



Contents lists available at ScienceDirect

## Carbohydrate Polymers

journal homepage: [www.elsevier.com/locate/carbpol](http://www.elsevier.com/locate/carbpol)

## Bibliography of carbohydrate polymers

(6 weeks journals. Search completed at 2nd. Sept. 2009)

## 1. Reviews

Astray G, Gonzalez-Barreiro C, Mejuto JC, Rial-Otero R, Simal-Gandara J\*// \*Univ Vigo, Anal & Food Chem Chem Dept, Nutr & Bromatol Grp, Ourense Campus, ES-32004 Ourense, Spain  
*Food Hydrocolloid* 2009 **23** (7) 1631

A review on the use of cyclodextrins in foods

Balazs EA// Matrix Biol Inst, 725 River Rd, Edgewater, NJ 07020, USA

*Struct Chem* 2009 **20** (2) 233

The role of hyaluronan in the structure and function of the biomatrix of connective tissues

Balazs EA// Address as above

*Struct Chem* 2009 **20** (2) 341

Therapeutic use of hyaluronan

Jarvis MC// Univ Glasgow, Dept Chem, Glasgow G12 8QQ, Scotland

*Struct Chem* 2009 **20** (2) 245

Plant cell walls: Supramolecular assembly, signalling and stress

Kelly RM, Dijkhuizen L\*, Leemhuis H// \*Univ Groningen, Ctr Carbohydrate Bioprocess, Kerklaan 30, NL-9751 NN Haren, The Netherlands  
*J Biotechnol* 2009 **140** (3–4) 184

Starch and  $\alpha$ -glucan acting enzymes, modulating their properties by directed evolution

Morris VJ, Gromer A, Kirby AR// Inst Food Res, Norwich Res Pk, Norwich NR4 7UA, England

*Struct Chem* 2009 **20** (2) 255

Architecture of intracellular networks in plant matrices

Rinaudo M// Joseph Fourier Univ, CERMAV-CNRS, BP 53, FR-38041 Grenoble 9, France

*Struct Chem* 2009 **20** (2) 277

Polyelectrolyte properties of a plant and animal polysaccharide

Sollogoub M// UPMC Univ Paris 06, Inst Parisien Chim Mol, CNRS UMR 7201, 4 Pl Jussieu, C 181, FR-75005 Paris, France

*Eur J Org Chem* 2009 (9) 1295

Cap-assisted synthesis of hetero-trifunctional cyclodextrins, from flamingo cap to bascule bridge

Song LX, Bai L, Xu XM, He J, Pan SZ// Univ Sci & Technol China, Dept Chem, CN-230026 Hefei, Peoples Rep China

*Coord Chem Rev* 2009 **253** (9–10) 1276

Inclusion complexation, encapsulation interaction and inclusion number in cyclodextrin chemistry

Voragen GJ, Coenen GJ, Verhoef RP, Schols HA// Wageningen Univ, Dept Agrotechnol & Food Sci, POB 8129, NL-6700 EV Wageningen, The Netherlands  
*Struct Chem* 2009 **20** (2) 263

Pectin, a versatile polysaccharide present in plant cell walls

Williams PA// Glyndwr Univ, Ctr Water Soluble Polymers, Plas Coch, Mold Rd, Wrexham LL11 2AW, Wales

*Struct Chem* 2009 **20** (2) 299

Molecular interactions of plant and algal polysaccharides

Xu Q, Chao YL\*, Wan QB// \*Sichuan Univ, West China Coll Stomatol, Dept Prosthodontics, CN-610041 Chengdu, Peoples Rep China

*Carbohydr Polym* 2009 **77** (3) 435

Health benefit application of functional oligosaccharides

## 2. Cellulose

Abdelbary A, Elshafeey AH\*, Zidan G// \*Cairo Univ, Fac Pharm, Coll Pharm, Pharmaceut & Ind Pharm Dept, Cairo, Egypt

*Carbohydr Polym* 2009 **77** (4) 799

Comparative effects of different cellulosic-based directly compressed orodispersible tablets on oral bioavailability of famotidine

Akpınar O, Erdogan K, Bostanci S// Gaziosmanpaşa Univ, Dept Food Engr, TR-60250 Tasliciftlik, Tokat, Turkey

*Carbohydr Res* 2009 **344** (5) 660

Production of xylooligosaccharides by controlled acid hydrolysis of lignocellulosic materials

Alila S, Ferraria AM, Botelho do Rego AM, Boufi S\*// \*Fac Sci Sfax, LMSE, BP 802, TN-3018 Sfax, Tunisia

*Carbohydr Polym* 2009 **77** (3) 553

Controlled surface modification of cellulose fibers by amino derivatives using *N,N'*-carbonyldiimidazole as activator

Alonso D, Gimeno M, Olayo R, Vazquez-Torres H, Sepulveda-Sanchez JD, Shirai K\*// \*Univ Autonoma Metropolitana, Av San Rafael Atlixco 186, Col Vicentina, MX-09340 Mexico City, Mexico

*Carbohydr Polym* 2009 **77** (3) 536

Cross-linking chitosan into UV-irradiated cellulose fibers for the preparation of antimicrobial-finished textiles

Amim J, Kawano Y, Petri DFS\*// \*Univ Sao Paulo, Inst Quim, POB 26077, BR-05513-970 Sao Paulo, Brazil

*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 420

Thin films of carbohydrate based surfactants and carboxymethylcellulose acetate butyrate mixtures: Morphology and thermal behavior

Bergenstrahle M, Thormann E, Nordgren N, Berglund LA// Royal Inst Technol, Dept Fibre & Polymer Technol, Teknikringen 58, SE-10044 Stockholm, Sweden

*Langmuir* 2009 **25** (8) 4635

Force pulling of single cellulose chains at the crystalline cellulose-liquid interface: A molecular dynamics study

Binder JB, Raines RT\*// \*Univ Wisconsin, Dept Chem, Madison, WI, USA

*J Am Chem Soc* 2009 **131** (5) 1979

Simple chemical transformation of lignocellulosic biomass into furans for fuels and chemicals

Bumbu GG, Munteanu BS, Eckelt J, Vasile C\*// \*Johannes Gutenberg Univ Mainz, Inst Phys Chem, DE-55099 Mainz, Germany

*Express Polym Lett* 2009 **3** (5) 286

Influence of the composition of hydroxypropyl cellulose/maleic acid-*alt*-styrene copolymer blends on their properties as matrix for drug release

Cao SG, Hu BH, Liu HQ\*// \*Fujian Normal Univ, Coll Chem & Materials Sci, CN-350007 Fuzhou, Peoples Rep China

*Polym Int* 2009 **58** (5) 545

Synthesis of pH-responsive crosslinked poly[styrene-co-(maleic sodium anhydride)] and cellulose composite hydrogel nanofibers by electrospinning

Capadona JR, Shanmuganathan K, Trifitschuh S, Seidel S, Rowan SJ, Weder C\*// \*Case Western Reserve Univ, Dept Macromol Sci & Engr, 10900 Euclid Ave, Cleveland, OH 44106, USA

*Biomacromolecules* 2009 **10** (4) 712

Polymer nanocomposite with nanowhiskers isolated from microcrystalline cellulose

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.

- Chen HH, Lin CH, Kang HY// Nat Ilan Univ, Dept Food Sci, 1 Sec 1 Shen Nung Rd, Ilan City, Taiwan  
*Food Hydrocolloid* 2009 **23** (7) 1756  
 Maturation effects in fish gelatin and HPMC composite gels
- Chen R, Yi CB, Wu H, Guo SY\*// \*Sichuan Univ, Polymer Res Inst, State Key Lab Polymer Materials Engn, CN-610065 Chengdu, Peoples Rep China  
*J Appl Polym Sci* 2009 **112** (6) 3537  
 Solid state mechano-chemical grafting copolymerization of hydroxyethyl cellulose with acrylic acid
- Diogo HP, Moura-Ramos JJ\*// \*Univ Tecn Lisbon, Ctr Quim Fis Mol, PT-1049-001 Lisbon, Portugal  
*J Polym Sci B Polym Phys* 2009 **47** (8) 820  
 Secondary molecular mobility in amorphous ethyl cellulose: Aging effects and degree of co-operativity
- Fahmy HM, Abo-Shosha MH, Ibrahim NA// Nat Res Ctr, Textile Res Div, Dokki, Cairo, Egypt  
*Carbohydr Polym* 2009 **77** (4) 845  
 Finishing of cotton fabrics with poly (*N*-vinyl-2-pyrrolidone) to improve their performance and antibacterial properties
- Flores-Céspedes F, Daza-Fernandez I, Villafranca-Sanchez M, Fernandez-Perez M\*// \*Univ Almeria, Dept Quim Fis Bioquim & Quim Inorgan, Canada San Urbano s/n, ES-04120 Almeria, Spain  
*J Agric Food Chem* 2009 **57** (7) 2856  
 Use of ethylcellulose to control chlorosulfuron leaching in a calcareous soil
- Flores ED, Funabashi M, Kunioka M\*// \*AIST, Res Inst Innovation Sustainable Chem, Higashi 1-1-1, Tsukuba, Ibaraki 305 8565, Japan  
*J Appl Polym Sci* 2009 **112** (6) 3410  
 Mechanical properties and biomass carbon ratios of poly(butylene succinate) composites filled with starch and cellulose filler using furfural as plasticizer
- Fouda MMG, El Shafei A, Sharaf S, Hebeish A// Nat Res Ctr, Textile Res Div, Dokki, Cairo, Egypt  
*Carbohydr Polym* 2009 **77** (3) 651  
 Microwave curing for producing cotton fabrics with easy care and antibacterial properties
- Gericke M, Liebert T, Heinze T\*// \*Univ Jena, Ctr Excellence Polysaccharide Res, Humboldtstr 10, DE-07743 Jena, Germany  
*Macromol Biosci* 2009 **9** (4) 343  
 Interaction of ionic liquids with polysaccharides, 8-synthesis of cellulose sulfates suitable for polyelectrolyte complex formation
- Glaied O, Dube M, Chabot B, Daneault C\*// \*Univ Quebec, CIPP, CP 500, Trois Rivieres, Quebec, Canada G9A 5H7  
*J Colloid Interface Sci* 2009 **333** (1) 145  
 Synthesis of cationic polymer-grafted cellulose by aqueous ATRP
- Goelzer FDE, Faria-Tischer PCS, Vitorino JC, Sierakowski MR, Tischer CA\*// \*Rua Uruguai 458, Bloco 17, Sala 312, BR-88302-202 Itajai, SC, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 546  
 Production and characterization of nanospheres of bacterial cellulose from *Acetobacter xylinum* from processed rice bark
- Golova LK, Makarov IS, Plotnikova EP, Shambilova GS, Tereshin AK, Kulichikhin VG// Russian Acad Sci, Topchiev Inst Petrochem Synth, Leninskii pr 29, RU-119991 Moscow, Russia  
*Polym Sci Ser A* 2009 **51** (3) 283  
 Solutions of mixtures of cellulose and synthetic polymers in *N*-methylmorpholine-*N*-oxide
- Hao Y, Peng J\*, Li J, Zhai M, Wei G\*// \*Peking Univ, Coll Chem & Mol Engn, Dept Appl Chem, Beijing Nat Lab Mol Sci, CN-100871 Beijing, PR China  
*Carbohydr Polym* 2009 **77** (4) 779  
 An ionic liquid as reaction media for radiation-induced grafting of thermo-sensitive poly(*N*-isopropylacrylamide) onto microcrystalline cellulose
- Hu Y, Fu X\*, Chen XD, Yang J, Yang LS, Zhang MQ\*// \*Sth China Univ Technol, Coll Light Ind & Food Sci, CN-510640 Ghangzhou, Peoples Rep China  
*Polym Bull* 2009 **62** (4) 549  
 Association behaviors between carboxymethyl cellulose and polylactic acid revealed by resonance light scattering spectra
- Jara FL, Pilosof AMR\*// \*Univ Buenos Aires, Fac Ciencias Exactas & Nat, Dept Ind, AR-1428 Buenos Aires, DF, Argentina  
*Thermochim Acta* 2009 **487** (1-2) 65  
 Glass transition temperature of protein/polysaccharide co-dried mixtures as affected by the extent and morphology of phase separation
- Jean B, Heux L, Dubreuil F, Chambat G, Cousin F// CNRS-CERMAV, BP 53, FR-38041 Grenoble 9, France  
*Langmuir* 2009 **25** (7) 3920  
 Non-electrostatic building of biomimetic cellulose-xyloglucan multilayers
- Karnitz Junior O, Gurgel LVA, De Freitas RP, Gil LF\*// \*Univ Fed Ouro Preto, Inst Ciencias Exatas & Biol, Dept Quim, BR-35400-000 Ouro Preto, MG, Brazil  
*Carbohydr Polym* 2009 **77** (3) 643  
 Adsorption of Cu(II), Cd(II), and Pb(II) from aqueous single metal solutions by mercerized cellulose and mercerized sugarcane bagasse chemically modified with EDTA dianhydride (EDTAD)
- Krouit M, Granet R, Krausz P\*// \*Univ Limoges, Lab Chim Subst Nat, 123 Ave Albert Thomas, FR-87060 Limoges, France  
*Eur Polym J* 2009 **45** (4) 1250  
 Photobactericidal films from porphyrins grafted to alkylated cellulose - Synthesis and bactericidal properties
- Kubac L, Akman J\*, Burgert L, Dvorsky D, Gruner P// \*VUOS Res Inst Organ Synth, Rybitvi 296, CZ-53354 Rybitvi, Pardubice, Czech Republic  
*J Appl Polym Sci* 2009 **112** (6) 3605  
 Reactive phenylbenzimidazole UV absorbers and their application to cellulose textiles
- Laumer W, Andreu L, Helle G, Schleser GH\*, Wieloch T, Wissel H// \*Geo-ForschungsZentrum Potsdam, Sektion 5.2, Klimadynamik & Landschaftsentwicklung, Telegrafenberg, DE-14473 Potsdam, Germany  
*Rapid Commun Mass Spectrom* 2009 **23** (13) 1934  
 A novel approach for the homogenization of cellulose to use micro-amounts for stable isotope analyses
- Liang SM, Wu JJ, Tian HF, Zhang LN, Xu J// Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep China  
*Chemosuschem* 2008 **1** (6) 558  
 High-strength cellulose/poly(ethylene glycol) gels
- Makishima S, Mizuno M, Sato N, Shinji K, Suzuki M, Nozaki K, Takahashi F, Kanda T, Amano Y\*// \*Shinshu Univ, Fac Engn, Dept Chem & Material Engn, 4-17-1 Wakasato, Nagano 380 8553, Japan  
*Bioresour Technol* 2009 **100** (11) 2842  
 Development of continuous flow type hydrothermal reactor for hemicellulose fraction recovery from corn cob
- Mattoso LHC, Medeiros ES, Baker DA, Avloni J, Wood DF, Orts WJ// Embrapa Instrumentacao Agropecuaria, Lab Nacl Nanotecnol Aplicada Agronegocio, BR-13560-970 Sao Carlos, SP, Brazil  
*J Nanosci Nanotechnol* 2009 **9** (5) 2917  
 Electrically conductive nanocomposites made from cellulose nanofibrils and polyaniline
- Monteiro C, Saxena I, Wang XD, Kader A, Bokranz W, Simm R, Nobles D, Chromek M, Brauner A, Brown RM, Romling U\*// \*Karolinska Inst, Dept Microbiol Tumor & Cell Biol MTC, SE-17177 Stockholm, Sweden  
*Environ Microbiol* 2009 **11** (5) 1105  
 Characterization of cellulose production in *Escherichia coli* Nissle 1917 and its biological consequences
- Mormann W, Wezstein M// Univ Siegen, Lab Makromol Chem, Fachbereich 8, Adolf Reichwein Str 2, DE-57068 Siegen, Germany  
*Macromol Biosci* 2009 **9** (4) 369  
 Trimethylsilylation of cellulose in ionic liquids
- Mostashari SM, Moafi HF// Gilan Univ, Fac Sci, Chem Grp, POB 1914, Rasht, Iran  
*Chin J Chem* 2009 **27** (3) 489  
 Flame-retardancy of a cellulosic fabric by the application of synergistic effect between ammonium bromide and antimony(III) oxide
- Nakatani H, Miyazaki K// Kitami Inst Technol, Dept Biotechnol & Environm Chem, 165 Koen cho, Kitami, Hokkaido 090 850, Japan  
*J Appl Polym Sci* 2009 **112** (6) 3362  
 Modification of polypropylene and polypropylene/fibrous cellulose composites by the addition of poly(ethylene oxide)
- Ouajai S, Shanks RA\*// \*RMIT Univ, GPO Box 2476V, Melbourne, Vic 3001, Australia  
*Macromol Mater Eng* 2009 **294** (3) 213  
 Biocomposites of cellulose acetate butyrate with modified hemp cellulose fibres
- Pan CM, Zhang ML, Fan YT\*, Xing Y, Hou HW\*// \*Zhengzhou Univ, Dept Chem, CN-450052 Zhengzhou, Henan, Peoples Rep China  
*J Agric Food Chem* 2009 **57** (7) 2732  
 Production of cellulosic ethanol and hydrogen from solid-state enzymatic treated cornstarch: A two-stage process
- Park WI, Kim HS, Kwon SM, Hong YH, Jin HJ\*// \*Inha Univ, Dept Polym Sci & Engn, Incheon 402 751, South Korea  
*Carbohydr Polym* 2009 **77** (3) 457  
 Synthesis of bacterial celluloses in multiwalled carbon nanotube-dispersed medium
- Pohl M, Morris GA, Harding SE, Heinze T\*// \*Univ Jena, Humboldtstr 10, DE-07743 Jena, Germany  
*Eur Polym J* 2009 **45** (4) 1098  
 Studies on the molecular flexibility of novel dendronized carboxymethyl cellulose derivatives
- Praskalo J, Kostic M\*, Potthast A, Popov G, Skundric P// \*Univ Belgrade, Dept Textile Engn, Karnegijeva 4, RS-11000 Belgrade, Serbia  
*Carbohydr Polym* 2009 **77** (4) 791  
 Sorption properties of TEMPO-oxidized natural and man-made cellulose fibers
- Pygall SR, Kujawinski S, Timmins P, Melia CD\*// \*Univ Nottingham, Sch Pharm, University Park, Nottingham NG7 2RD, England  
*Int J Pharm* 2009 **370** (1-2) 110  
 Mechanisms of drug release in citrate buffered HPMC matrices

