

Bibliography of carbohydrate polymers

(6 weeks journals. Search completed at 10th. Apr. 2002)

1. Books, reviews & symposia

- Brewster ME, Loftsson T// Janssen Res Fdn, Dept Drug Delivery Res, Div Chem Pharm Drug Evaluat, Turnhoutseweg 30, BE-2340 Beerse, Belgium
Pharmazie 2002 **57** (2) 94
The use of chemically modified cyclodextrins in the development of formulations for chemical delivery systems (Review)
- Kryszewski M, Wojciechowski P, Okrasa L, Kozanecki M, Ulanski J// Tech Univ Lodz, Dept Mol Phys, Zeromskiego 116, PL-90924 Lodz, Poland
Polish J Chem 2002 **76** (2-3) 187
Cellulose derivatives: Organic crystals and liquid crystals - Used the longest, known the least (Review)
- Schenck FW// 20014 Nth Lakeforest Dr, Sun City, Az 85373, USA
Int Sugar J 2002 **104** (1238) 82
Starch hydrolysates: An overview
- Vandamme TF, Lenourry A, Charrueau C, Chaumeil JC// Univ Louis Pasteur, Fac Pharm, Lab Chim Therap & Nutr, Strasbourg, France
Carbohydr Polym 2002 **48** (3) 219
The use of polysaccharides to target drug to the colon (Review)
- Ylitalo R, Lehtinen S, Wuolijoki E, Ylitalo P, Lehtimäki T// Univ Tampere, Dept Pharmacol Sci, FI-33101 Tampere, Finland
Arzneimittelforschung 2002 **52** (1) 1
Cholesterol-lowering properties and safety of chitosan (Review)

2. Cellulose

- Bochek AM, Zabivalova NM, Lavrentev VK, Lebedeva MF, Sukhanova TE, Petropavlovskii GA// Russian Acad Sci, Inst Macromol Cpds, RU-199004 St Petersburg, Russia
Russ J Appl Chem-Eng Tr 2001 **74** (8) 1358
Formation of physical thermally reversible gels in solutions of methyl cellulose in water and dimethylacetamide and properties of films thereof
- Bourges X, Weiss P*, Coudreuse A, Daculsi G, Legeay G// *INSERM, E 99-03, Lab Mat Interet Biol, 1 Pl Alexis Ricordeau, FR-44042 Nantes, France
Biopolymers 2002 **63** (4) 232
General properties of silylated hydroxyethylcellulose for potential biomedical applications
- Carlmark A, Malmstrom E*// *Royal Inst Technol, Dept Polymer Technol, SE-10044 Stockholm, Sweden
J Am Chem Soc 2002 **124** (6) 900
Atom transfer radical polymerization from cellulose fibers at ambient temperature
- Chen XM, Mao XQ, Zhang ZZ, Luo QZ, Zou HF// Chinese Acad Sci, Dalian Inst Chem Phys, Natl Chromatog Res & Anal Ctr, CN-116011 Dalian, Peoples Rep China
Acta Chim Sin 2002 **60** (1) 93
Separation of enantiomers on bonded cellulose trisphenylcarbamate stationary phase by high-performance liquid chromatography
- Cole ET, Scott RA, Connor AL, Wilding IR, Petereit HU, Schminke C, Beckert T, Cade D// Pfizer Inc, Capsugel Div, Fabrikmmattenweg 2, CH-4144 Basel, Switzerland
Int J Pharm 2002 **231** (1) 83
Enteric coated HPMC capsules designed to achieve intestinal targeting
- Ding EY, Jiang Y, Li GK// Sth China Univ Technol, Coll Mat Sci & Engrn, CN-510641 Guangzhou, Peoples Rep China

J Macromol Sci-Phys 2001 **B40** (6) 1053

Comparative studies of the structures and transition characteristics of cellulose diacetate modified with polyethylene glycol prepared by chemical bonding and physical blending methods

Eromosele IC, Eromosele CO, Zanna HK// Fed Univ Technol Yola, Dept Chem, PMB 2076, Yola, Adamawa State, Nigeria

J Appl Polym Sci 2002 **84** (3) 500

Graft copolymerization of acrylic acid on methylcellulose by ceric ion/p-xylene redox pair

Fredon E*, Granet R, Zerrouki R, Krausz P, Saulnier L, Thibault JF, Rosier J, Petit C// *Fac Sci, Lab Chim Subs Nat, 123 rue Albert Thomas, FR-87060 Limoges, France

Carbohydr Polym 2002 **49** (1) 1

Hydrophobic films from maize bran hemicelluloses

Garrote G, Dominguez H, Parajo JC*// *Univ Vigo, Dept Chem Engrn, Edificio Politecnico, Campus Ourense, As Lagoas s/n, ES-32004 Ourense, Spain

Process Biochem 2002 **37** (10) 1067

Interpretation of deacetylation and hemicellulose hydrolysis during hydrothermal treatments on the basis of the severity factor

Garzon MD, Villafuerte L*// *Inst Politecn Nacl, Escuela Nacl Ciencias Biol, Dept Farm, Carpio & Plan Ayala s/n, MX-11340 Mexico City, DF, Mexico

Int J Pharm 2002 **231** (1) 33

Compatibility of mixtures of calcium carbonate and microcrystalline cellulose

Girard M, Turgeon SL, Paquin P*// *Univ Laval, Fac Sci Agr & Alimentat, Ctr Rech Sci & Technol Lait-STELA, Pavillon Paul Comtois, St Foy, Quebec, Canada G1K 7P4

J Food Sci 2002 **67** (1) 113

Emulsifying properties of whey protein-carboxymethylcellulose complexes

Guo MT, Muller FX, Augsburgers LL*// *Univ Maryland, Sch Pharm, Dept Pharmaceut Sci, Baltimore, Md 21201, USA

Int J Pharm 2002 **233** (1-2) 99

Evaluation of the plug formation process of silicified microcrystalline cellulose

Habib YS, Augsburgers LL*, Shangraw RF// *Univ Maryland, Baltimore, Md 21201, USA

Int J Pharm 2002 **233** (1-2) 67

Production of inert cushioning beads: Effect of excipients on the physico-mechanical properties of freeze-dried beads containing microcrystalline cellulose produced by extrusion-spheronization

Hattori K, Cuculo JA, Hudson SM// Kitami Inst Technol, Dept Appl & Environm Chem, 165 Koencho, Kitami, Hokkaido 090 850, Japan

J Polym Sci A-Polym Chem 2002 **40** (4) 601

New solvents for cellulose: Hydrazine/thiocyanate salt system

Hayashi S// Asahi Kasei Corp, Corp Res & Dev Adm, Cent Technol Lab, Shizuoka 416 8501, Japan

Kobunshi Ronbunshu 2002 **59** (1) 1

Synthesis and properties of cellulose carbonate derivatives (Japanese, English Abstract)

He CJ, Pang FJ, Wang QR// Donghua Univ, Coll Mat Sci & Engrn, Yan West Rd 1882, CN-200051 Shanghai, Peoples Rep China

J Appl Polym Sci 2002 **83** (14) 3105

Properties of cellulose/PAN blend membrane

Huang K, Xue L, Huang MY, Jiang YY// Chinese Acad Sci, Inst Chem, CN-100080 Beijing, Peoples Rep China

Polym Advan Technol 2002 **13** (3-4) 165

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.

