

Bibliography of carbohydrate polymers

(4 weeks journals. Search completed at 6th. Oct. 2004)

1. Books, reviews & symposia

- Doman-Pytka M, Bardowski J// Agric Univ, Dept Food Technol, Lublin, Poland
Crit Rev Microbiol 2004 **30** (2) 107
Pullulan degrading enzymes of bacterial origin
- Michaud P, Da Costa A, Courtois B, Courtois J// Univ Picardie, LPMV, IUT/Genie Biol, Lab Glucides, Ave Facultes, FR-80025 Amiens, France
Crit Rev Biotechnol 2003 **23** (4) 233
Polysaccharide lyases: Recent developments as biotechnological tools
- Nishinari K, Zhang H// Osaka City Univ, Grad Sch Human Life Sci, Dept Food & Nutr, Osaka 558 8585, Japan
Trends Food Sci Technol 2004 **15** (6) 305
Recent advances in the understanding of heat set gelling polysaccharides
- Ogawa K, Yui T, Okuyama K// Univ Osaka Prefecture, Adv Sci & Technol Res Inst, Sakai, Osaka 599 8570, Japan
Int J Biol Macromol 2004 **34** (1-2) 1
Three D structures of chitosan
- Petitou M, Van Boeckel CAA// Sanofi Synthelabo, Dept Cardiovasc Thromboses, 195 Route Espagne, FR-31036 Toulouse, France
Angew Chem Int Ed 2004 **43** (24) 3118
A synthetic antithrombin III binding pentasaccharide is now a drug! What comes next?
- Senel S, McClure SJ// Univ Hacettepe, Fac Pharm, Dept Pharmaceut Technol, TR-06100 Ankara, Turkey
Advan Drug Delivery Rev 2004 **56** (10) 1467
Potential applications of chitosan in veterinary medicine
- Wood PJ// Agr & Agri-Food Canada, Food Res Program, 93 Stone Rd West, Guelph, Ontario, Canada N1G 5C9
Trends Food Sci Technol 2004 **15** (6) 313
Relationships between solution properties of cereal β -glucans and physiological effects - A review

2. Cellulose

- Agrawal AM, Manek RV, Kolling WM, Neau SH// *Univ Missouri, Sch Pharm, Div Pharmaceut Sci, 5100 Rockhill Rd, Kansas City, Mo 64110, USA
J Pharm Sci 2004 **93** (7) 1766
Water distribution studies within microcrystalline cellulose and chitosan using differential scanning calorimetry and dynamic vapor sorption analysis
- Antova G, Vasvasova P, Zlatanov M// Univ Plovdiv Paisii Hilendarski, Dept Chem Technol, 24 Tsar Assen Str, BG-4000 Plovdiv, Bulgaria
Carbohydr Polym 2004 **57** (2) 131
Studies upon the synthesis of cellulose stearate under microwave heating
- Barbucci R, Leone G, Vecchiullo A// Univ Siena, CRISMA, Via Aldo Moro 2, IT-53100 Siena, Italy
J Biomater Sci Polym Ed 2004 **15** (5) 607
Novel carboxymethylcellulose-based microporous hydrogels suitable for drug delivery
- Chaikumpollert O, Methacanon P*, Suchiva K// *Nat Metal & Mat Technol Ctr, 114 Thailand Sci Pk, Paholyothin Rd, Klong 1, TH-12120 Klong Luang, Pathumthani, Thailand
Carbohydr Polym 2004 **57** (2) 191
Structural elucidation of hemicelluloses from Vetiver grass

- Entcheva E, Bien H, Yin LH, Chung CY, Farrell M, Kostov Y// SUNY Stony Brook, Department Biomed Engn, HSC T18-030, Stony Brook, NY 11794, USA
Biomaterials 2004 **25** (26) 5753
Functional cardiac cell constructs on cellulose-based scaffolding
- Granat P, Pudas M*, Hormi O, Hagberg J, Leppavuori S// *Univ Oulu, Microelectronics Lab, EMPART Res Grp Infotech, PO Box 4500, FI-90014 Linnanmaa, Finland
Carbohydr Polym 2004 **57** (2) 225
Synthesis of acrylated ethylcellulose for UV-curing ink
- Hussain S, Grandy DB, Reading M, Craig DQM// *Queens Univ Belfast, Sch Pharm, 97 Lisburn Rd, Belfast BT9 7BL, Northern Ireland
J Pharm Sci 2004 **93** (7) 1672
A study of phase separation in peptide-loaded HPMC films using T_{zero} -modulated temperature DSC, atomic force microscopy, and scanning electron microscopy
- Kwok TSH, Sunderland BV, Heng PWS// *Natl Univ Singapore, Dept Pharm, 18 Sci Dr 4, Block S4, SG-117543 Singapore, Rep Singapore
Chem Pharm Bull (Tokyo) 2004 **52** (7) 790
An investigation on the influence of a vinyl pyrrolidone/vinyl acetate copolymer on the moisture permeation, mechanical and adhesive properties of aqueous-based hydroxypropyl methylcellulose film coatings
- Lin L, Yao Y*, Yoshioka M, Shiraishi N// *Fuji Carbon Co Ltd, Ohaza Kosaji 201, Koga-cho, Kougagun, Shiga 520-3402, Japan
Carbohydr Polym 2004 **57** (2) 123
Liquefaction mechanism of cellulose in the presence of phenol under acid catalysis
- Mathew N, Kalyanasundaram M// *ICMR, Vector Control Res Ctr, IN-605006 Pondicherry, India
Pest Manag Sci 2004 **60** (7) 685
Development of biodegradable aluminium carboxymethylcellulose matrices for mosquito larvicides
- Meier MA, Kanis LA, Soldi V// *Univ Fed Santa Catarina, Dept Quim, Grp Estudo Mat Polimer Polimat, BR-88040-900 Florianopolis, SC, Brazil
Int J Pharm 2004 **278** (1) 99
Characterization and drug-permeation profiles of microporous and dense cellulose acetate membranes: Influence of plasticizer and pore forming agent
- Mihiranyan A, Andersson SB, Ek R// *Uppsala Univ, Dept Pharm, POB 580, SE-75123 Uppsala, Sweden
Eur J Pharm Sci 2004 **22** (4) 279
Sorption of nicotine to cellulose powders

3. Cellulose-degrading enzymes

- Dienes D, Egyhazi A, Reczey K// Univ Budapest, Dep Agr Chem Technol, Szt Gellert ter 4, HU-1111 Budapest, Hungary
Ind Crops Products 2004 **20** (1) 11
Treatment of recycled fiber with *Trichoderma* cellulases
- Sun X, Zhang RH, Zhang YZ// *Sichuan Univ, Life Sci Coll, Mol Biol Lab, CN-610064 Chengdu, Peoples Rep China
J Basic Microbiol 2004 **44** (3) 220
Production of lignocellulolytic enzymes by *Trametes gallica* and detection of polysaccharide hydrolase and laccase activities in polyacrylamide gels
- Szijarto N, Faigl Z, Reczey K*, Mezes M, Bersenyi A// *Budapest Univ Technol & Econ, Department Agr Chem Technol, Szt Gellert ter 4, HU-1521

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.