Raslan WM, El-Aref AT, Bendak A// Natl Res Ctr, Textile Res Div, Cairo, Egypt

*J Appl Polym Sci* 2009 **112** (6) 3192

Modification of cellulose acetate fabric with cyclodextrin to improve its dyeability

Reddy N, Yang Y\*// \*Univ Nebraska-Lincoln, Dept Biol System Engr, 234 HECO Bldg, Lincoln, Ne 68583, USA

*Carbohydr Polym* 2009 **77** (4) 898

Properties of natural cellulose fibers from hop stems

Semsarilar M, Perrier S\*// \*Univ Sydney, Sch Chem, Key Ctr Polymers & Colloids, Sydney, NSW 2006, Australia

*Aust J Chem* 2009 **62** (3) 223

Solubilization and functionalization of cellulose assisted by microwave irradiation

Stromme M, Frenning G, Razaq A, Gelin K, Nyholm L, Mibranyan A// Uppsala Univ, Dept Engr Sci, Angstrom Lab, Box 534, SE-75121 Uppsala, Sweden

*J Phys Chem B* 2009 **113** (14) 4582

Ionic motion in polypyrrole-cellulose composites: trap release mechanism during potentiostatic reduction

Sudha ML, Rao GV\*// \*Cent Food Technol Res Inst, Flour Milling Baking & Confectionery Technol Dept, IN-570020 Mysore, India

*J Texture Stud* 2009 **40** (2) 172

Influence of hydroxypropyl methylcellulose on the rheological and microstructural characteristics of whole wheat flour dough and quality of puri

Tankhiwale R, Bajpai SK\*// \*Govt Model Sci Coll, Dept Chem, Polymer Res Lab, IN-482001 Jabalpur, MP, India

*Colloid Surface B* 2009 **69** (2) 164

Graft copolymerization onto cellulose-based filter paper and its further development as silver nanoparticles loaded antibacterial food-packaging material

Thielemans W, Warbey CR, Walsh DA// Univ Nottingham, Sch Chem, Nottingham NG7 2RD, England

*Green Chem* 2009 **11** (4) 531

Permeable nanostructured membranes based on cellulose nanowhiskers

Uyama M, Nakano M\*, Yamashita J, Handa T// \*Kyoto Univ, Grad Sch Pharmaceut Sci, Kyoto 606 8501, Japan

*Langmuir* 2009 **25** (8) 4336

Useful modified cellulose polymers as new emulsifiers of cubosomes

Valencia-Chamorro SA, Perez-Gago MB\*, Del Rio MA, Palou L// \*Inst Valenciano Invest Agric, Ctr Tecnol Poscosecha, ES-46113 Valencia, Spain

*J Agric Food Chem* 2009 **57** (7) 2770

Curative and preventative activity of hydroxypropyl methylcellulose-lipid edible composite coatings containing antifungal food additives to control citrus postharvest green and blue molds

Viriden A, Wittgren B, Andersson T, Larsson A// Chalmers Univ Technol, Dept Biol & Chem Engr, SE-41296 Gothenburg, Sweden

*Eur J Pharm Sci* 2009 **36** (4-5) 392

The effect of chemical heterogeneity of HPMC on polymer release from matrix tablets

Xie K, Zhang Y, Yu Y// Donghua Univ, Modern Textile Inst, CN-200051 Shanghai, Peoples Rep China

*Carbohydr Polym* 2009 **77** (4) 858

Preparation and characterization of cellulose hybrids grafted with the polyhedral oligomeric silsesquioxanes (POSS)

Yun GY, Kim JH\*, Kim J// \*Inha Univ, Dept Mech Engr, Creative Res Ctr EAPap Actuator, 253 Young Hyun dong, Nam gu, Incheon, South Korea

*J Phys D Appl Phys* 2009 **42** (8) 082003

Dielectric and polarization behaviour of cellulose electro-active paper (EAPap)

Zhang HT, Nie HL, Li SB, White CJB, Zhu LM\*// \*Donghua Univ, Coll Chem Chem Engr & Biotechnol, CN-201620 Shanghai, Peoples Rep China

*Mater Lett* 2009 **63** (13-14) 1199

Crosslinking of electrospun polyacrylonitrile/hydroxyethyl cellulose composite nanofibers

Zhang J, Xu XD, Wu DQ, Zhang XZ\*, Zhuo RX// \*Wuhan Univ, Dept Chem, MoE Key Lab Biomed Polym MoE, CN-430072 Wuhan, Peoples Rep China

*Carbohydr Polym* 2009 **77** (3) 583

Synthesis of the thermosensitive P(NIPAAm-co-HEMA)/cellulose hydrogels via "click" chemistry

Zhao Q, Qian JW\*, An QF, Gao CJ, Gui ZL, Jin HT// \*Zhejiang Univ, Dept Polymer Sci & Engr, MoE Key Lab Macromol Synth & Functionalization, CN-310027 Hangzhou, Peoples Rep China

*J Membr Sci* 2009 **333** (1-2) 68

Synthesis and characterization of soluble chitosan/sodium carboxymethyl cellulose polyelectrolyte complexes and the pervaporation dehydration of their homogeneous membranes

Zhu CY, Xue JF, He JH\*// \*Chinese Acad Sci, Tech Inst Phys & Chem, Funct Nanomaterials Lab, Zhongguancun Beiyitiao 2, CN-100190 Beijing, PR China

*J Nanosci Nanotechnol* 2009 **9** (5) 3067

Controlled *in-situ* synthesis of silver nanoparticles in natural cellulose fibers toward highly efficient antimicrobial materials

### 3. Cellulose-degrading enzymes

Fan ZM, Werkman JR, Yuan L\*// \*Univ Kentucky, Dept Plant & Soil Sci, Lexington, Ky 40546, USA

*Biotechnol Lett* 2009 **31** (5) 751

Engineering of a multifunctional hemicellulase

Kumar R, Wyman CE\*// \*Univ Calif Riverside, Dept Chem & Environm Engr, Riverside, Ca 92507, USA

*Biotechnol Prog* 2009 **25** (2) 302

Effects of cellulase and xylanase enzymes on the deconstruction of solids from pretreatment of poplar by leading technologies

Mamma D, Hatzinikolaou D, Kekos D, Stamatis H, Kalogeris E\*// \*Natl Tech Univ Athens, Sch Chem Engr, Biotechnol Lab, 5 Iroon Polytechniou Str, Zografou Campus, GR-15780 Athens, Greece

*World J Microbiol Biotechnol* 2009 **25** (5) 781

Adsorption of major endoglucanase from *Thermoascus aurantiacus* on cellulosic substrates

Nascimento RP, Junior NA, Pereira N, Bon EPS, Coelho RRR// Univ Fed Reconcavo Bahia, Ctr Ciencias Agr Ambientais & Biol, BR-44380-000 Cruz das Almas, BA, Brazil

*Lett Appl Microbiol* 2009 **48** (5) 529

Brewer's spent grain and corn steep liquor as substrates for cellulolytic enzymes production by *Streptomyces malaysiensis*

Saravanan D, Dinesh C, Karthikeyan S, Vivekanandan A, Nalankilli G, Ramachandran T// Bannari Annan Inst Technol, Dept Textile Technol, IN-638401 Sathyamangalam, India

*J Appl Polym Sci* 2009 **112** (6) 3402

Biopolishing of cotton fabrics with total cellulases of *Trichoderma reesei* and optimization using Taguchi methods

### 4. Chitin/Chitosan

Ahmed AAK, Naik HSB, Sherigara BS\*// \*Kuvempu Univ, Sch Chem Sci, Dept Ind Chem, IN-577451 Shankaraghatta, India

*Carbohydr Res* 2009 **344** (5) 699

Synthesis and characterization of chitosan-based pH-sensitive semi-interpenetrating network microspheres for controlled release of diclofenac sodium

Alves KD, Vidal RRL, Balaban RD\*// \*Univ Fed Rio Grande do Norte, Dept Chem, LAPET, BR-59078-970 Natal, RN, Brazil

*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 641

Chitosan derivatives with thickening properties obtained by reductive alkylation

Bajdik J, Marciello M, Caramella C, Domjan A, Suveg K, Marek T, Pintye-Hodi K\*// \*Univ Szeged, Dept Pharmaceut Technol, Eotvos 6, HU-6720 Szeged, Hungary

*J Pharm Biomed Anal* 2009 **49** (3) 655

Evaluation of surface and microstructure of differently plasticized chitosan films

Barikani M, Honarkar H, Barikani M// Iran Polymer & Petrochem Inst, Dept Polyurethane Fiber & Nanopolymers, Tehran, Iran

*J Appl Polym Sci* 2009 **112** (5) 3157

Synthesis and characterization of polyurethane elastomers based on chitosan and poly( $\epsilon$ -caprolactone)

Bazzo GC, Lemos-Senna E, Pires ATN\*// \*Univ Fed Santa Catarina, Dept Quim, Grp Estudos Materiais Polym, Campus Universitario, Trindade, BR-88040-900 Florianopolis, SC, Brazil

*Carbohydr Polym* 2009 **77** (4) 839

Poly(3-hydroxybutyrate)/chitosan/ketoprofen or piroxicam composite micro-particles: Preparation and controlled drug release evaluation

Bratskaya SY, Pestov AV, Yatluk YG, Avramenko VA// Inst Chem Febras, prosp 100 let Vladivostoku 159, RU-690022 Vladivostok, Russia

*Colloid Surface A* 2009 **339** (1-3) 140

Heavy metals removal by flocculation/precipitation using *N*-(2-carboxyethyl)chitosans

Cai ZS, Song ZQ\*, Yang CS, Shang SB, Yin YB// \*CAF, Inst Chem Ind Forest Prod, CN-210042 Nanjing, Jiangsu, Peoples Rep China

*Polym Bull* 2009 **62** (4) 445

Synthesis, characterization and antibacterial activity of quaternized *N,O*-(2-carboxyethyl) chitosan

Cardenas G, Diaz J, Melendrez M, Cruzat C, Cancino AG// Univ Concepcion, Dept Polymers, Advanced Materials Lab, CIPA Chile, Casilla 160, Concepcion, Chile

*Polym Bull* 2009 **62** (4) 511

Colloidal Cu nanoparticles/chitosan composite film obtained by microwave heating for food package applications

Casariogo A, Souza BWS, Cerqueira MA, Teixeira JA, Cruz L, Diaz R, Vicente AA\*// \*Univ Minho, IBB - Inst Biotechnol & Bioengn, Ctr Biol Engr, Campus Gualtar, PT-4710-057 Braga, Portugal

*Food Hydrocolloid* 2009 **23** (7) 1895

Chitosan/clay films' properties as affected by biopolymer and clay micro/nanoparticles' concentrations