- Catalytic behaviors of silica-supported methylcellulose-L-phenyl alanine-platinum complexes in asymmetric hydrogenation of diacetone alcohol
- Jaehne E, Kowalik T, Adler HJP*, Plagge A, Stratmann M// *Dresden Univ Technol, Inst Macromol Chem & Text Chem, Mommsenstr 13, DE-01062 Dresden, Germany
Macromol Symposia 2002 **177** 97
- Ultra-thin layers of phosphorylated cellulose derivatives on metal surfaces
- Kenigsberg TP, Agabekov VE, Zhavnerko GK, Gallyamov MO, Yaminskii IV// Natl Acad Sci Byelarus, Inst Chem New Mat, Staroborisovskii trakt 36, BY-220141 Minsk, Byelarus
Polym Sci Ser A 2002 **44** (2) 134
- Effect of subphase on the formation and properties of Langmuir-Blodgett films of cellulose acetates
- Kikuchi M, Ogawa K, Yamazaki T, Kajiura S, Shishido K// Tokyo Inst Technol, Grad Sch Biosci & Biotechnol, Dept Life Sci, Midori ku, Yokohama, Kanagawa 226 850, Japan
Biosci Biotechnol Biochem 2002 **66** (1) 199
- Use of molecular-genetically bred *Coprinus cinereus* strains for an efficient isolation of cellulose from rice straw
- Kim UJ, Kuga S// Univ Tokyo, Grad Sch Agr & Life Sci, Dept Biomat Sci, Bunkyo ku, Yayoi 1-1-1, Tokyo 113 8657, Japan
J Chromatogr A 2002 **946** (1-2) 283
- Polyallylamine-grafted cellulose gel as high-capacity anion-exchanger
- Kothari SH, Kumar V*, Banker GS// *Univ Iowa, Coll Pharm, Div Pharmaceut, Iowa City, Ia 52242, USA
Int J Pharm 2002 **232** (1-2) 69
- Comparative evaluations of powder and mechanical properties of low crystallinity celluloses, microcrystalline celluloses, and powdered celluloses
- Kumar V, Yang T// Univ Iowa, Coll Pharm, Pharm Div, Iowa City, Ia 52242, USA
Carbohydr Polym 2002 **48** (4) 403
- HNO₃/H₃PO₄-NaNO₂ mediated oxidation of cellulose: Preparation and characterization of bioabsorbable oxidized celluloses in high yields and with different levels of oxidation
- Lewandowski Z// Tech Univ Lodz, Dept Man Made Fibers, PL-90924 Lodz, Poland
J Appl Polym Sci 2002 **83** (13) 2762
- Application of a linear synthetic polymer to improve the properties of cellulose fibers made by the NMMO process
- Lima MMD, Borsali R*// *Bordeaux Univ, ENSCPB, LCPO, CNRS UMR 5629, 16 Ave Pey Berland, FR-33607 Pessac, France
Langmuir 2002 **18** (4) 992
- Static and dynamic light scattering from polyelectrolyte microcrystal cellulose
- Liu HW, Xin F, Wu LM, Huang MY, Jiang YY// Chinese Acad Sci, Inst Chem, 4060 Grp, Zhongguancun, CN-100080 Beijing, Peoples Rep China
Polym Advan Technol 2002 **13** (3-4) 210
- Catalytic behavior of silica-supported methylcellulose-oxalic acid-Pt complex in asymmetric hydrogenation of 2-butanone and itaconic acid
- Maeyama K, Yamaguchi H, Mukohara T, Kawaguchi M, Kato T*// *Mie Univ, Fac Engn, Chem Dept Mat, 1515 Kamihamacho, Tsu, Mie 514 8507, Japan
Polym Int 2002 **51** (3) 253
- Rheological behaviour of suspensions prepared from plate-shaped titanium dioxide particles in (hydroxypropyl) methylcellulose aqueous solution
- Malaisamy R, Mahendran R, Mohan D*// *Anna Univ, Dept Chem Engn, Membrane Lab, IN-600025 Chennai, India
J Appl Polym Sci 2002 **84** (2) 430
- Cellulose acetate and sulfonated polysulfone blend ultrafiltration membranes. II. Pore statistics, molecular weight cutoff, and morphological studies
- Meng LZ, Du CQ, Chen YY, He YB*// *Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep China
J Appl Polym Sci 2002 **84** (1) 61
- Preparation, characterization, and behavior of cellulose-titanium(IV) oxide modified with organosilicone
- Moss CE, Butler MF, Muller M, Cameron RE*// *Univ Cambridge, Dept Mat Sci & Met, New Museums Site, Pembroke St, Cambridge CB2 3QZ, England
J Appl Polym Sci 2002 **83** (13) 2799
- Microfocus small-angle X-ray scattering investigation of the skin-core microstructure of lyocell cellulose fibers
- Okrasa L, Ulanski J, Boiteux G// Tech Univ Lodz, Fac Chem, Dept Mol Phys, ul Zeromskiego 116, PL-90924 Lodz, Poland
Polymer 2002 **43** (8) 2417
- Liquid crystalline (cyanoethylpropyl) cellulose and its optically anisotropic composites with acrylic polymers
- Picker KM, Hoag SW// Univ Halle Wittenberg, Inst Pharmaceut Technol & Biopharm, Wolfgang Langenbeck Str 4, DE-06120 Halle-an-der-Saale, Germany
J Pharm Sci 2002 **91** (2) 342
- Characterization of the thermal properties of microcrystalline cellulose by modulated temperature differential scanning calorimetry
- Porsch B, Hillang I, Karlsson A, Sundelof LO// Acad Sci Czech Rep, Inst Macromol Chem, CZ-16206 Prague 6, Czech Republic
Carbohydr Polym 2002 **48** (4) 379
- Distribution analysis of cellulose acetate phthalate by ion-exclusion-modulated size exclusion chromatography
- Porsch B, Andersson M, Wittgren B, Wahlund KG// Address as above.
J Chromatogr A 2002 **946** (1-2) 69
- Molecular mass distribution analysis of ethyl(hydroxyethyl) cellulose by size-exclusion chromatography with dual light-scattering and refractometric detection
- Rao BS, Murthy KVR// Andhra Univ, Dept Pharmaceut Sci, IN-530003 Visakhapatnam, India
Int J Pharm 2002 **231** (1) 97
- Studies on rifampicin release from ethylcellulose coated nonpareil beads
- Riekerink MBO, Engbers GHM, Wessling M, Feijen J*// *Univ Twente, Dept Chem Technol, Sect Polymer Chem, POB 217, NL-7500 AE Enschede, The Netherlands
J Colloid Interface Sci 2002 **245** (2) 338
- Tailoring the properties of asymmetric cellulose acetate membranes by gas plasma etching
- Sachinvala ND, Winsor DL, Parikh DV, Solhjoo HH, Parks D, Vigo TL, Blanchard EJ, Bertoniere NR// USDA/ARS, Sthn Reg Res Ctr, Cotton Text Chem Res Unit, 1100 Robert E Lee Blvd, New Orleans, La 70124, USA
Polym Advan Technol 2002 **13** (1) 66
- Use of sucrose-based epoxy formulations and cellulosic fibers in the design, preparation, and screening of new composite insulation materials
- Sain M, Boucher J// Univ New Brunswick, Dept Chem Engn, Limerick Pulp & Paper Res & Educ Ctr, POB 69-000, Fredericton, New Brunswick, Canada E3B 6C2
Colloid Surface A 2002 **196** (2-3) 97
- Characterization and properties of lignocellulosic fibers with thin-film deposited cationic precursor
- Sanchez-Lafuente C, Fauci MT, Fernandez-Arevalo M, Alvarez-Fuentes J, Rabasco AM, Mura P*// *Univ Florence, Dipt Sci Farmaceut, via G Capponi 9, IT-50121 Florence, Italy
Int J Pharm 2002 **234** (1-2) 213
- Development of sustained release matrix tablets of didanosine containing methacrylic and ethylcellulose polymers
- Schwarzinger C, Pfeifer A, Schmidt H// Johannes Kepler Univ, Inst Chem Technol Organ Mat, AU-4040 Linz, Austria
Monatsh Chem 2002 **133** (1) 1
- Determination of the nitrogen content of cationic cellulose fibers by analytical pyrolysis
- Shashidhara GM, Guruprasad KH, Varadarajulu A// Sri Jayawardenepura Coll Engn, Dept Polymer Sci & Technol, IN-570006 Mysore, India
Eur Polym J 2002 **38** (3) 611
- Miscibility studies on blends of cellulose acetate and nylon 6
- Sun R, Sun XF, Liu GQ, Fowler P, Tomkinson J// Univ Wales, Biocomposites Ctr, Bangor LL57 2UW, Wales
Polym Int 2002 **51** (2) 117
- Structural and physicochemical characterization of hemicelluloses isolated by alkaline peroxide from barley straw
- Suvorova AI, Safronov AP, Melnikova OA// Ural State Univ, pr Lenina 51, RU-620083 Ekaterinburg, Russia
Polym Sci Ser A 2002 **44** (1) 84
- Thermodynamic compatibility of starch and carboxymethyl cellulose sodium
- Teshima D, Yamauchi A, Makino K, Kataoka Y, Arita Y, Nawata H, Oishi R// Kyushu Univ, Fac Med, Dept Hosp Pharm, Higashi ku, 3-1-1, Fukuoka 812 8582, Japan
Int J Pharm 2002 **233** (1-2) 61
- Nasal glucagon delivery using microcrystalline cellulose in healthy volunteers
- Tiller J, Klemm D*, Berlin P// *Univ Jena, Inst Organ Chem & Makromol Chem, Humboldtstr 10, DE-07743 Jena, Germany
Res Monomers Polym 2001 **4** (4) 315
- Designed aliphatic aminocellulose derivatives as transparent and functionalized coatings for enzyme immobilization
- Vojnov AA, Bassi DE, Daniels MJ, Dankert MA*// *Univ Buenos Aires, Fac Ciencias Exactas & Nat, Inst Invest Bioquim Fdn Campomar, AR-1405 Buenos Aires, DF, Argentina
Carbohydr Res 2002 **337** (4) 315
- Biosynthesis of a substituted cellulose from a mutant strain of *Xanthomonas campestris*

Vrijland WW, Tseng LNL, Eijkman HJM, Hop WC, Jakimowicz JJ, Leguit P, Stassen LPS, Swank DJ, Haverlag R, Bonjer J, Jeckel H*// *Univ Hosp Dijkzigt, Dept Gen Surg, Dr Molewaterpl 40, NL-3015 GD Rotterdam, The Netherlands

Ann Surg 2002 **235** (2) 193

Fewer intraperitoneal adhesions with use of hyaluronic acid-carboxymethyl-cellulose membrane: A randomized clinical trial

Watanabe Y, Mukai B, Kawamura K, Ishikawa T, Namiki M, Utoguchi N, Fujii M// Showa Pharmaceut Univ, Dept Pharmaceut & Biopharmaceut, 3-3165 Higashi tamagawa-gakuen, Tokyo 194 8543, Japan

Yakagaku Zasshi 2002 **122** (2) 157

Preparation and evaluation of press-coated aminophylline tablet using crystalline cellulose and polyethylene glycol in the outer shell for timed-release dosage forms (Japanese, English Abstract)

Zaleska H, Tomasik P, Lii CY*// *Acad Sinica, Inst Chem, Nankang, 11529 Taipei, Taiwan

Food Hydrocolloid 2002 **16** (3) 215

Formation of carboxymethyl cellulose-casein complexes by electrosynthesis

Zhang GQ, Huang Y*// *Acad Sinica, Inst Chem, CN-100080 Beijing, Peoples Rep China

Liq Cryst 2002 **29** (2) 289

Influence of molecular structure on the cholesteric liquid crystalline behaviour of ethyl-cyanoethyl cellulose/acrylic acid solutions

Zhang LM, Chen LQ// SUNY Stony Brook, Dept Chem, Stony Brook, NY 11794, USA

J Appl Polym Sci 2002 **83** (13) 2755

Water-soluble grafted polysaccharides containing sulfobetaine groups: Synthesis and characterization of graft copolymers of hydroxyethyl cellulose with 3-dimethyl (methacryloyloxyethyl)ammonium propane sulfonate

3. Cellulose-degrading enzymes

Lynd LR, Zhang YH// Dartmouth Coll, Thayer Sch Engr, Hanover, NH 03755, USA

Biotechnol Bioeng 2002 **77** (4) 467

Quantitative determination of cellulase concentration as distinct from cell concentration in studies of microbial cellulose utilization: Analytical framework and methodological approach

Park JW, Park K*, Song H, Shin H// *Yonsei Univ, Dept Chem Engr, Sudaemoon gu, 134 Shinchon, Seoul 120749, South Korea

J Biotechnol 2002 **93** (3) 203

Saccharification and adsorption characteristics of modified cellulases with hydrophilic/hydrophobic copolymers

Park K, Park J, Lee JH// Address as above.

J Appl Polym Sci 2002 **84** (5) 894

Modification of cellulase with polyalkylene oxide allyl ester-maleic acid anhydride copolymer and its application to the pulp and paper industry

Tomaz CT, Duarte D, Queiroz JA*// *Univ Beira Interior, Dept Quim, PT-6201-001 Covilha, Portugal

J Chromatogr A 2002 **944** (1-2) 211

Comparative study on the fractionation of cellulases on some hydrophobic interaction chromatography adsorbents

4. Chitin/Chitosan

Ahn JS, Choi HK, Chun MK, Ryu JM, Jung JH, Kim YU, Cho CS*// *Seoul Natl Univ, Sch Agr Biotechnol, Kwonsun gu, 103 Serdun dong, Suwon 441744, Sth Korea

Biomaterials 2002 **23** (6) 1411

Release of triamcinolone acetate from mucoadhesive polymer composed of chitosan and poly(acrylic acid) *in vitro*

Angelova N, Hunkeler D// Swiss Fed Inst Technol, Dept Chem, Lab Polyelectrolytes & Biomacromol, CH-1015 Lausanne, Switzerland

J Biomater Sci-Polym Ed 2001 **12** (11) 1207

Stability assessment of chitosan-sodium hexametaphosphate capsules

Budtova T, Belnikovich N, Kalyuzhnaya L, Alexeev V, Bronnikov S, Vesnebolotskaya S, Zoolshoev Z// Russian Acad Sci, Inst Macromol Cpds, Bolshoi prosp 31, RU-199004 St Petersburg, Russia

J Appl Polym Sci 2002 **84** (6) 1114

Chitosan modified by poly(ethylene oxide): film and mixture properties

Burke A, Yilmaz E*, Hasirci N, Yilmaz O// *TRNC, Eastern Mediterranean Univ G Magosa, Fac Arts & Sci, Dept Chem, Mersin 10, Turkey

J Appl Polym Sci 2002 **84** (6) 1185

Iron(III) ion removal from solution through adsorption on chitosan

Cauchie HM, Jaspars-Versali MF, Hoffmann L, Thorne JP// CREBS, CRP Gabriel Lippmann, 162A Ave Faencerie, LU-1511 Luxembourg, Grand Duchy

of Luxembourg

Aquaculture 2002 **205** (1-2) 103

Potential of using *Daphnia magna* (Crustacea) developing in an aerated waste stabilisation pond as a commercial source of chitin

Chen RH, Liu CS// Natl Taiwan Ocean Univ, Dept Food Sci, 2 Peining Rd, Chilung 202, Taiwan

J Appl Polym Sci 2002 **84** (1) 193

Effect of recovery methods and conditions on the yield, solubility, molecular weight, and creep compliance of regenerated chitosan

Detchprohm S, Aoi K, Okada M*// *Chubu Univ, Coll Biosci & Biotechnol, 1200 Matsumoto cho, Aichi 487 8501, Japan

Macromol Chem Phys 2001 **202** (18) 3560

Synthesis of a novel chitin derivative having oligo (ϵ -caprolactone) side chains in aqueous reaction media

Ghanem A, Skonberg D*// *Univ Maine, Dept Chem Engr, Orono, Me 04469, USA

J Appl Polym Sci 2002 **84** (2) 405

Effect of preparation method on the capture and release of biologically active molecules in chitosan gel beads

Gonzalez-Rodriguez ML, Holgado MA, Sanchez-Lafuente C, Rabasco AM, Fini A// Univ Sevilla, Fac Farm, Dept Farmacia & Tecnol Farmaceut, C/ Profesor Garcia Gonzales s/n, ES-41012 Seville, Spain

Int J Pharm 2002 **232** (1-2) 225

Alginate/chitosan particulate systems for sodium diclofenac release

Guibal E, Sweeney NV, Vincent T, Tobin JM// Ecole Mines Ales, Lab Genie Environm Ind, 6 Ave Clavieres, FR-30319 Ales, France

React Funct Polym 2002 **50** (2) 149

Sulfur derivatives of chitosan for palladium sorption

Guzman J, Saucedo I, Navarro R, Revilla J, Guibal E*// *Address as above.