Budapest, Hungary

Ind Crops Products 2004 **20** (1) 49

Cellulase fermentation on a novel substrate (waste cardboard) and subsequent utilization of home-produced cellulase and commercial amylase in a rabbit feeding trial

4. Chitin/Chitosan

Becheran-Marón L, Peniche C, Arguelles-Monal W*// *CIAD, Unidad Guaymas, Carretera Varadero Nacl km 6.6, APD, MX-85400 Guaymas, Sonora, Mexico

Int J Biol Macromol 2004 **34** (1-2) 127

Study of the interpolyelectrolyte reaction between chitosan and alginate: Influence of alginate composition and chitosan molecular weight

Chang R, Moquist P, Finney NS*// *Univ Calif San Diego, Dept Chem & Biochem, La Jolla, Ca 92093, USA

Carbohydr Res 2004 **339** (8) 1531

Chemical synthesis of UDP-4-O-methyl-GlcNAc, a potential chain terminator of chitin synthesis

Cho JH, Kim SH, Park KD, Jung MC, Yang WI, Han SW, Noh JY, Lee JW*// *Yonsei Univ, Coll Med, Dept Orthopaed Surg - 29, CPO Box 8044, Seoul 120 752, South Korea

Biomaterials 2004 **25** (26) 5743

Chondrogenic differentiation of human mesenchymal stem cells using a thermosensitive poly(*N*-isopropylacrylamide) and water-soluble chitosan copolymer

Dong Y, Wang H, Zheng W, Zhao Y, Bi D, Zhao L, Li X// Xiamen Univ, Dept Mat Sci & Engn, State Key Lab Phys Chem Solid Surf, CN-361005 Xiamen, Peoples Rep China

Carbohydr Polym 2004 **57** (3) 235

Liquid crystalline behaviour of chitoooligosaccharides

Kim DS// Catholic Univ Daegu, Dept Environm Sci, Gyeongbuk 712 702, South Korea

Bioresource Technol 2004 **94** (3) 345

Pb²⁺ removal from aqueous solution using crab shell treated by acid and alkali

Kim SB, Kim YJ, Yoon TL, Park SA, Cho IH, Kim EJ, Kim IA, Shin JW*// *Inje Univ, Dept Biomed Engn, 607 Eu-Bang dong, Gyeongnam 621 749, South Korea

Biomaterials 2004 **25** (26) 5715

The characteristics of a hydroxyapatite-chitosan-PMMA bone cement

Le-Tien C, Millette M, Mateescu MA, Lacroix M*// *Inst Armand Frappier, INRS, 531 Blvd Prairies, Laval, Quebec, Canada H7V 1B7

Biotechnol Appl Biochem 2004 **39** (3) 347

Modified alginate and chitosan for lactic acid bacteria immobilization

Li KG, Wang Y, Miao ZC, Xu DY, Tang YF, Feng MF*// *Chinese Acad Sci, Inst Zool, State Key Lab Biomembrane & Membrane Biotechnol, CN-100080 Beijing, Peoples Rep China

Biotechnol Lett 2004 **26** (11) 879

Chitosan/gelatin composite microcarrier for hepatocyte culture

Min BM, You Y, Kim JM, Lee SJ, Park WH*// *Chungnam Nat Univ, Dept Textile Engn, 220 Gungdong, Yuseong ku, Daejeon 305-764, Korea

Carbohydr Polym 2004 **57** (3) 285

Formation of nanostructured poly(lactic-co-glycolic acid)/chitin matrix and its cellular response to normal human keratinocytes and fibroblasts

Nampoothiri KM, Baiju TV, Sandhya C, Sabu A, Szakacs G, Pandey A*// *CSIR Regional Res Lab, Biotechnol Div, IN-695019 Trivandrum, India

Process Biochem 2004 **39** (11) 1583

Process optimization for antifungal chitinase production by *Trichoderma harzianum*

Nwe N, Stevens WF*// *Asian Inst Technol, Sch Environm Resources & Develop, Bioproc Technol, Proc Technol Program, PO Box 4, TH-12120 Klong Luang, Pathumthani, Bangkok, Thailand

Process Biochem 2004 **39** (11) 1639

Effect of urea on fungal chitosan production in solid substrate fermentation

Seol YJ, Lee JY, Park YJ, Lee YM, Young-Ku, Rhyu IC, Lee SJ, Han SB, Chung CP*// *Seoul Natl Univ, Coll Dent, Dept Periodontol, 28-2 Yongon dong, Seoul 110 749, South Korea

Biotechnol Lett 2004 **26** (13) 1037

Chitosan sponges as tissue engineering scaffolds for bone formation

Songkroah C, Nakbanpote W, Thiravetyan P*// *King Mongkut's Univ Technol Thonburi, Sch Bioresources & Technol, 83 Moo.8 Thakham, Bangkok, TH-10150 Bangkok, Thailand

Process Biochem 2004 **39** (11) 1553

Recovery of silver-thiosulphate complexes with chitin

5. Cyclodextrins

Govindarajan R, Nagarsenker MS*// *Bombay Coll Pharm, Kalina, Santacruz E, IN-400098 Mumbai, India

J Pharm Pharmacol 2004 **56** (6) 725

Influence of preparation methodology on solid-state properties of an acidic drug-cyclodextrin system

Koester LS, Bertuol JB, Groch KR, Xavier CR, Moellerke R, Mayorga P, Dalla Costa T, Bassani VL*// *Univ Fed Rio Grande do Sul, Fac Farm, Programa Posgrad Ciencias Farmaceut, Avda Ipiranga 2752, BR-90610-000 Porto Alegre, RS, Brazil

Eur J Pharm Sci 2004 **22** (2-3) 201

Bioavailability of carbamazepine- β -cyclodextrin complex in beagle dogs from hydroxypropylmethylcellulose matrix tablets

Li JS, Xiao HN*, Li JH, Zhong YP*// *Univ New Brunswick, Dept Chem Engn, Fredericton, New Brunswick, Canada E3B 5A3

Int J Pharm 2004 **278** (2) 329

Drug carrier systems based on water-soluble cationic β -cyclodextrin polymers

Li SL, Vigh G*// *Texas A&M Univ, Dept Chem, College Station, Tx 77842, USA

Electrophoresis 2004 **25** (9) 1201

Single-isomer sulfated α -cyclodextrins for capillary electrophoresis. Part 2. Hexakis (6-*O*-sulfo)- α -cyclodextrin: Synthesis, analytical characterization, and initial screening tests

Liu Y, Chen GS, Zhang HY, Song HB, Ding F// Nankai Univ, State Key Lab Elemento Organ Chem, Dept Chem, CN-300071 Tianjin, Peoples Rep China

Carbohydr Res 2004 **339** (9) 1649

Interaction between β -cyclodextrin and 1,10-phenanthroline: Uncommon 2:3 inclusion complex in the solid state

Mertzman MD, Foley JP*// *Drexel Univ, Dept Chem, 32nd & Chestnut St, Philadelphia, Pa 19104, USA

Electrophoresis 2004 **25** (9) 1188

Chiral cyclodextrin-modified microemulsion electrokinetic chromatography

Mulder A, Jukovic A, Huskens J*, Reinhoudt DN// *Univ Twente, MESA Inst Nanotechnol, Lab Supramol Chem & Technol, POB 217, NL-7500 AE Enschede, The Netherlands