- Changerath R, Nair PD, Mathew S, Nair CPR// Sree Chitra Tirunal Inst Med Sci & Technol, Biomed Technol Wing, IN-695012 Thiruvananthapuram, India  
*J Biomed Mater Res B* 2009 **89B** (1) 65
- Poly(methyl methacrylate)-grafted chitosan microspheres for controlled release of ampicillin
- Choochottiros C, Yoksan R, Chirachanchai S// \*Chulalongkorn Univ, Petroleum & Petrochem Coll, Soi Chula 12, Phayathai Rd, TH-10330 Bangkok, Thailand  
*Polymer* 2009 **50** (8) 1877
- Amphiphilic chitosan nanospheres: Factors to control nanosphere formation and its consequent pH responsive performance
- Cruz DMG, Coutinho DF, Mano JF, Ribelles JLG, Sanchez MS// \*Univ Politecn Valencia, Ctr Biomaterials & Tissue Engn, ES-46022 Valencia, Spain  
*Polymer* 2009 **50** (9) 2058
- Physical interactions in macroporous scaffolds based on poly( $\epsilon$ -caprolactone)/chitosan semi-interpenetrating polymer networks
- Duceppe N, Tabrizian M// \*Fac Dent, Strathcona Anat & Dent Bldg, 3640 University St, Montreal, Quebec, Canada H3A 2B2  
*Biomaterials* 2009 **30** (13) 2625
- Factors influencing the transfection efficiency of ultra low molecular weight chitosan/hyaluronic acid nanoparticles
- Dykstra P, Hao JJ, Koev ST, Payne GF, Yu LL, Ghodssi R// \*Univ Maryland, System Res Inst, Dept Elect & Comp Engn, College Park, Md 20742, USA  
*Sensor Actuator B Chem* 2009 **138** (1) 64
- An optical MEMS sensor utilizing a chitosan film for catechol detection
- Fan Y, Saito T, Isogai A// \*Univ Tokyo, Grad Sch Agric & Life Sci, Tokyo 113 8657, Japan  
*Carbohydr Polym* 2009 **77** (4) 832
- TEMPO-mediated oxidation of  $\beta$ -chitin to prepare individual nanofibrils
- Feng LD, Zhou ZY, Dufresne A, Huang J, Wei M, An LJ// Huaiyin Inst Technol, Dept Chem Engn, Key Lab Attapulgate Sci & Appl Technol Jiangsu Province, CN-223003 Huaian, Peoples Rep China  
*J Appl Polym Sci* 2009 **112** (5) 2830
- Structure and properties of new thermoforming bionanocomposites based on chitin whisker-graft-polycaprolactone
- Fernandez JG, Mills CA, Samitier J// Inst Bioengn Catalonia, Nanobioengn Grp, C/ Josep Samitier 1-5, ES-08028 Barcelona, Spain  
*Small* 2009 **5** (5) 614
- Complex microstructured 3D surfaces using chitosan biopolymer
- Fernandez-Saiz P, Lagaron JM, Ocio MJ// \*Instituto Agroquim & Tecnol Alimentos - CSIC, Novel Materials & Nanotechnol Lab, Apartado Correos 73, ES-46100 Valencia, Spain  
*J Agric Food Chem* 2009 **57** (8) 3298
- Optimization of the film-forming and storage conditions of chitosan as an antimicrobial agent
- Gazori T, Khoshayand MR, Azizi E, Yazdizade P, Nomani A, Haririan I// \*Tehran Univ Med Sci, Fac Pharm, Dept Pharmaceut, Enghelab St, IR-14155-6451 Tehran, Iran  
*Carbohydr Polym* 2009 **77** (3) 599
- Evaluation of alginate/chitosan nanoparticles as antisense delivery vector: Formulation, optimization and *in vitro* characterization
- Gonzalez-Campos JB, Prokhorov E, Luna-Barcenas G\*, Galvan AM, Sanchez IC, Donlucas SMN, Garcia-Gaitan B, Kovalenko Y// \*CINVESTAV Queretaro, Libramiento Norponiente 2000, Fraccionamiento Real Juriquilla, MX-76230 Santiago de Queretaro, QRO, Mexico  
*J Polym Sci B Polym Phys* 2009 **47** (9) 932
- Relaxations in chitin: Evidence for a glass transition
- Gryczka U, Gawronska H, Migdal W, Gawronski SW, Chmielewski AG// Inst Nucl Chem & Technol, 1a Fasolowa Str, PL-02482 Warsaw, Poland  
*Nukleonika* 2008 **53** (Suppl 2) S73
- Study on biological activity of chitosan after radiation processing
- Hagesaether E, Hiorth M, Sande SA// Univ Oslo, Dept Pharm Sch Pharm, POB 1068, NO-0316 Oslo, Norway  
*Eur J Pharm Biopharm* 2009 **71** (2) 325
- Mucoadhesion and drug permeability of free mixed films of pectin and chitosan: An *in vitro* and *ex vivo* study
- Han J, Wang KM, Yang DZ, Nie J// \*Beijing Univ Chem Technol, State Key Lab Chem Resource Engn, CN-100029 Beijing, Peoples Rep China  
*Int J Biol Macromol* 2009 **44** (3) 229
- Photopolymerization of methacrylated chitosan/PNIPAAm hybrid dual-sensitive hydrogels as carrier for drug delivery
- Henricus MM, Fath KR, Menzenski MZ, Banerjee IA// \*Fordham Univ, Dept Chem, 441 East Fordham Rd, Bronx, NY 10458, USA  
*Macromol Biosci* 2009 **9** (4) 317
- Morphology controlled growth of chitosan-bound microtubes and a study of their biocompatibility and antibacterial activity
- Homayoni H, Ravandi SAH\*, Valizadeh M// \*Isfahan Univ Technol, Dept Textile Engn, Res Ctr Fiber Sci & Technol, IR-84156-83111 Isfahan, Iran  
*Carbohydr Polym* 2009 **77** (3) 656
- Electrospinning of chitosan nanofibers: Processing optimization
- Hong CH, Sung JH, Choi HJ// \*Inha Univ, Dept Polymer Sci & Engn, Incheon 402 751, South Korea  
*Colloid Polym Sci* 2009 **287** (5) 583
- Effects of medium oil on electroresponsive characteristics of chitosan suspensions
- Hu Y, Cai J, Du YM, Lin JG, Wang CG, Xiong KJ// Hubei Univ Technol, Coll Bioengn, Hubei Province Key Lab Ind Microbiol, CN-430068 Wuhan, Peoples Rep China  
*J Appl Polym Sci* 2009 **112** (6) 3522
- Preparation and anti-TMV activity of guanidinylated chitosan hydrochloride
- Jayakumar R, Egawa T, Furukie T, Nair SV, Tamura H// Kansai Univ, Fac Chem Materials & Bioengn, Osaka 564 8680, Japan  
*Polym Eng Sci* 2009 **49** (5) 844
- Synthesis, characterization and thermal properties of phosphorylated chitin for biomedical applications
- Jin R, Teixeira LSM, Dijkstra PJ, Karperien M, Van Blitterswijk CA, Zhong ZY, Feijen J// \*Univ Twente, Fac Sci & Technol, Inst Biomed Technol, Dept Polymer Chem & Biomat, POB 217, NL-7500 AE Enschede, The Netherlands  
*Biomaterials* 2009 **30** (13) 2544
- Injectable chitosan-based hydrogels for cartilage tissue engineering
- Jin XX, Wang JT\*, Bai J// \*Ocean Univ Qingdao, MoE Key Lab Marine Chem Theory & Technol, CN-266100 Qingdao, Peoples Rep China  
*Carbohydr Res* 2009 **344** (6) 825
- Synthesis and antimicrobial activity of the Schiff base from chitosan and citral
- Joerger RD, Sabesan S, Visioli D, Urian D, Joerger MC// Univ Delaware, Dept Anim & Food Sci, 018 Townsend Hall, Newark, De 19716, USA  
*Packag Technol Sci* 2009 **22** (3) 125
- Antimicrobial activity of chitosan attached to ethylene copolymer films
- Kumari K, Prasad K, Kundu PP// \*Sant Longowal Inst Engn & Technol, Dept Chem Technol, IN-148106 Longowal, India  
*Express Polym Lett* 2009 **3** (4) 207
- Optimization of chlorpheniramine maleate (CPM) delivery by response surface methodology - Four component modeling using various response times and concentrations of chitosan-alanine, glutaraldehyde and CPM
- Kuo SM, Chang SJ\*, Niu GCC, Lan CW, Cheng WT, Yang CZ// \*Shou Univ, Dept Biomed Engn, Kaohsiung, Kaohsiung County, Taiwan  
*J Appl Polym Sci* 2009 **112** (5) 3127
- Guided tissue regeneration with use of  $\beta$ -TCP/chitosan composite membrane
- Kusonwiriawong C, Pichayakorn W, Lipipun V, Ritthidej GC// \*Chulalongkorn University, Fac Pharmaceut Sci, Dept Mfg Pharm, TH-10330 Bangkok, Thailand  
*J Microencapsul* 2009 **26** (2) 111
- Retained integrity of protein encapsulated in spray-dried chitosan microparticles
- Lebouc F, Dez I\*, Gulea M, Madec PJ, Jaffres PA// \*Univ Caen, ENSICAEN, UMR CNRS 6507, Lab Chim Mol & Thioorgan, 6 Blvd Marechal Juin, FR-14050 Caen, France  
*Phosphorus Sulfur Silicon* 2009 **184** (4) 872
- Synthesis of phosphorus-containing chitosan derivatives
- Li F, Wu H\*, Zhang H, Li F, Gu CH, Yang Q// \*Fourth Military Med Univ, Sch Pharm, Dept Chem, CN-710032 Xian, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (4) 773
- Antitumor drug paclitaxel-loaded pH-sensitive nanoparticles targeting tumor extracellular pH
- Li HX, Liu J, Ding S, Zhang C\*, Shen WB, You QD// \*China Pharmaceut Univ, Ctr Drug Discovery, CN-210009 Nanjing, Peoples Rep China  
*Int J Biol Macromol* 2009 **44** (3) 249
- Synthesis of novel pH-sensitive chitosan graft copolymers and micellar solubilization of paclitaxel
- Li QZ, Yang DZ, Ma GP, Xu Q, Chen XM, Lu FM, Nie J// \*Beijing Univ Chem Technol, State Key Lab Chem Resource Engn, CN-100029 Beijing, Peoples Rep China  
*Int J Biol Macromol* 2009 **44** (2) 121
- Synthesis and characterization of chitosan-based hydrogels
- Liang S, Liu L, Huang Q, Yam KL// \*Rutgers Univ, Dept Food Sci, 65 Dudley Rd, New Brunswick, NJ 08901, USA  
*Carbohydr Polym* 2009 **77** (4) 718
- Preparation of single or double-network chitosan/poly(vinyl alcohol) gel films through selectively cross-linking method
- Liu YL, Jiang S, Ke ZM, Wu HS, Chi CW, Guo ZY// \*Tongji Univ, Coll Life Sci & Technol, Inst Protein Res, 1239 Siping Rd, CN-200092 Shanghai, Peoples Rep China  
*Carbohydr Res* 2009 **344** (6) 815
- Recombinant expression of a chitosanase and its application in chitosan oligosaccharide production
- Machado MO, Lopes ECN, Sousa KS, Airoidi C// \*Univ Campinas, Inst Chem, PO Box 6154, BR-13084-971 Campinas, Sao Paulo, Brazil  
*Carbohydr Polym* 2009 **77** (4) 760
- The effectiveness of the protected amino group on crosslinked chitosans for copper removal and the thermodynamics of interaction at the solid/liquid interface

- Martin GL, Ross JA, Minter SD, Jameson DM\*, Cooney MJ// \*Univ Hawaii, John Burns Med Sch, Honolulu, HI 96822, USA  
*Carbohydr Polym* 2009 **77** (4) 695  
 Fluorescence characterization of chemical microenvironments in hydrophobically modified chitosan
- Meng S, Liu ZJ\*, Shen L, Guo Z, Chou LSL, Zhong W, Du QC, Ge J// \*Shanghai Ctr Biomed Engn, Bldg 14A, 528 Ruiqing Rd, CN-201201 Shanghai, Peoples Rep China  
*Biomaterials* 2009 **30** (12) 2276  
 The effect of a layer-by-layer chitosan-heparin coating on the endothelialization and coagulation properties of a coronary stent system
- Mertins O, Lionzo MIZ, Micheletto YMS, Pohlmann AR, Da Silveira NP// Univ Fed Rio Grande do Sul, Inst Quim, Ave Bento Gonçalves 9500, Caixa Postal 15003, BR-91501-970 Porto Alegre, RS, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 463  
 Chitosan effect on the mesophase behavior of phosphatidylcholine supramolecular systems
- Meyer WL, Liu Y, Shi XW, Yang XH, Bentley WE, Payne GF\*// \*Univ Maryland, Inst Biotechnol, Ctr Biosystem Res, 5115 Plant Sci Bldg, College Park, Md 20742, USA  
*Biomacromolecules* 2009 **10** (4) 858  
 Chitosan-coated wires: Conferring electrical properties to chitosan fibers
- Mincheva R, Bougard F, Paneva D, Vachaud M, Manolova N, Rashkov I\*, Dubois P// \*Bulgarian Acad Sci, Inst Polymers, Lab Bioactive Polymers, Acad G Bonchev Str, Bl 103A, BU-1113 Sofia, Bulgaria  
*Biomacromolecules* 2009 **10** (4) 838  
 Natural polyampholyte-based core-shell nanoparticles with *N*-carboxyethyl-chitosan-containing core and poly(ethylene oxide) shell
- Mincheva R, Bougard F, Paneva D, Vachaud M, Fustin CA, Gohy JF, Manolova N, Rashkov I\*, Dubois P// \*Address as above  
*J Polym Sci A Polym Chem* 2009 **47** (8) 2105  
 Polyelectrolyte complex nanoparticles from *N*-carboxyethylchitosan and polycationic double hydrophilic diblock copolymers
- Munro NH, Hanton LR\*, Moratti SC, Robinson BH// \*Univ Otago, Dept Chem, PO Box 56, Dunedin 9054, New Zealand  
*Carbohydr Polym* 2009 **77** (3) 496  
 Synthesis and characterisation of chitosan-graft-poly(OEGMA) copolymers prepared by ATRP
- Nunthanid J, Luangtana-Anan M, Sriamornsak P, Limmatvapirat S, Huanbutta K, Puttipatkhachorn S// Silpakorn University, Faculty Pharm, Department Pharmaceut Technol, Songpol Rd, Sanamchan Pl, TH-73000 Nakhon Pathom, Thailand  
*Eur J Pharm Biopharm* 2009 **71** (2) 356  
 Use of spray-dried chitosan acetate and ethylcellulose as compression coats for colonic drug delivery: Effect of swelling on triggering *in vitro* drug release
- Ogino A, Kral M, Yamashita M, Nagatsu M\*// \*Shizuoka University, Graduate School Science & Technology, Johoku 3-5-1, Hamamatsu, Shizuoka 432 801, Japan  
*Appl Surf Sci* 2008 **255** (5) 2347  
 Effects of low-temperature surface-wave plasma treatment with various gases on surface modification of chitosan
- Oliveira MA, Ciarlini PC, Feitosa JPA, De Paula RCM, Paula HCB\*// \*Univ Fed Ceara, Dept Quim Organ & Inorgan, C/ Postal 6021, BR-60455-760 Fortaleza, Ceara, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 448  
 Chitosan/"angico" gum nanoparticles: Synthesis and characterization
- Ostrowska-Czubenko J, Gierszewska-Druzynska M// Nicolaus Copernicus Univ, Fac Chem, Gagarina 7, PL-87100 Torun, Poland  
*Carbohydr Polym* 2009 **77** (3) 590  
 Effect of ionic crosslinking on the water state in hydrogel chitosan membranes
- Pacheco N, Garnica-Gonzalez M, Ramirez-Hernandez JY, Flores-Albino B, Gimeno M, Barzana E, Shirai K\*// \*Univ Autonoma Metropolitana, Dept Biotechnol, Biopolymer Lab, Av San Rafael Atlixco 186, MX-09340 Mexico City, DF, Mexico  
*Bioresour Technol* 2009 **100** (11) 2849  
 Effect of temperature on chitin and astaxanthin recoveries from shrimp waste using lactic acid bacteria
- Rotta J, Ozorio RA, Kehrwald AM, Barra GMD, Amboni RDDC, Barreto PLM\*// \*Univ Fed Santa Catarina, Dept Food Sci & Technol, Rod Admar Gonzaga 1346, BR-88034-001 Florianopolis, SC, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 619  
 Parameters of color, transparency, water solubility, wettability and surface free energy of chitosan/hydroxypropylmethylcellulose (HPMC) films plasticized with sorbitol
- Ruan QC, Zhu YC\*, Li F, Xiao JW, Zeng Y, Xu FF// \*Chinese Acad Sci, Shanghai Inst Ceram, Key Lab Inorganic Coating Materials, Dingxi 1295, CN-200050 Shanghai, Peoples Rep China  
*J Colloid Interface Sci* 2009 **333** (2) 725  
 Investigation of layer-by-layer assembled heparin and chitosan multilayer films via electrochemical spectroscopy
- Seo DH, Jeong YI, Kim DG, Jang MJ, Jang MK, Nah JW\*// \*Sunchon Natl Univ, Dept Polymer Sci & Engn, Biomed Polymer Lab, 315 Maegok dong, Sunchon 540 742, Jeonnam, South Korea  
*Colloid Surface B* 2009 **69** (2) 157  
 Methotrexate-incorporated polymeric nanoparticles of methoxy poly(ethylene glycol)-grafted chitosan
- Shah S, Pal A, Kaushik VK, Devi S\*// \*Maharaja Sayajirao Univ Baroda, Fac Sci, Dept Chem, IN-390002 Baroda, Gujarat, India  
*J Appl Polym Sci* 2009 **112** (5) 2876  
 Preparation and characterization of venlafaxine hydrochloride-loaded chitosan nanoparticles and *in vitro* release of drug
- Shalumon KT, Binulal NS, Selvamurugan N, Nair SV, Menon D, Furuike T, Tamura H, Jayakumar R\*// \*Amrita Viswa Vidyapeetham Univ, Amrita Inst Med Sci & Res Ctr, Amrita Ctr Nanosci, IN-682026 Kochi, India  
*Carbohydr Polym* 2009 **77** (4) 863  
 Electrospinning of carboxymethyl chitin/poly(vinyl alcohol) nanofibrous scaffolds for tissue engineering applications
- Sheng Y, Liu CS\*, Yuan Y, Tao XY, Yang F, Shan XQ, Zhou HJ, Xu F// \*East China Univ Sci & Technol, State Key Lab Bioreactor Engn, CN-200237 Shanghai, Peoples Rep China  
*Biomaterials* 2009 **30** (12) 2340  
 Long-circulating polymeric nanoparticles bearing a combinatorial coating of PEG and water-soluble chitosan
- Singh J, Dutta PK\*// \*Motilal Nehru Natl Inst Technol, Dept Chem, IN-211004 Allahabad, India  
*J Polym Res* 2009 **16** (3) 231  
 Spectroscopic and conformational study of chitosan acid salts
- Stulzer HK, Tagliari MP, Parize AL, Silva MS, Laranjeira MCM// Univ Fed Santa Catarina, Dept Quim, Lab Quitech, BR-88040-900 Florianopolis, SC, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 387  
 Evaluation of cross-linked chitosan microparticles containing acyclovir obtained by spray-drying
- Tallury P, Kar S, Bamrungsap S, Huang YF, Tand WH, Santra S\*// \*Univ Cent Florida, Nanosci Technol Ctr, Orlando, FL 32826, USA  
*Chem Commun* 2009 (17) 2347  
 Ultra-small water-dispersible fluorescent chitosan nanoparticles: Synthesis, characterization and specific targeting
- Tan HP, Chu CR, Payne KA, Marra KG\*// \*Univ Pittsburgh, Dept Surg, Div Plast Surg, 1655 East Biomed Sci Tower, 200 Lothrop St, Pittsburgh, Pa 15261, USA  
*Biomaterials* 2009 **30** (13) 2499  
 Injectable *in situ* forming biodegradable chitosan-hyaluronic acid based hydrogels for cartilage tissue engineering
- Tan YL, Liu CG\*// \*Ocean Univ China, Coll Marine Life Sci, CN-266003 Qingdao, Peoples Rep China  
*Colloid Surface B* 2009 **69** (2) 178  
 Self-aggregated nanoparticles from linoleic acid modified carboxymethyl chitosan: Synthesis, characterization and application *in vitro*
- Teijeiro-Osorio D, Remunan-Lopez C, Alonso MJ\*// \*Univ Santiago de Compostela, Fac Pharm, Dept Pharm & Pharmaceut Technol, Campus Sur, ES-15782 Santiago de Compostela, Spain  
*Eur J Pharm Biopharm* 2009 **71** (2) 257  
 Chitosan/cyclodextrin nanoparticles can efficiently transfect the airway epithelium *in vitro*
- Tsai ML, Tseng LZ, Chen RH\*// \*Nat Taiwan Ocean Univ, Dept Food Sci, 2 Pei-Ning Rd, Keelung 20224, Taiwan  
*Carbohydr Polym* 2009 **77** (4) 767  
 Two-stage microfluidization combined with ultrafiltration treatment for chitosan mass production and molecular weight manipulation
- Vasconcelos HL, Guibal E, Laus R, Vitali L, Favere VT// Univ Fed Santa Catarina, Lab Quitech, BR-88040-900 Florianopolis, SC, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 613  
 Competitive adsorption of Cu(II) and Cd(II) ions on spray-dried chitosan loaded with reactive orange 16
- Wan Y, Lu XL, Dalai SQ, Zhang J// Huazhong Univ Sci & Technol, Advanced Biomaterials & Tissue Engn Ctr, CN-430074 Wuhan, Peoples Rep China  
*Thermochim Acta* 2009 **487** (1-2) 33  
 Thermophysical properties of polycaprolactone/chitosan blend membranes
- Wang X, Du Y, Luo J, Yang J, Wang W, Kennedy JF// Wuhan Univ, Coll Resource & Environm Sci, Dept Environm Sci, CN-430079 Wuhan, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (3) 449  
 A novel biopolymer/rectorite nanocomposite with antimicrobial activity
- Wang XL, Huang Y, Zhu J, Pan YB, He R, Wang YZ// Sichuan Univ, Coll Chem, Ctr Degradable & Flame Retardant Polymer Materials ERCE, CN-610064 Chengdu, Peoples Rep China  
*Carbohydr Res* 2009 **344** (6) 801  
 Chitosan-graft poly(*p*-dioxanone) copolymers: Preparation, characterization, and properties

