

Bibliography of carbohydrate polymers

(2 weeks journals. Search completed at 11th. Aug. 2004)

1. Books, reviews & symposia

- Loftsson T, Masson M, Brewster ME// Univ Iceland, Fac Pharm, Hofsvallagata 53, IS-107 Reykjavik, Iceland
J Pharm Sci 2004 **93** (5) 1091
Self-association of cyclodextrins and cyclodextrin complexes (Review)
Martin del Valle EM// Univ Salamanca, Dept Chem Engrn, Plaza de los Caidos s/n, ES-37007 Salamanca, Spain
Process Biochem 2004 **39** (9) 1033
Cyclodextrins and their uses: A review

2. Cellulose

- Aly AS, Moustafa AB, Hebeish A// Natl Res Ctr, Text Res Div, Cairo, Egypt
J Clean Prod 2004 **12** (7) 697
Bio-technological treatment of cellulosic textiles
Brumer H, Zhou Q, Baumann MJ, Carlsson K, Teeri TT// *Albanova Univ Ctr, Dept Biotechnol, SE-10691 Stockholm, Sweden
J Am Chem Soc 2004 **126** (18) 5715
Activation of crystalline cellulose surfaces through the chemoenzymatic modification of xyloglucan
Chauhan GS, Lal H, Mahajan S// Himachal Pradesh Univ, Dept Chem, Summer Hill, IN-171005 Shimla, Himachal Pradesh, India
J Appl Polym Sci 2004 **91** (1) 479
Synthesis, characterization, and swelling responses of poly(*N*-isopropylacrylamide)- and hydroxypropyl cellulose-based environmentally sensitive biphasic hydrogels
Chauhan GS, Sharma R, Lal H// Address as above
J Appl Polym Sci 2004 **91** (1) 545
Synthesis and characterization of graft copolymers of hydroxypropyl cellulose with acrylamide and some comonomers
Eggleston RB, Mueller E, Parviainen AK, Groover ES// Univ Georgia, Coll Vet Med, Dept Large Anim Med, Athens, Ga 30602, USA
Am J Vet Res 2004 **65** (5) 637
Effect of carboxymethylcellulose and hyaluronate solutions on jejunal healing in horses
Eromosele CO, Nwokata SP// Univ Agr, Dept Chem, PMB 2240, Abeokuta, Ogun State, Nigeria
J Appl Polym Sci 2004 **91** (1) 278
Graft copolymerization of acrylic acid onto methylcellulose by potassium permanganate-*p*-xylene redox pair
Freichel OL, Lippold BC// *Univ Dusseldorf, Inst Pharmazeut Technol, Universitätsstr 1, DE-40225 Dusseldorf, Germany
Eur J Pharm Biopharm 2004 **57** (3) 527
Artificially induced polymer particle erosion of oral hydrocolloid systems by the addition of insoluble cellulose fibres to fibre-free methylhydroxy ethyl-cellulose (MHEC)
Gronroos A, Pirkonen F, Ruppert O// VTT Proc, POB 1603, FI-40101, Jyväskylä, Finland
Ultrason Sonochemistry 2004 **11** (1) 9
Ultrasonic depolymerization of aqueous carboxymethylcellulose
Khan F// Carleton Univ, Dept Chem, 1125 Colonel By Dr, 414 Steacie Bldg, Ottawa, Ontario, Canada K1S 5B6
Biomacromolecules 2004 **5** (3) 1078
Photoinduced graft-copolymer synthesis and characterization of methacrylic

acid onto natural biodegradable lignocellulose fiber

- Kongruang S, Han MJ, Breton CIG, Penner MH// *Oregon State Univ, Dept Food Sci & Technol, Corvallis, Or 97331, USA
Appl Biochem Biotechnol 2004 **113-116** 213
Quantitative analysis of cellulose-reducing ends
McConville JT, Ross AC, Chambers AR, Smith G, Florence AJ, Stevens HNE// Univ Texas, Coll Pharm, 1 Univ Station A1920, Austin, Tx 78712, USA
Eur J Pharm Biopharm 2004 **57** (3) 541
The effect of wet granulation on the erosion behaviour of an HPMC-lactose tablet, used as a rate-controlling component in a pulsatile drug delivery capsule formulation
Singh M, Yadav S, Ahmed S// Univ Delhi, Deshbandhu Coll, Chem Res Lab, IN-110019 New Delhi, India
J Appl Polym Sci 2004 **91** (1) 678
Novel device of CO adsorption on degradable cellulose-based strips
Sommer P, Georgieva T, Ahring BK// *Tech Univ Denmark, Bioctr, Bldg 227, DK-2800 Lyngby, Denmark
Biochem Soc Trans 2004 **32** (2) 283
Potential for using thermophilic anaerobic bacteria for bioethanol production from hemicellulose
Zhao SL, Wu XH, Wang LG, Huang Y// *Chinese Acad Sci, Guangzhou Inst Chem, Lab Cellulose & Lignocellulose Chem, CN-510650 Guangzhou, Peoples Rep China
J Appl Polym Sci 2004 **91** (1) 242
Electrospinning of ethyl-cyanoethyl cellulose/tetrahydrofuran solutions

