

BIBLIOGRAPHY ON CARBOHYDRATE POLYMERS

1. Books, Reviews, Symposia

Beguin P, Gilkes NR, Kilburn DG//Inst Pasteur, Res Dept, Unite Physiol Cellulaire, F-75724 Paris 15, France
CRC CRIT REV BIOTECH 1987 6 (2) 129
Cloning of cellulase genes (Review)

Fan LT, Gharpuray MM, Lee YH
Cellulose Hydrolysis
(Biotechnology Monographs vol. 3) Springer-Verlag (Berlin) 1987 198 pp ISBN 3-540-17671-3 \$101.50 Hardbound

Kamide K, Saito M, Clark AH, Rossmurphy SB
Biopolymers
(Advances in Polymer Science vol. 83) Springer-Verlag (Berlin) 1987 207 pp ISBN 3-540-17779-5 \$77.50 Hardbound
Contains the chapter: Cellulose and cellulose derivatives - Recent advances in physical chemistry

Knowles J, Lehtovaara P, Teeri T//Biotechnol Lab, Vtt Tietotie 2, SF-02150 Espoo, Finland
TRENDS BIOTECH 1987 5 (9) 255
Cellulase families and their genes (Review)

Dale BE//Colorado State Univ, Dept Agr Chem Engr, Ft Collins, Co 80523, USA
TRENDS BIOTECH 1987 5 (10) 287
Lignocellulose conversion and the future of fermentation biotechnology (Review)

Fransson L-A//Univ Lund, Dept Physiol Chem 2, POB 94, S-22100 Lund, Sweden
TRENDS BIOCHEM SCI 1987 12 (10) 406
Structure and function of cell-associated proteoglycans (Review)

2. Papers

Decampostakaki GM, Pereira EC, Dasilva JV, Koenig ML//Univ Fed Pernambuco, Ctr Ciencias Biol, Dept Antibiot, BR-50000 Recife, PE, Brazil
ARQ BIOL TECNOL 1987 30 (3) 525
Extraction of agar from *Gracilaria sjostedtii*

Kylin by different methods (Portuguese)

Barnett SE, Varley SJ//Univ London, Royal National Orthopaed Hosp, Inst Orthopaed, Dept Biomed Engr, Brockley Hill, Stanmore HA7 4LP, Middx, England
ANN ROY COLL SURG ENGL 1987, 69 (4) 153
The effects of calcium alginate on wound healing

Fujikawa S, Yokota T, Koga K, Kumada J-I//Suntori Ltd, Alcohol Beverages & Fermentat Technol Res Lab, Shimamoto, Osaka 618, Japan
BIOTECHNOL LETT 1987 9 (10) 697
The continuous hydrolysis of geniposide to genipin using immobilized beta-glucosidase on calcium alginate gel

Miura Y, Akimoto T, Fuke Y, Yamazaki S, Yagi K//Osaka Univ, Fac Pharmaceut Sci, Dept Biochem Engr, Suita, Osaka 565, Japan
ARTIF ORGANS 1987 11 (5) 361
In vitro maintenance of terminal-differentiated state in hepatocytes entrapped within calcium alginate

Wingender J, Volz S, Winkler UK**//Ruhr Univ Bochum, Lehrstuhl Biol Mikroorganismen, Postfach 102148, D-4630 Bochum, Fed Rep Ger
APPL MICROBIOL BIOTECHNOL 1987 27 (2) 139
Interaction of extracellular *Pseudomonas* lipase with alginate and its potential use in biotechnology

McCleary BV, Sheehan H//New S Wales Dept Agr, Biol & Chem Res Inst, PMB 10, Rydalmere, NSW 2116, Australia
J CEREAL SCI 1987 6 (3) 237
Measurement of cereal alpha-amylase: a new assay procedure

Fuwa H, Glover DV, Miyaura K, Inouchi N, Konishi Y, Sugimoto Y//Osaka City Univ, Dept Food & Nutr, 138 3-3 Sugimoto, Osaka 558, Japan
STARCH 1987 39 (9) 295
Chain length distribution of amylopectins of double- and triple-mutants containing the waxy

As a service to subscribers, each issue of the Journal contains a bibliography of newly published material in the field of carbohydrate polymers. The bibliography is divided into two sections: 1. Books, Reviews and Symposia; 2. Papers. Within each section, articles are arranged in alphabetical order with respect to the polymer.

gene in the inbred Oh43 maize background

Takeda Y, Hizukuri S, Juliano BO//Kagoshima Univ, Fac Agr, Dept Agr Chem, Korimoto 1, Kagoshima 890, Japan

CARBOHYD RES 1987 168 (1) 79

Structures of rice amylopectins with low and high affinities for iodine

Del Carmen Gonzalez M, Zamora F, Guzman GM//Univ Pais Vasco, Fac Ciencias Quim San Sebastian, Dept Quim Fis, Bilbao, Spain

J POLYM SCI C-POLYM LETT 1987 25 (11) 431

Degradation of a graft copolymer: Methyl methacrylate-amylose

Yoshida T, Kida M, Uryu T*//Univ Tokyo, Inst Ind Sci, Minato ku, Tokyo 106, Japan

POLYM J 1987 19 (8) 923

Selective ring-opening polymerization of di-O-t-butylidimethylsilylated and di-O-p-bromobenzylation 1,4-anhydro- α -L-arabinopyranoses and structural analysis of free arabinans

Cartier N, Chambat G, Joseleau J-P//Ctr Rech Macromolec Vegetales, CNRS, BP 68, F-38402 St Martin d'Heres, France

CARBOHYD RES 1987 168 (2) 275

An arabinogalactan from the culture medium of *Rubus fruticosus* cells in suspension

McNeil M, Wallner SJ, Hunter SW, Brennan PJ//Colorado State Univ, Dept Microbiol, Ft Collins, Co 80523, USA

CARBOHYD RES 1987 166 (2) 299

Demonstration that the galactosyl and arabinosyl residues in the cell-wall arabinoglycan of *Mycobacterium leprae* and *Mycobacterium tuberculosis* are furanoid

Lochmuller CH, Wigman LS, Kitchell BS//Duke Univ, Paul M Gross Chem Lab, Dept Chem, Durham, NC 27706, USA

J CHEM TECHNOL BIOTECHNOL 1987 40 (1) 33

Aerosol-jet produced, magnetic carrageenan-gel particles: A new affinity chromatography matrix

Piculell L, Hakansson C, Nilsson S//Univ Lund, Ctr Chem, Dept Phys Chem, Box 124, S-22100 Lund, Sweden

INT J BIOL MACROMOL 1987 9 (5) 297

Cation specificity of the order-disorder transition in iota carrageenan: effects of kappa carrageenan impurities

Stortz CA, Cerezo AS*//Univ Buenos Aires,

Fac Ciencias Exactas & Nat, Dept Quim Organ, Pabellon 2, Ciudad Univ, RA-1428 Buenos Aires, Argentina