- Weinhold MX, Sauvageau JCM, Keddig N, Matzke M, Tartsch B, Grunwald I, Kubel C, Jastorff B, Thoming J// UFT, Dept Chem Engrg Recovery & Recycling, Ctr Environm Res & Sustainable Technol, DE-28359 Bremen, Germany  
*Green Chem* 2009 **11** (4) 498  
Strategy to improve the characterization of chitosan for sustainable biomedical applications: SAR guided multi-dimensional analysis
- Yang H, Yuan B, Lu YB, Cheng RS// Nanjing Univ, Sch Chem & Chem Engrg, Dept Polymer Sci & Technol, MoE Key Lab Mesoscopic Chem, CN-210093 Nanjing, Peoples Rep China  
*Sci China B* 2009 **52** (3) 249  
Preparation of magnetic chitosan microspheres and its applications in wastewater treatment
- Yoshida CMP, Oliveira EN, Franco TT// Univ Estadual Campinas, Sch Chem Engrg, POB 6066, BR-13083-970 Campinas, SP, Brazil  
*Packag Technol Sci* 2009 **22** (3) 161  
Chitosan tailor-made films: The effects of additives on barrier and mechanical properties
- Yue W, He R, Yao P\*, Wei Y// \*Guangxi Univ, Guangxi Key Lab Subtrop Bio-Resource Conservation & Utilization, CN-530004 Nanning, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (3) 639  
Ultraviolet radiation-induced accelerated degradation of chitosan by ozone treatment
- Zhang HF, Zhong H\*, Zhang LL, Chen SB, Zhao YJ, Zhu YL// \*Huaiyin Teacher's Coll, Dept Chem, Jiangsu Key Lab Chem Low Dimensional Materials, CN-223300 Huaian, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (4) 785  
Synthesis and characterization of thermosensitive graft copolymer of *N*-isopropylacrylamide with biodegradable carboxymethylchitosan
- Zhang JP, Wang AQ// \*Chinese Acad Sci, Lanzhou Inst Chem Phys, Ctr Ecomaterials & Green Chem, CN-730000 Lanzhou, Peoples Rep China  
*Express Polym Lett* 2009 **3** (5) 302  
Synergistic effects of Na<sup>+</sup>-montmorillonite and multi-walled carbon nanotubes on mechanical properties of chitosan film
- Zia KM, Barikani M, Khalid AM, Honarkar H, Ul-Haq E// Faisalabad Inst Res Sci & Technol, Sch Biotechnol, Dept Chem, PK-38000 Faisalabad, Pakistan  
*Carbohydr Polym* 2009 **77** (3) 621  
Surface characteristics of UV-irradiated chitin-based polyurethane elastomers
- Zia KM, Barikani M, Zuber M\*, Bhatti IA, Barmar M// \*Govt Coll Univ, Dept Ind Chem, Faisalabad, Pakistan  
*Int J Biol Macromol* 2009 **44** (2) 182  
Surface characteristics of polyurethane elastomers based on chitin/1,4-butane diol blends
- Zou Y, Khor E\*// \*Nat Univ Singapore, Dept Chem, 3 Science Dr 3, SG-117543 Singapore, Rep Singapore  
*Carbohydr Polym* 2009 **77** (3) 516  
Preparation of sulfated-chitins under homogeneous conditions
- 5. Cyclodextrins**
- Bae HY, Kim SY, Ahn J, Kwak HS// Sejong Univ, Dept Food Sci & Technol, Seoul 143 747, South Korea  
*Milchwissenschaft* 2009 **64** (2) 165  
Properties of cholesterol-reduced Feta cheese made by crosslinked  $\beta$ -cyclodextrin
- Biswas A, Cheng HN, Selling GW, Willett JL, Kendra DF// USDA/ARS, Nat Ctr Agric Utilization Res, Plant Polymer Res Unit, 1815 Nth University St, Peoria, IL 61604, USA  
*Carbohydr Polym* 2009 **77** (3) 681  
Synthesis of phenyl-adducted cyclodextrin through the click reaction
- Bowen RL, Carey CM, Flynn KM, Guttman CM// American Dent Assoc Fdn, Paffenbarger Res Ctr, Gaithersburg, Md 20899, USA  
*J Res Natl Inst Stand Technol* 2009 **114** (1) 1  
Synthesis of polymerizable cyclodextrin derivatives for use in adhesion-promoting monomer formulations
- Bowen RL, Schumacher GE, Giuseppetti AA, Guttman CM, Carey CM// American Dental Association Fdn, Paffenbarger Res Ctr, Gaithersburg, Md 20899, USA  
*J Res Natl Inst Stand Technol* 2009 **114** (1) 11  
Adhesive bonding to dentin improved by polymerizable cyclodextrin derivatives
- De Rossi RH, Silva OF, Vico RV, Gonzalez CJ// Univ Nacl Cordoba, INFIQC, Dept Quim Organ, Ciudad Univ, AR-5000 Cordoba, Argentina  
*Pure & Appl Chem* 2009 **81** (4) 755  
Molecular organization and recognition properties of amphiphilic cyclodextrins
- Dreiss CA, Nwabunwanne E, Liu R, Brooks NJ// KCL, Division Pharmaceutical Science, Franklin Wilkins Building, 150 Stamford St, London SE1 9NH, England  
*Soft Matter* 2009 **5** (9) 1888  
Assembling and de-assembling micelles: Competitive interactions of cyclodextrins and drugs with pluronic
- Figueiras A, Hombach J, Veiga F\*, Bernkop-Schurch A// \*Univ Coimbra, Fac Pharm, Dept Pharmaceut Technol, PT-3000-295 Coimbra, Portugal  
*Eur J Pharm Biopharm* 2009 **71** (2) 339  
*In vitro* evaluation of natural and methylated cyclodextrins as buccal permeation enhancing system for omeprazole delivery
- Franco C, Schwingel L, Lula I, Sinisterra RD, Koester LS, Bassani VL\*// \*Univ Fed Rio Grande do Sul, Fac Farm, Programa Posgrad Ciencias Farmaceut, Av Ipiranga 2752, BR-90610-000 Porto Alegre, RS, Brazil  
*Int J Pharm* 2009 **369** (1-2) 5  
Studies on coumestrol/ $\beta$ -cyclodextrin characterization
- Geze A, Choinsard L, Putaux JL, Wouessidjewe D// Univ Grenoble, UFR Pharm, ICMG FR 2607, DPM-Pharmacotech, CNRS UMR 5063, BP53, FR-38041 Grenoble 9, France  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 458  
Colloidal systems made of biotransesterified  $\alpha$ ,  $\beta$  and  $\gamma$  cyclodextrins grafted with C10 alkyl chains
- Hornig S, Liebert T, Esker AR, Stoll SL, Mertzman J, Glasser WG, Heinze T\*// \*University Jena, Centre Excellence Polysaccharide Res, DE-07743 Jena, Germany  
*Langmuir* 2009 **25** (9) 4845  
Determination of the surface coverage of adsorbed dextran and  $\beta$ -cyclodextrin derivatives on gold by surface titration
- Ionita G, Maganu M, Capriou MT, Ionita P\*// \*Univ Bucharest, Dept Organ Chem, 90 Panduri, RO-050663 Bucharest, Romania  
*J Inorg Organometall Polym* 2009 **19** (2) 228  
Functionalized hybrid nanoparticles and their interaction with spin-labeled cyclodextrin
- Matilainen L, Maunu SL, Pajander J, Auriola S, Jaaskelainen I, Larsen KL, Jarvinen T, Jarho P// Univ Kuopio, Dept Pharmaceut Chem, POB 1627, FI-70211 Kuopio, Finland  
*Eur J Pharm Sci* 2009 **36** (4-5) 412  
The stability and dissolution properties of solid glucagon/ $\gamma$ -cyclodextrin powder
- Misiuk W, Zalewska M// Univ Bialystok, Inst Chem, Dept Biol & Chem, Bialystok, Poland  
*Carbohydr Polym* 2009 **77** (3) 482  
Investigation of inclusion complex of trazodone hydrochloride with hydroxypropyl- $\beta$ -cyclodextrin
- Osaki M, Takashima Y, Yamaguchi H, Harada A\*// \*Osaka University, Graduate School Science, Dept Macromol Sci, 1-1 Machikaneyama cho, Osaka 560 0043, Japan  
*Org Biomol Chem* 2009 **7** (8) 1646  
Switching of polymerization activity of cinnamoyl- $\alpha$ -cyclodextrin
- Park C, Youn H, Kim H, Noh T, Kook YH, Oh ET, Park HJ\*, Kim C// \*Inha Univ, Coll Med, Dept Microbiol, Ctr Advanced Med Educat, BK21 Project, Incheon 400 712, South Korea  
*J Mater Chem* 2009 **19** (16) 2310  
Cyclodextrin-covered gold nanoparticles for targeted delivery of an anti-cancer drug
- Salustio PJ, Feio G, Figueirinhas JL, Pinto JF, Marques HMC\*// \*Univ Lisbon, Fac Farm, iMed UL Res Inst Med & Pharmaceut Sci, Av Prof Gama Pinto, PT-1649-003 Lisbon, Portugal  
*Eur J Pharm Biopharm* 2009 **71** (2) 377  
The influence of the preparation methods for the inclusion of model drugs in a  $\beta$ -cyclodextrin cavity
- Uyar T, Besenbacher E// Bilkent University, UNAM-Inst Materials Sci & Nanotechnol, TR-06800 Ankara, Turkey  
*Eur Polym J* 2009 **45** (4) 1032  
Electrospinning of cyclodextrin functionalized polyethylene oxide (PEO) nanofibers
- Uyar T, Havelund R, Nur Y, Hacıoglu J, Besenbacher F, Kingshott P// Bilkent University, UNAM-Inst Materials Sci & Nanotechnol, TR-06800 Ankara, Turkey  
*J Membr Sci* 2009 **332** (1-2) 129  
Molecular filters based on cyclodextrin functionalized electrospun fibers
- Ward S, Zhang P, Ling CC\*// \*Univ Calgary, Dept Chem, Alberta Ingenu Ctr Carbohydrate Sci, Calgary, Alberta, Canada T2N 1N4  
*Carbohydr Res* 2009 **344** (6) 808  
The conformation of a tetraallylated  $\alpha$ -cyclodextrin with unusual proton NMR
- Yang CA, Li HZ, Wang X, Li J\*// \*National University Singapore, Faculty Engineering, Div Bioengn, 7 Engineering Dr 1, SG-117574 Singapore, Rep Singapore  
*J Biomed Mater Res A* 2009 **89A** (1) 13  
Cationic supramolecules consisting of oligoethylenimine-grafted  $\alpha$ -cyclodextrins threaded on poly(ethylene oxide) for gene delivery
- Zhao S, Lee J\*// \*Chung Ang Univ, Dept Chem Engrg & Materials Sci, Seoul 156 756, South Korea  
*Macromol Res* 2009 **17** (3) 156  
Supramolecular hydrogels instantaneously formed by inclusion complexation between amphiphilic oligomers and  $\alpha$ -cyclodextrins

## 7. Lipopolysaccharides

Boutet J, Guerreiro C, Mulard LA\*// \*Inst Pasteur, CNRS URA 2128, Unite Chim Biomol, 28 rue Dr Roux, FR-75015 Paris, France  
*J Org Chem* 2009 **74** (7) 2651

Efficient synthesis of six tri- to hexasaccharide fragments of *Shigella flexneri* serotypes 3a and/or X O-antigen, including a study on acceptors containing N-trichloroacetylglucosamine versus N-acetylglucosamine

MacLean LL, Pagotto F, Farber JM, Perry MB\*// \*Nat'l Res Council Canada, Inst Biol Sci, Ottawa, Ontario, Canada K1A 0R6  
*Carbohydr Res* 2009 **344** (5) 667

The structure of the O-antigen in the endotoxin of the emerging food pathogen *Cronobacter* (*Enterobacter*) *muytjensii* strain 3270

Ovchinnikova OG, Kocharova NA, Shashkov AS, Bialczak-Kokot M, Knirel YA, Rozalski A// Russian Acad Sci, ND Zelinskii Organ Chem Inst, RU-119991 Moscow, Russia  
*Carbohydr Res* 2009 **344** (5) 683