Org Biomol Chem 2004 **2** (12) 1748

Bis(phenylthienyl)ethene-tethered β -cyclodextrin dimers as photoswitchable hosts

Reguera J, Alonso M, Testera AM, Lopez IM, Martin S, Rodriguez-Cabello JC*// *Univ Valladolid, ETSII, Dept Fis Mat Condensada, Paseo del Cauce s/n, ES-47011 Valladolid, Spain

Carbohydr Polym 2004 **57** (3) 293

Effect of modified α , β , and γ -cyclodextrins on the thermo-responsive behavior of the elastin-like polymer, poly(VPGVG)

7. Lipopolysaccharides

Bushmarinov IS, Ovchinnikova OG*, Kocharova NA, Blaszczyk A, Toukach FV, Torzewska A, Shashkov AS, Knirel YA, Rozalski A// *Russian Acad Sci, ND Zelinskii Inst Organ Chem, RU-119991 Moscow, Russia

Carbohydr Res 2004 **339** (8) 1557

Structure of the O-polysaccharide of *Providencia stuartii* O49

Kilcoyne M, Perepelov A, Shashkov AS, Nazarenko EL, Ivanova EP, Gorshkova NM, Gorshkova RP, Savage AV*// *Natl Univ Ireland, Univ Coll Galway, Dept Chem, Galway, Rep Ireland

Carbohydr Res 2004 **339** (9) 1655

Structure of an acidic O-specific polysaccharide from marine bacterium *Shewanella fidelis* KMM 3582^T containing N⁶-[S-1-carboxyethyl]-N⁶-(D-galacturonoyl)-L-lysine

Larsson EA, Urbina F, Yang ZN, Weintraub A, Widmalm G*// *Univ Stockholm, Dept Organ Chem, Arrhenius Lab, SE-10691 Stockholm, Sweden

Carbohydr Res 2004 **339** (8) 1491

Structural and immunochemical relationship between the O-antigenic polysaccharides from the enteroaggregative *Escherichia coli* strain 396/C-1 and *Escherichia coli* O126

Torzewska A, Kocharova NA, Zatonsky GV, Blaszczyk A, Bystrova OV, Shashkov AS, Knirel YA, Rozalski A*// *University Lodz, Inst Microbiol & Immunol, Department Immunobiol Bacteria, Banacha 12-16, PL-90237 Lodz, Poland

FEMS Immunol Med Microbiol 2004 **41** (2) 133

Structure of the O-polysaccharide and serological cross-reactivity of the *Providencia stuartii* O33 lipopolysaccharide containing 4-(*N*-acetyl-D-aspart-4-yl)amino-4,6-dideoxy-D-glucose

Veremeichenko SN, Zdorovenko GM// NPK Res & Prod Co, Svetlitskogo 35,

UA-04123 Kiev, Ukraine

Microbiology (Mosc) 2004 **73** (3) 260

Structure and properties of the lipopolysaccharide of *Pseudomonas fluorescens* IMV 2366 (Biovar III)

Vinogradov E, Li JJ, Sadvokskaya I, Jabbouri S, Helander IM// Natl Res Council Canada, Inst Biol Sci, 100 Sussex Dr, Ottawa, Ontario, Canada K1A 0R6
Carbohydr Res 2004 **339** (9) 1637

The structure of the carbohydrate backbone of the lipopolysaccharide of *Pectinatus frisingensis* strain VTT E-79104

Vinogradov E, Perry MB// Natl Res Council Canada, Inst Biol Sci, 100 Sussex Dr, Ottawa, Ontario, Canada K1A 0R6
Carbohydr Res 2004 **339** (9) 1643

Characterisation of the core part of the lipopolysaccharide O-antigen of *Francisella novicida* (U112)

8. Pectin

Ortega N, De Diego S, Rodriguez-Nogales JM, Perez-Mateos M, Busto MD**// *Univ Burgos, Dept Biotechnol & Food Sci, Plaza Misael Banuelos s/n, ES-09001 Burgos, Spain

Int J Food Sci Technol 2004 **39** (6) 631

Kinetic behaviour and thermal inactivation of pectinlyase used in food processing

9. Starch

Abera S, Rakshit SK**// *AIT, SERD, Proc Technol Program, POB 4, TH-12120 Pathumthani, Thailand

Starch 2004 **56** (6) 232

Effect of dry cassava chip storage on yield and functional properties of extracted starch

Bao JS, Sun M, Zhu LH, Corke H// Zhejiang Univ, Inst Nucl Agr Sci, Hua Jiachi Campus, CN-310029 Hangzhou, Peoples Rep China

J Cereal Sci 2004 **39** (3) 379

Analysis of quantitative trait loci for some starch properties of rice (*Oryza sativa* L.): Thermal properties, gel texture and swelling volume

Baran ET, Mano JF, Reis RL// Univ Minho, Res Grp Biodegradables & Biomimet, Campus Gualtar, PT-4710-057 Braga, Portugal

J Mater Sci-Mater Med 2004 **15** (7) 759

Starch-chitosan hydrogels prepared by reductive alkylation cross-linking

Bertoft E// Abo Akad Univ, Dept Biochem & Pharm, PO Box 66, FI-20521 Turku, Finland

Carbohydr Polym 2004 **57** (2) 211

On the nature of categories of chains in amylopectin and their connection to the super helix model

Bienkiewicz G, Kolakowska A// Agr Univ Szczecin, Fac Food Sci & Fisheries, Dept Food Qual, 3 Papieza Pawla VI St, PL-7159 Szczecin, Poland

Eur J Lipid Sci Technol 2004 **106** (6) 376

Effects of thermal treatment on fish lipids-amylose interaction

Brown IL// Univ Wollongong, Smart Foods Ctr, Wollongong, NSW 2522, Australia

J AOAC Int 2004 **87** (3) 727

Applications and uses of resistant starch

Chang YH, Lim ST, Yoo B**// *Dongguk Univ, Dept Food Sci & Technol, 26, 3 Pil dong, Seoul 100 715, South Korea

J Food Eng 2004 **64** (4) 521

Dynamic rheology of corn starch-sugar composites

Ciesielski W, Tomasik P**// *Univ Agr, Dept Chem, Mickiewicz Ave 21, PL-31120 Krakow, Poland

Int J Food Sci Technol 2004 **39** (6) 691

Werner-type metal complexes of potato starch

Dolinska R, Warchalewski JR*, Gralik J, Jankowski T// *August Cieszkowski Agr Univ, Dept Food Biochem & Anal, Mazowiecka 48, PL-60623 Poznan, Poland

Nahrung 2004 **48** (3) 195

Effect of gamma-radiation and microwave heating of wheat grain on some starch properties in irradiated grain as well as in grain of the next generation crops

Elomaa M, Asplund T, Soininen P, Laatikainen R, Peltonen S, Hyvarinen S, Urtu A// Univ Kuopio, Dept Pharmaceut, Biokentia 2, Laakekehitys, PO Box 1627, FI-70211 Kuopio, Finland

Carbohydr Polym 2004 **57** (3) 261

Determination of the degree of substitution of acetylated starch by hydrolysis, ¹H NMR and TGA/IR