CARBOHYD RES 1987 166 (2) 317

Specific fragmentation of carrageenans

Watase M, Nishinari K*//Minist Agr Forestry & Fisheries, Natl Food Res Inst, Instrumentat Res Lab, Tsukuba 305, Japan

MAKROMOL CHEM-MACRO CHEM PHYS 1987 188 (9) 2213

Rheological and thermal properties of carrageenan gels. Effect of sulfate content

Hegarty B, Steinfurth A, Liese W, Schmidt O//Desowag Material-Schutz, Forsch & Entwicklungszentrum, D-4150 Krefeld 11, Fed Rep Ger

HOLZFORSCHUNG 1987 41 (5) 265

Comparative investigations on wood decay and cellulolytic and xylanolytic activity of some basidiomycete fungi

Asensio A, Seoane E//Univ Valencia, Dept Organ Chem, Valencia, Spain

J NAT PROD-LLOYDIA 1987 50 (5) 811

Polysaccharides from the cork of *Quercus suber*. I. Holocellulose and cellulose

Bilbao R, Arauzo J, Millera A//Univ Zaragoza, Fac Ciencias, Dept Quim Tecn, E-50009 Zaragoza, Spain

THERMOCHIM ACTA 1987 120 121

Kinetics of thermal decomposition of cellulose. Part I. Influence of experimental conditions

Bilbao R, Arauzo J, Millera A//Univ Zaragoza, Fac Ciencias, Dept Quim Tecn, E-50009 Zaragoza, Spain

THERMOCHIM ACTA 1987 120 133

Kinetics of thermal decomposition of cellulose. Part II. Temperature differences between gas and solid at high heating rates

Bromberg LY, Rudman AR, El'tsefon BS//All Union Med Polymer Res Inst, Moscow, USSR

VYSOKOMOL SOEDIN SER A SSSR 1987 29 1669

Temperature effect on structure and transport properties of hydrogels of regenerated cellulose (Russian)

Dollimore D, Haoth MJ//Univ Toledo Dept Chem, Toledo, Oh 43606, USA

THERMOCHIM ACTA 1987 121 (NOV) 273

The kinetics of oxidative degradation of cellulose and cellulose doped with chlorides

Foret M, Kuentz F, Milongo R, Alibeu C,

Hachache T, Meftahi H, Christollet M, Dechelette E, Cordonnier D//Agduc, POB 28, F-38700 Grenoble, France

LIFE SUPPORT SYST 1987 5 (3) 199

New advances in cuprophan membranes - steam-sterilization modified cellulose

Gardiner E, Cabasso I**SUNY Coll Environm Sci & Forestry, Polymer Res Inst, Syracuse, NY 13210, USA

POLYMER 1987 28 (12) 2052

On the compatibility and thermally induced blending of poly(styrene phosphonate diethyl ester) with cellulose acetate

Gratecos D, Astier M, Semeriva M//Ctr Univ Marseille Luminy, Genet & Biol Cellulaires Lab, CNRS, Case 907, F-13288 Marseille 9, France

J IMMUNOL METHOD 1987 103 (2) 169

A new approach to monoclonal antibody production. In vitro immunization with antigens on nitrocellulose using *Drosophila* myosin heavy chain as an example

Hirano S, Kondo Y, Nagamura K//Tottori Univ, Dept Agr Biochem, Tottori 680, Japan

INT J BIOL MACROMOL 1987 9 (5) 308

Acetamidodeoxycellulose and its digestibility by chitinase and lysozyme

Johansson G, Ofverstedt L-G, Hjerten S//Univ Uppsala, Ctr Biomed, Inst Biochem, POB 576, S-75123 Uppsala, Sweden

ANAL BIOCHEM 1987 166 (2) 267

Preparative displacement electrophoresis (isotachophoresis) of proteins on cellulose

Krysteva MA, Grigorova PM//Higher Inst Chem Technol, Dept Biotechnol, BU-1156 Sofia, Bulgaria

DOKL BOLG AKAD NAUK 1987 40 (6) 37

Investigation on the method of cells from *Arthrobacter simplex* to granulated microcrystallized cellulose

Kuga S, Brown RM**Univ Texas, Dept Bot, Austin, Tx 78712, USA

POLYM COMMUN 1987 28 (11) 311

Lattice imaging of ramie cellulose

Mabuchi H, Michishita I, Takeda M, Fujita H, Koizumi J, Takeda R, Takada S, Oonishi M//Kanazawa Univ, Sch Med, Dept Internal Med 2, Takara Machi 13-1, Kanazawa, Ishikawa 920, Japan

ATHEROSCLEROSIS 1987 68 (1-2) 19

A new low density lipoprotein apheresis system

using two dextran sulphate cellulose columns in an automated column regenerating unit

Ohnishi N, Kiyohara Y, Kita Y, Kuroda K, Yokoyama T//Kobe Univ, Sch Med, Hosp Pharm, Kusunoki Cho, Chuo ku, Kobe 650, Japan

CHEM PHARM BULL TOKYO 1987 35 (9) 3935

Evaluation of indomethacin sustained-release suppositories using a hydroxypropylmethylcellulose acetate succinate-polyethylene glycol 2000 solid matrix

Pawlowski WP, Gilbert RD*, Fornes RE, Purington ST//N Carolina State Univ, Fiber & Polymer Sci Program, Raleigh, NC 27695, USA

J POLYM SCI B-POLYM PHYS 1987 25 (11) 2293

The thermotropic and lyotropic liquid-crystalline properties of acetoacetypropyl cellulose

Pizzi A, Eaton NJ//CSIR Natl Timber Res inst, Pretoria 0001, South Africa

J MACROMOL SCI - CHEM 1987 A24 (8) 901

The structure of cellulose by conformational analysis. Part 4. Crystalline cellulose II

Rorrer GL, Ashour SS, Hawley MC, Lamport DTA//Michigan State Univ, Dept Chem Engr, E Lansing, Mi, 48824, USA

BIOMASS 1987 12 (4) 227

Solvolysis of wood and pure cellulose by anhydrous hydrogen fluoride vapor

Rozhkova OV, Myasoedova VV, Krestov GA//Acad Sci USSR, Inst Nonaqueous Solut Chem, Moscow V-71, USSR

VYSOKOMOL SOEDIN SER A SSSR 1987 29 (8) 1599

Viscosity of cellulose and its derivatives solutions in methylmorpholine-N-oxide - dimethylsulphoxide mixture (Russian)

Sakellariou, Rowe RC, White EFT//Univ Liverpool, Dept Inorgan Phys & Ind Chem, Liverpool L69 3BX, England

J APPL POLYM SCI 1987 34 (7) 2507

The interactions and partitioning of low molecular weight polyethylene glycols and diethyl phthalate in ethylcellulose/hydroxypropyl methylcellulose blends

Sheng HZ, Hoogenraad J, Carnegie PR, Bernard CCA**La Trobe Univ, Dept Marine, Neuroimmunol Lab, Bundoora, Vic 3083, Australia

IMMUNOL LETT 1987 16 (1) 75

Use of protein-bearing nitrocellulose as

immunogen for in vitro production of monoclonal antibodies: application to myelin basic protein electrophoretically separated from a complex brain protein mixture