Langmuir 2002 **18** (5) 1567

Vanadium interactions with chitosan: Influence of polymer protonation and metal speciation

Hamman JH, Stander M, Kotze AF// Technikon Pretoria, Sch Pharm, Fac Hlth Sci, Private Bag X680, ZA-0001 Pretoria, Rep Sth Africa

Int J Pharm 2002 **232** (1-2) 235

Effect of the degree of quaternisation of *N*-trimethyl chitosan chloride on absorption enhancement: *In vivo* evaluation in rat nasal epithelia

Harnano T, Chiba D, Nakatsuka K, Nagahata M, Teramoto A, Kondo Y, Hachimori A, Abe K*// *Shinshu Univ, Fac Text Sci & Technol, Dept Funct Polymer Sci, Ueda, Nagano 386 8567, Japan

Polym Advan Technol 2002 **13** (1) 46

Evaluation of a polyelectrolyte complex (PEC) composed of chitin derivatives and chitosan, which promotes the rat calvarial osteoblast differentiation

Hayashi K, Ito M*// *Meijo Univ, Fac Pharm, Lab Analyt Pharmacol, Tenpaku ku, 150 Yagotoyama, Nagoya, Aichi 468 8503, Japan

Biol Pharm Bull 2002 **25** (2) 188

Antidiabetic action of low molecular weight chitosan in genetically obese diabetic KK-A^y mice

Khanal DR, Miyatake K, Okamoto Y, Shinobu T, Morimoto M, Saimoto H, Shigemasa Y, Tokura S, Minami S*// *Tottori Univ, Fac Agr, Dept Vet Surg, 4-101 Koyama-minami, Tottori 680-8553, Japan

Carbohydr Polym 2002 **48** (3) 305

Phosphated chitin (P-chitin) exerts protective effects by restoring the deformability of polymorphonuclear neutrophil (PMN) cells

Kimura Y, Sawai N, Okuda H// Ehime Univ, Sch Med, Dept Med Biochem II, Shigenobu, Ehime 791 0295, Japan

J Pharm Pharmacol 2001 **53** (10) 1373

Antitumour activity and adverse reactions of combined treatment with chitosan and doxorubicin in tumour-bearing mice

Kofuji K, Ito T, Murata Y, Kawashima S// Hokuriku Univ, Fac Pharmaceut Sci, Kanazawa, Ishikawa 920 118, Japan

Biol Pharm Bull 2002 **25** (2) 268

Effect of chondroitin sulfate on the biodegradation and drug release of chitosan gel beads in subcutaneous air pouches of mice

Lee JY, Nam SH, Im SY, Park YJ, Lee YM, Seol YJ, Chung CP, Lee SJ*// *Ewha Woman's Univ, Coll Pharm, Dept Pharm, 11-1 Daehyun dong, Seoul 120750, Rep Sth Korea

J Controlled Release 2002 **78** (1-3) 187

Enhanced bone formation by controlled growth factor delivery from chitosan-based biomaterials

Lim ST, Forbes B, Berry DJ, Martin GP, Brown MB*// *KCL, Dept Pharm, 5th Floor, 150 Stamford St, London SE1 9NN, England

Int J Pharm 2002 **231** (1) 73

In vivo evaluation of novel hyaluronan/chitosan microparticulate delivery systems for the nasal delivery of gentamicin in rabbits

Lu CH, Cao TB, Luo CQ, Cao WX*// *Peking Univ, Coll Chem & Mol Engr,

- Beijing 100871, People Rep China
Chem J Chinese Univ - Chinese 2002 **23** (1) 170
 Photosensitive ultra-thin films of chitosan and sulfonate of diazoresin (Chinese, English Abstract)
- Machado AAS, Martins VCA, Plepis AMG*// *Univ Sao Paulo, Inst Quim Sao Carlos, Avda Trabalhador Saocarlene 400, BR-13560-970 Sao Carlos, SP, Brazil
J Therm Anal Calorim 2002 **67** (2) 491
 Thermal and rheological behavior of collagen-chitosan blends
- Ngah WSW, Endud CS, Mayanar R// Univ Sains Malaysia, Sch Chem Sci, MY-11800 Georgetown, Malaysia
React Funct Polym 2002 **50** (2) 181
 Removal of copper (II) ions from aqueous solution onto chitosan and cross-linked chitosan beads
- Nonaka K, Kazama S, Goto A, Fukuda H, Yoshioka H, Yoshioka H*// *Univ Shizuoka, Inst Environm Sci, 52-1 Yada, Shizuoka 422 8526, Japan
J Colloid Interface Sci 2002 **246** (2) 288
 Spin probe study on the interaction of chitosan-derived polymer surfactants with lipid membrane
- Paula HCB, Gomes FJS, De Paula RCM// Univ Federal do Ceara, Dept Quim Analyt & Fisico-Quim, BR-60451-970 Fortaleza, Ceara, Brazil
Carbohydr Polym 2002 **48** (3) 313
 Swelling studies of chitosan/cashew nut gum physical gels
- Portero A, Remunan-Lopez C, Nielsen HM*// *Royal Danish Sch Pharm, Dept Pharmaceut, 2 Univ Pk, DK-2100 Copenhagen O, Denmark
Pharmaceut Res 2002 **19** (2) 169
 The potential of chitosan in enhancing peptide and protein absorption across the TR146 cell culture model: An *in vitro* model of the buccal epithelium
- Qin CQ, Xiao L, Du YM*, Shi XW, Chen JW// *Wuhan Univ, Coll Chem & Environm Sci, CN-430072 Wuhan, Peoples Rep China
React Funct Polym 2002 **50** (2) 165
 A new cross-linked quaternized-chitosan resin as the support of borohydride reducing agent
- Qu RJ, Sun YZ, Wang CH, Lu SL, Yu HM, Cheng GX*// *Tianjin Univ, Sch Mat Sci & Engrn, CN-300072 Tianjin, Peoples Rep China
J Appl Polym Sci 2002 **84** (2) 310
 Synthesis and properties of carboxymethyl chitosan/urea-formaldehyde snake-cage resins
- Ritthidej CC, Phaechmud T, Koizumi T// Chulalongkorn Univ, Fac Pharmaceut Sci, Dept Ind Pharm, TH-10330 Bangkok, Thailand
Int J Pharm 2002 **232** (1-2) 11
 Moist heat treatment on physicochemical change of chitosan salt films
- Rocha ANL, Dantas TNC, Fonseca JLC, Pereira MR*// *Univ Fed Rio Grande Norte, Dept Quim, Campus Univ, BR-59078-970 Natal, RN, Brazil
J Appl Polym Sci 2002 **84** (1) 44
 Permeation of drugs in chitosan membranes
- Rodriguez MS, Albertengo LA, Agullo E*// *Univ Nacional del Sur, Dept Quim & Ingn Quim, Lab Invest Basicas & Aplicadas Quitina, Avda Alem 1253, AR-8000 Bahia Blanca, Argentina
Carbohydr Polym 2002 **48** (3) 271
 Emulsification capacity of chitosan
- Shantha KL, Harding DRK*// *Massey Univ, Dept Chem, Inst Fundamental Sci, Palmerston North 11222, New Zealand
Carbohydr Polym 2002 **48** (3) 247
 Synthesis and characterisation of chemically modified chitosan microspheres
- Shin MS, Kang HS, Park TG, Yang JW*// *Korea Adv Inst Sci & Technol, 373-1 Gusong dong, Taejon 305701, South Korea
Polym Bull 2002 **47** (5) 451
 Synthesis and characterization of pH/temperature-sensitive hydrogels based on chitosan derivative
- Shu XZ, Zhu KJ*// *Zhejiang Univ, Dept Polymer Sci & Engrn, CN-310027 Hangzhou, Peoples Rep China
Int J Pharm 2002 **233** (1-2) 217
 Controlled drug release properties of ionically cross-linked chitosan beads: The influence of anion structure
- Steenkamp GC, Keizer K, Neomagus HWJP, Krieg HM*// *Potchefstroom Univ Christian Higher Educ, Sch Chem & Biochem, Private Bag X6001, ZA-2520 Potchefstroom, Rep Sth Africa
J Membr Sci 2002 **197** (1-2) 147
 Copper(II) removal from polluted water with alumina/chitosan composite membranes
- Sugawara K, Kuramitz H, Hoshi S, Akatsuka K, Tanaka S// Gunma Univ, Fac Educ, Maebashi, Gumma 371 8510, Japan
Anal Sci 2002 **18** (2) 195
 Accumulation voltammetry of MoO₄²⁻ at a glassy carbon electrode covered with chitin film
- Sukwattanasinitt M, Zhu H, Sashiwa H, Aiba S// Chulalongkorn Univ, Fac Sci, Dept Chem, Ctr Bioact Cpds, TH-10330 Bangkok, Thailand
Carbohydr Res 2002 **337** (2) 133
 Utilization of commercial non-chitinase enzymes from fungi for preparation of 2-acetamido-2-deoxy-D-glucose from β -chitin
- Vandenberg GW, Drolet C, Scott SL, De la Noue J*// *Univ Laval, Dept Anim Sci, Grp Rech Recyclage Biol & Aquiculture, Pavillon Paul Comtois, St Foy, Quebec, Canada G1K 7P4
J Controlled Release 2001 **77** (3) 297
 Factors affecting protein release from alginate-chitosan coacervate microcapsules during production and gastric/intestinal simulation
- Wan LL, Wang YT*, Qian SH// *Wuhan Univ, Dept Environm Sci, CN-430072 Wuhan, Hubei, Peoples Rep China
J Appl Polym Sci 2002 **84** (1) 29
 Study on the adsorption properties of novel crown ether crosslinked chitosan for metal ions
- Wang H, Yuan Z*, Teng XL, He BL// *Nankai Univ, State Key Lab Funct Polymer Mat Adsorpt & Separat, Inst Polymer Chem, CN-300071 Tianjin, Peoples Rep China
Chem J Chinese Univ - Chinese 2002 **23** (1) 75
 Investigations on the adsorbents for uremic middle molecular toxins (I): Glutaraldehyde-crosslinked chitosan adsorbent (Chinese, English Abstract)
- Yang AL, Wu RJ*// *Shanghai Jiao Tong Univ, State Key Lab Met Matrix Composite, CN-200308 Shanghai, Peoples Rep China
J Appl Polym Sci 2002 **84** (3) 486
 Enhancement of the mechanical properties and interfacial interaction of a novel chitin-fiber-reinforced poly(ϵ -caprolactone) composite by irradiation treatment
- Yang L, Hsiao WW, Chen P*// *Univ Waterloo, Dept Chem Engrn, 200 Univ Ave, Waterloo, Ontario, Canada N2L 3G1
J Membr Sci 2002 **197** (1-2) 185
 Chitosan-cellulose composite membrane for affinity purification of biopolymers and immunoabsorption

5. Cyclodextrins

- Abrahmsen-Alami S, Alami E, Eastoe J, Cosgrove T// AstraZeneca R&D Molndal, SE-43183 Molndal, Sweden
J Colloid Interface Sci 2002 **246** (1) 191
 Interaction between a novel gemini surfactant and cyclodextrin: NMR and surface tension studies
- Alupej IC, Alupej V, Ritter H*// *Univ Dusseldorf, Inst Organ Chem, Universitätsstr 1, DE-40255 Dusseldorf, Germany
Macromol Rapid Commun 2002 **23** (1) 55
 Cyclodextrins in polymer synthesis: Photoinitiated free-radical polymerization of *N*-isopropylacrylamide in water initiated by a methylated β -cyclodextrin/2-hydroxy-2-methyl-1-phenylpropan-1-one host/guest complex
- Avakyan VG, Nazarov VB, Alfimov MV, Bagaturyants AA, Voronezhva NI// Russian Acad Sci, Photochem Ctr, 7A ul Novatorov, RU-117421 Moscow, Russia
Russ Chem Bull 2001 **50** (2) 206
 The role of intra- and intermolecular hydrogen bonds in the formation of β -cyclodextrin head-to-head and head-to-tail dimers. The results of *ab initio* and semiempirical quantum-chemical calculations
- Bettinetti G, Mura P*, Faucci MT, Sorrenti M, Setti M// *Univ Florence, Dipt Sci Farmaceut, via G Capponi 9, IT-50121 Florence, Italy
Eur J Pharm Sci 2002 **15** (1) 21
 Interaction of naproxen with noncrystalline acetyl β - and acetyl γ -cyclodextrins in the solid and liquid state
- Bom A, Bradley M, Cameron K, Clark JK, Van Egmond J, Feilden H, MacLean EJ, Muir AW, Palin R, Rees DC, Zhang MQ*// *Organon Res Labs Ltd, Dept Med Chem Pharmacol & Anal Chem, Newhouse ML1 5SH, Scotland
Angew Chem Int Ed 2001 **41** (2) 266
 A novel concept of reversing neuromuscular block: Chemical encapsulation of rocuronium bromide by a cyclodextrin-based synthetic host
- Canipelle M, Caron L, Christine C, Tilloy S, Monflier E*// *Univ Artois, Fac Sci J Perrin, Lab Physicochim Interfaces & Applicat, rue Jean Souvraz, Sac Postal 18, FR- 62307 Lens, France
Carbohydr Res 2002 **337** (3) 281
 Thermodynamic insight into the origin of the inclusion of monosulfonated isomers of triphenylphosphine into the β -cyclodextrin cavity
- Fernandes CM, Vieira MT, Veiga FJB*// *Univ Coimbra, Fac Pharm, Pharmaceut Technol lab, Coimbra, Portugal
Eur J Pharm Sci 2002 **15** (1) 79
 Physicochemical characterization and *in vitro* dissolution behavior of nicardipine-cyclodextrins inclusion compounds

