow microfibers, and immobilization of mammalian cells
- Tierney S, Sletmoen M, Skjak-Braek G, Stokke BT// *Norwegian Univ Sci & Technol - NTNU, Dept Phys, Biophys & Med Technol, NO-7491 Trondheim, Norway
Carbohydr Polym 2010 **80** (3) 828
Interferometric characterization of swelling of covalently crosslinked alginate gel and changes associated with polymer impregnation
- Tsubaki S, Ozaki Y, Azuma J// Kyoto Univ, Grad Sch Agric, Div Environm Sci & Technol, Kitashirakawa Oiwake cho, Sakyo ku, Kyoto 606 8502, Japan
J Food Sci 2010 **75** (2) C152
Microwave-assisted autohydrolysis of *Prunus mume* stone for extraction of polysaccharides and phenolic compounds
- Villanueva RD, Sousa AMM, Goncalves MP, Nilsson M, Hilliou L// Univ Philippines, Inst Marine Sci, Coll Sci, PH-1101 Quezon City, Philippines
J Appl Phycol 2010 **22** (2) 211
Production and properties of agar from the invasive marine alga, *Gracilaria vermiculophylla* (Gracilariales, Rhodophyta)
- Wang W, Wang A// *Chinese Acad Sci, Lanzhou Inst Chem Phys, Ctr Eco-Material & Green Chem, CN-730000 Lanzhou, Peoples Rep China
Carbohydr Polym 2010 **80** (4) 1028
Synthesis and swelling properties of pH-sensitive semi-IPN superabsorbent hydrogels based on sodium alginate-g-poly(sodium acrylate) and polyvinylpyrrolidone
- Wu M, Li D*, Wang LJ, Zhou YG, Mao ZH// *China Agric Univ, Coll Engr, PO Box 50, 17 Qinghua Donglu, CN-100083 Beijing, Peoples Rep China
Carbohydr Polym 2010 **80** (2) 460
Rheological property of extruded and enzyme treated flaxseed mucilage
- Wu X, Ye Y, Chen Y, Ding B, Cui J, Jiang B// *Sichuan Univ, Coll Chem, Key Lab Green Chem & Technol, CN-610064 Chengdu, Peoples Rep China
Carbohydr Polym 2010 **80** (4) 1178
Selective oxidation and determination of the substitution pattern of hydroxypropyl guar gum
- Yang M, Qian XH, Zhao DH, Fu SZ// *Nanfang Med Univ, Nanfang Hosp, Dept Neonatol, 1838 Guang Zhou Da Dao Nth, CN-510515 Guangzhou, PR China
J Ethnopharmacol 2010 **127** (2) 242
Effects of *Astragalus* polysaccharide on the erythroid lineage and microarray analysis in K562 cells
- Zhu M, Mo J, He CS, Xie H, Ma N, Wang C// *Taizhou Central Hosp, Dept Cardiol, CN-318000 Taizhou, Zhejiang, Peoples Rep China
Carbohydr Polym 2010 **80** (3) 672
Extraction, characterization of polysaccharides from *Lycium barbarum* and its effect on bone gene expression in rats
- Zou S, Zhang X, Yao W, Niu Y, Gao X// *China Pharmaceut Univ, Sch Life Sci & Technol, CN-210009 Nanjing, Peoples Rep China
Carbohydr Polym 2010 **80** (4) 1161
Structure characterization and hypoglycemic activity of a polysaccharide isolated from the fruit of *Lycium barbarum* L.