3. Cellulose-degrading enzymes

- Escovar-Kousen JM, Wilson D, Irwin D// Martek Biosciences, 555 Rolling Hills Lane, Winchester, Ky 40391, USA
Appl Biochem Biotechnol 2004 **113-116** 287
Integration of computer modeling and initial studies of site-directed mutagenesis to improve cellulase activity on Cel9A from *Thermobifida fusca*
Juhász T, Szengyel Z*, Szijarto N, Reczey K// *Tech Univ Budapest, Dept Agr Chem Technol, Szent Gellert ter 4, HU-1521 Budapest, Hungary
Appl Biochem Biotechnol 2004 **113-116** 201
Effect of pH on cellulase production of *Trichoderma reesei* RUT C30
Knutsen JS, Davis RH// *Univ Colorado, Dept Chem & Biol Engrn, Boulder, Co 80309, USA
Appl Biochem Biotechnol 2004 **113-116** 585
Cellulase retention and sugar removal by membrane ultrafiltration during lignocellulosic biomass hydrolysis
Krogh KBR, Morkeberg A, Jorgensen H, Frisvad JC, Olsson L// *Tech Univ Denmark, Ctr Proc Biotechnol, Bioctr, Building 223, DK-2800 Lyngby, Denmark
Appl Biochem Biotechnol 2004 **113-116** 389
Screening genus *Penicillium* for producers of cellulolytic and xylanolytic enzymes
Saville BA, Khavkine M, Seetharam G, Marandi B, Zuo YL// Univ Toronto, Dept Chem Engrn & Appl Chem, 200 College St, Toronto, Ontario, Canada M5S 3E5
Appl Biochem Biotechnol 2004 **113-116** 251
Characterization and performance of immobilized amylase and cellulase
Szijarto N, Szengyel Z, Liden G, Reczey K// *Tech Univ Budapest, Dept

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

Agr Chem Technol, Szent Gellert ter 4, HU-1521 Budapest, Hungary
Appl Biochem Biotechnol 2004 **113**:116 115
 Dynamics of cellulase production by glucose grown cultures of *Trichoderma reesei* Rut-C30 as a response to addition of cellulose
 Xiao ZZ, Zhang X, Gregg DJ, Saddler JN*// *Univ British Columbia, 4033-2424 Main Mall, Vancouver, Brit Columbia, Canada V6T 1Z4
Appl Biochem Biotechnol 2004 **113**:116 1115
 Effects of sugar inhibition on cellulases and β -glucosidase during enzymatic hydrolysis of softwood substrates