- Fujimoto C, Maekawa A, Murao Y, Jinno K, Takeichi T// Hamamatsu Univ, Sch Med, Dept Chem, 1-20-1 Handayama, Hamamatsu, Shizuoka 431 319, Japan
Anal Sci 2002 **18** (1) 65
 An attempt directed toward enhanced shape selectivity in reversed-phase liquid chromatography: Preparation of the dodecylaminated β -cyclodextrin-bonded phase
- Hoffmann B, Bernet B, Vasella A*// *ETH Honggerberg, Organ Chem Lab, CH-8093 Zurich, Switzerland
Helv Chim Acta 2002 **85** (1) 265
 Oligosaccharide analogues of polysaccharides. Part XXIV. Synthesis of cyclodextrin analogues containing a substituted buta-1,3-diene or a 1,2,3-triazole unit and analysis of intramolecular hydrogen bonds
- Jiao H, Goh SH*, Valiyaveetil S// *Nat'l Univ Singapore, Dept Chem, 3 Sci Dr 3, SG-117543 Singapore, Rep Singapore
Macromolecules 2002 **35** (4) 1399
 Inclusion complexes of single- C_{60} -end-capped poly(ethylene oxide) with cyclodextrins
- Jiao H, Goh SH*, Valiyaveetil S// *Address as above.
Macromolecules 2002 **35** (5) 1980
 Inclusion complexes of multiarm poly(ethylene glycol) with cyclodextrins
- Kawai T, Kawakita H, Sugita K, Saito K*, Tamada M, Sugo T, Kawamoto H// *Chiba Univ, Fac Engn, Dept Mat Technol, 1-33 Yayoi, Chiba 263 8522, Japan
J Agric Food Chem 2002 **50** (5) 1073
 Conversion of dextran to cycloisomaltoligosaccharides using an enzyme-immobilized porous hollow-fiber membrane
- Kuwabara T, Aoyagi T, Takamura M, Matsushita A, Nakamura A, Ueno A// Yamanashi Univ, Fac Engn, Dept Appl Chem & Biotechnol, 4-3-11 Takeda, Kofu, Yamanashi 400 85, Japan
J Org Chem 2002 **67** (3) 720
 Heterodimerization of dye-modified cyclodextrins with native cyclodextrins
- Lee KP, Choi SH, Ryu EN, Ryoo JJ, Park JH, Kim Y, Hyun MH// Kyung-pook Natl Univ, Grad Sch, Dept Chem, Taegu 702701, South Korea
Anal Sci 2002 **18** (1) 31
 Preparation and characterization of cyclodextrin polymer and its high-performance liquid-chromatography stationary phase
- Li JY, Yan DY*// *Shanghai Jiao Tong Univ, Sch Chem & Chem Technol, CN-200240 Shanghai, Peoples Rep China
Macromol Chem Phys 2002 **203** (1) 155
 Preparation and characterization of the crystalline inclusion complex between β -cyclodextrin and poly(neopentyl glycol)
- Li NB, Luo HQ, Liu SP*, Chen GN// *SW China Normal Univ, Inst Environm Chem, CN-400715 Chongqing, Peoples Rep China
Spectrochim Acta A - Mol Biol Mol Spectrosc 2002 **58** (3) 501
 Resonance Rayleigh scattering technology as a new method for the determination of the inclusion constant of β -cyclodextrin
- Liptak A, Janossy L, Borbas A, Szejtli J// Debrecen Univ Med, Inst Biochem, POB 55, HU-4010 Debrecen, Hungary
Carbohydr Res 2002 **337** (2) 93
 Mixed acetals of cyclodextrins. Preparation of hexakis-, heptakis- and octakis [2,6-di-O-(methoxydimethyl)methyl]- α -, β - and γ -cyclodextrins
- Liu Y, You CC, He S, Chen GS, Zhao YL// Nankai Univ, Dept Chem, CN-300071 Tianjin, Peoples Rep China
J Chem Soc Perkins Trans 2 2002 (3) 463
 Synthesis of novel indolyl modified β -cyclodextrins and their molecular recognition behavior controlled by the solution's pH value
- Liu Y, You CC, Kang SZ, Wang C, Chen F, He XW// Nankai Univ, Dept Chem, Weuin Rd 94, CN-300071 Tianjin, Peoples Rep China
Eur J Org Chem 2002 (4) 607
 Synthesis of novel β -cyclodextrin and calixarene derivatives and their use in gas sensing on the basis of molecular recognition
- Lofsson T, Masson M, Sigurdsson HH// Univ Iceland, Fac Pharm, POB 7210, IS-127 Reykjavik, Iceland
Int J Pharm 2002 **232** (1-2) 35
 Cyclodextrins and drug permeability through semi-permeable cellophane membranes
- Lu J, Mirau PA, Shin ID, Nojima S, Tonelli AE*// *Nth Carolina State Univ, Raleigh, NC 27695, USA
Macromol Chem Phys 2002 **203** (1) 71
 Molecular motions in the supramolecular complexes between poly(ϵ -caprolactone)-poly(ethylene oxide)- poly(ϵ -caprolactone) and α - and γ -cyclodextrins
- Makabe A, Kinoshita K, Narita M, Hamada F*// *Akita Univ, Fac Engn & Resource Sci, Dept Mat Proc Engn & Appl Chem Environm, Tegata, Akita 010 8502, Japan
Anal Sci 2002 **18** (2) 119
 Guest-responsive fluorescence variations of γ -cyclodextrins labeled with hetero-functionalized pyrene and tosyl moieties
- Mazzaglia A, Ravoo BJ*, Darcy R, Gambadauro P, Mallamace F// *Nat'l Univ Ireland, Univ Coll Dublin, Dept Chem, Dublin 4, Rep Ireland
Langmuir 2002 **18** (5) 1945
 Aggregation in water of nonionic amphiphilic cyclodextrins with short hydrophobic substituents
- Nakagama T, Yamaguchi A, Hirasawa K, Yoshida K, Uchiyama K, Hobo T// Tokyo Metropolitan Univ, Grad Sch Engn, Div Appl Chem, 1-1 Minamiosawa, Hachioji, Tokyo 192 0397, Japan
Anal Sci 2002 **18** (1) 49
 Photo-response assisted enantiomer separations on an azobenzene-modified γ -cyclodextrin stationary phase in micro-HPLC
- Ni JH, Singh S, Wang LX*// *Univ Maryland, Maryland Biotechnol Inst, Inst Human Virol, 725 West Lombard St, Baltimore, Md 21201, USA
Carbohydr Res 2002 **337** (3) 217
 Improved preparation of perallylated cyclodextrins: Facile synthesis of cyclodextrin-based polycationic and polyanionic compounds
- Pariot N, Edwards-Levy F, Andry MC, Levy MC*// *Univ Reims, Fac Pharm, CNRS, UMR 6013, IFR 53, Lab Pharmacotechnie, 51 rue Cognacq Jay, FR-51096 Reims, France
Int J Pharm 2002 **232** (1-2) 175
 Cross-linked β -cyclodextrin microcapsules. II. Retarding effect on drug release through semi-permeable membranes
- Popova EI, Topchieva IN, Zhavoronkova EV, Panova IG, Matukhina EV, Gerasimov VI// Moscow MV Lomonosov State Univ, Fac Chem, RU-119899 Moscow, Russia
Polym Sci Ser A 2002 **44** (1) 72
 Two kinds of inclusion complexes based on poly(propylene oxide) and β -cyclodextrin
- Spanik I, Oswald P, Krupcik J*, Benicka E, Sandra P, Armstrong DW// *Slovak Univ Technol, Fac Chem Technol, Dept Analyt Chem, Radlinskeho 9, SK-81237 Bratislava, Slovakia
J Sep Sci 2002 **25** (1-2) 45
 Evaluation of non-polar interactions in chiral recognition by alkylated β - and γ -cyclodextrin chiral stationary phases
- Vargas-Berenguel A, Ortega-Caballero F, Santoyo-Gonzalez F, Garcia-Lopez JJ, Gimenez-Martinez JJ, Garcia-Fuentes L, Ortiz-Salmeron E// Univ Almeria, Area Quim Organ, ES-04120 Almeria, Spain
Chem-Eur J 2002 **8** (4) 812
 Dendritic galactosides based on a β -cyclodextrin core for the construction of site-specific molecular delivery systems: Synthesis and molecular recognition studies
- Wu WM, Wu J, Bodor N*// *IVAX Corp, 4400 Biscayne Blvd, Miami, FL 33137, USA
Pharmazie 2002 **57** (2) 130
 Effect of 2-hydroxypropyl- β -cyclodextrin on the solubility, stability, and pharmacological activity of the chemical delivery system of TRH analogs
- Yang J, Leung DK// Harvard Univ, Dept Chem & Biol Chem, 12 Oxford St, Cambridge, Ma 02138, USA
Bioorg Med Chem Lett 2002 **12** (2) 169
 Facile synthesis of β -cyclodextrin dithiols
- Yoshida A, Ueno A*// *Tokyo Inst Technol, Grad Sch Biosci & Biotechnol, Dept Bioengn, Midori ku, 4259 Nagatsuta cho, Yokohama, Kanagawa 226 850, Japan
Macromol Rapid Commun 2002 **23** (2) 122
 γ -Cyclodextrin derivatives bearing thymolphthalein dyes in their secondary hydroxyl side as guest: Responsive color change indicators

6. Lignin

- Karmanov AP, Belyaev VY, Marchenko TA, Kocheva LS, Monakov YB// Russian Acad Sci, Ural Div, Inst Chem, Komi Res Ctr, Pervomaiskaya ul 48, RU-167982 Syktyvkar, Russia
Polym Sci Ser A 2002 **44** (2) 129
 Topological structure of natural birch lignin
- Lin L, Zhou XT, Zhao DS, Qiu YG// Sth China Univ Technol, Coll Environm & Paper Engn, State Key Lab Pulp & Paper Engn, CN-510640 Guangzhou, Peoples Rep China
Acta Chim Sin 2002 **60** (1) 176
 Structural changes of lignins caused by oxidative ammonolysis
- Nitz H, Semke H, Mulhaupt R*// *Univ Freiburg, Freiburger Mat Forschungszentrum, Stefan Meier Str 31, DE-79104 Freiburg, Germany
Macromol Mater Eng 2001 **286** (12) 737

Influence of lignin type on the mechanical properties of lignin based composites

Quesada J, Teffo-Bertaud F, Croue JP, Rubio M// Univ Murcia, Fac Quim, Dept Ingn Quim, Campus Espinardo, ES-30071 Murcia, Spain
Holzforschung 2002 **56** (1) 32

Ozone oxidation and structural features of an almond shell lignin remaining after furfural manufacture

Terashima N, Hafren J, Westermarck U, Van der Hart DL// 2-610 Uedayama, Nagoya, Aichi 468 0001, Japan

Holzforschung 2002 **56** (1) 43

Nondestructive analysis of lignin structure by NMR spectroscopy of specifically ¹³C-enriched lignins. Part I. Solid state study of ginkgo wood

7. Lipopolysaccharides

Kooistra O, Luneberg E, Knirel YA, Frosch M, Zahringer U// *Forschungszentrum Borstel, Zentrum Med & Biowissensch, Parkallee 22, DE-23845 Borstel, Germany

Eur J Biochem 2002 **269** (2) 560

N-Methylation in poly Legionaminic acid is associated with the phase-variable epitope of *Legionella pneumophila* serogroup 1 lipopolysaccharide: Identification of 5-(N,N-dimethylacetimidoyl) amino- and 5-acetimidoyl(N-methyl) amino-7-acetamido-3,5,7,9-tetraoxonon-2-ulonic acid in the O-chain polysaccharide

Kooistra O, Herfurth L, Luneberg E, Frosch M, Peters T, Zahringer U// *Address as above.