Faraj A, Vasanthan T*, Hoover R// *Univ Alberta, Dept Agr Food & Nutr

Sci, Edmonton, Alberta, Canada T6G 2P5

Food Res Int 2004 **37** (5) 517

The effect of extrusion cooking on resistant starch formation in waxy and regular barley flours

Gambus H, Gumul D, Juszcak L// ul Balicka 122, PL-30149 Krakow, Poland
Starch 2004 **56** (6) 225

Rheological properties of pastes obtained from starches derived from immature cereal kernels

Golding JM// Natl Starch & Chem Corp, 10 Findeme Ave, Bridgewater, NJ 08807, USA

J AOAC Int 2004 **87** (3) 733

Resistant starch: Safe intakes and legal status

Iturriaga L, Lopez B, Anon M// Univ Nacl Santiago del Estero, Fac Agron & Agroind, Inst Ciencias Quim, Avda Belgrano Sur 1912, AR-4200 Santiago del Estero, Argentina

Food Res Int 2004 **37** (5) 439

Thermal and physicochemical characterization of seven Argentine rice flours and starches

Ji Y, Ao Z, Han JA, Jane JL, BeMiller JN**// *Purdue Univ, Whistler Ctr Carbohydr Res, 1160 Food Sci Bldg, West Lafayette, IN 47907, USA

Carbohydr Polym 2004 **57** (2) 177

Waxy maize starch subpopulations with different gelatinization temperatures

Kalogianni EP, Savopoulos T, Karapantsios TD*, Raphaelides SN// *Technol Inst Thessaloniki, Dept Food Technol, Food Proc Engn Lab, POB 14561, GR-54101 Thessaloniki, Greece

Colloid Surface B 2004 **35** (3-4) 159

A dynamic working technique for determining the effective pore radius of pregelatinized starch sheets

Kelder JDH, Ptasiński KJ, Kerkhof PJAM**// *Tech Univ Eindhoven, Dept Chem Engn & Chem, POB 513, NL-5600 MB Eindhoven, The Netherlands

Biotechnol Prog 2004 **20** (3) 921

Starch gelatinization in coiled heaters

Khraisheh MAM, McMinn WAM, Magee TRA// UCL, Dept Civil & Environm Engn, Chadwick Bldg, Gower St, London WC1E 6BT, England

Food Res Int 2004 **37** (5) 497

Quality and structural changes in starchy foods during microwave and convective drying

Korus J, Juszcak L, Witczak M, Achremowicz B// Agr Univ Cracow, Fac Food Technol, Dept Carbohydrate Technol, Krakow, Poland

Int J Food Sci Technol 2004 **39** (6) 641

Influence of selected hydrocolloids on triticale starch rheological properties

Lee YT, Kim SS// Kyungwon Univ, Dept Food & Bioengn, Seongnam 461 701, South Korea

Food Sci Biotechnol 2004 **13** (3) 332

Effect of elevated steeping temperature on the starch properties of stored milled rice

Li JH, Vasanthan T*, Hoover R, Rossnagel BG// *Univ Alberta, Dept Agr Food & Nutr Sci, Edmonton, Alberta, Canada T6G 2P5

Food Res Int 2004 **37** (5) 417

Starch from hull-less barley: IV. Morphological and structural changes in waxy, normal and high-amylose starch granules during heating

Loret C, Meunier V, Frith WJ, Fryer PJ// Unilever R&D Colworth, Colworth House, Sharnbrook MK40 1DG, England

Carbohydr Polym 2004 **57** (2) 153

Rheological characterisation of the gelation behaviour of maltodextrin aqueous solutions

Ma X, Yu J**// *Tianjin Univ, Sch Sci, CN-300072 Tianjin, Peoples Rep China

Carbohydr Polym 2004 **57** (2) 197

The plasticizers containing amide groups for thermoplastic starch

Mabit J, Loisel C, Fayolle F*, Legrand JJ// *Ecole Natl Ingn Tech Ind Agr & Alimentaires, Dept Genie Proc Alimentaires, FR-44322 Nantes 3, France

Food Res Int 2004 **37** (5) 505

Relation between mechanical treatment of starch and flow conditions in a scraped surface heat exchanger

McFetridge J, Rades T, Lim M**// *Univ Otago, Dept Food Sci, POB 56, Dunedin, New Zealand

Food Res Int 2004 **37** (5) 409

Influence of hydrogenated starch hydrolysates on the glass transition and crystallisation of sugar alcohols

Meares CA, Bogracheva TY, Hill SE, Hedley CL// John Innes Ctr Plant Sci Res, Norwich Res Pk, Norwich NR4 7UH, England

Starch 2004 **56** (6) 215

Development and testing of methods to screen chickpea flour for starch characteristics

- Mondragon M, Bello-Perez LA*, Agama-Acevedo E, Betancur-Ancona D, Pena JL// *IPN, Ctr Desarollo Prod Bioticos, Postal 585, MX-45000 Yauatepec, Morelos, Mexico
Starch 2004 **56** (6) 248
 Effect of cooking time, steeping and lime concentration on starch gelatinization of corn during nixtamalization
- Mostafa KM, Morsy MS// King Abdulaziz Univ, Inst Res & Consultat, POB 80271, SA-21589 Jeddah, Saudi Arabia
Starch 2004 **56** (6) 254
 Tailoring a new sizing agent *via* structural modification of pregelised starch molecules part I: Carboxymethylation and grafting
- Mulhbacher J, Ispas-Szabo P, Mateescu MA*// *Univ Quebec, Dept Chem & Biochem, CP 8888, Succ A, Montreal, Quebec, Canada H3C 3P8
Int J Pharm 2004 **278** (2) 231
 Cross-linked high amylose starch derivatives for drug release II. Swelling properties and mechanistic study
- Nakazawa Y, Wang YJ*// *Univ Arkansas, Dept Food Sci, 2650 Nth Young Ave, Fayetteville, Ar 72704, USA
Carbohydr Polym 2004 **57** (3) 327
 Effect of annealing on starch-palmitic acid interaction
- Nimz O, Gessler K, Uson I, Sheldrick GM, Saenger W*// *Organon Res Labs Ltd, Newhouse ML1 5SH, Scotland
Carbohydr Res 2004 **339** (8) 1427
 Inclusion complexes of V-amylose with undecanoic acid and dodecanol at atomic resolution: X-ray structures with cycloamylose containing 26 D-glucoses (cyclohexacosaoose) as host
- Orozco-Martinez T, Betancur-Ancona D*// *Univ Autonoma Yucatan, Fac Ingn Quim, Cd Ind, Avda Juarez 421, Apdo Postal 26, MX-97288 Merida, Yucatan, Mexico
Starch 2004 **56** (6) 241
 Indigestible starch of *P. lunatus* obtained by pyroconversion: Changes in physicochemical properties
- Para A// Univ Agric, Dept Chem, al Mickiewiczza 21, PL-31120 Krakow, Poland
Carbohydr Polym 2004 **57** (3) 277
 Complexation of metal ions with dioxime of dialdehyde starch
- Sira EEP, Amaiz ML// Cent Univ Venezuela, Fac Ciencias, Inst Ciencias & Tecnol Alimentos, Postal 47097, VE-1041A Caracas, Venezuela
J Food Eng 2004 **64** (4) 515
 A laboratory scale method for isolation of starch from pigmented sorghum
- Tananuwong K, Reid DS*// *Univ Calif Davis, Dept Food Sci & Technol, 1 Shields Ave, Davis, Ca 95616, USA
J Agric Food Chem 2004 **52** (13) 4308
 Differential scanning calorimetry study of glass transition in frozen starch gels
- Tang H, Mitsunaga T, Kawamura Y// Kinki Univ, Fac Agr, Dept Food Sci & Nutr, Nara 631-0052, Japan
Carbohydr Polym 2004 **57** (2) 145
 Relationship between functionality and structure in barley starches
- Van Hung P, Morita N*// *Univ Osaka Prefecture, Coll Agr, Grad Sch Agr & Biol Sci, Food Chem Lab, 1-1 Gakuen cho, Sakai, Osaka 599 8531, Japan
Food Res Int 2004 **37** (5) 461
 Dough properties and bread quality of flours supplemented with cross-linked cornstarches