Structure of the O-polysaccharide from the lipopolysaccharide of *Providencia alcalifaciens* O31 containing an ether of D-mannose with (2R,4R)-2,4-dihydroxypentanoic acid

Perepelov AV, L'vov VL, Liu B, Senchenkova SN, Shekht ME, Shashkov AS, Feng L, Aparin PG, Wang L, Knirel YA// Russian Acad Sci, ND Zelenskii Organ Chem Inst, RU-119991 Moscow, Russia  
*Carbohydr Res* 2009 **344** (5) 687

A similarity in the O-acetylation pattern of the O-antigens of *Shigella flexneri* types 1a, 1b, and 2a

Pieretti G, Corsaro MM\*, Lanzetta R, Parrilli M, Vilches S, Merino S, Tomas JM// \*Univ Naples Federico 2, Dipt Chim Organ & Biochim, IT-80126 Naples, Italy  
*Eur J Org Chem* 2009 (9) 1365

Structure of the core region from the lipopolysaccharide of *Plesiomonas shigelloides* strain 302-73 (serotype O1)

Verbelen C, Christiaens N, Alsteens D, Dupres V, Baulard AR, Dufrene YF\*// \*Univ Catholique Louvain, Unite Chim Interfaces, Croix Sud 2/18, BE-1348 Louvain, Belgium  
*Langmuir* 2009 **25** (8) 4324

Molecular mapping of lipoarabinomannans on mycobacteria

## 8. Pectin

Bae IY, Joe YN, Rha HJ, Lee S, Yoo SH, Lee HG\*// \*Hanyang University, Department Food & Nutr, 17 Haengdang-dong, Seongdong-gu, Seoul 133 791, South Korea  
*Food Hydrocolloid* 2009 **23** (7) 1980

Effect of sulfation on the physicochemical and biological properties of citrus pectins

Hodges LA, Connolly SM, Band J, O'Mahony B, Ugurlu T, Turkoglu M, Wilson CG, Stevens HNE// Glasgow Royal Infirmary, Bioimages Res Ltd, 84 Castle St, Glasgow G4 0SF, Scotland  
*Int J Pharm* 2009 **370** (1-2) 144

Scintigraphic evaluation of colon targeting pectin-HPMC tablets in healthy volunteers

Jaya S, Durance TD, Wang R// Univ British Columbia, Fac Land & Food System, Food Nutr & Hlth Program, 2205 East Mall, Vancouver, Brit Columbia, Canada V6T 1Z4  
*J Microencapsul* 2009 **26** (2) 143

Effect of alginate-pectin composition on drug release characteristics of microcapsules

Pourjavadi A, Barzegar S// Sharif Univ Technol, Dept Chem, Polymer Res Lab, Azadi Ave, POB 11365-9516, Tehran, Iran  
*Starch* 2009 **61** (3-4) 161

Synthesis and evaluation of pH and thermosensitive pectin-based superabsorbent hydrogel for oral drug delivery systems

Pourjavadi A, Barzegar S// Sharif Univ Technol, Dept Chem, Polymer Res Lab, Azadi Ave, POB 11365-9516, Tehran, Iran  
*Starch* 2009 **61** (3-4) 173

Smart pectin-based superabsorbent hydrogel as a matrix for ibuprofen as an oral non-steroidal anti-inflammatory drug delivery

Silva MAD, Bierhalz ACK, Kieckbusch TG\*// \*Univ Campinas, UNICAMP, Fac Engn Quim, PO Box 6066, BR-13083-970 Campinas, SP, Brazil  
*Carbohydr Polym* 2009 **77** (4) 736

Alginate and pectin composite films crosslinked with Ca<sup>2+</sup> ions: Effect of the plasticizer concentration

Slavov A, Garnier C, Crepeau MJ, Durand S, Thibault JF, Bonnin E\*// \*INRA UR 1268 Biopolym Interactions Assemblages, BP 71627, FR-44316 Nantes, France  
*Carbohydr Polym* 2009 **77** (4) 876

Gelation of high methoxy pectin in the presence of pectin methylesterases and calcium

Yapo BM// Univ Abobo-Adjame, Unite Formation & Rech Sci & Technol Aliments, 02 BP 801, Abidjan 02, Cote d'Ivoire

*Biomacromolecules* 2009 **10** (4) 717

Pineapple and banana pectins comprise fewer homogalacturonan building blocks with a smaller degree of polymerization as compared with yellow passion fruit and lemon pectins: Implication for gelling properties

Yoo SH, Lee BH, Savary BJ, Lee S, Lee HG, Hotchkiss AT// Sejong Univ, Dept Food Sci & Technol & Carbohydr Bioprod Res Ctr, 98 Gunja-dong, Gwangjin-gu, Seoul 143 747, South Korea  
*Food Hydrocolloid* 2009 **23** (7) 1926

Characteristics of enzymatically-deesterified pectin gels produced in the presence of monovalent ionic salts

## 9. Starch

Adebowale KO, Henle T, Schwarzenbolz U, Doert T// Tech Univ Dresden, Fak Naturwissenschaften & Math, Inst Lebensmittelchemie, Dresden, Germany  
*Food Hydrocolloid* 2009 **23** (7) 1947

Modification and properties of African yam bean (*Sphenostylis stenocarpa* Hochst. ex A. Rich.) Harms starch I: Heat moisture treatments and annealing

An HJ, King JM\*// \*Louisiana State Univ, Dept Food Sci, Ctr Agric, 111 Food Sci Bldg, Baton Rouge, La 70803, USA  
*J Food Sci* 2009 **74** (3) C278

Using ozonation and amino acids to change pasting properties of rice starch

Brumovsky LA, Brumovsky JO, Fretes MR, Peralta JM// Univ Nacl Misiones, Fac Ciencias Exactas Quim & Nat, Felix Azara 1552, AR-3300 Posadas, Misiones, Argentina  
*Int J Food Prop* 2009 **12** (3) 451

Quantification of resistant starch in several starch sources treated thermally

Cabral ACS, Said S, Oliveira WP\*// \*Univ Sao Paulo, Fac Ciencias Farmaceut Ribeirao Preto, Av Cafe s/n, Bloco Q, BR-14040-903 Ribeirao Preto, Sao Paulo, Brazil  
*Int J Food Prop* 2009 **12** (3) 536

Retention of the enzymatic activity and product properties during spray drying of pineapple stem extract in presence of maltodextrin

Chung HJ, Liu Q\*// \*Agric & Agri-Food Canada, Guelph Food Res Ctr, 93 Stone Rd West, Guelph, Ontario, Canada N1G 5C9  
*Carbohydr Polym* 2009 **77** (4) 807

Impact of molecular structure of amylopectin and amylose on amylose chain association during cooling

Chung HJ, Hoover R, Liu Q\*// \*Agric & Agri-Food Canada, Guelph Food Res Ctr, 93 Stone Rd West, Guelph, Ontario, Canada N1G 5C9  
*Int J Biol Macromol* 2009 **44** (2) 203

The impact of single and dual hydrothermal modifications on the molecular structure and physicochemical properties of normal corn starch

Cui DP, Liu MZ\*, Wu L, Bi YH// \*Lanzhou Univ, Dept Chem, Tianshui Rd 222, CN-730000 Lanzhou, Peoples Rep China  
*Int J Biol Macromol* 2009 **44** (3) 294

Synthesis of potato starch sulfate and optimization of the reaction conditions

Da Roz AL, Curvelo AAS, Gandini A\*// \*Univ Aveiro, CICECO & Chem Dept, PT-3810-193 Aveiro, Portugal  
*Carbohydr Polym* 2009 **77** (3) 526

Preparation and characterization of cross-linked starch polyurethanes

Devi AF, Fibrianto K, Torley PJ, Bhandari B\*// \*Univ Queensland, Sch Land Crop & Food Sci, Brisbane, Qld 4072, Australia  
*J Cereal Sci* 2009 **49** (2) 278

Physical properties of cryomilled rice starch

Galdeano MC, Grossmann MVE\*, Mali S, Bello-Perez LA, Garcia MA, Zamudio-Flores PB// \*Univ Estadual Londrina, Dept Ciencia & Tecnol Alimentos, CCA, Caixa Postal 6001, BR-86051-990 Londrina, PR, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 492

Effects of production process and plasticizers on stability of films and sheets of oat starch

Galdeano MC, Mali S\*, Grossmann MVE, Yamashita F, Garcia MA// \*State Univ Londrina, Dept Biochem & Biotechnol, CCE, POB 6001, BR-86051-990 Londrina, PR, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 532

Effects of plasticizers on the properties of oat starch films

Garcia NL, Ribba L, Dufresne A, Aranguren MI, Goyanes S\*// \*FCEN UBA, Dept Fis, Lab Polimeros & Materiales Compuestos, AR-1428 Buenos Aires, DF, Argentina  
*Macromol Mater Eng* 2009 **294** (3) 169

Physico-mechanical properties of biodegradable starch nanocomposites

Gomes AMM, Da Silva PL, Soares SDA, Da Silva CEM, Gallao MI, Germani R, Ricardo NMPS\*// \*Fed Univ Ceara, Dept Organ & Inorgan Chem, Polym Lab, PO Box 6021, BR-60125-150 Fortaleza, Brazil  
*Carbohydr Polym* 2009 **77** (4) 885

Isolation and physico-chemical and rheological characterisation of the Brazilian jalap starch (*Oeperculina tuberosa* Meisn.)

- Gupta M, Bawa AS\*, Semwal AD// \*DRDO, Defence Food Res Lab, IN-570011 Mysore, India  
*Int J Food Prop* 2009 **12** (3) 587  
 Morphological, thermal, pasting and rheological properties of barley starch and their blends
- Habeych E, Guo X, Van Soest J, Van der Goot AJ\*, Boom R// \*Wageningen Univ, Food Process Engn Grp, Bomenweg 2, NL-6703 HD Wageningen, The Netherlands  
*Carbohydr Polym* 2009 **77** (4) 703  
 On the applicability of Flory-Huggins theory to ternary starch-water-solute systems
- Han Z, Zeng XA\*, Zhang BS, Yu SJ// \*Sth China Univ Technol, Coll Light Ind & Food Sci, 381 Wushan Rd, CN-510640 Guangzhou, Peoples Rep China  
*J Food Eng* 2009 **93** (3) 318  
 Effects of pulsed electric fields (PEF) treatment on the properties of corn starch
- Hashem A, Ahmad F, Fahad R// King Saud Univ, Fac Sci & Art Shagra, POB 2454, SA-11451 Riyadh, Saudi Arabia  
*Adsorpt Sci Technol* 2008 **26** (8) 563  
 Application of some starch hydrogels for the removal of mercury(II) ions from aqueous solutions
- Kryvoruchko V, Machmuller A, Bodiroza V, Amon B, Amon T// Univ Nat Resources & Appl Life Sci, Dept Sustainable Agric Systems, Div Agric Engn, Peter Jordan Str 82, AT-1190 Vienna, Austria  
*Biomass Bioenerg* 2009 **33** (4) 620  
 Anaerobic digestion of by-products of sugar beet and starch potato processing
- Labuschagne MT, Elago O, Koen E// Univ Free State, Dept Plant Sci, POB 339, ZA-9300 Bloemfontein, Rep Sth Africa  
*J Cereal Sci* 2009 **49** (2) 184  
 The influence of temperature extremes on some quality and starch characteristics in bread, biscuit and durum wheat
- Lamberts L, Gomand SV, Derycke V, Delcour JA// KUL, Lab Food Chem & Biochem, Kasteelpark Arenberg 20, BE-3001 Louvain, Belgium  
*J Agric Food Chem* 2009 **57** (8) 3210  
 Presence of amylose crystallites in parboiled rice
- Lee JH, Han JA, Lim ST\*// \*Korea Univ, Grad Sch Life Sci, Seoul 136 701, South Korea  
*Food Hydrocolloid* 2009 **23** (7) 1935  
 Effect of pH on aqueous structure of maize starches analyzed by HPSEC-MALLS-RI system
- Liu H, Yu L\*, Simon G, Dean K, Chen L// \*Commonwealth Sci & Ind Res Organization, Materials Sci & Engn, Gate 4, Normanby Rd, Clayton South, Melbourne, Vic 3169, Australia  
*Carbohydr Polym* 2009 **77** (3) 662  
 Effects of annealing on gelatinization and microstructures of corn starches with different amylose/amylopectin ratios
- Lopez-Rubio A, Clarke JM, Ben Scherer, Topping DL, Gilbert EP// IATA-CSIC, Novel Materials & Nanotechnol Lab, AC 73, ES-46100 Burjassot, Spain  
*Food Hydrocolloid* 2009 **23** (7) 1940  
 Structural modifications of granular starch upon acylation with short-chain fatty acids
- Lu ZH, Sasaki T, Li YY, Yoshihashi T, Li LT, Kohyama K\*// \*Nat Food Res Inst, Food Phys Lab, 2-1-12 Kannondai, Tsukuba, Ibaraki 305 8642, Japan  
*Food Hydrocolloid* 2009 **23** (7) 1712  
 Effect of amylose content and rice type on dynamic viscoelasticity of a composite rice starch gel
- Moritaka H, Nakazawa F// Showa Womens Univ, Grad Sch Human Life Sci, 1-7 Taishido, Setagaya ku, Tokyo 154 8533, Japan  
*Food Sci Technol Res* 2009 **15** (2) 133  
 The rheological and swallowing properties of rice starch
- Mostafa KM, Samarkandy AR, El-Sanabary AA// NIS, Textile & Chem Meteorol Div, POB 136, EG-12211 Giza, Egypt  
*J Appl Polym Sci* 2009 **112** (5) 2838  
 Preparation of poly(MAA)-crosslinked pregelled starch graft copolymer and its application in waste water treatments
- Noisuwan A, Hemar Y\*, Wilkinson B, Bronlund JE// \*Massey Univ, Inst Fundamental Sci, Private Bag 11 222, Palmerston North, New Zealand  
*Starch* 2009 **61** (3-4) 214  
 Dynamic rheological and microstructural properties of normal and waxy rice starch gels containing milk protein ingredients
- O'Brien S, Wang YJ\*// \*Univ Arkansas, Dept Food Sci, 2650 Nth Young Ave, Fayetteville, Ar 72704, USA  
*Carbohydr Polym* 2009 **77** (3) 464  
 Effects of shear and pH on starch phosphates prepared by reactive extrusion as a sustained release agent
- Ozturk S, Koksel H\*, Kahraman K, Ng PKW// \*Hacettepe Univ, Fac Engn, Dept Food Engn, TR-06800 Ankara, Turkey  
*Eur Food Res Technol* 2009 **229** (1) 115  
 Effect of debranching and heat treatments on formation and functional properties of resistant starch from high-amylose corn starches
- Pereira AGB, Gollveia RF, De Carvalho GM, Rubira AF, Muniz EC\*// \*Univ Estadual Maringa, Dept Quim, Grp Materiais Polimer & Compositos, Av Colombo 5790, BR-87020-900 Maringa, Parana, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 499  
 Polymer blends based on PEO and starch: Miscibility and spherulite growth rate evaluated through DSC and optical microscopy
- Pigorsch E// PTS Papiertechnische Stiftung, Pirnaer Str 37, DE-01809 Heidenau, Germany  
*Starch* 2009 **61** (3-4) 129  
 Spectroscopic characterisation of cationic quaternary ammonium starches
- Ren J, Fu H, Ren T, Yuan W// Tongji Univ, Sch Materials Sci & Engn, Inst Nano- & Bio-Polymeric Materials, 1239 Siping Rd, CN-200092 Shanghai, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (3) 576  
 Preparation, characterization and properties of binary and ternary blends with thermoplastic starch, poly(lactic acid) and poly(butylene adipate-co-terephthalate)
- Roudaut G, Farhat I, Poirier-Brulez F, Champion D// Univ Bourgogne, ENSBANA, Dept EMMA, 1 Esplanade Erasme, FR-21000 Dijon, France  
*Carbohydr Polym* 2009 **77** (3) 489  
 Influence of water, temperature and sucrose on dynamics in glassy starch-based products studied by low field <sup>1</sup>H NMR
- Saboktakim MR, Maharramov A, Ramazanov MA// Baku State University, Department Nanotechnology, Nanostructured Materials Synthesis Lab, Baku, Azerbaijan  
*Carbohydr Polym* 2009 **77** (3) 634  
 pH-sensitive starch hydrogels via free radical graft copolymerization, synthesis and properties
- Sanchez-Rivera MM, Mendez-Montealvo G, Nunez-Santiago C, De la Rosa-Millan J, Wang YJ, Bello-Perez LA\*// \*IPN, Ctr Desarrollo Prod Biot, Apartado Postal 24, MX-62731 Yautepec, Morelos, Mexico  
*Starch* 2009 **61** (3-4) 206  
 Physicochemical properties of banana starch oxidized under different conditions
- Sen G, Kumar R, Ghosh S, Pal S\*// \*Birla Inst Technol, Dept Appl Chem, Mesra, IN-835215 Ranchi, Jharkhand, India  
*Carbohydr Polym* 2009 **77** (4) 822  
 A novel polymeric flocculant based on polyacrylamide grafted carboxymethyl-starch
- Skurtys O, Aguilera JM// Univ Santiago Chile, Dept Food Sci & Technol, Avenida Ecuador 3769, Santiago, Chile  
*Food Hydrocolloid* 2009 **23** (7) 1810  
 Formation of O/W macroemulsions with a circular microfluidic device using saponin and potato starch
- Song F, Zhang LM\*, Li NN, Shi JF// \*Sun Yat Sen Zhongshan University, Sch Chem & Chem Engn, Inst Polymer Sci, CN-510275 Guangzhou, Peoples Rep China  
*Biomacromolecules* 2009 **10** (4) 959  
 In situ crosslinkable hydrogel formed from a polysaccharide-based hydrogelator
- Staroszczyk H// Gdansk University Technology, Chemistry Faculty, Department Food Chem Technol & Biotechnol, G Narutowicza 11/12, PL-80952 Gdansk, Poland  
*Carbohydr Polym* 2009 **77** (3) 506  
 Microwave-assisted silication of potato starch
- Stojanovic ZP, Jeremic K\*, Jovanovic S, Nierling W, Lechner MD// \*University Belgrade, Faculty Technology & Metallurgy, Karnegueva 4, RS-11000 Belgrade, Serbia  
*Starch* 2009 **61** (3-4) 199  
 Light scattering and viscosity investigation of dilute aqueous solutions of carboxymethyl starch
- Tan FJ, Dai WT, Hsu KC\*// \*China Med Univ, Dept & Grad Inst Nutr, 91 Hsueh Shih Rd, Taichung 40402, Taiwan  
*J Cereal Sci* 2009 **49** (2) 285  
 Changes in gelatinization and rheological characteristics of japonica rice starch induced by pressure/heat combinations
- Terao K, Fujii T, Tsuda M, Kitamura S, Norisuye T// Osaka University, Grad Sch Sci, Dept Macromol Sci, 1-1 Machikaneyama cho, Toyonaka, Osaka 560 0043, Japan  
*Polym J* 2009 **41** (3) 201  
 Solution properties of amylose tris(phenylcarbamate): Local conformation and chain stiffness in 1,4-dioxane and 2-ethoxyethanol
- Vriesmann LC, Silveira JLM, Petkowicz CLD\*// \*Univ Fed Parana, Dept Bioquim & Biol Mol, CP 19046, BR-81531-990 Curitiba, Parana, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 651  
 Chemical and rheological properties of a starch-rich fraction from the pulp of the fruit cupuassu (*Theobroma grandiflorum*)
- Vu Dang H, Loisel C\*, Desrumaux A, Doublier JL// \*ENITIAA, Lab GEPEA, rue de la Geraudiere, BP 82225, FR-44322 Nantes 3, France  
*Food Hydrocolloid* 2009 **23** (7) 1678  
 Rheology and microstructure of cross-linked waxy maize starch/whey protein suspensions