Eur J Biochem 2002 **269** (2) 573

Epitope mapping of the O-chain polysaccharide of *Legionella pneumophila* serogroup 1 lipopolysaccharide by saturation-transfer-difference NMR spectroscopy

Mansson M, Hood DW, Li JJ, Richards JC, Moxon ER, Schweda EKH// *Univ Coll Sth Stockholm, Clin Res Ctr, NOVUM, SE-14186 Huddinge, Sweden

Eur J Biochem 2002 **269** (3) 808

Structural analysis of the lipopolysaccharide from nontypeable *Haemophilus influenza* strain 1003

Vinogradov EV, Duus JO, Brade H, Holst O// *Res Ctr Borstel, Div Med & Biochem Microbiol, Parkallee 22, DE-23845 Borstel, Germany

Eur J Biochem 2002 **269** (2) 422

The structure of the carbohydrate backbone of the lipopolysaccharide from *Acinetobacter baumannii* strain ATCC 19606

8. Pectin

Akhtar M, Dickinson E*, Mazoyer J, Langendorff V// Univ Leeds, Procter Dept Food Sci, Leeds LS2 9JT, England

Food Hydrocolloid 2002 **16** (3) 249

Emulsion stabilizing properties of depolymerized pectin

Jiang CM, Lai YJ, Lee BH, Chang WH, Wu MC, Chang HM// *Nat'l Taiwan Univ, Grad Inst Food Sci & Technol, Taipei 106, Taiwan

Food Res Int 2002 **35** (1) 31

Changes in physico-chemical properties of pectin from jelly fig (*Ficus awkeot-sang* Makino) seeds during extraction and gelling

MacKinnon IM, Jardine WG, O'Kennedy N, Renard CMGC, Jarvis MC// Univ Glasgow, Dept Chem, Glasgow G12 8QQ, Scotland

J Agric Food Chem 2002 **50** (2) 342

Pectic methyl and nonmethyl esters in potato cell walls

Martins ES, Silva D, Da Silva R, Gomes E// *Univ Estadual Paulista, Lab Bioquim & Microbiol Aplicada, Inst Biociencias Letras & Ciencias Exatas, Cristovao Colombo, 2265, BR-15054-000 Sao Jose do Rio Preto, SP, Brazil
Process Biochem 2002 **37** (9) 949

Solid state production of thermostable pectinases from thermophilic *Thermoascus aurantiacus*

Matsuhiro B, Rubio MJ// Univ Santiago Chile, Fac Quim & Biol, Dept Ciencias Quim, Casilla 40, Santiago 33, Chile

Bol Soc Chil Quim 2001 **46** (4) 481

Chemical modification of lemon pectin (Spanish, English Abstract)

Morris GA, Hromadkova Z, Ebringerova A*, Alfoldi J, Harding SE// *Slovak Acad Sci, Inst Chem, Dubravská cesta 9, SK-84238 Bratislava, Slovakia
Carbohydr Polym 2002 **48** (4) 351

Modification of pectin with UV-absorbing substituents and its effect on the structural and hydrodynamic properties of the water-soluble derivatives

Morris GA, Foster TJ, Harding SE// Industrial Research Ltd, Gracefield Rd, POB 31-310, Lower Hutt, New Zealand

Carbohydr Polym 2002 **48** (4) 361

A hydrodynamic study of the depolymerisation of a high methoxy pectin at el-

evated temperatures

Narayanan J, Deotare VW, Bandyopadhyay R, Sood AK// RJ College, Dept Phys, Ghatkopar West, IN-400086 Bombay, India

J Colloid Interface Sci 2002 **245** (2) 267

Gelation of aqueous pectin solutions: A dynamic light scattering study

Strasser GR, Amado R// *Swiss Fed Inst Technol, Inst Food Sci, ETH-Zentrum, Schmelzbergstr 9, CH-8092 Zurich, Switzerland

Carbohydr Polym 2002 **48** (3) 263

Pectic substances from red beet (*Beta vulgaris* L. var. *conditiva*). Part II. Structural characterisation of rhamnogalacturonan II

9. Starch

Anastasiades A, Thanou S, Loulis D, Stapatoris A, Karapantsios TD// *Technol Educ Inst, Dept Food Technol, Food Proc Engr Lab, POB 14561, GR-54101 Thessaloniki, Greece

J Food Eng 2002 **52** (1) 57

Rheological and physical characterization of pregelatinized maize starches

Aravindakshan P, Kumar VG// ICT, Hindustan Lever Res Ctr, Polymers Sect, Link Rd, Chakala, Andheri-E, IN-400099 Mumbai, India

J Appl Polym Sci 2002 **84** (3) 528

Effect of grafting with acrylic monomers on the viscosity, gelatinization temperature, and granule swelling characteristics of starch

Bao JS, Corke H// *Univ Hong Kong, Dept Bot, Hong Kong, Peoples Rep China

J Agric Food Chem 2002 **50** (2) 336

Pasting properties of gamma-irradiated rice starches as affected by pH

Bhandari PN, Singhal RS// Univ Dept Chem Technol, Food & Fermentation Technol Div, Matunga, IN-400019 Mumbai, India

Carbohydr Polym 2002 **48** (3) 233

Effect of succinylation on the corn and amaranth starch pastes

Brunner T, Meuser F*, Van Lengerich B, Niemann C// *Tech Univ Berlin, Inst Food Technol, Seestr 11, DE-13353 Berlin, Germany

Starch 2002 **54** (1) 1

Effect of extrusion cooking on molecular parameters of corn starch

Brunner T, Meuser F*, Van Lengerich B, Niemann C// *Address as above.

Starch 2002 **54** (1) 9

Expansion and functional properties of corn starch extrudates related to their molecular degradation, product temperature and water content

Chung HJ, Lee EJ, Lim ST// *Korea Univ, Grad Sch Biotechnol, 1,5-Ka, Anam-dong, Sungbuk-ku, Seoul 136-701, South Korea

Carbohydr Polym 2002 **48** (3) 287

Comparison in glass transition and enthalpy relaxation between native and gelatinized rice starches

Delville J, Joly C*, Dole P, Bliard C// *Lab Pharmacog, UMR URCA/CNRS 6013, Bat 18 Moulin Housse, BP 1039, FR-51687 Reims 2, France

Carbohydr Polym 2002 **49** (1) 71

Solid state photocrosslinked starch based films: A new family of homogeneous modified starches

Dupuy N, Laureys J// Univ Sci & Technol Lille, Lab Spectrosc Infrarouge & Raman - LASIR, Ctr Etudes Rech Lasers & Appl - CERLA, CNRS, Bat C5, FR-59655 Villeneuve d'Ascq, France

Carbohydr Polym 2002 **49** (1) 83

Recognition of starches by Raman spectroscopy

Dziechciarek Y, Van Soest JG, Philipse AP// Univ Utrecht, Debye Inst, Van't Hoff Lab Phys & Colloid Chem, Padualaan 8, NL-3524 CH Utrecht, The Netherlands

J Colloid Interface Sci 2002 **246** (1) 48

Preparation and properties of starch-based colloidal microgels

Forsyth JL, Ring SG, Noel TR, Parker R, Cairns P, Findlay K, Shewry PR// *Univ Bristol, Dept Agr Sci, Inst Arable Crops Res, Long Ashton Res Stn, Bristol BS41 9AF, England

J Agric Food Chem 2002 **50** (2) 361

Characterization of starch from tubers of yam bean (*Pachyrhizus ahipa*)

John JK, Raja KCM, Rani S, Moorthy SN*, Eliasson A// *ICAR Res Complex, Cent Tuber Crops Res Inst, IN-695017 Trivandrum, India

J Food Sci 2002 **67** (1) 10

Properties of arrowroot starch treated with aqueous HCl at ambient temperature

Katayama K, Komae K, Kohyama K, Kato T, Tamiya S, Komaki K// Natl Agr Res Ctr, 3-1-1 Kannondai, Tsukuba, Ibaraki 305 8666, Japan

Starch 2002 **54** (2) 51

New sweet potato line having low gelatinization temperature and altered starch structure

Khalil MI, Farag S, Aly AA, Hebeish A// Nat Res Ctr, Textile Div, Dokki,

- Cairo, Egypt
Carbohydr Polym 2002 **48** (3) 255
 Some studies on starch-urea-acid reaction mechanism
- Kim KW, Ko CJ, Park HJ*// *Grad Sch Biotechnol, Seoul 136701, South Korea
J Food Sci 2002 **67** (1) 218
 Mechanical properties, water vapor permeabilities and solubilities of highly carboxymethylated starch-based edible films
- Kitahara K, Antoku M, Hori Y, Sedoshita A, Suganuma T// Kagoshima Univ, Fac Agr, Dept Biochem Sci & Technol, 1-21-24 Korimoto, Kagoshima 890 0065, Japan
Carbohydr Polym 2002 **49** (1) 91
 Developmental change in starch granules in sweetpotato callus
- Lundqvist H, Eliasson AC, Olofsson G// Lund Univ, Dept Food Technol, Ctr Chem & Chem Engr, PO Box 124, SE-22100 Lund, Sweden
Carbohydr Polym 2002 **49** (1) 43
 Binding of hexadecyltrimethylammonium bromide to starch polysaccharides. Part I. Surface tension measurements
- Malafaya PB, Elvira C, Gallardo A, San Roman J, Reis RL// Univ Minho, Sch Engr, Dept Polymer Engr, PT-4710-057 Braga, Portugal
J Biomater Sci-Polym Ed 2001 **12** (11) 1227
 Porous starch-based drug delivery systems processed by a microwave route
- Marques AP, Reis RL, Hunt JA// Univ Minho, Dept Polymer Engr, Campus Gualtar, PT-4710-057 Braga, Portugal
Biomaterials 2002 **23** (6) 1471
 The biocompatibility of novel starch-based polymers and composites: *In vitro* studies.
- Raj B, Raj AE, Kumar KR, Siddaramaiah// Cent Food Technol Res Inst, Food Packaging Technol Dept, IN-570013 Mysore, India
J Appl Polym Sci 2002 **84** (6) 1193
 Moisture-sorption characteristics of starch/low-density polyethylene films
- Santacruz S, Koch K, Svensson E, Ruales J, Eliasson AC*// *Lund Univ, Dept Food Technol, PO Box 124, SE-22100 Lund, Sweden
Carbohydr Polym 2002 **49** (1) 63
 Three underutilised sources of starch from the Andean region in Ecuador. Part I. Physico-chemical characterisation
- Schoonman A, Ubbink J*, Bisperink C, Le Meste M, Karel M// *Nestle Res Ctr, CH-1000 Lausanne 26, Switzerland
Biotechnol Prog 2002 **18** (1) 139
 Solubility and diffusion of nitrogen in maltodextrin/protein tablets
- Shamekh S, Myllarinen P, Poutanen K, Forsell P*// *VTI Biotechnol, Tietotie 2, POB 1500, FI-02044 Espoo, Finland
Starch 2002 **54** (1) 20
 Film formation properties of potato starch hydrolysates
- Shi XH, BeMiller JN*// *Purdue Univ, Dept Food Sci, Whistler Ctr Carbohydrate Res, 1160 Food Sci Bldg, West Lafayette, IN 47907, USA
Starch 2002 **54** (1) 16
 Aqueous leaching of derivatized amylose from hydroxypropylated common corn starch granules
- Sikora M, Schilling CH, Tomasik P, Li CP// Univ Agr, Dept Carbohydrate Technol, 29 Listopad Ave, PL-20868 Krakow, Poland
J Eur Ceram Soc 2002 **22** (5) 625
 Dextrin plasticizers for aqueous colloidal processing of alumina
- Singh J, Singh N*, Saxena SK// *Guru Nanak Dev Univ, Dept Food Sci & Technol, IN-143005 Amritsar, India
J Food Eng 2002 **52** (1) 9
 Effect of fatty acids on the rheological properties of corn and potato starch
- Souza RCR, Andrade CT*// *Univ Fed Rio de Janeiro, Inst Macromol Prof Eloisa Mano, POB 68525, BR-21945-970 Rio de Janeiro, Brazil
Adv Polym Technol 2002 **21** (1) 17
 Investigation of the gelatinization and extrusion processes of corn starch
- Tako M, Hizukuri S// Univ Ryukyus, Dept Biosci & Biotechnol, Nishihara, Okinawa 903 0213, Japan
Carbohydr Polym 2002 **48** (4) 397
 Gelatinization mechanism of potato starch
- Tang H, Watanabe K, Mitsunaga T*// *Kinki Univ, Fac Agr, Dept Food & Nutr, Nara 631 0052, Japan
Carbohydr Polym 2002 **49** (1) 13
 Characterization of storage starches from quinoa, barley and adzuki seeds
- Turhan M, Gunasekaran S// Univ Mersin, Dept Food Engr, TR-33342 Ciftlikkoy, Mersin, Turkey
J Food Eng 2002 **52** (1) 1
 Kinetics of *in situ* and *in vitro* gelatinization of hard and soft wheat starches during cooking in water
- Walia PS, Lawton JW, Shogren RL// Dow Chem Co USA, Engr Sci Polymer Proc, 433 Bldg, Midland, MI 48640, USA
J Appl Polym Sci 2002 **84** (1) 121
 Mechanical properties of thermoplastic starch/poly(hydroxy ester ether) blends: Effect of moisture during and after processing
- Wang YJ, Wang LF// Univ Arkansas, Dept Food Sci, Fayetteville, AR 72704, USA
Starch 2002 **54** (1) 25
 Characterization of acetylated waxy maize starches prepared under catalysis by different alkali and alkaline-earth hydroxides
- Yasui T, Sasaki T, Matsuki J// Minist Agr Forestry & Fisheries, NARC, Tsukuba, Ibaraki 305 8666, Japan
J Cereal Sci 2002 **35** (1) 11
 Starch properties of a bread wheat (*Triticum aestivum* L.) mutant with an altered flour-pasting profile
- You S, Izydorczyk MS*// *Univ Manitoba, Dept Food Sci, Winnipeg, Manitoba, Canada R3T 2N2
Carbohydr Polym 2002 **49** (1) 33
 Molecular characteristics of barley starches with variable amylose content
- Yu SK, Blennow A, Bojko M, Madsen F, Olsen CE, Engelsen SB// Danisco Ingredients Innovat Ctr, Langebrogade 1 POB 17, DK-1001 Copenhagen K, Denmark
Starch 2002 **54** (2) 66
 Physico-chemical characterization of floridean starch of red algae