10. Starch-degrading enzymes

- Del Pozo-Insfran D, Urias-Lugo D, Hernandez-Brenes C, Saldivar SOS*// *ITESM, Dept Food Sci & Technol, Campus Monterrey, Avda Eugenio Garza Sada 2501, MX-64849 Monterrey, Mexico
J Inst Brew 2004 **110** (2) 124
 Effect of amyloglucosidase on wort composition and fermentable carbohydrate depletion in sorghum lager beers
- Kaur P, Satyanarayana T*// *Univ Delhi, Dept Microbiol, South Campus, Benito Juarez Rd, IN-110021 New Delhi, India
World J Microbiol Biotechnol 2004 **20** (4) 419
 Production and starch saccharification by a thermostable and neutral glucoamylase of a thermophilic mould *Thermomucor indiciae-seudaticae*
- Konsula Z, Liakopoulou-Kyriakides M*// *Aristotle Univ Thessaloniki, Fac Chem Engn, GR-54124 Thessaloniki, Greece
Process Biochem 2004 **39** (11) 1745
 Hydrolysis of starches by the action of an α -amylase from *Bacillus subtilis*
- Rajoka MI, Yasmin A, Latif F// NIBGE, POB 577, Jhang Rd, Faisalabad, Pakistan
Lett Appl Microbiol 2004 **39** (1) 13
 Kinetics of enhanced ethanol productivity using raw starch hydrolyzing

glucoamylase from *Aspergillus niger* mutant produced in solid state fermentation

- Zajoncova L, Jilek M, Beranova V, Pec P// Palacky Univ, Fac Sci, Dept Biochem, Slechtitelu 11, CZ-78371 Olomouc-Holice, Czech Republic
Biosens Bioelectron 2004 **20** (2) 240
 A biosensor for the determination of amylase activity
- Zhang C, Xing XH*, Liu MS// *Tsing Hua Univ, Dept Chem Engn, CN-100084 Beijing, Peoples Rep China
Biochem Eng J 2004 **19** (2) 181
 Production of multienzymes consisting of alkaline amylase and cellulase by mixed alkalophilic culture and their potential use in the saccharification of sweet potato
- Zhou Y, Hoover R*, Liu Q// *Memorial Univ Newfoundland, Dept Biochem, St John's, Newfoundland, Canada A1B 3X9
Carbohydr Polym 2004 **57** (3) 299
 Relationship between α -amylase degradation and the structure and physicochemical properties of legume starches

11. Polysaccharides - Microbial

- Bystricky S, Paulovicova E, Machova E// Slovak Acad Sci, Inst Chem, Dubravska cesta 9, SK-84238 Bratislava, Slovakia
FEMS Microbiol Lett 2004 **235** (2) 311
 Synthesis and immunogenicity of polysaccharide-protein conjugate composed of galactoglucoxylomannan of *Cryptococcus laurentii*
- Collic-Jouault S, Zanchetta P, Helley D, Ratiskol J, Sinquin C, Fischer AM, Guezennec J// Ifremer, DRV/VP/BMM, Lab Biotechnol & Mol Marines, rue Ile d'Yeu, BP 21105, FR-44311 Nantes 3, France
Pathol Biol (Paris) 2004 **52** (3) 127
 Exopolysaccharides produced by bacteria isolated from deep-sea hydrothermal vents: New agents with therapeutic potential (French)
- Datta S, Kumar RS, Ayyadurai N, Kumar S, Sakthivel N*// *Pondicherry Univ, Dept Biotechnol, IN-605014 Pondicherry, India
Curr Microbiol 2004 **49** (1) 35
 Polysaccharides of *Pseudomonas* pathovar strains that infect pea, tomato, and soya bean
- Engelmann G, Jobmann A, Rafler G// Fraunhofer Inst Appl Res, Geiselbergstr 69, DE-14476 Golm, Germany
Ind Crops Products 2004 **20** (1) 37
 Dextran carbamates - Materials for microencapsulation
- Fang YP, Takahashi R, Nishinari K*// *Osaka City Univ, Grad Sch Human Life Sci, Dept Food & Human Hlth Sci, Sumiyoshi ku, Osaka 558 8585, Japan
Biopolymers 2004 **74** (4) 302
 Rheological characterization of schizophyllan aqueous solutions after denaturation-renaturation treatment
- Hattori TS, Komatsu N, Shichijo S, Itoh K// Kurume Univ, Sch Med, Dept Immunol, 67 Asahimachi, Kurume, Fukuoka 830 0011, Japan
Biomed Pharmacother 2004 **58** (4) 226
 Protein-bound polysaccharide K induced apoptosis of the human Burkitt lymphoma cell line, Namalwa
- Hennink WE, De Jong SJ, Bos GW, Veldhuis TFJ, Van Nostrum CF// Univ Utrecht, Fac Pharmaceut Sci, UIPS, Dept Pharmaceut, POB 80-082, NL-3508 TB Utrecht, The Netherlands
Int J Pharm 2004 **277** (1-2) 99
 Biodegradable dextran hydrogels crosslinked by stereocomplex formation for the controlled release of pharmaceutical proteins
- Jin Y, Zhang L*, Tao Y, Zeng C, Chen Y, Cheung PCK// *Wuhan Univ, Coll Chem & Mol Sci, Dept Chem, CN-430072 Wuhan, Peoples Rep China
Carbohydr Polym 2004 **57** (2) 205
 Solution properties of a water-insoluble (1 $\rightarrow$ 3)- α -D-glucan isolated from *Poria cocos* mycelia
- Lukyanov AN, Sawant RM, Hartner WC, Torchilin VP*// *Northeastern Univ, Bouve Coll Hlth Sci, Dept Pharmaceut Sci, 312 Mugar Bldg, Boston, Ma 02115, USA
J Biomater Sci Polym Ed 2004 **15** (5) 621
 PEGylated dextran as long-circulating pharmaceutical carrier
- Moslemy P, Guiot SR*, Neufeld RJ// *Nat'l Res Council Canada, Biotechnol Res Inst, 6100 Royalmount Ave, Montreal, Quebec, Canada H4P 2R2
Bioprocess Biosyst Eng 2004 **26** (4) 197
 Activated sludge encapsulation in gellan gum microbeads for gasoline biodegradation
- Na K, Lee KH, Bae YH*// *Univ Utah, Dept Pharmaceut & Pharmaceut Chem, 421 Wakara Way, Suite 315, Salt Lake City, Ut 84108, USA
J Controlled Release 2004 **97** (3) 513

pH-sensitivity and pH-dependent interior structural change of self-assembled hydrogel nanoparticles of pullulan acetate/oligo-sulfonamide conjugate