Wang B, Wang LJ, Li D\*, Ozkan N, Li SJ, Mao ZH// \*China Agric Univ, Coll Engn, PO Box 50, 17 Qinghua Donglu, CN-100083 Beijing, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (3) 472  
Rheological properties of waxy maize starch and xanthan gum mixtures in the presence of sucrose

Wang N, Zhang X, Liu H, Wang J// Tianjin Polytech Univ, Inst Functional Fibers, Tianjin Municipal Key Lab Fiber Modificat & Funct Fibers, CN-300160 Tianjin, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (3) 607  
N,N-dimethylacetamide/lithium chloride plasticized starch as solid biopolymer electrolytes

Yilmaz MT, Sert D, Karakaya M// Selcuk Univ, Fac Agric, Dept Food Engn, TR-42049 Konya, Turkey  
*Int J Food Prop* 2009 **12** (3) 691  
Rheological and sensory properties of spray dried Pekmez mixtures with wheat starch-gum

Yoon HS, Lim ST\*// \*Korea Univ, Grad Sch Life Sci & Biotechnol, 5-1 Anam dong, Seongbuk gu, Seoul 136 701, South Korea  
*Starch* 2009 **61** (3-4) 154

Utilization of enzyme-resistant starch to control theophylline release from tablets  
Yu JG, Yang JW, Liu BX, Ma XF\*// \*Tianjin Univ, Sch Sci, CN-300072 Tianjin, Peoples Rep China

*Bioresour Technol* 2009 **100** (11) 2832  
Preparation and characterization of glycerol plasticized-pea starch/ZnO-carboxymethylcellulose sodium nanocomposites

Yuliani S, Torley PJ, Bhandari B// Univ Queensland, Sch Land Crop & Food Sci, Brisbane, Qld 4072, Australia  
*Int J Food Prop* 2009 **12** (3) 482

Physical and processing characteristics of extrudates made from starch and d-limonene mixtures

Zabar S, Lesmes U, Katz I, Shimoni E, Bianco-Peled H\*// \*Technion - Israel Inst Technol, Technion City, IL-32000 Haifa, Israel  
*Food Hydrocolloid* 2009 **23** (7) 1918

Studying different dimensions of amylose-long chain fatty acid complexes: Molecular, nano and micro level characteristics

Zhou YG, Li D\*, Wang LJ, Li YB, Yang BN, Bhandari B, Chen XD, Mao ZH// \*China Agric Univ, Coll Engn, POB 50, 17 Qinghua Donglu, CN-100083 Beijing, Peoples Rep China  
*J Food Eng* 2009 **93** (2) 242

Effect of water content on thermal behaviors of common buckwheat flour and starch

Zhu ZF, Liu ZJ// Anhui Univ Technol & Sci, Coll Textiles & Garments, Anhui Key Lab Textile Materials, CN-241000 Wuhu, Anhui, Peoples Rep China  
*Starch* 2009 **61** (3-4) 139

Monophosphorylation of acid-thinned starch to enhance the quality of viscose yarns sized at reduced temperature

Zhu ZF, Li ML, Jin EQ// Jiangnan Univ, Coll Textiles & Garments, MoE Key Lab Eco-Textile Sci & Technol, CN-214122 Wuxi, Peoples Rep China  
*J Appl Polym Sci* 2009 **112** (5) 2822

Effect of an allyl pretreatment of starch on the grafting efficiency and properties of allyl starch-g-poly(acrylic acid)

Zuo JY, Knoerzer K, Mawson R, Kentish S, Ashokkumar M\*// \*Univ Melbourne, Sch Chem, Dept Chem & Biomol Engn, Particulate Fluids Processing Ctr, Melbourne, Vic 3010, Australia  
*Ultrason Sonochemistry* 2009 **16** (4) 462

The pasting properties of sonicated waxy rice starch suspensions

## 10. Starch-degrading enzymes

Rajagopalan G, Krishnan C\*// \*Indian Inst Technol, Dept Biotechnol, IN-600036 Chennai, India

*J Chem Technol Biotechnol* 2009 **84** (4) 618  
Optimization of agro-residual medium for  $\alpha$ -amylase production from a hyper-producing *Bacillus subtilis* KCC103 in submerged fermentation

Russo MAL, Truss R, Halley PJ// Univ Queensland, Australian Inst Bioengn & Nanotechnol, Brisbane, Qld 4072, Australia  
*Carbohydr Polym* 2009 **77** (3) 442

The enzymatic hydrolysis of starch-based PVOH and polyol plasticised blends

Tee BL, Kaletunc G\*// \*Ohio State Univ, Food Agric & Biol Engn Dept, 590 Woody Hayes Dr, Columbus, OH 43210, USA  
*Biotechnol Prog* 2009 **25** (2) 436

Immobilization of a thermostable  $\alpha$ -amylase by covalent binding to an alginate matrix increases high temperature usability

Yamada R, Bito Y, Adachi T, Tanaka T, Ogino C, Fukuda H, Kondo A\*// \*Kobe Univ, Grad Sch Engn, Dept Sci & Chem Engn, 1-1 Rokkodaicho, Nada ku, Kobe, Hyogo 657 8501, Japan  
*Enzyme Microb Technol* 2009 **44** (5) 344

Efficient production of ethanol from raw starch by a mated diploid *Saccharomyces cerevisiae* with integrated  $\alpha$ -amylase and glucoamylase genes

## 11. Polysaccharides - Microbial

Asker MMS, Ahmed YM, Ramadan MF// Nat Res Ctr, Microbial Biotechnol Dept, El-Bohoss St, EG-12622 Dokki, Cairo, Egypt  
*Carbohydr Polym* 2009 **77** (3) 563

Chemical characteristics and antioxidant activity of exopolysaccharide fractions from *Microbacterium terregens*

Bejenariu A, Popa M, Dulong V, Picton L, Le Cerf D\*// \*Univ Rouen, FRE 3101, FR-76821 Mont St Aignan, France  
*Polym Bull* 2009 **62** (4) 525

Trisodium trimetaphosphate crosslinked xanthan networks: Synthesis, swelling, loading and releasing behaviour

Chandra K, Ghosh K, Ojha AK, Islam SS\*// \*Vidyasagar Univ, Dept Chem & Chem Technol, IN-721102 Midnapore, India  
*Nat Prod Commun* 2009 **4** (4) 553

A protein containing glucan from an edible mushroom, *Termitomyces microcarpus* (var)

Cheng JJ, Huang NL, Lur HS, Kuo CI, Lu MK\*// \*Nat'l Res Inst Chinese Med, 155-1 Li Nung St, Sec 2, Taipei 112, Taiwan

*Process Biochem* 2009 **44** (4) 453  
Characterization and biological functions of sulfated polysaccharides from sulfated-salt treatment of *Antrrodia cinnamomea*

Dlamini AM, Peiris PS, Bavor JH, Kailasapathy K// Univ Swaziland, Dairy Sci Div, Private Bag Luyengo, Luyengo, Swaziland  
*J Biosci Bioeng* 2009 **107** (3) 272

Rheological characteristics of an exopolysaccharide produced by a strain of *Klebsiella oxytoca*

Du X, Zhang J\*, Yang Y, Ye L, Tang Q, Jia W, Liu Y, Zhou S, Hao R, Gong C, Pan Y// \*Shanghai Acad Agric Sci, Inst Edible Fungi, CN-201106 Shanghai, Peoples Rep China  
*Carbohydr Res* 2009 **344** (5) 672

Structural elucidation and immuno-stimulating activity of an acidic heteropolysaccharide (TAPA1) from *Tremella aurantialba*

Kelly J, Logan SM, Jarrell KF, VanDyke DJ, Vinogradov E\*// \*Nat'l Res Council Canada, Inst Biol Sci, Ottawa, Ontario, Canada K1A 0R6  
*Carbohydr Res* 2009 **344** (5) 648

A novel N-linked flagellar glycan from *Methanococcus maripaludis*

Leon PG, Chillo S, Conte A, Gerschenson LN, Del Nobile MA, Rojas AM\*// \*UBA, Dept Ind, Ciudad Universitaria, AR-1428 Buenos Aires, Argentina  
*Food Hydrocolloid* 2009 **23** (7) 1660

Rheological characterization of deacylated/acylated gellan films carrying L-(+)-ascorbic acid

Liu CT, Hsu IT, Chou CC, Lo PR, Yu RC\*// \*Nat'l Taiwan Univ, Grad Inst Food Sci & Technol, Sec 4 Roosevelt Rd, Taipei 10764, Taiwan

*World J Microbiol Biotechnol* 2009 **25** (5) 883  
Exopolysaccharide production of *Lactobacillus salivarius* BCRC 14759 and *Bifidobacterium bifidum* BCRC 14615

Lu DX, Wen XT, Liang J, Gu ZW, Zhang XD, Fan YJ\*// \*Sichuan Univ, Natl Engn Res Ctr Biomaterials, CN-610064 Chengdu, Peoples Rep China  
*J Biomed Mater Res B* 2009 **89B** (1) 177

A pH-sensitive nano drug delivery system derived from pullulan/doxorubicin conjugate

Ma YQ, Yi JZ\*, Zhang LM// \*Sun Yat Sen Univ, Sch Chem & Chem Engn, CN-510275 Guangzhou, Guangdong, Peoples Rep China  
*J Macromol Sci Pure Appl Chem* 2009 **46** (6) 643

A facile approach to incorporate silver nanoparticles into dextran-based hydrogels for antibacterial and catalytic application

Malinowska E, Krzyckowski W, Herold F, Lapienis G, Slusarczyk J, Suchocki P, Kuras M, Turlo J// Med Univ Warsaw, Fac Pharm, Dept Drug Technol, ul Banacha 1, PL-02097 Warsaw, Poland  
*Enzyme Microb Technol* 2009 **44** (5) 334

Biosynthesis of selenium-containing polysaccharides with antioxidant activity in liquid culture of *Hericium erinaceum*

Morimoto N, Obeid R, Yamane S, Winnik FM\*, Akiyoshi K// \*Univ Montreal, Dept Chem, CP 6128, Succursale Ctr-ville, Montreal, Quebec, Canada H3C 3J7  
*Soft Matter* 2009 **5** (8) 1597

Composite nanomaterials by self-assembly and controlled crystallization of poly(2-isopropyl-2-oxazoline)-grafted polysaccharides

Olsson JDM, Landstrom J, Ronnols J, Oscarson S, Widmalm G\*// \*Univ Stockholm, Dept Organ Chem, Arrhenius Lab, SE-10691 Stockholm, Sweden  
*Org Biomol Chem* 2009 **7** (8) 1612

Synthesis of and molecular dynamics simulations on a tetrasaccharide corresponding to the repeating unit of the capsular polysaccharide from *Salmonella enteritidis*

Pooja KP, Chandra TS\*// \*Indian Inst Technol, Dept Biotechnol, IN-600036 Chennai, India

*World J Microbiol Biotechnol* 2009 **25** (5) 835

Production and partial characterization of a novel capsular polysaccharide KP-EPS produced by *Paenibacillus pabuli* strain ATSKP