10. Starch-degrading enzymes

- Gonzalez CF, Farina JJ, Figueroa LIC*// *PROIMI, Avda Belgrano & Pje Caseros, AR-4000 San Miguel de Tucuman, Argentina
Enzyme Microb Technol 2002 **30** (2) 169
 A critical assessment of a viscometric assay for measuring *Saccharomycopsis fibuligera* α -amylase activity on gelatinised cassava starch
- MacGregor AW, Bazin SL, Schroeder SW// Canadian Grain Commiss, Grain Res Lab, 1404-303 Main St, Winnipeg, Manitoba, Canada R3C 3G8
J Cereal Sci 2002 **35** (1) 17
 Effect of starch hydrolysis products on the determination of limit dextrinase and limit dextrinase inhibitors in barley and malt
- Manelius R, Maaheimo H, Nurmi K, Bertoft E*// *Abo Akad Univ, Dept Biochem & Pharm, Biocity, POB 66, FI-20521 Turku, Finland
Starch 2002 **54** (2) 58
 Characterisation of fractions obtained by isoamylolysis and ion-exchange chromatography of cationic waxy maize starch
- Marchal LM, Zondervan J, Bergsma J, Beftink HH, Tramper J// Avebe R&D, POB 15, NL-9640 AA Veendam, The Netherlands
Bioprocess Biosyst Eng 2001 **24** (3) 163
 Monte Carlo simulation of the α -amylolysis of amylopectin potato starch: Part I - Modeling of the structure of amylopectin
- Soriano R, Bautista LF, Martinez M, Aracil J*// *Univ Complutense Madrid, Fac Chem, Dept Chem Engr, ES-28040 Madrid, Spain
Separ Sci Technol 2002 **37** (1) 61
 Kinetic modeling of the anion-exchange process of glucoamylases I and II from *Aspergillus niger* in batch stirred tank

11. Polysaccharides - Microbial

- Bian W, Chandrasekaran R*, Ogawa K// *Purdue Univ, Whistler Ctr Carbohydrate Res, 1160 Food Sci Bldg, West Lafayette, IN 47907, USA
Carbohydr Res 2002 **337** (4) 305
 X-ray structure analysis of the sodium salt of beijerin
- Brunius CF, Ranucci E*// *Royal Inst Technol, Dept Polymer Technol, Teknikringen 58, SE-10044 Stockholm, Sweden
Macromol Rapid Commun 2001 **22** (18) 1474
 Grafting of ω -functionalized PVP oligomers onto dextran: A novel route to biodegradable and biocompatible polymers
- Cadee JA, De Groot CJ, Jiskoot W, Den Otter W, Hennink WE*// *Univ Utrecht, Fac Pharm, Dept Pharmaceut, UIPS, POB 80 082, NL-3508 TB Utrecht, The Netherlands
J Controlled Release 2002 **78** (1-3) 1
 Release of recombinant human interleukin-2 from dextran-based hydrogels
- Carbonero ER, Sasaki GL, Gorin PAJ, Iacomini M*// *Univ Fed Parana, Dept Bioquim, CP 19046, BR-81531-990 Curitiba, Parana, Brazil
FEMS Microbiol Lett 2002 **206** (2) 175
 A (1 \rightarrow 6) linked β -mannopyranan, pseudonigeran, and a (1 \rightarrow 4) linked β -xylan, isolated from the lichenised basidiomycete *Dictyonema glabratum*
- Cascone MG, Pot PM, Lazzeri L, Zhu ZH// Univ Pisa, Dept Chem Engr, via Diotisalvi 2, IT-56126 Pisa, Italy

- J Mater Sci-Mater Med* 2002 **13** (3) 265
Release of dexamethasone from PLGA nanoparticles entrapped into dextran/poly(vinyl alcohol) hydrogels
- Fang QH, Zhong JJ*// * East China Univ Sci & Technol, State Key Lab Boreactor Engn, 130 Meilong Rd, CN-200237 Shanghai, Peoples Rep China
Biochem Eng J 2002 **10** (1) 61
Submerged fermentation of higher fungus *Ganoderma lucidum* for production of valuable bioactive metabolites: Ganoderic acid and polysaccharide
- Ferro V, Li CP, Fewings K, Palermo MC, Linhardt RJ, Toida T// Progen Ind Ltd, Dept Res & Dev, POB 28, Richlands BC, Qld 4077, Australia
Carbohydr Res 2002 **337** (2) 139
Determination of the composition of the oligosaccharide phosphate fraction of *Pichia (Hansenula) holstii* NRRL Y-2448 phosphomannan by capillary electrophoresis and HPLC
- Gruyer S, Legin E, Bliard C, Ball S, Duchiron F// Univ Reims, Lab Microbiol Ind, UMR Fare, Moulin de la Housse, BP 1039, FR-51687 Reims 2, France
Curr Microbiol 2002 **44** (3) 206
The endopolysaccharide metabolism of the hyperthermophilic archeon *Thermococcus hydrothermalis*: Polymer structure and biosynthesis
- Halberstadt M, Athmann S, Hagenah M// Inselspital Bern, Dept Ophthalmol, CH-3010 Bern, Switzerland
Cryobiology 2001 **43** (1) 71
Corneal cryopreservation with dextran
- Jang JH, Bae SK, Lim DJ, Kim BJ, Kong JY*// *Pukyong Natl Univ, Fac Food Sci & Biotechnol, Pusan, South Korea
Biotechnol Lett 2002 **24** (4) 297
Rheological properties of polysaccharides produced by a *Zoogloea* sp
- Kachlany SC, Levery SB, Kim JS, Reuhs BL, Lion LW, Ghiorse WC// Columbia Univ Coll Phys & Surg, Dept Microbiol, 701 West 168th St, New York, NY 10032, USA
Environ Microbiol 2001 **3** (12) 774
Structure and carbohydrate analysis of the exopolysaccharide capsule of *Pseudomonas putida* G7
- Kamimura W, Ooya T, Yui N*// *Japan Adv Inst Sci & Technol, Sch Mat Sci, 1-1 Asahidai, Tatsunokuchi, Ishikawa 923 129, Japan
J Biomater Sci-Polym Ed 2001 **12** (10) 1109
Transience in polyion complexation between nicotinamide-modified dextran and carboxymethyl dextran during enzymatic degradation of dextran
- Lazaridou A, Biliaderis CG*, Roukas T, Izydorczyk M// *Aristotelian Univ, Dept Food Sci & Technol, Box 256, GR-54006 Thessaloniki, Greece
Appl Biochem Biotechnol 2002 **97** (1) 1
Production and characterization of pullulan from beet molasses using a non-pigmented strain of *Aureobasidium pullulans* in batch culture
- Lefebvre DJ, Arevalo EA, Kamerling JP, Vliegthart JFG*// *Univ Utrecht, Dept Bioorgan Chem, Bijvoet Ctr, POB 80-075, NL-3508 TB Utrecht, The Netherlands
Can J Chem 2002 **80** (1) 76
Synthesis of a hexasaccharide fragment of the capsular polysaccharide of *Streptococcus pneumoniae* type 3
- Levander F, Svensson M, Radstrom P*// *Lund Univ, Lund Inst Technol, Ctr Chem & Chem Engn, POB 124, SE-22100 Lund, Sweden
Appl Environ Microbiol 2002 **68** (2) 784
Enhanced exopolysaccharide production by metabolic engineering of *Streptococcus thermophilus*
- Liu JR, Chen MJ, Lin CW*// *50 Lane 155 Keelung Rd Sec 3, Taipei, Taiwan
J Food Sci 2002 **67** (1) 104
Characterization of polysaccharide and volatile compounds produced by kefir grains grown in soymilk
- Lo YM, Hsu CH, Yang ST, Min DB// Univ Delaware, Dept Anim & Food Sci, Newark, DE 19717, USA
Bioprocess Biosyst Eng 2001 **24** (3) 187
Oxygen transfer characteristics of a centrifugal, packed-bed reactor during viscous xanthan fermentation
- Longworth E, Fernsten P, Mininni TL, Vogel U, Claus H, Gray S, Kaczmarek E, Borrow R*// *Withington Hosp, Manchester Publ Hlth Lab, PHLS Meningococcal Reference Unit, Nell Lane, Manchester M20 2LR, England
FEMS Immunol Med Microbiol 2002 **32** (2) 119
O-Acetylation status of the capsular polysaccharides of serogroup Y and W135 meningococci isolated in the UK
- Nouvel C, Ydens I, Degee P, Dubois P, Dellacherie E, Six JL*// *INPL, CNRS, UMR 7658, Lab Chim Phys Macromol, Grp ENSIC, 1 rue Grandville, BP 451, FR-54001 Nancy, France
Polymer 2002 **43** (6) 1735
Partial or total silylation of dextran with hexamethyldisilazane
- Rejon L, Ramirez A, Paz F, Goycoolea FM, Valdez MA*// *Univ Sonora, Dept Fis, AP 1626, Rosales & Transversal, MX-83000 Hermosillo, Sonora, Mexico
Carbohydr Polym 2002 **48** (4) 413
Response time and electrorheology of semidiluted gellan, xanthan and cellulose suspensions
- Ricciardi A, Parente E, Crudele MA, Zanetti F, Scolari G, Mannazzu I// Univ Basilicata, Dipt Biol Difesa & Biotecnol Agroforestal, Campus Macchia Romana, IT-85100 Potenza, Italy
J Appl Microbiol 2002 **92** (2) 297
Exopolysaccharide production by *Streptococcus thermophilus* SY: Production and preliminary characterization of the polymer
- Sasaki GL, Ferreira JC, Glienke-Blanco C, Torri G, De Toni F, Gorin PAJ, Iacomini M*// *Univ Fed do Parana, Dept Bioquim, CP 19046, BR-81531-990 Curitiba, Parana, Brazil
Carbohydr Polym 2002 **48** (4) 385
Pustulan and branched β -galactofuranan from the phytopathogenic fungus *Guignardia citricarpa*, excreted from media containing glucose and sucrose
- Selbmann L, Crognale S, Petruccioli M*// *Univ Tuscia, Dipt Agrobiol & Agrochim, via San Camillo de Lellis, IT-01100 Viterbo, Italy
Lett Appl Microbiol 2002 **34** (1) 51
Exopolysaccharide production from *Sclerotium glaucum* NRRL 3006 and *Botryosphaeria rhodina* DABAC-P82 on raw and hydrolysed starchy materials
- Shibata M, Nozawa R, Teramoto N, Yosomiya R// Chiba Inst Technol, Dept Ind Chem, 2-17-1 Tsudanuma, Narashino, Chiba 275 0016, Japan
Eur Polym J 2002 **38** (3) 497
Synthesis and properties of etherified pullulans
- Shingel KI, Petrov PT*// *Belmedpreparaty Pharmaceut Co, Sci Pharmaceut Ctr, 30 Fabritsius St, BY-220001 Minsk, Byelarus
Colloid Polym Sci 2002 **280** (2) 176
Behavior of gamma-ray-irradiated pullulan in aqueous solutions of cationic (cetyltrimethylammonium hydroxide) and anionic (sodium dodecyl sulfate) surfactants
- Sidhu JPS, Bawa AS// Guru Nanak Dev Univ, Dept Food Sci & Technol, IN-143005 Amritsar, India
Int J Food Prop 2002 **5** (1) 1
Dough characteristics and baking studies of wheat flour fortified with xanthan gum
- Stroop CJM, Xu QW, Retzlaff M, Abeygunawardana C, Bush CA*// *Univ Maryland Baltimore County, Dept Chem & Biochem, 1000 Hilltop Circle, Baltimore, MD 21250, USA
Carbohydr Res 2002 **337** (4) 335
Structural analysis and chemical depolymerization of the capsular polysaccharide of *Streptococcus pneumoniae* type 1
- Tanimoto T, Ikuta A, Sugiyama M, Koizumi K// Mukogawa Women's Univ, Sch Pharmaceut Sci, 11-68 Koshien Kyuban cho, Nishinomiya, Hyogo 663 8179, Japan
Chem Pharm Bull Tokyo 2002 **50** (2) 280
HPLC analysis of manno-oligosaccharides derived from *Saccharomyces cerevisiae* mannan using an amino column or a graphitized carbon column
- Uchiyama M, Ohno N*, Miura NN, Adachi Y, Yadomae T// *Tokyo Univ Pharm & Life Sci, Sch Pharm, Lab Immunopharmacol Microbial Products, 1432-1 Horinouchi, Hachioji, Tokyo 192 0392, Japan
Carbohydr Polym 2002 **48** (4) 333
Anti-grifolan antibody reacts with the cell wall β -glucan and the extracellular mannoprotein- β -glucan complex of *C. albicans*
- Yuguchi Y, Urakawa H, Kajiura K// Natl Inst Adv Ind Sci & Technol - AIST, 2217-14 Hayashi-cho, Takamatsu 761-0395, Japan
Food Hydrocolloid 2002 **16** (3) 191
The effect of potassium salt on the structural characteristics of gellan gum gel
- Zhang PY, Zhang L*, Cheng SY// *Wuhan Univ, Dept Chem, CN-430072 Wuhan, Peoples Rep China
Carbohydr Res 2002 **337** (2) 155
Solution properties of an α -(1 \rightarrow 3)-D-glucan from *Lentinus edodes* and its sulfated derivatives