Tezuka Y, Imai K, Oshima M, Chiba T//Technol Univ Nagaoka, Dept Mat Sci & Technol, Nagaoka, Nigata 94021, Japan

MACROMOLECULES 1987 20 (10) 2413

Determination of substituent distribution in cellulose ethers by means of a ^{13}C NMR study on their acetylated derivatives. 1. Methylcellulose

Thomas KC, Ramachandhran V, Misra BM//Bhabha Atom Res Ctr, Div Desalinat, Bombay 400085, India

J APPL POLYM SCI 1987 34 (7) 2527

Electrochemical and electrokinetic characterization of cellulose acetate polymeric membranes

Torgashov VI, Gert YV, Bil'dyukevich AV, Kaputskii FN//VI Lenin State Univ, Phys Chem Problems Res Inst, Minsk, Belorussia, USSR

VYSOKOMOL SOEDIN SER B SSSR 29 (9) 699

Methods of synthesis and analysis of high-substituted crystalline cellulose nitrate (Russian)

Wagberg L, Winter L, Odberg L, Lindstrom T//Swedish Pulp & Paper Res Inst, Dept Paper Technol, POB 5604, S-11486 Stockholm, Sweden

COLLOID SURFACE 1987 27 (1-3) 163

On the charge stoichiometry upon adsorption of a cationic polyelectrolyte on cellulose

Tridon A, Deteix P, Coves G, Cluzel P, Marques Verdier A, Wauquier JP, Betail G, Baguet JC//Fac Med Pharm Clermont Ferrand, Immunol Lab, 28 Pl Henri Dunant, F-63001 Clermont Ferrand, France

NEPHROLOGIE 1987 8 (4) 217

Evaluation of the biocompatibility of a new cellulosic membrane by assessment of the complement system and histamine liberation (French)

Wagberg L, Lindstrom T//Swedish Pulp & Paper Res Inst, Dept Paper Technol, POB 5604, S-11486 Stockholm, Sweden

COLLOID SURFACE 1987 27 (1-3) 29

Kinetics of polymer-induced flocculation of cellulosic fibers in turbulent flow

Nishimura Si, Nishi N, Tokura S//Hokkaido Univ, Fac Sci, Dept Polymer Sci, Sapporo, Hokkaido 060, Japan

INT J BIOL MACROMOL 1987 9 (5) 305

Interaction of chitin heparinoids with bovine antithrombin III

Bohnke M, Hagenah M, Draeger J//Univ Hamburg, Krankenhaus Eppendorf, Augen Klin, Martini Str 52, D-2000 Hamburg 20, Fed Rep Ger

KLIN MONATSBL AUGENHEILK 1987 191 (4) 283

Cryopreservation of porcine corneae with chondroitin sulphate

Stein RM, Laibson PR**//Wills Eye Hosp, Cornea Serv, 9th & Walnut St, Philadelphia, Pa 19107, USA

AMER J OPHTHALMOL 1987 104 (5) pt 3 490

Comparison of chondroitin sulfate to McCarey-Kaufman medium for corneal storage

Armstrong DW, Yang XF, Han SM, Menges RA//Univ Missouri, Dept Chem, Rolla, Mo 65401, USA

ANAL CHEM 1987 59 (21) 2594

Direct liquid chromatographic separation of the racemates with an alpha-cyclodextrin bonded phase

Barra M, de Rossi RH*, de Vargas EB//*Univ Nacl Cordoba, Dept Quim Organ, Fac Ciencias Quim, Inst Invest Fis Quim, Suc 16, CC 61, RA-5016 Cordoba, Argentina

J ORG CHEM 1987 52 (22) 5004

Catalysis by cyclodextrins in nucleophilic aromatic substitution reactions. 2. Amines as nucleophiles

Chen YZ, Chen NY, Chen NN, Li HQ, Zhao FZ//Lanzhou Univ, Dept Chem, Lanzhou, Peoples R China

KEXUE TONGBAO 1987 32 (17) 1180

Fast atom bombardment and collisional activation mass spectrometry of cyclodextrins

Moriwaki F, Kaneko H, Ueno A, Osa T, Hamada F, Murai K//Tohoku Univ, Inst Pharmaceut, Sendai, Miyagi 980, Japan

BULL CHEM SOC JPN 1987 60 (10) 3619

Excimer formation and induced-fit type of complexation of alpha-cyclodextrin capped by two naphthyl moieties

Oliw EH//Karolinska Inst, Dept Pharmacol, Box 60400, S-10401 Stockholm 60, Sweden

J CHROMATOGR-BIOMED APPL 1987 421 (1) 117

Chromatography of B prostaglandins on beta-cyclodextrin silica: application to analysis of major E prostaglandins in human seminal fluid

Pitha J, Szabo L, Fales HM//NIA, Ctr Geriatr Res, Macromolec Chem Sect, Baltimore, Md 21224, USA

CARBOHYD RES 1987 168 (2) 191

Reaction of cyclodextrins with propylene oxide or with glycidol: analysis of product distribution

Schneider HJ, Sangwan NK**/Harayana Agr Univ, Dept Chem & Biochem, Hissar 125004, Harayana, India

ANGEW CHEM INT ED 1987 26 (9) 896

Host guest chemistry. 13. Changes of stereoselectivity in Diels-Alder reactions by hydrophobic solvent effects and by beta-cyclodextrin

Sugrobova NP, Obolnikova EA, Samokhvalov GI, Kurganov BI//All Union Vitamin Res Inst, Moscow, USSR

KHIM-FARM ZH SSSR 1987 21 (9) 1111

Preparing ubiquinone-9-incorporated compound with beta-cyclodextrin (Russian)

Szejtli J//Chinoin Chem Pharm Works, Cyclodextrin Lab, Enrodi S 38-40, Budapest, Hungary

STARCH 1987 39 (10) 357

Application of cyclodextrins in chromatography

Fujino N, Sakamoto K, Shigaki N, Yamashita J-i, Kimura M, Agaki M//Kumamoto Univ, Sch Med, Dept Surg 2, 1-1-1 Honjo, Kumamoto 860, Japan

JPN J SURG 1987 17 (5) 369

Analysis of estrogen receptors in human breast cancer by assays using monoclonal antibodies and by the dextran-coated charcoal method

Jolly SJ, Prakash C//Saraswati Sugar Mills, Yamunanagar 135001, India

INT SUGAR J 1987 89 (1066) 184

Process management: Removal of dextran from cane juice

Schechter B, Pauzner R, Arnon R, Haimovich J, Wilchek M//Weizmann Inst Sci, Dept Chem Immunol, IL-76100 Rehovot, Israel

CANCER IMMUNOL IMMUNOTHER 1987 25 (3) 225

Selective cytotoxicity against tumor cells by cisplatin complexed to antitumor antibodies via carboxymethyl dextran

Lavrenko PN, Mikriukova OI, Okatova OV//Acad Sci USSR, Inst Macromolec Cpds, Bolshoi Pr 31, Leningrad 199004, USSR