4. Chitin/Chitosan

Agnihotri SA, Aminabhavi TM*// *Karnatak Univ, Drug Delivery Div, Ctr Excellence Polymer Sci, IN-580003 Dharwad, Karnataka, India
J Controlled Release 2004 **96** (2) 245
 Controlled release of clozapine through chitosan microparticles prepared by a novel method
 Bayomi MA// King Saud Univ, Coll Pharm, Dept Pharmaceut, POB 2457, SA-11451 Riyadh, Saudi Arabia
Drug Dev Ind Pharm 2004 **30** (4) 329
 Aqueous preparation and evaluation of albumin-chitosan microspheres containing indomethacin
 Chang MY, Juang RS// Nat United Univ, Dept Chem Engr, Miao-Li 360, Taiwan
Process Biochem 2004 **39** (9) 1087
 Stability and catalytic kinetics of acid phosphatase immobilized on composite beads of chitosan and activated clay
 Chatchawalsaisin J, Podczek F, Newton JM*// *Univ London, Sch Pharm, Dept Pharmaceut, Brunswick Sq, London WC1N 1AX, England
Int J Pharm 2004 **75** (1-2) 41
 The influence of chitosan and sodium alginate and formulation variables on the formation and drug release from pellets prepared by extrusion/spheronisation
 Chen SC, Wu YC, Mi FL, Lin YH, Yu LC, Sung HW*// *Nat'l Tsing Hua Univ, Dept Chem Engr 101, Sect 2 Kung Fu Rd, Hsinchu 30013, Taiwan
J Controlled Release 2004 **96** (2) 285
 A novel pH-sensitive hydrogel composed of *N,O*-carboxymethyl chitosan and alginate cross-linked by genipin for protein drug delivery
 Dong HQ, Cheng LY, Tan JH, Zheng KW, Jiang YM*// *Chinese Acad Sci, Sth China Inst Bot, CN-510650 Guangzhou, Leyiju, Peoples Rep China
J Food Eng 2004 **64** (3) 355
 Effects of chitosan coating on quality and shelf life of peeled litchi fruit
 Foda NH, El-Laithy HM*, Tadmor MI// *Cairo Univ, Fac Pharm, Dept Pharmaceut & Ind Pharm, Cairo, Egypt
Drug Dev Ind Pharm 2004 **30** (4) 369
 Optimization of biodegradable sponges as controlled release drug matrices. I. Effect of moisture level on chitosan sponge mechanical properties
 Gallstedt M, Hedenqvist MS*// *Inst Packaging & Logist AB, Packforsk, Box 9, SE-16493 Kista, Sweden
J Appl Polym Sci 2004 **91** (1) 60
 Packaging-related properties of alkyl-coated, wax-coated, and buffered chitosan and whey protein films
 Iwasaki N, Yamane ST, Majima T, Kasahara Y, Minami A, Harada K, Nonaka S, Maekawa N, Tamura H, Tokura S, Shiono M, Monde K, Nishimura S// Hokkaido Univ, Sch Med, Dept Orthopaed Surg, Sapporo, Hokkaido 060 863, Japan
Biomacromolecules 2004 **5** (3) 828
 Feasibility of polysaccharide hybrid materials for scaffolds in cartilage tissue engineering: Evaluation of chondrocyte adhesion to polyion complex fibers prepared from alginate and chitosan
 Jiang HL, Fang DF, Hsiao BJ, Chu BJ, Chen WL*// *SUNY Stony Brook, Dept Biomed Engr, 348 Psychol A Bldg, Stony Brook, NY 11794, USA
J Biomater Sci Polym Ed 2004 **15** (3) 279
 Preparation and characterization of ibuprofen-loaded poly(lactide-co-glycolide)/poly(ethylene glycol)-*g*-chitosan electrospun membranes
 Kai E, Ochiya T// CMIC Co Ltd, CDM Dept, Final Study Report Grp, Shinagawa ku, Tokyo 141 0022, Japan
Pharm Res 2004 **21** (5) 838
 A method for oral DNA delivery with *N*-acetylated chitosan
 Kurita K, Hirakawa M, Kikuchi S, Yamanaka H, Yang J// Seikei Univ, Fac Engr, Dept Appl Chem, Musashino-shi, Tokyo 180-8633, Japan
Carbohydr Polym 2004 **56** (3) 333
 Trimethylsilylation of chitosan and some properties of the product
 Lamarque G, Viton C, Domard A*// *Univ Claude Bernard Lyon I, UMR CNRS 5627, Lab Mat Polymeres & Biomat, Domaine Sci Doua, Batiment ISTIL, 15 Blvd A Latarjet, FR-69622 Villeurbanne, France