- Qiu F, Feng J\*, Wu DQ, Zhang XZ, Zhuo RX// \*Wuhan Univ, MoE Key Lab Biomed Polymers, CN-430072 Wuhan, Peoples Rep China  
*Eur Polym J* 2009 **45** (4) 1024  
 Nanosized micelles self-assembled from amphiphilic dextran-graft-methoxypolyethylene glycol/poly( $\epsilon$ -caprolactone) copolymers
- Schulz A, Hornig S, Liebert T, Birkner E, Heinze T, Mohr GJ// Univ Jena, Inst Phys Chem, DE-07743 Jena, Germany  
*Org Biomol Chem* 2009 **7** (9) 1884  
 Evaluation of fluorescent polysaccharide nanoparticles for pH-sensing
- Sun Z, He Y, Liang Z, Zhou W, Niu T\*// \*China Agric Univ, Coll Food Sci & Nutr Engr, PO Box 111, 17 Qinghua East Rd, CN-100083 Beijing, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (3) 628  
 Sulfation of (1 $\rightarrow$ 3)- $\beta$ -D-glucan from the fruiting bodies of *Russula virescens* and antitumor activities of the modifiers
- Tomita Y, Kondo T\*// \*Kyushu Univ, Grad Sch Bioresource & Bioenvironm Sci, Bio-Architecture Ctr, 6-10-1 Hakozaki, Higashi-ku, Fukuoka 812 8581, Japan  
*Carbohydr Polym* 2009 **77** (4) 754  
 Influential factors to enhance the moving rate of *Acetobacter xylinum* due to its nanofiber secretion on oriented templates
- Vazquez JA, Montemayor MI, Fraguas J, Murado MA// Inst Invest Marinas - CSIC, Grp Reciclado & Valorizacion Materiales Residuales, R Eduardo Cabello 6, ES-36208 Vigo, Spain  
*Biochem Eng J* 2009 **44** (2-3) 125  
 High production of hyaluronic and lactic acids by *Streptococcus zooepidemicus* in fed-batch culture using commercial and marine peptones from fishing by-products
- Vijayendra S, Palanivel G, Mahadevamma S, Tharanathan R// Cent Food Technol Res Inst, Dept Food Microbiol, IN-570020 Mysore, India  
*Arch Microbiol* 2009 **191** (4) 303  
 Physico-chemical characterization of a new heteropolysaccharide produced by a native isolate of heterofermentative *Lactobacillus* sp CFR-2182
- Wang Y, Cheng Z, Mao J, Fan M, Wu X// Zhejiang Univ Sci & Technol, Sch Biol & Chem Engr, CN-310023 Huangzhou, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (4) 713  
 Optimization of ultrasonic-assisted extraction process of *Poria cocos* polysaccharides by response surface methodology
- Wu S, Jin Z\*, Kim JM, Tong Q, Chen H// \*Jiangnan Univ, Sch Food Sci & Technol, 1800 Lihu Rd, CN-214122 Wuxi, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (4) 750  
 Downstream processing of pullulan from fermentation broth
- Xiao Y, Xu W, Zhu Q, Yan B, Yang D, Yang J, He X, Liang S, Hu X\*// \*Wuhan Univ, Coll Pharm, State Key Lab Virol, CN-430072 Wuhan, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (3) 612  
 Preparation and characterization of a novel pachyman-based pharmaceutical aid. II: A pH-sensitive, biodegradable and biocompatible hydrogel for controlled release of protein drugs
- Yi W, Liu XW, Li YH, Li JJ, Xia CF, Zhou GY, Zhang WP, Zhao W, Chen X, Wang PG\*// \*Ohio State Univ, Dept Biochem, Columbus, Oh 43210, USA  
*Proc Natl Acad Sci U S A* 2009 **106** (11) 4207  
 Remodeling bacterial polysaccharides by metabolic pathway engineering
- Zhao H, Wang J, Lu Z\*// \*Nanjing Agric Univ, Coll Food Sci & Technol, CN-210095 Nanjing, Jiangsu, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (3) 677  
 Optimization of process parameters of the *Pholiota squarrosa* extracellular polysaccharide by Box-Behnken statistical design
- 12. Polysaccharides - Plant**
- Al-Assaf S, Sakata M, McKenna C, Aoki H, Phillips GO// Glyndwr Univ, Glyn O Phillips Hydrocolloid Res Ctr, Mold Rd, Plas Coch Campus, Wrexham LL11 2AW, Wales  
*Struct Chem* 2009 **20** (2) 325  
 Molecular associations in acacia gum
- Anastyuk SD, Shevchenko NM, Nazarenko EL, Dmitrenko PS, Zvyagintseva TN// Russian Acad Sci, Pacific Inst Bioorgan Chem, pr 100 let Vladivostoku 159, RU-690022 Vladivostok, Russia  
*Carbohydr Res* 2009 **344** (6) 779  
 Structural analysis of a fucoidan from the brown alga *Fucus evanescens* by MALDI-TOF and tandem ESI mass spectrometry
- Athukorala Y, Ahn GN, Jee YH, Kim GY, Kim SH, Ha JH, Kang JS, Lee KW, Jeon YJ\*// \*Cheju National Univ, Fac Appl Marine Sci, Cheju 690 756, South Korea  
*J Appl Phycol* 2009 **21** (3) 307  
 Antiproliferative activity of sulfated polysaccharide isolated from an enzymatic digest of *Ecklonia cava* on the U-937 cell line
- Ayadi MA, Kechaou A, Makni I, Attia H// Natl Engr Sch Sfax - ENIS, Food Anal Lab, Route Soukra km 4.5, TN-3038 Sfax, Tunisia  
*J Food Eng* 2009 **93** (3) 278  
 Influence of carrageenan addition on turkey meat sausages properties
- Bae IY, Lee S, Kim SM, Lee HG\*// \*Hanyang Univ, Dept Food & Nutr, 17 Haengdang-dong, Seongdong-gu, Seoul 133 791, South Korea  
*Food Hydrocolloid* 2009 **23** (7) 2016  
 Effect of partially hydrolyzed oat  $\beta$ -glucan on the weight gain and lipid profile of mice
- Bajdik J, Makai Z, Berkesi O, Suvegh K, Marek T, Eros I, Pintye-Hodi K\*// \*Univ Szeged, Dept Pharmaceut Technol, Eotvos u 6, HU-6720 Szeged, Hungary  
*Carbohydr Polym* 2009 **77** (3) 530  
 Study of the effect of lactose on the structure of sodium alginate films
- Bastos Dda S, Araujo KGD, Leao MHMD// Univ Fed Rio de Janeiro, Inst Quim, Ctr Tecnol, Bloco A, Cidade Univ, BR-21949-900 Rio de Janeiro, Brazil  
*J Microencapsul* 2009 **26** (2) 97  
 Ascorbic acid retaining using a new calcium alginate-capsule based edible film
- Berlanga-Reyes CM, Carvajal-Millan E\*, Lizardi-Mendoza J, Rascon-Chu A, Marquez-Escalante JA, Martinez-Lopez AL// \*Unidad Hermosillo, Lab Biopolimeros, Ctr Invest Alimentacion & Desarrollo, Carretera Victoria km 0.6, Hermosillo, Sonora, Mexico  
*Molecules* 2009 **14** (4) 1475  
 Maize arabinoxylan gels as protein delivery matrices
- Bura R, Chandra R, Saddler J// Univ Washington, Coll Forest Resources, Seattle, Wa 98195, USA  
*Biotechnol Prog* 2009 **25** (2) 315  
 Influence of xylan on the enzymatic hydrolysis of steam-pretreated corn stover and hybrid poplar
- Busato AP, Reicher F, Domingues R, Silveira JLM\*// \*Univ Fed Parana, Dept Bioquim & Biol Mol, PB 19046, BR-81531-980 Curitiba, Parana, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 410  
 Rheological properties of thermally xyloglucan gel from the seeds of *Hymenaea courbaril*
- Chen X, Zhong HY, Zhu H, Zeng JH, Dai P// Guilin Med Coll, Pharmaceut Sch, CN-541000 Guilin, Peoples Rep China  
*Int J Biol Macromol* 2009 **44** (2) 138  
 Effect of *Curcuma kwangsiensis* polysaccharides on blood lipid profiles and oxidative stress in high-fat rats
- Cody GD, Brandes J, Jacobsen C, Wirick S// Carnegie Inst Washington, Geophysics Lab, 5251 Broad Branch Rd NW, Washington, DC 20015, USA  
*J Electron Spectrosc Relat Phenom* 2009 **170** (1-3) 57  
 Soft X-ray induced chemical modification of polysaccharides in vascular plant cell walls
- Colinet I, Dulong V, Hamaide T, Le Cerf D, Picton L\*// \*Univ Rouen, CNRS FRE 3101 & FR 3038 - Polym Biopolym Surface, FR-76821 Mont Saint Aignan, France  
*Carbohydr Polym* 2009 **77** (4) 743  
 Unusual rheological properties of a new associative polysaccharide in salt media
- Cong YY, Kasimu R, Dai H, Abulizi P, Sheng P, Gao XM, Tu PF// Xinjiang Med Univ, Sch Pharmaceut Sci, CN-830054 Urumqi, Xinjiang, Peoples Rep China  
*Chem Nat Compd* 2009 **45** (1) 11  
 A neutral polysaccharide from *Glycyrrhiza inflata*
- Cozic C, Picton L, Garda MR, Marlhoux F, Le Cerf D\*// \*Univ Rouen, FRE 3101 & FR 3038 CNRS, FR-76821 Mont Saint Aignan, France  
*Food Hydrocolloid* 2009 **23** (7) 1930  
 Analysis of arabic gum: Study of degradation and water desorption processes
- Cui SW, Wang Q// Agric & Agri-Food Canada, Guelph Rd Res Ctr, 93 Stone Rd West, Guelph, Ontario, Canada N1G 5C9  
*Struct Chem* 2009 **20** (2) 291  
 Cell wall polysaccharides in cereals: Chemical structures and functional properties
- Da Silva DA, Feitosa JPA, Paula HCB, De Paula RCM\*// \*Univ Fed Ceara, Dept Quim Organ & Inorgan, CP 6021, BR-60455-760 Fortaleza, Ceara, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 437  
 Synthesis and characterization of cashew gum/acrylic acid nanoparticles
- Fang YP, Al-Assaf S, Phillips GO, Nishinari K, Funami T, Williams PA// Glyndwr Univ, Glyn O Phillips Hydrocolloid Res Ctr, Mold Rd, Wrexham LL11 2AW, Wales  
*Struct Chem* 2009 **20** (2) 317  
 Participation of ions in promoting intermolecular associations of cell wall polysaccharides
- Funami T, Fang Y, Noda S, Ishihara S, Nakauma M, Dragnet KI, Nishinari K, Phillips GO// San-Ei Gen FFI Inc, Hydrocolloid Lab Sect, 1-1-11 Sanwa-cho, Toyonaka, Osaka 561 8588, Japan  
*Food Hydrocolloid* 2009 **23** (7) 1746  
 Rheological properties of sodium alginate in an aqueous system during gelation in relation to supermolecular structures and  $\text{Ca}^{2+}$  binding

- Ghosh K, Chandra K, Ojha AK, Sarkar S, Islam SS\*// \*Vidyasagar Univ, Dept Chem & Chem Technol, IN-721102 Midnapore, India  
*Carbohydr Res* 2009 **344** (5) 693  
Structural identification and cytotoxic activity of a polysaccharide from the fruits of *Lagenaria siceraria* (Lau)
- Gonzalez-Leija JA, Hernandez-Garibay E\*, Pacheco-Ruiz I, Guardado-Puentes J, Espinoza-Avalos J, Lopez-Vivas JM, Bautista-Alcantar J// \*Univ Autonoma Baja California, Fac Ciencias Marinas, Carretera Tijuana Ensenada km 107, MX-22860 Ensenada, Baja California, Mexico  
*J Appl Phycol* 2009 **21** (3) 321  
Optimization of the yield and quality of agar from *Gracilariopsis lemaneiformis* (Gracilariales) from the Gulf of California using an alkaline treatment
- Gonzalez-Tomas L, Bayarri S, Coll-Marques J, Costell E\*// \*Inst Agroquim & Tecnol Alimentos - CSIC, POB 73, ES-46100 Valencia, Spain  
*Int J Food Sci Technol* 2009 **44** (6) 1214  
Flow behaviour of inulin-enriched dairy desserts: Influence of inulin average chain length
- Guo R, Li RT, Li XL, Zhang LY, Jiang XQ\*, Liu BR// \*Nanjing Univ, Coll Chem & Chem Engr, Lab Mesoscopic Chem, CN-210093 Nanjing, PR China  
*Small* 2009 **5** (6) 709  
Dual-functional alginate acid hybrid nanospheres for cell imaging and drug delivery
- Gupta S, Shah B, Sanyal B, Variyar PS\*, Sharma A// \*Bhabha Atomic Res Ctr, Food Technol Div, Trombay, IN-400085 Mumbai, India  
*Food Hydrocolloid* 2009 **23** (7) 1785  
Role of initial apparent viscosity and moisture content on post irradiation rheological properties of guar gum
- Jiao LL, Li X, Li TB, Jiang P, Zhang LX, Wu MJ, Zhang LP\*// \*NE Normal Univ, Sch Life Sci, Lab Biochem & Mol Biol, 5268 Renmin St, CN-130024 Changchun, Jilin Province, Peoples Rep China  
*Int Immunopharmacol* 2009 **9** (3) 324  
Characterization and anti-tumor activity of alkali-extracted polysaccharide from *Enteromorpha intestinalis*
- Jo TA, Petri DFS, Valenga F, Lucyszyn N, Sierakowski MR\*// \*Univ Fed Parana, Dept Chem, Lab Biopolymers, Ctr Politecn, CP 19081, Rua Francisco H Dos Santos s/n, BR-81531-990 Curitiba, Parana, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 631  
Thin films of xyloglucans for BSA adsorption
- Kok MS, Abdelhameed AS, Ang S, Morris GA\*, Harding SE// \*Univ Nottingham, Nat Ctr Macromol Hydrodynam, Sutton Bonington, England  
*Food Hydrocolloid* 2009 **23** (7) 1910  
A novel global hydrodynamic analysis of the molecular flexibility of the dietary fibre polysaccharide konjac glucomannan
- Kristiansen KA, Schirmer BC, Aachmann FL, Skjak-Braek G, Draget KI, Christensen BE// Norwegian Univ Sci & Technol, Dept Biotechnol, NOBIPOL, NO-7491 Trondheim, Norway  
*Carbohydr Polym* 2009 **77** (4) 725  
Novel alginates prepared by independent control of chain stiffness and distribution of G-residues: Structure and gelling properties
- Lee YT, Bamforth CW\*// \*UCD, Dept Food Sci & Technol, Davis, Ca, USA  
*J Am Soc Brew Chemist* 2009 **67** (2) 67  
Variations in solubility of barley  $\beta$ -glucan during malting and impact on levels of  $\beta$ -glucan in wort and beer
- Lucyszyn N, Lubambo AF, Matos KF, Marvilla I, Souza CF, Sierakowski MR// Univ Fed Parana, Dept Quim, Lab Biopolimeros - BIPOL, CP 19081, BR-81531-990 Curitiba, Parana, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 552  
Specific modification of xyloglucan from *Hymenaea courbaril* seeds
- Nakayasu S, Soegima R, Yamaguchi K, Oda T\*// \*Nagasaki Univ, Fac Fisheries, Div Biochem, Nagasaki 852 8521, Japan  
*Biosci Biotechnol Biochem* 2009 **73** (4) 961  
Biological activities of fucose-containing polysaccharide ascophyllan isolated from the brown alga *Ascophyllum nodosum*
- Nichols CAM, Nairn KM, Glattauer V, Blackburn SI, Ramshaw JAM, Graham LD// CSIRO Marine & Atmospheric Res, Hobart, Tas 7000, Australia  
*J Adhes* 2009 **85** (2) 97  
Screening microalgal cultures in search of microbial exopolysaccharides with potential as adhesives
- Nickzare M, Zohuriaan-Mehr MJ\*, Yousefi AA, Ershad-Langroudi A// \*IPPI, IR-14965-115 Tehran, Iran  
*Starch* 2009 **61** (3-4) 188  
Novel acrylic-modified Acacia gum thickener: Preparation, characterization and rheological properties
- Noletto GR, Petkowicz CLO, Merce ALR, Noseda MD, Mendez-Sanchez SC, Reicher F, Oliveira MBM// Univ Fed Parana, Dept Bioquim & Biol Mol, CP 19046, BR-81531-990 Curitiba, Parana, Brazil  
*J Inorg Biochem* 2009 **103** (5) 749  
Two galactomannan preparations from seeds from *Mimosa scarabella* (bracinga): Complexation with oxovanadium(IV/V) and cytotoxicity on HeLa cells
- Ortiz-Basurto RI, Williams P, Belleville MP, Doco T\*// \*SupAgro, Joint Res Unit Sci Enol, INRA UMR 1083, 2 Pl Viala, FR-34060 Montpellier, France  
*Carbohydr Polym* 2009 **77** (4) 870  
Presence of rhamnogalacturonan II in the juices produced by enzymatic liquefaction of agave pulquero stem (*Agave mapisaga*)
- Pawlaczyk I, Czerchawski L, Pilecki W, Lamer-Zarawska E, Gancarz R// Wroclaw Univ Technol, Chem Dept, Div Med Chem & Microbiol, Wybrzeze Wyspiarskiego 27, PL-50370 Wroclaw, Poland  
*Carbohydr Polym* 2009 **77** (3) 568  
Polyphenolic-polysaccharide compounds from selected medicinal plants of Asteraceae and Rosaceae families: Chemical characterization and blood anticoagulant activity
- Pereira L, Amado AM, Critchley AT, Van de Velde F, Ribeiro-Claro PJA// Univ Coimbra, FCTUC, Dept Bot, Inst Marine Res, PT-3001-455 Coimbra, Portugal  
*Food Hydrocolloid* 2009 **23** (7) 1903  
Identification of selected seaweed polysaccharides (phycocolloids) by vibrational spectroscopy (FTIR-ATR and FT-Raman)
- Phillips GO// 2 Plymouth Dr, Cardiff CF15 8BL, Wales  
*Struct Chem* 2009 **20** (2) 309  
Molecular association and function of arabinogalactan protein complexes from tree exudates
- Popescu CM, Singurel G, Popescu MC, Vasile C, Argyropoulos DS, Willfor S// Romanian Acad P Poni, Inst Macromol Chem, 41A Gr Ghica Voda Alley, RO-700487 Iasi, Romania  
*Carbohydr Polym* 2009 **77** (4) 851  
Vibrational spectroscopy and X-ray diffraction methods to establish the differences between hardwood and softwood
- Prasad K, Kaneko Y, Kadokawa J\*// \*Kagoshima Univ, Grad Sch Sci & Engr, Dept Nanostructured & Advanced Materials, 1-21-40 Korimoto, Kagoshima 890 0065, Japan  
*Macromol Biosci* 2009 **9** (4) 376  
Novel gelling systems of  $\kappa$ -,  $\iota$ - and  $\gamma$ -carrageenans and their composite gels with cellulose using ionic liquid
- Ricca E, Calabro V, Curcio S, Iorio G// Univ Calabria, Dept Engr Modelling, IT-87030 Arcavacata di Rende, CS, Italy  
*Process Biochem* 2009 **44** (4) 466  
Fructose production by chicory inulin enzymatic hydrolysis: A kinetic study and reaction mechanism
- Rocha C, Teixeira JA, Hilliou L, Sampaio P, Goncalves MP// Inst Politecn Viana do Castelo, Escola Superior Tecnol Gestao, Apdo 574, PT-4900-348 Viana do Castelo, Portugal  
*Food Hydrocolloid* 2009 **23** (7) 1734  
Rheological and structural characterization of gels from whey protein hydrolysates/locust bean gum mixed systems
- Rojas-Argudo C, Del Rio MA, Perez-Gago MB// Inst Valenciano Invest Agric, Ctr Tecnol Poscosecha, ES-46113 Valencia, Spain  
*Postharvest Biol Technol* 2009 **52** (2) 227  
Development and optimization of locust bean gum (LBG)-based edible coatings for postharvest storage of 'Fortune' mandarins
- Shevchenko NM, Burtseva YV, Zvyagintseva TN, Makar'eva TN, Sergeeva OS, Zakharenko AM, Isakov VV, Nguyen TL, Nguyen XH, Bui ML, Pham VH// Russian Acad Sci, Far East Branch, Pacific Inst Bioorgan Chem, pr 100 let Vladivostoku 159, RU-690022 Vladivostok, Russia  
*Chem Nat Compd* 2009 **45** (1) 1  
Polysaccharides and sterols from green algae *Caulerpa lentillifera* and *C. sertularioides*
- Singh V, Tiwari A// Univ Allahabad, Dept Chem, IN-211002 Allahabad, India  
*Int J Biol Macromol* 2009 **44** (2) 186  
Hydrolytic fragmentation of seed gums under microwave irradiation
- Sutovska M, Franova S, Prizrenakova L, Nosal'ova G, Togola A, Diallo D, Paulsen BS, Capek P\*// \*Slovak Acad Sci, Inst Chem, Ctr Glycomics, Dubravska cesta 9, SK-84538 Bratislava, Slovakia  
*Int J Biol Macromol* 2009 **44** (3) 236  
Antitussive activity of polysaccharides isolated from the Malian medicinal plants
- Tripodo G, Pitarresi G\*, Cavallaro G, Palumbo FS, Giammona G// \*Univ Palermo, Dipt Chim & Tecnol Farmaceut, Via Archirafi 32, IT-90123 Palermo, Italy  
*Macromol Biosci* 2009 **9** (4) 393  
Controlled release of IgG by novel UV induced polysaccharide/poly(amino acid) hydrogels
- Tuvikene R, Truus K, Robal M, Pehk T, Kailas T, Vaher M, Paalme T// Tallinn Univ Technol, Inst Math & Nat Sci, Navra mnt 25, EE-10120 Tallinn, Estonia  
*Carbohydr Res* 2009 **344** (6) 788  
Structure and thermal stability of pyruvated carrageenans from the red alga *Coccolytus truncatus*
- Vidanaratchi JK, Iji PA\*, Mikkelsen LL, Sims I, Choct M// \*Univ New England, Sch Environm & Rural Sci, Armidale, NSW 2351, Australia  
*Carbohydr Polym* 2009 **77** (3) 670  
Isolation and characterization of water-soluble prebiotic compounds from Australian and New Zealand plants