ANAL BIOCHEM 1987 166 (2) 287

On the separation ability of various ficoll gradient solutions in zonal centrifugation

Abou-Mandour AA, Czygan FC, Haass D*,

Franz G//Univ Regensburg, Inst Pharmazeut Biol, Univ Str 31, D-8400 Regensburg, Fed Rep Ger

PLANTA MED 1987 (5) 482

Fructan synthesis in tissue cultures of *Symphytum officinale* L. Initiation, differentiation, and metabolic activity

Chowdhury B, Chatterjee BP**/Indian Assoc Cultivat Sci, Dept Biol Chem, Calcutta 700032, W Bengal, India

INDIAN J CHEM SECT B 1987 26 (7) 637

Purification of a galactomannan from seeds of *Poinciana pulcherrima* Linn. using jackfruit lectin immobilized affinity adsorbent & its structural characterisation

Grasdalen H, Smidsrod O//Univ Trondheim, Norwegian Inst Technol, Inst Biotechnol, N-7034 Trondheim, Norway

CARBOHYD POLYM 1987 7 (5) 371

Gelation of gellan gum

Aman P, Graham H//Swedish Univ Agr Sci, Dept Anim Nutr & Management, S-75007 Uppsala, Sweden

J AGR FOOD CHEM 1987 35 (5) 704

Analysis of total and insoluble mixed-linked (1-3),(1-4)-beta-D-glucans in barley and oats

Hanada N, Takehara T**/Kyushu Dent Coll, Dept Prevent Dent, Kokurakita ku, Kitakyushu 803, Japan

CARBOHYD RES 1987 168 (1) 120

(1-3)-alpha-D-glucan synthase from *Streptococcus mutans* AHT (serotype h) does not synthesise glucan without primer

Henry RJ//Queensland Wheat Res Inst, POB 5282, Toowoomba, Qld 4350, Australia

J CEREAL SCI 1987 6 (3) 253

Pentosan and (1-3),(1-4)-beta-glucan concentrations in endosperm and wholegrain of wheat, barley, oats and rye

Iacomini M, Zanin SMW, Fontana JD, Hogge L, Gorin PAJ//Univ Fed Parana Departamento Bioquim, C Postal 19046, BR-81504 Curitiba, Parana, Brazil

CARBOHYD RES 1987 168 (1) 55

Isolation and characterization of beta-D-glucan, heteropolysaccharide, and trehalose components of the basidiomycetous lichen *Cora pavonia*

Kawaguchi N, Yamada H**/Kitasato Inst Oriental Med Res Ctr, Biochem Lab, Minato ku, Tokyo 108, Japan

AGR BIOL CHEM TOKYO 1987 51 (10) 2805

Branching frequency of anti-tumor 6-O-branched (1-3)-beta-D-glucan from *Cordyceps ophioglossoides*

Kitahata S, Edagawa S//Osaka Municipal Tech Res Inst, 6-50 Morinomiya, 1 Chome, Jyoto ku, Osaka 536, Japan

AGR BIOL CHEM TOKYO 1987 51 (10) 2701
Cyclic (1-2)-beta-D-glucan hydrolyzing enzymes from *Acremonium* sp. 15 Purification and some properties of endo-(1-2)-beta-D-glucanase and beta-D-glucosidase

Klopfenstein CF, Hoseney RC//Kansas State Univ Agr & Appl Sci, Dept Grain Sci & Ind, Manhattan, Ks 66506, USA

NUTR REP INT 1987 36 (5) 1091

Cholesterol-lowering effect of beta-glucan-enriched bread

Masumoto K, Yamashita K, Yoshida A, Hayashi S, Machida Y, Nagai T//Rohto Pharmaceut Co Ltd, Div Applicat & Dev, Tatsumi Nishi 1-8-1, Ikuno ku, Osaka 544, Japan

CHEM PHARM BULL TOKYO 1987 35 (9) 3813

Production and physicochemical properties of water-insoluble glucan from *Streptococcus mutans*

Masumoto K, Yoshida A, Hirayama M, Hayashi S, Machida Y, Nagai N//Rohto Pharmaceut Co Ltd, Div Applicat & Dev, Tatsumi Nishi 1-8-1, Ikuno ku, Osaka 544, Japan

CHEM PHARM BULL TOKYO 1987 35 (10) 4342

Rheological studies of a suspension of water-insoluble glucan produced by *Streptococcus mutans*

Narui T, Takahashi K, Shibata S//Meiji Coll Pharm, Nozawa 1-35-23, Setagaya ku, Tokyo 154, Japan

CARBOHYD RES 1987 168 (1) 151

Acetolysis of alpha-glucans in the presence of 1,1,3,3,-tetramethylurea

Ohno N, Kurachi K, Yadomae T//Tokyo Coll Pharm, Hachioji, Tokyo 19203, Japan

J PHARMACOBIO-DYNAM 1987 10 (9) 478

Antitumor activity of a highly branched (1-3)-beta-D-glucan, SSG, obtained from *Sclerotinia sclerotiorum* IFO9395

Ohno N, Shinohara H, Yadomae T//Tokyo Coll Pharm, Immunopharmacol Microbial Prod Lab, 1432-1 Horinouchi, Hachioji, Tokyo 19203, Japan

CARBOHYD RES 1987 168 (1) 110

Conformation of the (1-3)-beta-D-glucan in the

sclerotia of *Sclerotinia sclerotiorum* IFO 9395 assessed by ¹³C-c.p.-m.a.s. n.m.r. spectroscopy

Arsenio A, Strata A//Univ Parma, Cattedra Sci Alimentaz & Dietet, Serv Malattie Ricambio & Diabetol, I-43100 Parma, Italy

CLIN TRIALS J 1987 24 (4) 312

Hyperlipidaemias in diabetes - therapeutic effects of a parenterally administered glucosaminoglycan: Sulodexide (Vessel Due)

Cumming DA, Shah RN, Krepinsky JJ, Grey AA, Carver JP*//Univ Toronto, Dept Med Genet, Toronto, Ontario, Canada M5S 1A8

BIOCHEMISTRY-USA 1987 26 (21) 6655

Solution conformation of the branch points of N-linked glycans: Synthetic model compounds for tri-antennary and tetra-antennary glycans

Leclercq Y, Sawatzki G, Wieruszkeski JM, Montreuil J, Spik G*//Univ Sci & Tech Lille Flandres Artois, Natl Lab, Chim Biol Lab, F-59655 Villeneuve Dascq, France

BIOCHEM J 1987 247 (3) 571

Primary structure of the glycans from mouse serum and milk transferrins

Messner P, Sleytr UB, Christian R, Schulz G, Unger FM//Agr Univ Vienna, Zentrum Ultrastrukturforsch, A-1180 Vienna, Austria

CARBOHYD RES 1987 168 (2) 211

Isolation and structure determination of diacetamidodideoxyuronic acid-containing glycan chain from the S-layer glycoprotein of *Bacillus stearothermophilus* NRS 2004/3a