Biomacromolecules 2004 **5** (3) 992
 Comparative study of the first heterogeneous deacetylation of α - and β -chitins in a multistep process
 Li LH, Ding S, Zhou CR*// *Jinan Univ, Dept Chem, CN-510630 Guangzhou, Peoples Rep China
J Appl Polym Sci 2004 **91** (1) 274
 Preparation and degradation of PLA/chitosan composite materials
 Lu YS, Weng LH, Zhang LN*// *Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep China
Biomacromolecules 2004 **5** (3) 1046
 Morphology and properties of soy protein isolate thermoplastics reinforced with chitin whiskers
 Thein-Han WW, Stevens WF*// *Asian Inst Technol, POB 4, TH-12120 Bangkok, Thailand
Drug Dev Ind Pharm 2004 **30** (4) 397
 Transdermal delivery controlled by a chitosan membrane
 Valentin R, Molvinger K, Quignard F*, Brunel D// *ENSCM, Lab Mat Catalyt & Catalyse Chim Organ, UMR CNRS 5618, 8 rue Ecole Normale, FR-34296 Montpellier 5, France
New J Chem 2003 **27** (12) 1690
 Supercritical CO₂ dried chitosan: An efficient intrinsic heterogeneous catalyst in fine chemistry
 Zhang C, Ping QN, Ding Y, Cheng Y, Shen J*// *Nanjing Univ, Res Ctr Surf & Interface Chem & Engr Technol, CN-210093 Nanjing, Peoples Rep China
J Appl Polym Sci 2004 **91** (1) 659
 Synthesis, characterization, and microsphere formation of galactosylated chitosan
 Zhao L, Chang J*// *Chinese Acad Sci, Shanghai Inst Ceram, Biomat & Tissue Engr Res Ctr, 1295 Dingxi Rd, CN-200050 Shanghai, Peoples Rep China
J Mater Sci Mater Med 2004 **15** (5) 625
 Preparation and characterization of macroporous chitosan/wollastonite composite scaffolds for tissue engineering
 Zhao L, Mitomo H, Yoshii F*, Kume T// *Gunma Univ, Dept Biol & Chem Engr, Tenjin cho, Kiryu, Gumma 376 8515, Japan
J Appl Polym Sci 2004 **91** (1) 556
 Preparation of crosslinked carboxymethylated chitin derivatives by irradiation and their sorption behavior for copper(II) ions

5. Cyclodextrins

Dass CR// Genetic Technologies Pty Ltd, 60-66 Hanover St, Fitzroy, Vic 3065, Australia
J Drug Target 2004 **12** (1) 1
 Cyclodextrins and oligonucleotide delivery to solid tumours
 Harabagiu V, Simionescu BC, Pintea M, Merrienne C, Mahuteau J, Guegan P*, Cheradame H// *Univ d'Evry Val d'Essonne, Lab MPI, FR-91025 Evry, France
Carbohydr Polym 2004 **56** (3) 301
 Synthesis and characterization of persilylated cyclodextrins
 Rawat S, Jain SK// YB Chavan Coll Pharm, Rouza Bagh, IN-431001 Aurangabad, Maharashtra, India
Eur J Pharm Biopharm 2004 **57** (2) 263
 Solubility enhancement of celecoxib using β -cyclodextrin inclusion complexes

7. Lipopolysaccharides

Fedonenko YP, Zdorovenko EL, Konnova SA*, Ignatov VV, Shlyakhtin GV// *Russian Acad Sci, Inst Biochem & Physiol Plants & Microorganisms, pr Entuziastov 13, RU-410015 Saratov, Russia
Microbiology (Mosc) 2004 **73** (2) 143
 A comparison of the lipopolysaccharides and O-specific polysaccharides of *Azospirillum brasilense* Sp245 and its Omegon-Km mutants KM018 and KM252

8. Pectin

Ali Asgar MD, Yamauchi R, Kato K*// *Gifu Univ, United Grad Sch Agr Sci, Sci Biol Resources, 1-1 Yanagido, Gifu 501-1193, Japan
Food Chem 2004 **87** (2) 247
 Structural features of pectins from fresh and sun-dried Japanese persimmon fruit
 Antov MG// Univ Novi Sad, Fac Technol, Blvd Cara Lazara 1, YU-21000 Novi Sad, Serbia & Montenegro
Carbohydr Polym 2004 **56** (3) 295

Partitioning of pectinase produced by *Polyporus squamosus* in aqueous two-phase system polyethylene glycol 4000/crude dextran at different initial pH values

Camperi SA, Grasselli M, Smolko EE, Cascone O*// *Campichuelo 103-2 A, AR-1405 Buenos Aires, Argentina
Process Biochem 2004 **39** (8) 1017

Preparation and characterisation of immobilised metal ion hollow-fibre polysulphone membranes. Their application in high-speed pectic enzyme fractionation

Cheng K, Lim LY*// *Natl Univ Singapore, Dept Pharm, 18 Sci Dr 4, SG-117543 Singapore, Rep Singapore
Drug Dev Ind Pharm 2004 **30** (4) 389

Insulin-loaded calcium pectinate nanoparticles: Effects of pectin molecular weight and formulation pH

Schroder R, Clark CJ, Sharrock K, Hallett IC, MacRae EA// Hort & Food Res Inst New Zealand Ltd, Mt Albert Res Ctr, Private Bag 92169, Auckland, New Zealand
J Plant Physiol 2004 **161** (4) 371