- Wang J, Zhang QB\*, Zhang ZS, Zhang JJ, Li PC// \*Chinese Acad Sci, Inst Oceanol, CN-266071 Qingdao, Peoples Rep China  
*Int J Biol Macromol* 2009 **44** (2) 170  
 Synthesized phosphorylated and aminated derivatives of fucoidan and their potential antioxidant activity *in vitro*
- Wang J, Sun B, Cao Y, Tian Y, Wang C// Beijing Technol & Business Univ, Coll Chem & Environm Engrn, 11 Fucheng Rd, CN-100048 Beijing, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (4) 816  
 Enzymatic preparation of wheat bran xylooligosaccharides and their stability during pasteurization and autoclave sterilization at low pH
- Wang L, Li XX, Chen ZX\*// \*Jiangnan University, State Key Laboratory Food Science & Technology, Lihu Road 1800, CN-214122 Wuxi, Peoples Republic China  
*Int J Biol Macromol* 2009 **44** (2) 211  
 Sulfated modification of the polysaccharides obtained from defatted rice bran and their antitumor activities
- Wang W, Wang A\*// \*Chinese Acad Sci, Lanzhou Inst Chem Phys, Ctr Eco-Mater & Green Chem, CN-730000 Lanzhou, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (4) 891  
 Preparation, characterization and properties of superabsorbent nanocomposites based on natural guar gum and modified rectorite
- Zaafarany IA, Khairou KS, Hassan RM\*// \*Assiut Univ, Fac Sci, Dept Chem, EG-71516 Assiut, Egypt  
*J Mol Catal A Chem* 2009 **302** (1–2) 112  
 Acid-catalysis of chromic acid oxidation of  $\kappa$ -carrageenan polysaccharide in aqueous perchlorate solutions
- Zhang HL, Li J, Li G, Wang DM, Zhu LP, Yang DP\*// \*Sun Yat Sen University, Sch Pharmaceut Sci, CN-510006 Guangzhou, Guangdong, Peoples Rep China  
*Int J Biol Macromol* 2009 **44** (3) 257  
 Structural characterization and anti-fatigue activity of polysaccharides from the roots of *Morinda officinalis*
- Zhang X, Yu L, Bi H, Li X, Ni W, Han H, Li N, Wang B, Zhou Y\*, Tai G// \*Northwest Normal University, School Life Science, Laboratory Mol Epigenetics MOE, 5268 Renmin St, CN-130024 Changchun, Jilin Province, Peoples Rep China  
*Carbohydr Polym* 2009 **77** (3) 544  
 Total fractionation and characterization of the water-soluble polysaccharides isolated from *Panax ginseng* C. A. Meyer
- Zhao KY, Gao N, Liu C, Cheng GX\*// \*Tianjin Univ, Sch Materials Sci & Engrn, CN-300072 Tianjin, Peoples Rep China  
*Adsorpt Sci Technol* 2008 **26** (8) 631  
 Molecule-imprinted calcium phosphate/calcium alginate composite microspheres by surface imprinting via silane crosslinking
- ### 13. Polysaccharides - Other
- Armand G, Balazs E// Glycomed Research Inc, Hastings on Hudson, NY 10706, USA  
*Struct Chem* 2009 **20** (2) 337  
 Ichthyosan in fish eye
- Cao XY, Pettit ME, Conlan SL, Wagner W, Ho AD, Clare AS, Callow JA, Callow ME, Grunze M, Rosenhahn A\*// \*Univ Heidelberg, DE-69120 Heidelberg, Germany  
*Biomacromolecules* 2009 **10** (4) 907  
 Resistance of polysaccharide coatings to proteins, hematopoietic cells, and marine organisms
- Chen SK, Tsai ML\*, Huang JR, Chen RH// \*Nat'l Taiwan Ocean Univ, Dept Food Sci, 2 Pei Ning Rd, Chilung 20224, Taiwan  
*J Agric Food Chem* 2009 **57** (7) 2699  
*In vitro* antioxidant activities of low-molecular-weight polysaccharides with various functional groups
- Doneanu CE, Chen WB\*, Gebler JC// \*Waters Corp, Biopharmaceut Sci, 34 Maple St, Milford, Ma 01757, USA  
*Anal Chem* 2009 **81** (9) 3485  
 Analysis of oligosaccharides derived from heparin by ion-pair reversed-phase chromatography/mass spectrometry
- Gouvea MR, Ribeiro C, De Souza CF, Marvila-Oliveira I, Lucyszyn N, Sierakowski MR\*// \*Univ Fed Parana, Dept Quim, Lab Biopolimeros - BIOPOL, CP 19081, BR-81531-990 Curitiba, Parana, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 607  
 Rheological behavior of borate complex and polysaccharides
- Kang JY, Chung CW, Sung JH, Park BS, Choi JY, Lee SJ, Choi BC, Shim CK, Chung SJ, Kim DD\*// \*Seoul Natl Univ, Coll Pharm, Seoul 151 742, South Korea  
*Int J Pharm* 2009 **369** (1–2) 114  
 Novel porous matrix of hyaluronic acid for the three-dimensional culture of chondrocytes
- Kawaguchi AW, Okawa H, Hashimoto K// Kogakuin Univ, Fac Engrn, Dept Materials Sci & Technol, Nakano cho, Tokyo 192 0015, Japan  
*J Polym Sci A Polym Chem* 2009 **47** (8) 2032  
 Synthesis of glycopolymers bearing mannaric pendants as inhibitors on the  $\beta$ -glucuronidase activity: The inhibition mechanisms of mannaric- and glucaric-compounds
- Koop HS, Praes CED, Reicher F, Petkowicz CLD, Silveira JLM\*// \*Univ Fed Parana, Dept Bioquim & Biol Mol, PB 19046, BR-81531-990 Curitiba, Parana, Brazil  
*Mater Sci Eng C Biomim Supramol Syst* 2009 **29** (2) 559  
 Rheological behavior of gel of xanthan with seed galactomannan: Effect of hydroalcoholic-asorbic acid
- Lee F, Chung JE, Kurisawa M\*// \*Inst Bioengn & Nanotechnol, 31 Biopolis Way, Nanos 04-01, SG-138669 Singapore, Rep Singapore  
*J Controlled Release* 2009 **134** (3) 186  
 An injectable hyaluronic acid-tyramine hydrogel system for protein delivery
- Lee H, Ahn CH, Park TG\*// \*Korea Advanced Inst Sci & Technol, Dept Biol Sci, Taejon 305 701, South Korea  
*Macromol Biosci* 2009 **9** (4) 336  
 Poly[lactic-co-(glycolic acid)]-grafted hyaluronic acid copolymer micelle nanoparticles for target-specific delivery of doxorubicin
- Lee SY, Hanna MA\*, Jones DD// \*Univ Nebraska, Ind Agric Prod Ctr, Lincoln, Ne 68583, USA  
*Starch* 2009 **61** (3–4) 146  
 Residence time distribution determination using on-line digital image processing
- McEwen I, Rundlof T, Ek M, Hakkarainen B, Carlin G, Arvidsson T// Med Prod Agency, Box 26, SE-75103 Uppsala, Sweden  
*J Pharm Biomed Anal* 2009 **49** (3) 816  
 Effect of  $\text{Ca}^{2+}$  on the  $^1\text{H}$  NMR chemical shift of the methyl signal of oversulfated chondroitin sulphate, a contaminant in heparin
- Patel RP, Narkowicz C, Jacobson GA// Univ Tasmania, Sch Pharm, Hobart, Tas 7001, Australia  
*Anal Biochem* 2009 **387** (1) 113  
 Effective reversed-phase ion pair high-performance liquid chromatography method for the separation and characterization of intact low-molecular-weight heparins
- Peterson S, Frick A, Liu J\*// \*Univ Nth Carolina, Sch Pharm, Div Med Chem & Nat Prod, UNC Eshelman, Chapel Hill, NC 27599, USA  
*Nat Prod Rep* 2009 **26** (5) 610  
 Design of biologically active heparan sulfate and heparin using an enzyme-based approach
- Rashid ZM, Lahaye E, Defer D, Douzenel P, Perrin B, Bourgougnon N, Sire O\*// \*Univ Europeenne Bretagne, LIMAT B, Campus Tohannic, BP573, FR-56017 Vannes, France  
*Int J Biol Macromol* 2009 **44** (3) 286  
 Isolation of a sulphated polysaccharide from a recently discovered sponge species (*Celtodoryx girardae*) and determination of its anti-herpetic activity
- Rinaudo M, Moroni A// Joseph Fourier Univ, CNRS, Ctr Rech Macromol Vegetales, BP53, FR-38041 Grenoble 9, France  
*Food Hydrocolloid* 2009 **23** (7) 1720  
 Rheological behavior of binary and ternary mixtures of polysaccharides in aqueous medium
- Somsen GW, Tak YH, Torano JS, Jongen PMJM, De Jong GJ// Univ Utrecht, Dept Biomed Anal, POB 80082, NL-3508 TB Utrecht, The Netherlands  
*J Chromatogr A* 2009 **1216** (18) 4107  
 Determination of oversulfated chondroitin sulfate and dermatan sulfate impurities in heparin by capillary electrophoresis
- Tanaka K, Fujii Y, Tokimoto H, Mori Y, Tanaka SI, Bao GM, Siwu ERO, Nakayabu A, Fukase K\*// \*Osaka Univ, Grad Sch Sci, Dept Chem, 1-1 Machikaneyama cho, Toyonaka, Osaka 560 0043, Japan  
*Chem Asian J* 2009 **4** (4) 574  
 Synthesis of a sialic acid containing complex-type N-glycan on a solid support
- Trehly ML, Reepmeyer JC, Kolinski RE, Westenberger BJ, Buhse LF// US/FDA, Div Pharmaceut Anal, St Louis, Mo 63101, USA  
*J Pharm Biomed Anal* 2009 **49** (3) 670  
 Analysis of heparin sodium by SAX/HPLC for contaminants and impurities
- Vicario PP, Lu ZC, Grigorian I, Wang Z, Schottman T// Hydromer Inc, Branchburg, NJ 08876, USA  
*J Biomed Mater Res B* 2009 **89B** (1) 114  
 Cell adhesion and proliferation are reduced on stainless steel coated with polysaccharide-based polymeric formulations
- Wotschadlo J, Liebert T, Heinze T, Wagner K, Schnabelrauch M, Dutz S, Muller R, Steiniger F, Schwalbe M, Kroll TC, Hoffken K, Buske N, Clement JH\*// \*Univ Clin Jena, Dept Internal Med II, Erlanger Allee 101, DE-07740 Jena, Germany  
*J Magn Magn Mater* 2009 **321** (10) 1469  
 Magnetic nanoparticles coated with carboxymethylated polysaccharide shells—Interaction with human cells