Nakajima H, Oshima I, Yashiro M, Yoda K, Yamasaki M, Tamura G//Univ Tokyo, Dept Agr Chem, 1-1-1 Yayoi, Bunkyo ku, Tokyo 113, Japan

AGR BIOL CHEM TOKYO 1987 51 (10) 2679

Novel *Saccharomyces cerevisiae* temperature-sensitive *cyr1* mutant which accumulates glycogen

Richardson RK, Ross-Murphy SB*//Unilever Res Lab, Colworth House, Sharnbrook MK44 1LQ, Beds, England

INT J BIOL MACROMOL 1987 9 (5) 250

Non-linear viscoelasticity of polysaccharide solutions. 1: Guar galactomannan solutions

Mann B//Colgate Palmolive Co, Div Res & Dev, 909 River Rd, Piscataway, NJ 08854, USA

J CHROMATOGR 1987 407 (Oct) 369

Identification of carbohydrate gums in dental cream by thin-layer chromatography

Grant D, Long WF, Williamson FB//Univ

- Aberdeen, Marischal Coll, Dept Biochem, Aberdeen AB9 1AS, Scotland
MED HYPOTHESES 1987 24 (2) 131
 A model of two conformational forms of heparins/heparans suggested by infrared spectroscopy
- Dais P, Peng Q-J, Perlin AS//Univ Crete, Dept Chem, GR-71110 Iraklion, Greece
CARBOHYD RES 1987 168 (2) 163
 A relationship between ^{13}C -chemical-shift displacements and counterion-condensation theory, in the binding of calcium ion by heparin
- Leardini G, Franceschini M, Mattara L, Bruno R, Perbellini A//Osped Al Mare, Div Rheumatol, Venezia Lido, Italy
CLIN TRIALS J 1987 24 (4) 341
 Intra-articular sodium hyaluronate (Hyalgan) in gonarthrosis: a controlled study comparing methylprednisolone acetate
- Bragantini A, Cassini M, De Bastiani G, Perbellini A//Univ Verona, Ortoped & Traumatol Clin, I-37100 Verona, Italy
CLIN TRIALS J 1987 24 (4) 333
 Controlled single-blind trial of intra-articularly injected hyaluronic acid (Hyalgan) in osteoarthritis of the knee
- Fuchs A//Agr Univ Wageningen, TNO, Phytopathol Lab, 6700 HB Wageningen, The Netherlands
STARCH 1987 39 (10) 335
 Potentials for non-food utilization of fructose and inulin
- Oiwa H, Naganuma M, Ohnuma S//Godo Shusei Corp, Shimizu Res Inst, Res Assoc Petr Alternat Dev, 2-1 Yokosuna Minamimachi, Shimizu 424, Japan
AGR BIOL CHEM TOKYO 1987 51 (10) 2819
 Acetone-butanol production from dahlia inulin by *Clostridium pasteurianum* var I-53
- Brezny R, Schraml J//Slovak Acad Sci, Inst Chem, CS-84238 Bratislava, Czechoslovakia
HOLZFORSCHUNG 1987 41 (5) 293
 Silicon-29 NMR spectral studies of Kraft lignin and related model compounds
- Cyr N, Laidler JK, Ritchie RGS//Alberta Res Council, Edmonton, Alberta, Canada T6H 5X2
HOLZFORSCHUNG 1987 41 (5) 321
 Steam-exploded aspen lignins: Chemical instability of low molecular weight fractions
- El-Diwani HI, Abott T//Natl Res Ctr, Cairo, Egypt
INDIAN J CHEM SECT B 1987 26 (8) 784
 Reaction of acetylene with the lignin model compound 1-(4-hydroxy-3-methoxyphenyl)glycerol 2-guaiacyl ether under uv irradiation
- Fritz JO, Moore KJ//Univ Illinois, Dept Agron, Urbana, IL 61801, USA
J AGR FOOD CHEM 1987 35 (5) 710
 Separation and quantification of lignin-derived phenolic monomers using high-resolution gas chromatography
- Frolkis AV, Abramson MA, Kislova GD, Levanova VP//Address not available
KLINICH MED 1987 65 (7) 48
 Hypcholesterolemia-inducing agent Polyphepan (lignin) (Russian)
- Gellerstedt G, Robert D//Swedish Pulp & Paper Res Inst, Box 5604, S-11486 Stockholm, Sweden
ACTA CHEM SCAND SER B 1987 41 (7) 541
 Quantitative ^{13}C NMR analysis of Kraft lignins
- Kanazawa K, Morck R, Koyama M, Kringstad KP//Swedish Pulp & Paper Res Inst, Box 5604, S-114 86 Stockholm, Sweden
HOLZFORSCHUNG 1987 41 (5) 299
 Chemical structure of hydrocracked lignin. Characterization of hydrocracked lignin oligomers
- Lundquist K, Stomberg R//Chalmers Univ Technol, Dept Organ Chem, S-41296 Gothenburg, Sweden
ACTA CHEM SCAND SER B 1987 41 (8) 610
 On the stereochemistry of lignin model compounds of the 1,2-diaryl-1,3-propanediol type. The crystal structure of erythro-2-(4-methoxyphenyl)-1-phenyl-1,3-propanediol
- Pellinen J, Jokela J, Salkinoja-Salonen MS//N Carolina State Univ, Sch Forest Resources, Box 8005, Raleigh, NC 27695, USA
HOLZFORSCHUNG 1987 41 (5) 271
 Degradability of different lignins by bacteria
- Shchukin IV, Vasil'ev YB, Kazarinov VE, Babkin VA//AN Frumkin Inst Electrochem, Moscow, USSR
SOV ELECTROCHEM ENGL TR 1987 23 (3) 337
 Electrochemical oxidation and reduction of chemisorbed ligninsulfonic acid species and aromatic compounds simulating lignin
- Shevchenko SM, Semenov SG, Evstigneev EI, Pranovich AV, Gindin VA//SM Kirov Wood

Technol Acad, Leningrad, USSR

ZH ORG KHIM SSSR 1987 23 (9) 1891

Physical and chemical properties, electron structure and reactivity of model para-quinonemethides of lignin (Russian)

Shimada M, Habe T, Higuchi T, Okamoto T, Panijpan B//Kyoto Univ, Wood Res Inst, Uji, Kyoto 611, Japan

HOLZFORSCHUNG 1987 41 (5) 277

Biomietic approach to lignin degradation. II. The mechanism of oxidative C-C bond cleavage reactions of lignin model compounds with natural iron (III) porphyrin chloride as a haem enzyme model system

White RH//US Forest Serv, Forest Prod Lab, Madison, WI 53705, USA

WOOD FIBER SCI 1987 19 (4) 446

Effect of lignin content and extractives on the higher heating value of wood

Kirkpatrick N, Palmer JM//Univ London Imperial Coll Sci & Technol, Dept Pure & Appl Biol, Prince Consort Rd, London SW7 2BB, England

APPL MICROBIOL BIOTECHNOL 1987 27 (2) 129

Semi-continuous ligninase production using foam-immobilised *Phanerochaete chrysosporium*