Noletto GR, Merce ALR, Iacomini M, Oliveira MBM*// *Univ Fed Parana, Dept Bioquim & Biol Mol, CP 19046, BR-81531-990 Curitiba, PR, Brazil

Carbohydr Polym 2004 **57** (2) 113

Yeast mannan-vanadium (IV) complexes and their effect on peritoneal macrophages

Pavlova K, Koleva L, Kratchanova M, Panchev I// Bulgarian Acad Sci, Inst Microbiol, Appl Microbiol Lab, 26 Maritza Blvd, BG-4002 Plovdiv, Bulgaria
World J Microbiol Biotechnol 2004 **20** (4) 435

Production and characterization of an exopolysaccharide by yeast

Saggin R, Coupland JN*// *Penn State Univ, Dept Food Sci, Borland Lab 103, University Park, Pa 16802, USA

J Food Eng 2004 **65** (1) 49

Rheology of xanthan/sucrose mixtures at ultrasonic frequencies

Seo EJ, Yoo SH, Oh KW, Cha JH, Lee HG, Park CS*// *Kyung Hee Univ, Dept Food Sci & Technol, Yongin 449 701, South Korea

Biosci Biotechnol Biochem 2004 **68** (5) 1146

Isolation of an exopolysaccharide-producing bacterium, *Sphingomonas* sp CS101, which forms an unusual-type of sphingane

Sun C, Wang HW, Fang L, Gao XD, Tan RX*// *Nanjing Univ, Inst Funct Biomol, State Key Lab Pharmaceut Biotechnol, CN-210093 Nanjing, Peoples Rep China

Life Sci 2004 **75** (9) 1063

Free radical scavenging and antioxidant activities of EPS2, an exopolysaccharide produced by a marine filamentous fungus *Keisleriella* sp YS 4108

Urbinati C, Bugatti A, Oreste P, Zoppetti G, Waltenberger J, Mitola S, Ribatti D, Presta M, Rusnati M*// *Univ Brescia, Sch Med, Dept Biomed Sci & Biotechnol, Unit Gen Pathol & Immunol, Viale Europa 11, IT-25123 Brescia, Italy

FEBS Lett 2004 **568** (1-3) 171

Chemically sulfated *Escherichia coli* K5 polysaccharide derivatives as extracellular HIV-1 Tat protein antagonists

Verez-Bencomo V, Fernandez-Santana V, Hardy E, Toledo ME, Rodriguez MC, Heynngnezz L, Rodriguez A, Baly A, Herrera L, Izquierdo M, Villar A, Valdes Y, Cosme K, Deler ML, Montane M, Garcia E, Ramos A, Aguilar A, Medina E, Torano G, Sosa I, Hernandez I, Martinez R, Muzachio A, Carmentes A, Costa L, Cardoso F, Campa C, Diaz M, Roy R// Univ La Habana, Fac Quim, Ctr Study Synthet Antigens, CU-10400 Havana, Cuba
Science 2004 **305** (5683) 522

A synthetic conjugate polysaccharide vaccine against *Haemophilus influenzae* type b

Vinogradov E, Petersen BO, Duus JO, Wasser S// Natl Res Council Canada, Inst Biol Sci, 100 Sussex Dr, Ottawa, Ontario, Canada K1A 0R6

Carbohydr Res 2004 **339** (8) 1483

The structure of the glucuronoxylomannan produced by culinary-medicinal yellow brain mushroom (*Tremella mesenterica* Ritz.: Fr, Heterobasidiomycetes) grown as one cell biomass in submerged culture

Volpi N// Univ Modena & Reggio Emilia, Dipt Biol Anim, IT-41100 Modena, Italy

Anal Biochem 2004 **330** (2) 359

Separation of capsular polysaccharide-K4- and defructosylated-K4-derived disaccharides by high-performance liquid chromatography and postcolumn derivatization with 2-cyanoacetamide and fluorimetric detection

Wang YX, Lu ZX*// *Nanjing Agr Univ, Coll Food Sci & Technol, CN-210095 Nanjing, Peoples Rep China

Biochem Eng J 2004 **20** (1) 39

Statistical optimization of media for extracellular polysaccharide by *Pholiota squarrosa* (Pers. ex Fr.) Quel. AS 5.245 under submerged cultivation

Wang Z, Luo D, Liang Z*// *Northeast Normal Univ, Sch Life Sci, CN-130024 Changchun, Peoples Rep China

Carbohydr Polym 2004 **57** (3) 241

Structure of polysaccharides from the fruiting body of *Herichium erinaceus* Pers

Watera C, Nakiyingi J, Miiro G, Muwonge R, Whitworth JAG, Gilks CF, French N// MRC, Programme AIDS, Entebbe, Uganda

AIDS 2004 **18** (8) 1210

23-Valent pneumococcal polysaccharide vaccine in HIV-infected Ugandan adults: 6-year follow-up of a clinical trial cohort

Xu CP, Yun JW*// *Daegu Univ, Dept Biotechnol, Kyungsan, Kyungbuk 712 714, South Korea

Enzyme Microb Technol 2004 **35** (1) 33

Influence of aeration on the production and the quality of the exopolysaccharides from *Paecilomyces tenuipes* C240 in a stirred-tank fermenter

Xu XJ, Ruan D, Jin Y, Shashkov AS, Senchenkova SN, Kilcoyne M, Savage AV, Zhang L*// *Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep

China

Carbohydr Res 2004 **339** (9) 1631

Chemical structure *Aeromonas* gum - Extracellular polysaccharide from *Aeromonas nichidenii* 5797

Yoo SH, Yoon EJ, Cha JH, Lee HG*// *Sejong Univ, Dept Food & Technol, 98 Gunja dong, Gwangjin gu, Seoul 143 747, South Korea

Int J Biol Macromol 2004 **34** (1-2) 37

Antitumor activity of levan polysaccharides from selected microorganisms

Zeng WM// Toronto Inst Pharmaceut Technol, 55 Town Ctr Court, Suite 200, Toronto, Ontario, Canada M1P 4X4

Drug Dev Ind Pharm 2004 **30** (5) 491

Oral controlled release formulation for highly water-soluble drugs: Drug-sodium alginate-xanthan gum-zinc acetate matrix

Zeng YL, Kong FZ*// *Acad Sinica, Ecoenvironm Sci Res Ctr, POB 2871, CN-100085 Beijing, Peoples Rep China

Carbohydr Res 2004 **339** (8) 1503

Synthesis of a hexasaccharide fragment of group E streptococci polysaccharide and the tetrasaccharide repeating unit of *E. coli* O7:K98:H6

Zhang M, Cheung PCK*, Zhang L, Chiu CM, Ooi VEC*// *Chinese Univ Hong Kong, Dept Biol, Univ Sci Ctr, Shatin, New Territories, Hong Kong, Peoples Rep China