Pectins from the albedo of immature lemon fruitlets have high water binding capacity

9. Starch

Aguerre RJ, Suarez C*// *Univ Buenos Aires, Fac Ciencias Exactas & Nat, Dept Ind Tecnol Alimentos, Ciudad Univ, AR-1428 Buenos Aires, DF, Argentina
J Food Eng 2004 **64** (3) 389

Diffusion of bound water in starchy materials: Application to drying

Ahmt T, Wischmann B, Blennow A, Madsen F, Bandsholm O, Thomsen J// Inst Biotechnol, Dept Percept & Funct, Holbergsvej 10, DK-6000 Kolding, Denmark
Nahrung 2004 **48** (2) 149

Sensory and rheological properties of transgenically and chemically modified starch ingredients as evaluated in a food product model

Bernkop-Schnurch A, Konig V, Leitner VM, Krauland AH, Brodnik I// Univ Vienna, Ctr Pharm, Inst Pharmaceut Technol & Biopharmaceut, Althanstr 14, AT-1090 Vienna, Austria
Eur J Pharm Biopharm 2004 **57** (2) 219

Preparation and characterisation of thiolated poly(methacrylic acid)-starch compositions

Beta T, Corke H*// *Univ Hong Kong, Dept Bot, Pokfulam Rd, Hong Kong, Peoples Rep China
Cereal Chem 2004 **81** (3) 418

Effect of ferulic acid and catechin on sorghum and maize starch pasting properties

Brandemarte EA, Franco CML, Lopes-Filho JF*// *UNESP, Dept Eng Alimentos, Rua Cristovao, BR-15054-000 Colombo, Brazil
Cereal Chem 2004 **81** (3) 369

Physicochemical properties of maize starch obtained from intermittent milling and dynamic steeping (IMDS) under various steeping conditions

Genkina NK, Wasserman LA, Yuryev VP*// *Russian Acad Sci, Inst Biochem Phys, Kosygina Str 4, RU-119991 Moscow, Russia
Carbohydr Polym 2004 **56** (3) 367

Annealing of starches from potato tubers grown at different environmental temperatures. Effect of heating duration

Gill BS, Singh N*, Saxena SK*// *Guru Nanak Dev Univ, Dept Food Sci & Technol, Amritsar, Punjab, India
Int J Food Prop 2004 **7** (1) 59

The impact of starch properties on noodle making properties of Indian wheat flours

Ibanoglu S, Ainsworth P// Gaziantep Univ, Fac Engn, Dept Food Engn, TR-27310 Gaziantep, Turkey
J Food Eng 2004 **64** (2) 243

Effect of canning on the starch gelatinization and protein *in vitro* digestibility of tarhana, a wheat flour-based mixture

Lamberti M, Geiselmann A, Conde-Petit B, Escher F*// *ETH - Swiss Fed Inst Technol, Inst Food Sci & Nutr, Food Chem & Technol Lab, Schmelzbergstr 9, CH-8092 Zurich, Switzerland
Lebensm Wiss Technol Food Sci 2004 **37** (4) 417

Starch transformation and structure development in production and reconstitution of potato flakes

Lawal OS// Olabisi Onabanjo Univ, Dept Chem Sci, PMB 2002, Ago Iwoye, Ogun State, Nigeria
Food Chem 2004 **87** (2) 205

Composition, physicochemical properties and retrogradation characteristics of native, oxidised, acetylated and acid-thinned new cocoyam (*Xanthosoma*

sagittifolium) starch

Lee JS, Kumar RN, Rozman HD, Azemi BMN// Univ Malaysia Sabah, SSMP, Sch Food Sci & Nutr, MY-88999 Kota Kinabalu, Sabah, Malaysia
Carbohydr Polym 2004 **56** (3) 347

Flow behaviour of sago starch-g-poly(acrylic acid) in distilled water and NaOH - Effect of photografting

Lii CY, Lai VMF*, Shen MC*// *Providence Univ, Dept Food & Nutr, Taichung 43301, Taiwan
Cereal Chem 2004 **81** (3) 392

Changes in retrogradation properties of rice starches with amylose content and molecular properties

Majumder TP, Meissner D, Schick C// Krishnagar Government Coll, Dept Phys, IN-741101 Krishnanagar, West Bengal, India
Carbohydr Polym 2004 **56** (3) 361