Willershausen H, Jager A, Graf H//Univ Hohenheim, Tech Biochem Lab, D-7000 Stuttgart 70, Fed Rep Ger

J BIOTECHNOL 1987 6 (3) 239

Ligninase production of *Phanerochaete chrysosporium* by immobilization in bioreactors

Simkovic I, Alföldi J, Antal M//Slovak Acad Sci, Inst Chem, CS-84238 Bratislava, Czechoslovakia

J APPL POLYM SCI 1987 34 (6) 2063

New aspects in cationization of lignocellulose materials. VIII. Modification of immitted spruce wood with quarternary ammonium groups

Ilnicka-Olejniczak O, Czajkowska D, Targonski Z//Inst Fermentat Ind, Dept Tech Microbiol & Biochem, Rakowiecka 36, PL-02532 Warsaw, Poland

ACTA BIOTECHNOL 1987 7 (4) 315

Protein biosynthesis from ligno-cellulosic raw materials (German)

Banoub JH, Ramaswamy P, Bal K*//Mem Univ Newfoundland, Dept Biol, St Johns, Newfoundland, Canada A1B 3X9

FEMS MICROBIOL LETT 1987 44 (2) 235

Induction media-induced changes in the sugar

composition of lipopolysaccharide extracted from isolated outer membrane of *Bradyrhizobium* sp. 32H1

Sato H, Ito M, Abe T, Kumano N, Motomiya M, Konno K//Tohoku Univ, TB & Cancer Res Inst, Dept Internal Med, Sendai, Miyagi 980, Japan

TOHOKU J EXP MED 1987 153 (2) 151

Antitumor activity of cyclophosphamide and lipopolysaccharide in tumor-bearing mice pretreated with BCG

Taylor HR, Prendergast RA//Johns Hopkins Univ Hosp, Sch Med, Wilmer Inst, Baltimore, Md 21205, USA

INVEST OPHTHALMOL VISUAL SCI 1987 28 (10) 1722

Attempted oral immunization with chlamydial lipopolysaccharide subunit vaccine

Chanzy H, Perez S, Miller DP, Paradossi G, Winter WT//Univ Sci Technol & Med Grenoble, Ctr Rech Macromolec Vegetales, CNRS, BP 68, F-38402 St Martin d'Heres, France

MACROMOLECULES 1987 20 (10) 2407

An electron diffraction study of mannan I. Crystal and molecular structure

Kusakabe I, Zama M, Park GG, Tubahi K, Murakami K//Univ Tsukuba, Inst Appl Biochem, Sakura, Ibaraki 305, Japan

AGR BIOL CHEM TOKYO 1987 51 (10) 2825

Preparation of beta-1,4-mannobiose from white copra meal by a mannanase from *Penicillium purpurogenum*

King K//Dept Agr No Ireland, Div Agr & Food Chem Res, Belfast, North Ireland

FOOD CHEM 1987 26 (2) 109

Method for rapid extraction of pectic substances from plant materials

Saulnier L, Thibault JF//INRA, Inst Prod Vigne, Polymer Tech Physicochim Lab, 9 Pl Viala, F-34060 Montpellier, France

CARBOHYD POLYM 1987 7 (5) 329

Extraction and characterization of pectic substances from pulp of grape berries

Saulnier L, Thibault JF//INRA, Inst Prod Vigne, Polymer Tech Physicochim Lab, 9 Pl Viala, F-34060 Montpellier, France

CARBOHYD POLYM 1987 7 (5) 345

Enzymic degradation of isolated pectic substances and cell wall from pulp of grape berries

Dudkin MS, Ozolina SA, Yakovleva VA/MV
Lomonosov Food Ind Technol Inst, Odessa, Ukraine, USSR

KHIM PRIR SOEDIN SSSR 1987 (4) 499

Pectin substances of stems and fruit shells of *Fagopyrum sagittatum* (Russian)

Tanabe H, Kobayashi Y//Govt Ind Res Inst, 2-3-3 Hananomiya, Shiko ku, Takamatsu 761, Japan

AGR BIOL CHEM TOKYO 1987 51 (10) 2845
Plant-tissue maceration caused by pectinolytic enzymes from *Erwinia* spp under alkaline conditions

Pifferi PG, Preziuso M//Dipartimento Chim Ind & Mat, V Risorgimento 4, I-40136 Bologna, Italy

LEBENS-M-WISS-TECHNOL 1987 20 (3) 137
Immobilization of endo-polygalacturonase on gamma alumina for the treatment of fruit juices

Crockett TD, Webb AA, Borchardt LG, Easty DB**/Inst Paper Chem, Div Chem Sci, POB 1039, Appleton WI 54912, USA

J CHROMATOGR 1987 407 (OCT) 330
Identification of polymers in paper by pyrolysis gas chromatography. Reduction of paper interference by prepolyolysis

Acharya IL, Robbins JB* et al//NICHHD Dev & Molec Immunol Lab, Bldg 6, Rm 145, Bethesda, Md 20892, USA

N ENGL J MED 1987 317 (18) 1101
Prevention of typhoid fever in Nepal with the Vi capsular polysaccharide of *Salmonella* typhi: A preliminary report

Annisson G, Dutton GGS, Altman E//Univ British Columbia, Dept Chem, 2036 Main Mall, Vancouver, BC, Canada V6T 1Y6

CARBOHYD RES 1987 168 (1) 89
Structure of capsular polysaccharide of *Escherichia coli* O9:K32(A):H19

Bobyleva GV, Kuvakina VI, Valerius II//GHN Gabrichevsky Epidemiol & Microbiol Res Inst, Moscow, USSR

ANTIBIOT MED BIOTEK 1987 32 (10) 758
Estimation of efficacy of meningococcal polysaccharide vaccines of group-A and group-C by molecular parameters (Russian)

Brillouet JM//INRA, Inst Prod Vigne, Polymeres & Tech Physicochim Lab, 9 Pl Viala, F-34060 Montpellier, France

BIOCHIMIE 1987 69 (6-7) 713
A study of pectic polysaccharides in musts from various mature grapes grown in the Pech Rouge experimental vineyards

Gunnarsson A//Univ Lund, Dept Carbohydrate Chem, Solvegatan 41-111, S-22370 Lund, Sweden

GLYCOCONJUGATE J 1987 4 (3) 239
N- and O-alkylation of glycoconjugates and polysaccharides by solid base in dimethyl sulphoxide/alkyl iodide

Jansson PE, Kenne L, Wehler T//Univ Stockholm, Arrhenius Lab, Dept Organ Chem, S-10691 Stockholm, Sweden

CARBOHYD RES 1987 166 (2) 271
A 2D-¹H-n.m.r. study of some *Shigella flexneri* O-polysaccharides

Jansson PE, Kenne L, Widmalm G//Univ Stockholm, Arrhenius Lab, Dept Organ Chem, S-10691 Stockholm, Sweden

CARBOHYD RES 1987 168 (1) 67
CASPER - a computerised approach to structure determination of polysaccharides using information from n.m.r. spectroscopy and simple chemical analyses