12. Polysaccharides - Plant

- Babu GVMM, Prasad CDS, Murthy KVR*// *Andhra Univ, Dept Pharmaceut Sci, Div Ind Pharm, IN-530003 Visakhapatnam, Andhra Pradesh, India
Int J Pharm 2002 **234** (1-2) 1
Evaluation of modified gum karaya as carrier for the dissolution enhancement of poorly water-soluble drug nimodipine
- Bakunina IY, Nedashkovskaya OI, Alekseeva SA, Ivanova EP, Romanenko LA, Gorshkova NM, Isakov VV, Zvyagintseva TN, Mikhailov VV// Russian Acad Sci, Pacific Inst Bioorg Chem, Far Eastern Div, pr 100 Letiya Vladivostoka 159, RU-690022 Vladivostok, Russia

- Microbiology-Engl Tr* 2002 **71** (1) 41
Degradation of fucoidan by the marine proteobacterium *Pseudoalteromonas citrea*
- Benhura MAN, Chidewe C// Univ Zimbabwe, Dept Biochem, POB Mp167, Mount Pleasant, Harare, Zimbabwe
Food Chem 2002 **76** (3) 343
Some properties of a polysaccharide preparation that is isolated from the fruit of *Cordia abyssinica*
- Bertaud F, Sundberg A*, Holmbom B// *Abo Akademi Univ, Lab Forest Prod Chem, Proc Chem Grp, Porthansgatan 3, 20500 Turku/Abo, Finland
Carbohydr Polym 2002 **48** (3) 319
Evaluation of acid methanolysis for analysis of wood hemicelluloses and pectins
- Buffo RA, Reineccius GA*, Oehlert GW// *University Minnesota, Dept Food Sci & Nutr, 147 Food Sci & Nutr Bldg, 1334 Eckles Ave, St Paul, Mn 55108, USA
J Food Eng 2002 **51** (4) 341
Influence of time-temperature treatments on the emulsifying properties of gum acacia in beverage emulsions
- Carrin ME, Ceci LN, Lozano JE**// *Univ Nacl Sur, CONICET, PLAPA-PIQUI, Camino La Carrindanga km 7, CC 717, AR-8000 Bahia Blanca, Buenos Aires, Argentina
J Food Process Eng 2001 **24** (6) 423
Effects of co-immobilization of pectinase and amylase on ultrafiltration of apple juice simulate
- Chanamai R, McClements DJ**// *Univ Massachusetts, Dept Food Sci, Biopolymers & Colloids Res Lab, Amherst, Ma 01003, USA
J Food Sci 2002 **67** (1) 120
Comparison of gum arabic, modified starch, and whey protein isolate as emulsifiers: Influence of pH, CaCl₂ and temperature
- Coppi G, Iannuccelli V, Leo E, Bernabei MT, Camerini R// Univ Modena & Reggio Emilia, Dept Pharmaceut Sci, via G Campi 183, IT-41100 Modena, Italy
J Microencapsul 2002 **19** (1) 37
Protein immobilization in crosslinked alginate microparticles
- Da Silva BP, Parente JP**// *Univ Fed Rio de Janeiro, Ctr Ciencias Saude, Lab Quim Plantas Med, Nucl Pesquisas Prod Nat, BR-21944-270 Rio de Janeiro, Brazil
Planta Med 2002 **68** (1) 74
Chemical properties and biological activity of a polysaccharide from *Melocactus depressus*
- Doria-Serrano MC, Ruiz-Trevino FA*, Rios-Arciga C, Hernandez-Esparza M, Santiago P// *Univ Iberoamericana, Dept Ingn, MX-01210 Mexico City, DF, Mexico
Biomacromolecules 2001 **2** (2) 568
Physical characteristics of poly(vinyl alcohol) and calcium alginate hydrogels for the immobilization of activated sludge
- Dos Santos ES, Guirardello R, Franco TT**// *State Univ Campinas, Sch Chem Engrn, Biochem Engrn Lab, POB 6066, BR-13081-970 Campinas, SP, Brazil
J Chromatogr A 2002 **944** (1-2) 217
Preparative chromatography of xylanase using expanded bed adsorption
- Georget DMR, Smith AC*, Waldron KW// *Inst Food Res, Norwich Res Pk, Colney, Norwich NR4 7UA, England
Carbohydr Polym 2002 **48** (3) 277
Dynamic mechanical thermal analysis of cell wall polysaccharides extracted from lyophilised carrot *Daucus carota*
- Gerbst AG, Ustuzhanina NE, Grachev AA, Khatuntseva EA, Tsvetkov DE, Whitfield DM, Berces A, Nifantiev NE**// *Russian Acad Sci, ND Zelinskii Organ Chem Inst, Leninsky prospect 47, RU-119991 Moscow, Russia
J Carbohydr Chem 2001 **20** (9) 821
Synthesis, NMR, and conformational studies of fucoidan fragments. III. Effect of benzoyl group at O-3 on stereoselectivity of glycosylation by 3-O- and 3,4-di-O-benzoylated 2-O-benzylfucosyl bromides
- Kang HA, Jeon GJ, Lee MY, Yang JW**// *KAIST, Dept Chem Engrn, Yuseong gu, 373-1, Guseong dong, Taejon 305701, South Korea
J Chem Technol Biotechnol 2002 **77** (2) 205
Effectiveness test of alginate-derived polymeric surfactants
- Kang HA, Shin MS, Yang JW**// *Korea Adv Inst Sci & Technol, Dept Chem Engrn, Yuseong gu, 373-1 Kusong dong, Taejon 305701, South Korea
Polym Bull 2002 **47** (5) 429
Preparation and characterization of hydrophobically modified alginate
- Kilic B, Cassens RG*, Borchert LL// *Univ Wisconsin, Dept Anim Sci, 1805 Linden Dr West, Madison, WI 53706, USA
J Food Sci 2002 **67** (1) 29
Effect of turkey meat, phosphate, sodium lactate, carrageenan, and konjac on residual nitrite in cured meats
- Kim CA, Lim ST, Choi HJ*, Sohn JI, Jhon MS// *Inha Univ, Dept Polymer Sci & Engrn, Incheon 402751, South Korea
J Appl Polym Sci 2002 **83** (13) 2938
Characterization of drag reducing guar gum in a rotating disk flow
- Kovacevic D, Kurtanjek Z**// *Univ Zagreb, Fac Food Technol & Biotechnol, Pierottijeva 6, HR-10000 Zagreb, Croatia
Acta Aliment 2001 **30** (4) 381
Effect of κ-carrageenan and NaCl on thermal properties of frozen surimi prepared from Adriatic pilchard
- Kumagai H, MacNaughtan W, Farhat IA*, Mitchell JR// *Univ Nottingham, Sch Biosci, Div Food Sci, Sutton Bonington, Loughborough LE12 5RD, England
Carbohydr Polym 2002 **48** (4) 341
The influence of carrageenan on molecular mobility in low moisture amorphous sugars
- Kumar SG, Aminabhavi TM**// *Karnatak Univ, Dept Chem, Polymer Res Grp, IN-580003 Dharwad, India
J Appl Polym Sci 2002 **84** (3) 552
Preparation and characterisation of interpenetrating network beads of poly(vinyl alcohol)-grafted-poly(acrylamide) with sodium alginate and their controlled release characteristics for cypermethrin pesticide
- Kwon KH, Kim KI, Jun WJ, Shin DH, Cho HY, Hong BS**// *Korea Univ, Grad Sch Biotechnol 1, 5 Ka, Seoul 136701, South Korea
Biol Pharm Bull 2002 **25** (3) 367
In vitro and *in vivo* effects of macrophage-stimulatory polysaccharide from leaves of *Perilla frutescens* var. *crispa*
- Matsumoto T, Sun XB, Hanawa T, Kodaira H, Ishii K, Yamada H**// *Kitasato Univ, Kitasato Inst Life Sci, Minato ku, 5-9-1 Shirokane, Tokyo 108 8641, Japan
Phytother Res 2002 **16** (1) 91
Effect of the antiulcer polysaccharide fraction from *Bupleurum falcatum* L. on the healing of gastric ulcer induced by acetic acid in rats
- Mehrlander K, Dietrich H, Sembries S, Dongowski G, Will F**// *State Res Inst Geisenheim, Dept Wine Anal & Beverage Res, POB 1154, DE-65366 Geisenheim, Germany
J Agric Food Chem 2002 **50** (5) 1230
Structural characterization of oligosaccharides and polysaccharides from apple juices produced by enzymatic pomace liquefaction
- Miller IJ// Carina Chem Labs Ltd, POB 30366, Lower Hutt, New Zealand
Bot Mar 2001 **44** (6) 583
The structure of the carrageenan extracted from the tetrasporophytic form of *Stenogramme interrupta* as determined by ¹³C NMR spectroscopy
- Navarro DA, Cerezo AS, Stortz CA**// *Univ Buenos Aires, Fac Ciencias Exactas & Nat, Dept Quim Organ CIHIDECAR, Pab 2, Ciudad Univ, AR-1428 Buenos Aires, DF, Argentina
Carbohydr Res 2002 **337** (3) 255
NMR spectroscopy and chemical studies of an arabinan-rich system from the endosperm of the seed of *Gleditsia triacanthos*
- Patel MK, Mulloy B, Gallagher KL, O'Brien L, Hughes AD// Univ London, Imperial Coll Sci Technol & Med, Natl Heart & Lung Inst, Fac Med, St Mary's Campus, London W2 1NY, England
Thromb Haemost 2002 **87** (1) 149
The antimutagenic action of the sulphated polysaccharide fucoidan differs from heparin in human vascular smooth muscle cells
- Perez-Mateos M, Solas T, Montero P// Inst del Frio - CSIC, Dept Ciencia & Tecnol Carnes & Pescados, Ciudad Univ s/n, ES-28040 Madrid, Spain
Food Hydrocolloid 2002 **16** (3) 225
Carrageenans and alginate effects on properties of combined pressure and temperature in fish mince gels
- Psota V, Ehrenbergerova J, Havlova P, Hartmann J// Res Inst Brewing & Malting, Mostecka 7, CZ-61400 Brno, Czech Republic
Monatsschr Brauwissen 2002 **55** (1-2) 10
β-Glucan content in caryopses, malt and wort of the selected spring barley varieties (German, English Abstract)
- Reddad Z, Gerente C*, Andres Y, Ralet MC, Thibault JF, Le Cloirec P// *Ecole Mines Nantes, Dept Syst Energ & Environm, Genie Procédés Environm, 4 rue Alfred Kastler, BP 20722, FR-44307 Nantes 3, France
Carbohydr Polym 2002 **49** (1) 23
Ni(II) and Cu(II) binding properties of native and modified sugar beet pulp
- Redgwell RJ, Curti D, Fischer M, Nicolas P, Fay LB// Nestec Ltd, Nestle Res Ctr, Vers-chez-les-Blanc, POB 44, CH-1000 Lausanne 26, Switzerland
Carbohydr Res 2002 **337** (3) 239
Coffee bean arabinogalactans: Acidic polymers covalently linked to protein
- Ruperez P, Ahrazem O, Leal JA// CSIC, Inst Frio, Dept Metab & Nutr, Ciudad Univ s/n, ES-28040 Madrid, Spain