Dielectric processes of wet and well-dried wheat starch

Mondal K, Sharma A, Gupta MN*// *Indian Inst Technol, Dept Chem, Hauz Khas, IN-110016 New Delhi, India
Carbohydr Polym 2004 **56** (3) 355

Three phase partitioning of starch and its structural consequences

Noda T, Takigawa S, Matsuura-Endo C, Saito K, Takata K, Tabiki T, Wickramasinghe HAM, Yamauchi H// Nat Agr Res Ctr Hokkaido Region, Dept Upland Agr, Shinsai, Memuro, Hokkaido 082-0071, Japan
Carbohydr Polym 2004 **56** (3) 271

The physicochemical properties of partially digested starch from sprouted wheat grain

Peressini D, Bravin B, Sensidoni A// Univ Udine, Dipt Sci Alimenti, Via Marangoni 97, IT-33100 Udine, Italy
Ital J Food Sci 2004 **16** (1) 5

Tensile properties, water vapour permeabilities and solubilities of starch-methylcellulose based edible films

Sandhu KS, Singh N*, Kaur M// *Guru Nanak Dev Univ, Dept Food Sci & Technol, IN-143005 Amritsar, India
J Food Eng 2004 **64** (1) 119

Characteristics of the different corn types and their grain fractions: Physicochemical, thermal, morphological, and rheological properties of starches

Shin SI, Choi HJ, Chung KM, Hamaker BR, Park KH, Moon TW*// *Seoul Natl Univ, Sch Agr Biotechnol, Natl Lab Funct Food Carbohydrate, Seoul 151 742, South Korea
Cereal Chem 2004 **81** (3) 404

Slowly digestible starch from debranched waxy sorghum starch: Preparation and properties

Siddaramaiah, Raj B, Somashekar R// SJ Coll Engn, Dept Polymer Sci & Engn, IN-570006 Mysore, Karnataka, India
J Appl Polym Sci 2004 **91** (1) 630

Structure-property relation in polyvinyl alcohol/starch composites

Singh N, Kaur L, Singh J// Guru Nanak Dev Univ, Dept Food Sci & Technol, IN-143005 Amritsar, India
J Sci Food Agric 2004 **84** (7) 714

Relationships between various physicochemical, thermal and rheological properties of starches separated from different potato cultivars

10. Starch-degrading enzymes

Bennamoun L, Meraihi Z, Dakhmouche S// Univ Mentouri Constantine, Fac Sci, Lab Genie Microbiol & Applicat Chaab Ersas, DZ-2008 Constantine, Algeria
J Food Eng 2004 **64** (2) 257

Use of experimental planning to optimize production of α -amylase by *Aspergillus oryzae* Ahlburg (Cohen) 1042.72 cultivated on a basal medium of orange waste (French)

Carrin ME, Ceci LN, Lozano JE*// *UNS-CONICET, PLAPIQUI, Camino la Carrindanga km 7, AR-8000 Bahia Blanca, Argentina
Food Chem 2004 **87** (2) 173

Characterization of starch in apple juice and its degradation by amylases

Kaper T, Van der Maarel MJE*, Euverink GJW, Dijkhuizen L// *TNO Nutr & Food Res, Innovat Ingredients & Prod Dept, Rouaanstr 27, NL-9723 CC Groningen, The Netherlands
Biochem Soc Trans 2004 **32** (2) 279

Exploring and exploiting starch-modifying amyloamylases from thermophiles

Satyanarayana T, Noorwez SM, Kumar S, Rao JLUM, Ezhilvannan M, Kaur P// Univ Delhi, Dept Microbiol, Sth Campus, IN-110021 New Delhi, India
Biochem Soc Trans 2004 **32** (2) 276

Development of an ideal starch saccharification process using amylolytic enzymes from thermophiles

11. Polysaccharides - Microbial

Boza Y, Neto LP, Costa FAA, Scamparini ARP// University Campinas, Faculty Food Engineering, Dept Food Sci, CP 6121, BR-13081-970 Campinas, Brazil

Process Biochem 2004 **39** (10) 1201

Exopolysaccharide production by encapsulated *Beijerinckia* cultures

Kanesaka S, Watanabe T*, Matsukawa S// *Tokyo Univ Fisheries, Dept Food Sci & Technol, 4-5-7 Konan, Tokyo 108 8477, Japan