Karsakevich AS, Kinstler OB, Vina IA, Kashkin AP, Putilova NE, Merengova LF//A Kirkhenshtein Microbiol Inst, Riga, Latvia, USSR

KHIM PRIR SOEDIN SSSR 1987 (4) 581
Immobilization of a ferment of L-asparaginase of *E coli* on polysaccharides. 5. Preparation and properties of polymer conjugates based on water-soluble km-cellulose with different numerical polymer

Kiho T, Ito M, Nagai K, Hara C, Ukai S**/Gifu Coll Pharm, 6-1 Mitahora Higashi 5 chome, Gifu 502, Japan

CHEM PHARM BULL TOKYO 1987 35 (10) 4286

Polysaccharides in fungi. XX. Structure and antitumor activity of a branched (1-3)-beta-D-glucan from alkaline extract of *yu er*

Knirel YA, Kochetkov NK//ND Zelinsky Inst Organ Chem, Leninsky Prospect 47, Moscow 334, USSR

FEMS MICROBIOL REV 1987 46 (4) 381
2,3-diamino-2,3-dideoxyuronic and 5,7-diamino-3,5,7,9-tetradeoxynonulosonic acids: new components of bacterial polysaccharides

Llauberes RM, Dubourdieu D, Villettaz JC//Univ Bordeaux 2, Inst Oenol, 351 Cours Libérat, F-33405, Talence, France

J SCI FOOD AGR 1987 41 (3) 277
Exocellular polysaccharides from *Saccharomyces* in wine

Mathur NK, Narang CK, Sharma K,

- Mehra A//Univ Jodhpur, Dept Chem, Jodhpur 342001, Rajasthan, India
 REACT POLYM ION EXCH SORBENTS 1987 6 (2-3)
 Polysaccharides and functional polysaccharides - Preparation and applications
- Matsushashi T, Katsumata T//Nagano State Lab Food Technol, Nagano 380, Japan
 NIPPON SUISAN GAKKAISHI 1987 53 (9) 1593
 Gelling properties of mucilaginous polysaccharides extracted from *Eucheuma gelatinae* of Okinawa (Japanese)
- Nechiporenko IA, Orlova EI//VI Lenin Polytech Inst, Kharkov, Ukraine, USSR
 KHIM-FARM ZH SSSR 1987 21 (9) 1121
 Kinetics of polysaccharide extraction from the plantain (Russian)
- Roberts EJ, Godshall MA, Clarke MA, Tsang WSC, Parrish FW//USDA ARS, So Reg Res Ctr, Sugar Proc Res Inc, 1100 Robert E Lee Blvd, New Orleans, La 70124, USA
 CARBOHYD RES 1987 168 (1) 103
 Methanolysis of polysaccharides: a new method
- Toba T, Arihara K, Adachi S//Tohoku Univ, Fac Agr, Anim Prod Technol Lab, Sendai, Miyagi 980, Japan
 MILCHWISSENSCHAFT 1987 42 (9) 565
 Comparative study of polysaccharides from kefir grains, an encapsulated homofermentative *Lactobacillus* species and *Lactobacillus kefir*
- Tokaev ES, Gurov AN, Rogov IA, Tolstoguzov VB//Moscow Meat & Dairy Ind Technol Inst, Ul Talalikhina 33, Moscow, USSR
 NAHRUNG 1987 31 (8) 825
 Properties of oil/water emulsions stabilized by casein-acid polysaccharide mixtures
- Zehavi U//Hebrew Univ Jerusalem, Fac Agr, Dept Biochem & Human Nutr, POB 12, IL-76100 Rehovot Israel
 REACT POLYM ION EXCH SORBENTS 1987 6 (2-3) 189
 Polymers as supports for enzymic oligosaccharide and polysaccharide synthesis
- Lau JM, McNeil M, Darvill AG, Albersheim P*//Russell Lab, Ctr Carbohydrate, POB 5677, Athens, Ga 30613, USA
 CARBOHYD RES 1987 168 (2) 245
 Treatment of rhamnogalacturonan I with lithium in ethylenediamine
- Bachman S, Witkowski S, Pietka M//Tech Univ Todz, Inst Appl Radiat Chem, PL-93580 Lodz, Poland
 J RADIOANAL NUCL CHEM LETT 1987 118 (3) 185
 Effect of ^{60}Co radiation on some chemical changes in potato starch pastes and gels
- Baillie AJ, Coombs GH, Dolan TF, Hunter CA, Laakso T, Sjöholm I, Stjärnkvist P//Univ Strathclyde, Dept Pharm, Glasgow G1 1XW, Scotland
 J PHARM PHARMACOL 1987 39 (10) 832
 Biodegradable microspheres: polyacryl starch microparticles as a delivery system for the antileishmanial drug, sodium stibogluconate
- Bos CE, Bolhuis GK, van Doorne H, Lerk CF//State Univ Groningen, Pharmaceut Technol & Dispensing Lab, Ant Deusinglaan 2, 9713 AW Groningen, The Netherlands
 PHARMACEUT WEEKL-SCI ED 1987 9 (5) 274
 Native starch in tablet formulations: properties on compaction
- Fanta GF, Burr RC, Doane WM//USDA ARS, No Reg Res Ctr, 1815 N Univ St, Peoria, IL 61604, USA
 STARCH 1987 39 (9) 322
 Absorbents from saponified starch-g-poly(acrylonitrile-co-2-acrylamido-2-methylpropanesulfonic acid). Some practical considerations
- Flowerdew ADS, Richards HK, Taylor I//Univ Southampton, Southampton Gen Hosp, Surg Unit, Level F, Ctr Block, Tremona Rd, Southampton SO9 14XY
 GUT 1987 28 (10) 1201
 Temporary blood flow stasis with degradable starch microspheres
- Giacometto AP, Wosiacki G, Cereda MP//Fdn Univ Estadual Maringa, Ctr Ciencias Exatas, Dept Quim, Caixa Postal 331, BR-87100 Maringa, Brazil
 ARQ BIOL TECNOL 1987 30 (3) 463
 Cara-de-rana meal (*Discorea bulbifera* L.). 3. Rheological properties of the pastes from its starch (Portuguese)
- Hartmann A, Tsuda Y, Lagreze H//Univ Bonn, Neurol Klin, Sigmund Freud Str 25, D-5300 Bonn, Fed Rep Ger
 J NEUROL 1987 235 (1) 34
 Effect of hypervolaemic haemodilution on regional cerebral blood flow in patients with acute ischaemic stroke: a controlled study with

hydroxyethylstarch

He G, Suzuki H//Kagawa Univ, Fac Agr, Miki, Kagawa 76107, Japan

J NUTR SCI VITAMINOL 1987 33 (4) 263

The relationship between translucency of rice grain and gelatinization of starch in the grain during cooking

Higazy A, Bayazeed A, Hebeish A//Natl Res Ctr, Div Text Res, Cairo, Egypt

STARCH 1987 39 (9) 319

Synthesis and applications of reactive carbohydrates. Part II: Graft polymerization of starch and hydrolyzed starches with acrylamide