Carbohydr Polym 2004 **57** (3) 319

Carboxymethylated β -glucans from mushroom sclerotium of *Pleurotus tuber-regium* as novel water-soluble anti-tumor agent

Zhao HB, Liu SQ, Liu JH, Lin ZB*// *Peking Univ, Hlth Sci Ctr, Dept Pharmacol, Sch Basic Med Sci, 38 Xueyuan Rd, CN-100083 Beijing, Peoples Rep China

J Pharmacol Sci 2004 **95** (2) 294

Polysaccharide extract isolated from *Ganoderma lucidum* protects rat cerebral cortical neurons from hypoxia/reoxygenation injury

12. Polysaccharides - Plant

Abad LV, Nasimova IR, Relleve LS, Aranilla CT, De la Rosa AM, Shibayama M// Univ Tokyo, Inst Solid State Phys, Neutron Sci Lab, 106-1 Shirakata, Tokai, Ibaraki 319 1106, Japan

Int J Biol Macromol 2004 **34** (1-2) 81

Dynamic light scattering studies of irradiated κ carrageenan

Almeida PF, Almeida AJ*// *Univ Lisbon, Fac Farm, Unidade Ciencias & Tecnol Farmaceut, Avda Prof Gama Pinto, PT-1649-003 Lisbon, Portugal

J Controlled Release 2004 **97** (3) 431

Cross-linked alginate-gelatine beads: A new matrix for controlled release of pindolol

Cai Q, Yue X, Niu T, Ji C*, Ma Q// *China Agr Univ, Coll Anim Sci & Technol, Haidian District, CN-100094 Beijing, Peoples Rep China

Process Biochem 2004 **39** (11) 1561

The screening of culture condition and properties of xylanase by white-rot fungus *Pleurotus ostreatus*

Carp DJ, Baeza RI, Bartholomai GB, Pilsof AMR*// *Univ Buenos Aires, Fac Ciencias Exactas & Nat, Dept Ind, Ciudad Univ, AR-1428 Buenos Aires, DF, Argentina

Lebensm Wiss Technol Food Sci 2004 **37** (5) 573

Impact of proteins- κ -carrageenan interactions on foam properties

Chai Y, Mei LH*, Wu GL, Lin DQ, Yao SJ// *Zhejiang Univ, Dept Chem & Biochem Engn, Hangzhou, Peoples Rep China

Biotechnol Bioeng 2004 **87** (2) 228

Gelation conditions and transport properties of hollow calcium alginate capsules

Chiovitti A, Bacic A, Craik DJ, Kraft GT, Liao ML*// *Univ Melbourne, Sch Bot, Plant Cell Biol Res Ctr, CRC Bioprod, Melbourne, Vic 3010, Australia

Carbohydr Res 2004 **339** (8) 1459

A nearly idealized 6'-O-methylated η -carrageenan from the Australian red alga *Claviclonium ovatum* (Acrotylaceae, Gigartinales)

Cuppo F, Reynaers H*, Paoletti S, Kremer SPB, Martens JA// *Catholic Univ Louvain, Dept Chem, Lab Macromol Struct Chem, Celestijnenlaan 200F, BE-3001 Heverlee, Belgium

Int J Biol Macromol 2004 **34** (1-2) 43

Non-equilibrium processes of interchain association induced by Cs⁺ ions in κ -carrageenan aqueous solutions

Deville C, Damas J, Forget P, Dandrifosse G, Peulen O*// *Univ Liege, Inst Chem, Dept Biochem & Gen Physiol, B6c, BE-4000 Liege, Belgium

J Sci Food Agric 2004 **84** (9) 1030

Laminarin in the dietary fibre concept

Dyrby M, Petersen RV, Larsen J, Rudolf B, Norgaard L, Engelsen SB// Royal Vet & Agr Univ, Dept Dairy & Food Sci, Food Technol Grp, Rolighedsvej