- 13. Polysaccharides - Other**
- Cle C, Martin C, Field RA, Kuzmic P, Bornemann S// *John Innes Ctr Plant Sci Res, Dept Biol Chem, Norwich Res Park, Norwich NR4 7UH, England
Biocatal Biotransform 2010 **28** (1) 64
Detection of enzyme-catalyzed polysaccharide synthesis on surfaces
- Daus S, Heinze T// *Univ Jena, Ctr Excellence Polysaccharide Res, Humboldtstr 10, DE-07743 Jena, Germany
Macromol Biosci 2010 **10** (2) 211
Xylan-based nanoparticles: Prodrugs for ibuprofen release
- Gao QJ, Araia M, Leck C, Emmer A// Stockholm Univ, Dept Meteorol, Svante Arrhenius Vag 12, SE-10691 Stockholm, Sweden
Anal Chim Acta 2010 **662** (2) 193
Characterization of exopolysaccharides in marine colloids by capillary electrophoresis with indirect UV detection
- Guo TY, Liu P, Xia YQ, Song MD// Nankai Univ, Coll Chem, Inst Polymer Chem, MoE Key Lab Funct Polymer Materials, CN-300071 Tianjin, PR China
J Appl Polym Sci 2010 **116** (3) 1611
Synthesis of lactose-containing glycopolymers-grafted silica gel particles
- Hrabarova E, Valachova K, Rychly J*, Raptá P, Sasinkova V, Malikova M, Soltes LJ// *Slovak Acad Sci, Inst Polymer, Dubravska cesta 9, SK-84236 Bratislava, Slovakia
Polym Degrad Stab 2009 **94** (10) 1867
High-molar-mass hyaluronan degradation by Weissberger's system: Pro- and anti-oxidative effects of some thiol compounds
- Jones OG, Decker EA, McClements DJ// *Univ Massachusetts, Dept Food Sci Biopolymers & Colloids Res Lab, Amherst, Ma 01003, USA
J Colloid Interface Sci 2010 **344** (1) 21
Comparison of protein-polysaccharide nanoparticle fabrication methods: Impact of biopolymer complexation before or after particle formation
- Kobayashi K, Kimura S, Togawa E, Wada M*, Kuga S// *Univ Tokyo, Grad Sch Agric & Life Sci, Dept Biomaterials Sci, Tokyo 113 8657, Japan
Carbohydr Polym 2010 **80** (2) 491
Crystal transition of paramylon with dehydration and hydration
- Kukowka S, Maslinska-Solich J// *Silesian University Technology, Faculty Chem, Dept Phys Chem & Technol Polym, ul M Strzody 9, PL-44100 Gliwice, Poland
Carbohydr Polym 2010 **80** (3) 711
 α,α -Trehalose-based polyacetals and macrocyclic acetals
- Neves-Petersen MT, Klitgaard S, Skovsen E, Petersen SB, Tommearas K, Schwach-Abdellaoui K// Univ Aalborg, Dept Phys & Nanotechnol, Nanobiotechnol Grp, Skjernvej 4A, Aalborg, Denmark
J Fluoresc 2010 **20** (2) 483
Biophysical properties of phenyl succinic acid derivatised hyaluronic acid
- Pati S, Liberatore MT, Lamacchia C, La Notte E// Univ Foggia, Dept Food Sci, Via Napoli 25, IT-71100 Foggia, Italy
Carbohydr Polym 2010 **80** (2) 332
Influence of ageing on lees on polysaccharide glycosyl-residue composition of Chardonnay wine
- Perlstein DL, Wang TSA, Doud EH, Kahne D*, Walker S// *Harvard Univ, Dept Chem, 12 Oxford St, Cambridge, Ma 02138, USA
J Am Chem Soc 2010 **132** (1) 48
The role of the substrate lipid in processive glycan polymerization by the peptidoglycan glycosyltransferases
- Prata JE, Barth TA, Bencherif SA, Washburn NR// *Carnegie Mellon Univ, Dept Chem, Pittsburgh, Pa 15213, USA
Biomacromolecules 2010 **11** (3) 769
Complex fluids based on methacrylated hyaluronic acid
- Qi W, Wang AH, Yang Y, Du MC, Bouchu MN, Boullanger P, Li JB// *Chinese Acad Sci, Inst Chem, Key Lab Colloid & Interface Sci, Int Joint Lab, BNLMS, Bei Yi Jie 2, CN-100190 Beijing, Peoples Rep China
J Mater Chem 2010 **20** (11) 2121
The lectin binding and targetable cellular uptake of lipid-coated polysaccharide microcapsules
- Santos JR, Alves NM, Mano JF// *Univ Minho, Res Grp Biomaterials Biodegradables & Biomimetics - 3Bs, Avepark, PT-4806-909 Caldas das Taipas Guimaraes, Portugal
J Bioact Compat Polym 2010 **25** (2) 169
New thermo-responsive hydrogels based on poly (*N*-isopropylacrylamide)/hyaluronic acid semi-interpenetrated polymer networks: Swelling properties and drug release studies
- Schiraldi C, Andreozzi L, Marzaioli I, Vinciguerra S, D'Avino A, Volpe F, Panariello A, De Rosa M// Univ Naples 2, Dept Expt Med, Via Crecchio 7, IT-80138 Naples, Italy
Biocatal Biotransform 2010 **28** (1) 83
Hyaluronic acid degradation during initial steps of downstream processing
- Vasur J, Kawai R, Jonsson KHM, Widmalm G, Engstrom A, Frank M, Andersson E, Hansson H, Forsberg Z, Igarashi K, Samejima M, Sandgren M, Stahlberg J// Swedish Univ Agric Sci, Dept Mol Biol, POB 590, SE-75421 Uppsala, Sweden
J Am Chem Soc 2010 **132** (5) 1724
Synthesis of cyclic β -glucan using laminarinase 16A glycosynthase mutant from the basidiomycete *Phanerochaete chrysosporium*
- Wu M, Xu S, Zhao J*, Kang H, Ding H// *Shenzhen Neptunus Bioengineering Holdings Company Limited, CN-518057 Shenzhen, Guangdong, Peoples Rep China
Carbohydr Polym 2010 **80** (4) 1116
Free-radical depolymerization of glycosaminoglycan from sea cucumber *Thelenata ananas* by hydrogen peroxide and copper ions