Imberty A, Chanzy H, Perez S, Buleon A, Tran V//Univ Sci Technol & Med Grenoble, Ctr Rech Macromolec Vegetales, CNRS, BP 68, F-38402 St Martin d'Heres, France

MACROMOLECULES 1987 20 (10) 2634

New three-dimensional structure for A-type starch (Communication to the editor)

Juliano BO, Villareal RM//POB 933, Manila, Philippines

STARCH 1987 39 (9) 298

Varietal differences in physicochemical properties of waxy rice starch

Kaplan K, Adams S//No address available

AGR RES 1987 35 (9) 11

New uses for starch from surplus corn

Khalil MI, Bayazeed A, Farag S, Hebeish A//Natl Res Ctr, Div Text Res, Cairo, Egypt

STARCH 1987 39 (9) 311

Chemical modification of starch via reaction with acrylamide

Komiya T, Yamada T, Nara S//Mie Univ, Fac Agr, Dept Agr Chem, Tsu, Mie 154, Japan

STARCH 1987 39 (9) 308

Crystallinity of acid treated corn starch

Lee GM, Kim CH, Abidin Z, Han MH, Rhee SK//Korea Adv Inst Sci & Technol, Genet Engr Res Ctr, Biochem Proc Lab, POB 131, Seoul 131, South Korea

J FERMENT TECHNOL 1987 65 (5) 531

Continuous ethanol production from sago starch using immobilized amyloglucosidase and *Zymomonas*

Lelievre J, Lorenz K, Meredith P, Baruch DW//Massey Univ, Dept Food Technol, Palmerston North, New Zealand

STARCH 1987 39 (10) 347

Effects of starch particle size and protein on breadmaking performance

Ma WP, Robyt JF*//Iowa State Univ Sci & Technol, Dept Biochem & Biophys, Ames, Ia 50011, USA

CARBOHYD RES 1987 166 (2) 283

Preparation and characterization of soluble starches having different molecular sizes and composition, by acid hydrolysis in different alcohols

Nakano M, Nakazono N, Inotsume N//Kumamoto Univ Hosp, Dept Pharmaceut Serv, 1-1-1 Honjo, Kumamoto 860, Japan

CHEM PHARM BULL TOKYO 1987 35 (10) 4346

Preparation and evaluation of sustained-release tablets prepared with alpha-starch

Palasinski M, Fortuna T, Gambus H, Nowotna A//Acad Agr Cracow, Anstalt Technol Kohlenhydrate, AL Mickiewicza 24-28, PL-30059 Cracow, Poland

STARCH 1987 39 (10) 343

Properties of triticale starch referred to Polish triticale varieties (German)

Richardson SJ, Baianu IC, Steinberg MP//Univ Illinois, Div Foods & Nutrition, 905 S Goodwin Ave, 367 Bevier Hall, Urbana IL 61801, USA

STARCH 1987 39 (9) 302

Mobility of water in starch-sucrose systems determined by deuterium and oxygen-¹⁷ NMR

Sajjan SU, Rao MRR//Cent Food Technol Res Inst, Discipline Biochem & Appl Nutr, Mysore 570013, Karnataka, India

CARBOHYD POLYM 1987 7 (5) 395

Effect of hydrocolloids on the rheological properties of wheat starch

Sandle NK, Singh OP, Varma IK//Indian Inst Technol, Dept Chem, New Delhi 110016, India

ANGEW MAKROMOL CHEM 1987 154 (SEPT) 87

Graft copolymerization of starch with alkylene methacrylates

Scheffler P, Jung F*, Mrowietz C, Waldhausen P, Leipnitz G, Hauser B//Univ Saarland, Klin Haemostaseol & Transfus Med Abt, D-6650 Homburg, Fed Rep Ger

INFUSION KLIN ERNAHR 1987 14 (5) 233

Hemorheological, micro- and macrocirculatory effects of a hypervolemic infusion of middle-molecular hydroxyethyl starch (10%, 200000/0.62) with healthy subjects (German)

Starkhammar H, Hakansson L, Sjobahl R, Svedberg J, Ekberg S//Linkoping Univ Hosp, Dept Oncol, S-58185 Linkoping, Sweden

ACTA ONCOL 1987 26 (3) 217

Effect of portal blood flow and intra-arterially injected starch microspheres on the passage of a labelled tracer through the liver - An experimental study in pigs

Straathof AJJ, Romein J, van Rantwijk F, Kieboom APG, van Bekkum H//Delft Univ Technol, Organ Chem Lab, Julianalaan 136, 2628 BL Delft, The Netherlands

STARCH 1987 39 (10) 362

Preparation of long-chain alkyl D-glucosides by alcoholysis of 1,2:5,6-di-O-isopropylidene-alpha-D-glucofuranose

Wiedmann W//Werner & Pfeleiderer GmbH, Dept Proc Engn, Theodorstr 10, D-7000 Stuttgart 31, Fed Rep Ger

STARCH 1987 39 (10) 352

Extrusion cooking of starches for semi-products

Callet F, Milas M, Rinaudo M//Univ Sci Technol & Med Grenoble, CNRS, Ctr Rech Macromolec Vegetales, BP 6838402, St Martin d'Heres, France

INT J BIOL MACROMOL 1987 9 (5) 291

Influence of acetyl and pyruvate contents on rheological properties of xanthan in dilute solution

Funahashi H, Yoshida T, Taguchi H//Osaka Univ, Fac Engn, Dept Fermentat Technol, 2-1 Yamada Oka, Suita, Osaka 565, Japan

FERMENT TECHNOL 1987 65 (5) 603

Effect of glucose concentration on xanthan gum production by *Xanthomonas campestris*

Richardson RK, Ross-Murphy SB//Unilever Res Lab, Colworth House, Sharnbrook MK44 1LQ, Beds, England

INT J BIOL MACROMOL 1987 9 (5) 257

Non-linear viscoelasticity of polysaccharide solutions. 2: Xanthan

Gowda DC, Sarathy C//NYU Med Ctr, Dept Pharmacol, 550 1st Ave, New York, NY 10016, USA

CARBOHYD RES 1987 166 (2) 263

Structure of an L-arabino-D-xylan from the bark of *Cinnamomum zeylanicum*

Pou-Llinas J, Driguez H//Sci Technol & Med Univ Grenoble, Ctr Rech Macromolec Vegetales, CNRS, BP 68, F-38402 St Martin d'Heres, France

APPL MICROBIOL BIOTECHNOL 1987 27

(2) 134

D-xylose as inducer of the xylan-degrading enzyme system in the yeast *Pullularia pullulans*

Sengupta S, Khowala S, Goswami PK//Indian Inst Chem Biol, 4 Raja SC Mullick Rd, Calcutta 700032, W Bengal, India

CARBOHYD RES 1987 168 (1) 156

Assay of endo-beta-D-xylanase with a soluble O-(carboxymethyl) derivative of larch wood D-xylan