- 30, DK-2000 Frederiksberg, Denmark
Carbohydr Polym 2004 **57** (3) 337
 Towards on-line monitoring of the composition of commercial carrageenan powders
- Jin YL, Speers A*, Paulson AT, Stewart RJ// *Dalhousie Univ, Dept Food Sci & Technol, 1360 Barrington St D401, Halifax, Nova Scotia, Canada B3J 2X4
J Inst Brew 2004 **110** (2) 104
 Effects of β -glucans and environmental factors on the viscosities of wort and beer
- Kardosova A, Ebringerova A, Alföldi J, Nosal'ova G, Matakova T, Hribalova V// Slovak Acad Sci, Inst Chem, Dubravska cesta 9, SK-84538 Bratislava, Slovakia
Carbohydr Polym 2004 **57** (2) 165
 Structural features and biological activity of an acidic polysaccharide complex from *Mahonia aquifolium* (Pursh) Nutt
- Kolender AA, Matulewicz MC// *Univ Buenos Aires, Fac Ciencias Exactas & Nat, CIHIDECAR CONICET, Dept Quim Organ, Pabellon 2, AR-1428 Buenos Aires, DF, Argentina
Carbohydr Res 2004 **339** (9) 1619
 Desulfation of sulfated galactans with chlorotrimethylsilane. Characterization of β -carrageenan by ^1H NMR spectroscopy
- Lee JH, Lee JS, Chung MS, Kim KH// *Korea Univ, Sch Life Sci & Biotechnol, Dept Biotechnol, Seoul 136 701, South Korea
Planta Med 2004 **70** (6) 566
In vitro anti-adhesive activity of an acidic polysaccharide from *Panax ginseng* on *Porphyromonas gingivalis* binding to erythrocytes (Letter)
- Milagres AMF, Santos E, Piovan T, Roberto IC// Fac Chem Engrn Lorena, Dept Biotechnol, BR-12600-970 Lorena, SP, Brazil
Process Biochem 2004 **39** (11) 1387
 Production of xylanase by *Thermoascus aurantiacus* from sugar cane bagasse in an aerated growth fermentor
- Moerman FT, Van Leeuwen MB, Delcort JA// Katholieke Univ Leuven, Fac Agr & Agr Biol Sci, Food Chem Lab, Kasteelpk Arenberg 20, BE-3001 Heverlee, Belgium
J Agric Food Chem 2004 **52** (12) 3780
 Enrichment of higher molecular weight fractions in inulin
- Moretao MP, Zamprônio AR, Gorin PAJ, Iacomini M, Oliveira MBM// *Univ Fed Parana, Dept Bioquim & Biol Mol, CP 19046, BR-81531-990 Curitiba, Parana, Brazil
Immunol Lett 2004 **93** (2-3) 189
 Induction of secretory and tumoricidal activities in peritoneal macrophages activated by an acidic heteropolysaccharide (ARAGAL) from the gum of *Anadenanthera colubrina* (angico branco)
- Ojijo NKO, Shimoni E// *Technion - Israel Inst Technol, Dept Biotechnol & Food Engrn, IL-32000 Haifa, Israel
Carbohydr Polym 2004 **57** (2) 135
 Rheological properties of fermented finger millet (*Eleusine coracana*) thin porridge
- Rao MVSSTS, Manohar RS, Muralikrishna G// *Cent Food Technol Res Inst, Dept Biochem & Nutr, IN-570013 Mysore, India
Food Chem 2004 **88** (3) 453
 Functional characteristics of non-starch polysaccharides (NSP) obtained from native (N) and malted (M) finger millet (ragi, *Eleusine coracana*, indaf-15)
- Rath J, Adhikary SP// Utkal Univ, P G Dept Biotechnol, IN-751004 Bhubaneswar, Orissa, India
Indian J Mar Sci 2004 **33** (2) 202
 Effect of alkali treatment on the yield and quality of agar from red alga *Gracilaria verrucosa* (Rhodophyta, Gracilariaceae) occurring at different salinity gradient of Chilika lake
- Reunov A, Nagorskaya V, Lapshina L, Yermak I, Barabanova A// Russian Acad Sci, Pacific Inst Bioorgan Chem, RU-690022 Vladivostok, Russia
Z Pflanzenkr Pflanzensch 2004 **111** (2) 165
 Effect of κ / β -carrageenan from red alga *Tichocarpus crinitus* (Tichocarpaceae) on infection of detached tobacco leaves with Tobacco mosaic virus
- Rideout TC, Fan MZ// *Univ Guelph, Dept Anim & Poultry Sci, Room 250, 70 Anim Sci Nutr Bldg, Guelph, Ontario, Canada N1G 2W1
J Sci Food Agric 2004 **84** (9) 1005
 Nutrient utilisation in response to dietary supplementation of chicory inulin in growing pigs
- Talarico LB, Zibetti RGM, Faria PCS, Scolaro LA, Duarte MER, Nosedá MD, Pujol CA, Damonte EB// *Univ Buenos Aires, Fac Ciencias Exactas & Nat, Dept Quim Biol, Virol Lab, Ciudad Univ, Pabellon 2, AR-1428 Buenos Aires, DF, Argentina
Int J Biol Macromol 2004 **34** (1-2) 63
 Anti-herpes simplex virus activity of sulfated galactans from the red seaweeds *Gymnogongrus griffithsiae* and *Cryptonemia crenulata*
- Tosh SM, Brummer Y, Wood PJ, Wang Q, Weisz J// Agr & Agri-Food Canada, Food Res Program, 93 Stone Road West, Guelph, Ontario, Canada N1G 5C9
Carbohydr Polym 2004 **57** (3) 249
 Evaluation of structure in the formation of gels by structurally diverse (1 $\rightarrow$ 3)(1 $\rightarrow$ 4)- β -D-glucans from four cereal and one lichen species
- Tugcu-Demiroz F, Acarturk F*, Takka S, Konus-Boyunaga O// *Gazi Univ, Fac Pharm, Dept Pharmaceut Technol, TR-06330 Ankara, Turkey
J Drug Target 2004 **12** (2) 105
In-vitro and *in-vivo* evaluation of mesalazine-guar gum matrix tablets for colonic drug delivery
- Wagner R, Woranovicz-Barreira SM, Iacomini M, Delgobo CL, Pimentel NM, Gorin PAJ// *Univ Fed Parana, Dept Bioquim, CP 19046, BR-81531-990 Curitiba, PR, Brazil
Carbohydr Polym 2004 **57** (3) 269
 Structure of a glycolglucuronomannan from the low-viscosity gum of *Vochysia lehmannii*
- Willfor S, Holmbom B// Abo Akad Univ, Lab Forest Prod Chem, Porthansgatan 3, FI-20500 Turku, Finland
Wood Sci Technol 2004 **38** (3) 173
 Isolation and characterisation of water soluble polysaccharides from Norway spruce and Scots pine
- You T, Barnett SM// *Univ Rhode Island, Dept Chem Engrn, Kingston, RI 02881, USA
Biochem Eng J 2004 **19** (3) 251
 Effect of light quality on production of extracellular polysaccharides and growth rate of *Porphyridium cruentum*
- Zhang ZQ, Yu GL*, Guan HS, Zhao X, Du YG, Jiang XL// *Ocean Univ Qingdao, Inst Marine Drug & Food, CN-266003 Qingdao, Peoples Rep China
Carbohydr Res 2004 **339** (8) 1475
 Preparation and structure elucidation of alginate oligosaccharides degraded by alginate lyase from *Vibrio* sp 510
- Zhou GF, Sun YP, Xin H, Zhang YN, Li Z, Xu ZH// *Acad Sinica, Inst Oceanol, CN-266071 Qingdao, Peoples Rep China
Pharmacol Res 2004 **50** (1) 47
In vivo antitumor and immunomodulation activities of different molecular weight λ -carrageenans from *Chondrus ocellatus*

13. Polysaccharides - Other

- Gerente C, Reddad Z, Andres Y, Le Cloirec P// Ecole Mines, GEPEA, UMR CNRS 6144, 4 rue Alfred Kastler, BP 20722, FR-44307 Nantes 3, France
Environ Technol 2004 **25** (2) 219
 Competitive adsorption of metals and organics onto a low cost natural polysaccharide
- Guida M, Acunzo G*, Sardo AD, Bifulco G, Piccoli R, Pellicano M, Cerrota G, Cirillo D, Nappi C// *Univ Naples Federico II, Dept Obstet & Gynecol, Via S Pansini 5, IT-80131 Naples, Italy
Hum Reprod 2004 **19** (6) 1461
 Effectiveness of auto-crosslinked hyaluronic acid gel in the prevention of intrauterine adhesions after hysteroscopic surgery: A prospective, randomized, controlled study
- Juteau A, Cayot N, Chabanet C, Doublier JL, Guichard E// *INRA, ENESAD, UMRA, 17 rue Sully, BP 86150, FR-21065 Dijon, France
Trends Food Sci Technol 2004 **15** (7-8) 394
 Flavour release from polysaccharide gels: Different approaches for the determination of kinetic parameters
- Mahoney DJ, Whittle JD, Milner CM, Clark SJ, Mulloy B, Buttle DJ, Jones GC, Day AJ, Short RD// Univ Oxford, Dept Biochem, MRC Immunochem Unit, Sth Parks Rd, Oxford OX1 3QU, England
Anal Biochem 2004 **330** (1) 123
 A method for the non-covalent immobilization of heparin to surfaces
- Nettles DL, Vail TP, Morgan MT, Grinstaff MW, Setton LA// *Duke Univ, Dept Biomed Engrn, 136 Hudson Hall, Sci Dr, Durham, NC 27706, USA
Ann Biomed Eng 2004 **32** (3) 391
 Photocrosslinkable hyaluronan as a scaffold for articular cartilage repair
- Petrella RJ, Coglianò A// Canadian Ctr Activity & Ageing, Heart Hlth & Exercise Lab, 1490 Richmond St, London, Ontario, Canada N6G 2M3
Physician Sportsmed 2004 **32** (7) 41
 Intra-articular hyaluronic acid treatment for golfer's toe - Keeping older golfers on course
- Zhang GY, Foegeding EA*, Hardin CC// *Nth Carolina State Univ, Dept Food Sci, Raleigh, NC 27695, USA
J Agric Food Chem 2004 **52** (12) 3975
 Effect of sulfated polysaccharides on heat-induced structural changes in β -lactoglobulin