Biomacromolecules 2004 **5** (3) 863

Binding effect of Cu²⁺ as a trigger on the sol-to-gel and the coil-to-helix transition processes of polysaccharide, gellan gum

Lycknert K, Widmalm G// *Stockholm Univ, Dept Organ Chem, Arrhenius Lab, SE-10691 Stockholm, Sweden

Biomacromolecules 2004 **5** (3) 1015

Dynamics of the *Escherichia coli* O91 O-antigen polysaccharide in solution as studied by carbon-13 NMR relaxation

Minato K, Kawakami S, Nomura K, Tsuchida H, Mizuno M// Miyagi Agr Coll, Taihaku, Sendai 982-0215, Japan

Carbohydr Polym 2004 **56** (3) 279

An *exo* β-1,3-glucanase synthesized *de novo* degrades lentinan during storage of *Lentinula edodes* and diminishes immunomodulating activity of the mushroom

Moresi M, Bruno M, Parente E// Univ Tuscia, Dept Food Sci & Technol, Via San Camillo de Lellis, IT-01100 Viterbo, Italy

J Food Eng 2004 **64** (2) 179

Viscoelastic properties of microbial alginate gels by oscillatory dynamic tests

Nichols CAM, Garon S, Bowman JP, Raguene G, Guezennec J// Univ Tasmania, Sch Agr Sci, GPO Box 252-54, Hobart, Tas 7000, Australia

J Appl Microbiol 2004 **96** (5) 1057

Production of exopolysaccharides by Antarctic marine bacterial isolates

Nowakowska M, Zapotouny S, Sterzel M, Kot E// Jagiellonian Univ, Fac Chem, Ingardena 3, PL-30060 Krakow, Poland

Biomacromolecules 2004 **5** (3) 1009

Novel water-soluble photosensitizers from dextrans

Selbmann L, Crognale S, Petruccioli M// *Univ Tuscia, Dipt Agrobiol & Agrochim, Via SC de Lellis, IT-01100 Viterbo, Italy

J Appl Microbiol 2004 **96** (5) 1074

β-Glucan production by *Botryosphaeria rhodina* in different bench-top bioreactors

Shu CH, Lung MY// Nat Central Univ, Dept Chem & Mat Engn, Chung-Li, Taoyuan 320, Taiwan

Process Biochem 2004 **39** (8) 931

Effect of pH on the production and molecular weight distribution of exopolysaccharide by *Antrodia camphorata* in batch cultures

Vijayendra SVN, Yamini D, Sudhamani SR, Prasad MS// Cent Food Technol Res Inst, Dept Food Microbiol, IN-570013 Mysore, India

J Food Sci Technol Mysore 2004 **40** (6) 611

Effect of hexose sugars on exopolysaccharide production by selected bacterial cultures

Yang HL, Wu TX, Zhang KC// *Sthn Yangtze Univ, Minist Educat Key Lab Ind Biotechnol, 170 Huihe Rd, CN-214036 Wuxi, Peoples Rep China

Biotechnol Lett 2004 **26** (10) 841

Enhancement of mycelial growth and polysaccharide production in *Ganoderma lucidum* (the Chinese medicinal fungus, 'Lingzhi') by the addition of ethanol

12. Polysaccharides - Plant

Benhura MAN, Chidewe CK// Univ Zimbabwe, Dept Biochem, POB 167, Mount Pleasant, Harare, Zimbabwe

Int J Food Sci Technol 2004 **39** (5) 579

The emulsifying properties of a polysaccharide isolated from the fruit of *Cordia abyssinica*

Cyran M, Cygankiewicz A// Inst Plant Breeding & Acclimatization, Dept Plant Biochem & Physiol, PL-05870 Blonie, Poland

Cereal Res Commun 2004 **32** (1) 143

Variability in the content of water-extractable and water-unextractable non-starch polysaccharides in rye flour and their relationship to baking quality parameters

Fatin-Rouge N, Starchev K, Buffle J// Univ Geneva, Geneva, Switzerland

Biophys J 2004 **86** (5) 2710

Size effects on diffusion processes within agarose gels

Figueiro SD, Goes JC, Moreira RA, Sombra ASB// *Univ Fed Ceara, Dept Fisica, LOCEM, Campus Pici, Caixa Postal 6030, BR-60455-760 Fortaleza, Ceara, Brazil

Carbohydr Polym 2004 **56** (3) 313

On the physico-chemical and dielectric properties of glutaraldehyde cross-linked galactomannan-collagen films