- J Agric Food Chem* 2002 **50** (4) 840
Potential antioxidant capacity of sulfated polysaccharides from the edible marine brown seaweed *Fucus vesiculosus*
- Sanchez C, Renard D, Robert P, Schmitt C, Lefebvre J// ENSAIA-INPL, Lab Physico-Chimie & Genie Alimentaires, 2 Ave Foret-de-Haye, BP172, FR-54505 Vandoeuvre-les-Nancy, France
Food Hydrocolloid 2002 **16** (3) 257
Structure and rheological properties of acacia gum dispersions
- Sharma A, Gupta MN// *Indian Inst Technol, Dept Chem, Hauz Khas, IN-110016 New Delhi, India
Carbohydr Polym 2002 **48** (4) 391
Three phase partitioning of carbohydrate polymers: Separation and purification of alginates
- Tanriseven A, Dogan S// Gebze Inst Technol, Dept Biochem, Gebze, Kocaeli, Turkey
Process Biochem 2002 **37** (10) 1111
Production of isomaltoligosaccharides using dextransucrase immobilized in alginate fibres
- Teleman A, Tenkanen M, Jacobs A, Dahlman O// Swedish Pulp & Paper Res Inst, STFI, Box 5604, SE-11486 Stockholm, Sweden
Carbohydr Res 2002 **337** (4) 373
Characterization of *O*-acetyl-(4-*O*-methylglucurono)xylan isolated from birch and beech
- Thanh TTT, Yuguchi Y, Mimura M, Yasunaga H, Takano R, Urakawa H, Kajiwaru K// *Kyoto Institute Technol, Sakyo ku, Matsugasaki 606 8585, Japan
Macromol Chem Phys 2002 **203** (1) 15
Molecular characteristics and gelling properties of the carrageenan family. I: Preparation of novel carrageenans and their dilute solution properties
- Uzunova K, Vassileva A, Ivanova V, Spasova D, Tonkova A// *Inst Genetik, Zulpicherstr 47, DE-50674 Koln, Germany
Process Biochem 2002 **37** (8) 863
Thermostable exo-inulinase production by semicontinuous cultivation of membrane-immobilized *Bacillus* sp. 11 cells
- Zhang WJ, Laue C, Hyder A, Schrezenmeir J// Huazhong Univ Sci & Technol, Tongji Hosp, Tongji Med Coll, Inst Organ Transplantat, CN-430030 Wuhan, Peoples Rep China
Transpl Proc 2001 **33** (7-8) 3517
Purity of alginate affects the viability of fibrotic overgrowth of encapsulated porcine islet xenografts
- Zimeri JE, Kokini JL// *Rutgers University, Cook Coll, Department Food Sci, Ctr Advanced Food Technol, 65 Dudley Rd, New Brunswick NJ 08901, USA
Carbohydr Polym 2002 **48** (3) 299
The effect of moisture content on the crystallinity and glass transition temperature of inulin
- ### 13. Polysaccharides - Other
- Alban S, Gastpar R// Univ Regensburg, Inst Pharm, Universitätsstr 31, DE-93040 Regensburg, Germany
J Biomol Screen 2001 **6** (6) 393
Development of SPC-ELISA: A new assay principle for the study of sulfated polysaccharide-protein interactions
- Desamero RZB, Cheng H, Cahill S, Girvin M, Deng H, Callender R*, Rath P, Variano B, Smart JE// *Yeshiva Univ Albert Einstein Coll Med, Dept Biochem, 1300 Morris Pk Ave, Bronx, NY 10461, USA
Biopolymers 2002 **67** (1) 41
Interactions of amidated acids with heparin
- Du YX, Taga A, Suzuki S, Liu WY, Honda S// *Kinki Univ, Fac Pharmaceut Sci, 3-4-1 Kowakae, Higashiosaka, Osaka, Japan
J Chromatogr A 2002 **947** (2) 287
Effect of structure modification of chondroitin sulfate C on its enantioselectivity to basic drugs in capillary electrophoresis
- Ehrenfreund-Kleinman T, Azzam T, Falk R, Polachek I, Golenser J, Domb AJ// *Hebrew Univ Jerusalem, Fac Med, Sch Pharm, Dept Med Chem & Nat Prod, IL-91120 Jerusalem, Israel
Biomaterials 2002 **23** (5) 1327
Synthesis and characterization of novel water soluble amphotericin β -arabinogalactan conjugates
- Jumel K, Harding SE, Sobol E, Omel'Chenko A, Sviridov A, Jones N// Univ Nottingham, Sch Biosci, NCMH, Sutton Bonington LE12 5RD, England
Carbohydr Polym 2002 **48** (3) 241
Aspects of the structural integrity of chondroitin sulphate after laser irradiation
- Kaneda I, Yanaki T// Shiseido Co Ltd, Mat & Formul Res Labs, Basic Res Ctr, Tuzuki ku, Yokohama, Kanagawa 224 855, Japan
Kobunshi Ronbunshu 2002 **59** (1) 8
Heat-induced gel-forming nature of succinoglycan (Japanese, English Abstract)
- Karst N, Jacquinet JC// *Univ Orleans, Fac Sci, CNRS/UMR 6005, Inst Chim Organ & Analyt, BP 6759, FR-45067 Orleans, France
Eur J Org Chem 2002 **5** 815
Stereocontrolled total synthesis of shark cartilage chondroitin sulfate D-related tetra- and hexasaccharide methyl glycosides
- Letourneur D, Machy D, Pelle A, Marcon-Bachari E, D'Angelo G, Vogel M, Chaubet F, Michel JB// Fac Med X Bichat, Lab INVIMAT, FR-75018 Paris, France
J Biomed Mater Res 2002 **60** (1) 94
Heparin and non-heparin-like dextrans differentially modulate endothelial cell proliferation: *In vitro* evaluation with soluble and crosslinked polysaccharide matrices
- Navarro DA, Stortz CA// *Univ Buenos Aires, Fac Ciencias Exactas & Nat, Dept Quim Organica - CIHIDECAR, Pab 2, Ciudad Univ, AR-1428 Buenos Aires, Argentina
Carbohydr Polym 2002 **49** (1) 57
Isolation of xylogalactans from the Corallinales: Influence of the extraction method on yields and compositions
- Pai V, Srinivasarao M, Khan SA// *Nth Carolina State Univ, Dept Chem Engr, Raleigh, NC 27695, USA
Macromolecules 2002 **35** (5) 1699
Evolution of microstructure and rheology in mixed polysaccharide systems
- Petrella RJ, Di Silvestro MD, Hildebrand C// Univ Western Ontario, Lawson Res Inst, Ctr Act & Ageing, 1490 Richmond St Nth, London, Ontario, Canada N6G 2M3
Arch Intern Med 2002 **162** (3) 292
Effects of hyaluronate sodium on pain and physical functioning in osteoarthritis of the knee: A randomized, double-blind, placebo-controlled clinical trial
- Reijnen MMPJ, Skrabut EM, Postma VA, Burns JW, Van Goor H// Univ Med Ctr Nijmegen, Dept Surg, POB 9101, NL-6500 HB Nijmegen, The Netherlands
J Surg Res 2001 **101** (2) 248
Polyanionic polysaccharides reduce intra-abdominal adhesion and abscess formation in a rat peritonitis model
- Tamai Y, Miyatake K, Okamoto Y, Takamori Y, Sakamoto H, Minami S// *Tottori Univ, Fac Agr, Dept Vet Surg, 4-101 Koyama-minami, Tottori 680-8553, Japan
Carbohydr Polym 2002 **48** (4) 369
Enhanced healing of cartilaginous injuries by glucosamine hydrochloride
- Vikso-Nielsen A, Chen PHJ, Larsson H, Blennow A, Moller BL// *Royal Vet & Agr Univ, Dept Plant Biol, Plant Biochem Lab, Ctr Mol Plant Physiol, Thorvaldsenvej 40, DK-1871 Frederiksberg C, Denmark
Carbohydr Res 2002 **337** (4) 327
Production of highly phosphorylated glycopolymers by expression of R1 in *Escherichia coli*
- Von der Ohe M, Wheeler SF, Wührer M, Harvey DJ, Liedtke S, Mühlenhoff M, Gerardy-Schahn R, Geyer H, Dwek RA, Geyer R, Wing DR, Schachner M// *Univ Hamburg, Zentrum Mol Neurobiol, Martinistr 52, DE-20246 Hamburg, Germany
Glycobiology 2002 **12** (1) 47
Localization and characterization of polysialic acid-containing N-linked glycans from bovine NCAM
- Whipple MJ, Gannam AL, Bartholomew JL// *Oregon State Univ, Dept Microbiol, Nash Hall 220, Corvallis, Or 97331, USA
North Am J Aquacult 2002 **64** (1) 1
Inability to control ceratomyxosis in rainbow trout and steelhead with oral treatments of glucan immunostimulant or the fumagillin analog TNP-470
- Yermakova SP, Sova VV, Zvyagintseva TN// *Russian Acad Sci, Far East Branch, Lab Enzyme Chem, Pacific Inst Bioorgan Chem, prospect 100 Letiya 159, RU-690022 Vladivostok, Russia
Carbohydr Res 2002 **337** (3) 229
Brown seaweed protein as an inhibitor of marine mollusk endo-(1 \rightarrow 3)- β -D-glucanases
- Zhang JJ, Kong FZ// *Chinese Acad Sci, Ecoenvironm Sci Res Ctr, POB 934, CN-100085 Beijing, Peoples Rep China
Acta Chim Sin 2002 **60** (1) 150
A facile large scale synthesis of the core mannose pentasaccharide of N-linked glycoprotein and its isomer
- Zhu YL, Chen LQ, Kong FZ// *Acad Sinica, Res Ctr Ecoenvironm Sci, POB 2871, CN-100085 Beijing, Peoples Rep China
Carbohydr Res 2002 **337** (3) 207
A facile regio- and stereoselective synthesis of mannose octasaccharide of the N-glycan in human CD2 and mannose hexasaccharide antigenic factor 13b