Fugel R, Carle R, Schieber A// *Hohenheim Univ, Inst Food Technol, Sect Plant Foodstuff Technol, Garbenstr 25, DE-70599 Stuttgart, Germany

Food Chem 2004 **87** (1) 141

A novel approach to quality and authenticity control of fruit products using fractionation and characterisation of cell wall polysaccharides

Guo YS, Kong LD*, Wang YM, Huang ZQ// *Nanjing Univ, Sch Life Sci, Inst Funct Biomol, State Key Lab Pharmaceut Biotechnol, CN-210093 Nanjing, Peoples Rep China

Phytother Res 2004 **18** (3) 204

Antidepressant evaluation of polysaccharides from a Chinese herbal medicine *Banxia-houpu* decoction

Miyaniishi N, Inaba Y, Okuma H, Imada C, Watanabe E// *Tokyo Univ Fisheries, Dept Food Sci & Technol, 4-5-7 Konan, Minato-ku, Tokyo 108 8477, Japan

Biosens Bioelectron 2004 **19** (6) 557

Amperometric determination of laminarin using immobilized β-1,3-glucanase

Murata Y, Jinno D, Kofuji K, Kawashima S// Hokuriku Univ, Fac Pharmaceut Sci, Ho 3, Kanazawa, Ishikawa 920 118, Japan

Chem Pharm Bull Tokyo 2004 **52** (5) 605

Properties of calcium-induced gel beads prepared with alginate and hydrolysates

Richardson JC, Dettmar PW, Hampson FC, Melia CD// *University Nottingham, Formulart Insights Sch Pharm, Univ Park, Nottingham NG7 2RD, England

Eur J Pharm Biopharm 2004 **57** (2) 299

A simple, high throughput method for the quantification of sodium alginates on oesophageal mucosa

Rocha SM, Coimbra MA, Delgadillo I// Univ Aveiro, Dept Quim, Campus Santiago, PT-3810-193 Aveiro, Portugal

Carbohydr Polym 2004 **56** (3) 287

Occurrence of furfuraldehydes during the processing of *Quercus suber* L. cork. Simultaneous determination of furfural, 5-hydroxymethylfurfural and 5-methylfurfural and their relation with cork polysaccharides

Rosenberg M, Lee SJ// Univ Calif Davis, Dept Food Sci & Technol, Davis, Ca 95616, USA

J Microencapsul 2004 **21** (3) 263

Calcium-alginate coated, whey protein-based microspheres: Preparation, some properties and opportunities

Sagdic O, Simsek B, Orhan H, Dogan M// Erciyes Univ, Fac Engn, Dept Food Engn, TR-38039 Kayseri, Turkey

Milchwissenschaft 2004 **59** (1-2) 45

Effect of κ-carrageenan on bacteria and some characteristics of yoghurt

Ueng SWN, Yuan LJ, Lee N, Lin SS, Chan EC, Weng JH// Chang Gung Memorial Hospital, Department Orthopaed Surg, 222 Mai Chin Rd, Chilung, Taiwan

J Orthop Res 2004 **22** (3) 592

In vivo study of biodegradable alginate antibiotic beads in rabbits

13. Polysaccharides - Other

Debbaudt AL, Ferreira ML*, Gschaidner ME// *PLAPIQUI-UNS-CONICET, Camino La Carrindanga km 7, Casilla Correo 717, AR-8000 Bahia Blanca, Buenos Aires, Argentina

Carbohydr Polym 2004 **56** (3) 321

Theoretical and experimental study of M²⁺ adsorption on biopolymers. III. Comparative kinetic pattern of Pb, Hg and Cd

Garcia MA, Pinotti A, Martino MN, Zaritzky NE// Univ Nacional La Plata, Ctr Invest & Desarrollo Crioteclon Alimentos, 47 y 116, AR-1900 La Plata, Argentina

Carbohydr Polym 2004 **56** (3) 339

Characterization of composite hydrocolloid films

Mandala IG, Savvas TP, Kostaropoulos AE// Agr Univ Athens, Dept Food Sci & Technol, Lab Engn Proc & Preservat Foods, 75 Iera Odos, GR-11855 Athens, Greece

J Food Eng 2004 **64** (3) 335

Xanthan and locust bean gum influence on the rheology and structure of a white model-sauce

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

Lebensm Wiss Technol Food Sci 2004 **37** (4) 395

Oxidation of 6-O-arachidonoyl L-ascorbate microencapsulated with a polysaccharide by spray-drying