

BIBLIOGRAPHY ON CARBOHYDRATE POLYMERS

1 Books, Reviews and Symposia

Lough WJ (Ed)

Chiral Liquid Chromatography

Blackie and Son Ltd (Glasgow), ISBN: 0-216-92499-5, Routledge Chapman & Hall Inc (New York), ISBN: 0-412-01741-5, 1989, 276pp, \$112.00/Can \$134.50, Hardbound

Includes chapters on: Cyclodextrin inclusion complexation (Coventry L); Binding to cellulose derivatives (Johns DM)

Baird RJ/Toronto Gen Hosp, 12NU117, Toronto, Ontario, Canada M5G 2C4

J VASC SURG 1990, 11 (1) 4

Presidential address: Give us the tools... - The story of heparin - As told by sketches from the lives of William Howell, Jay McLean, Charles Best and Gordy Murray

2 Cellulose

Nefzi A, Baux S, Mimoun M/Hop Rothschild, Serv Chirurg Plast, 33 Bd Picpus, F-75571 Paris 12, France

ANN CHIR PLAST ESTHET 1989, 34 (6) 527

Use of a sodium carboxymethylcellulose dressing (Comfeel^(R)) in the topical treatment of burns (French, English Abstract)

Schnabelrauch M, Geschwend G, Klemm D//Univ Jena, Sect Chem, Humboldtstr 10, DDR-6900 Jena, Ger Dem Rep

J APPL POLYM SCI 1990, 39 (3) 621

Synthesis of bioactive 2,2-dichloropropionic acid esters of carboxymethyl cellulose and investigations on their release behavior

Agbonlahor FO, Ejike EN, Gbinije A, Okieimen FE*, Otaigbe JU//*Univ Benin, Dept Chem, Benin City, Nigeria

ACTA POLYM 1989, 40 (12) 723

Graft copolymerization of acrylonitrile onto modified cellulosic material

Arai K, Kobayashi K//Japan Atom Energy Res Inst, Oarai, Ibaraki 31113, Japan

MAKROMOL CHEM-RAP COMM 1989, 10 (12) 649

Photoregulation of swelling ability of thymine moiety containing cellulose

Babar A, Solanki UD, Cutie AJ, Plakogiannis F//Long Isl Univ, Arnold & Marie Schwartz Coll Pharm & Allied Hlth Sci, Brooklyn, NY 11201, USA

DRUG DEVELOP IND PHARM 1990, 16 (3) 523

Piroxicam release from dermatological bases: In vitro studies using cellulose membrane and hairless mouse skin

Bromberg LE, El'tsefon BS//All Union Med Polymer Res Inst, Moscow, USSR

COLLOID J USSR-ENGL TR 1989, 51 (3) 477

Mechanism of water transport through hydrated cellulose membranes

Dimitrijevic SD, Tatarko M, Gracy RW, Linsky CB, Olsen C//Univ N Texas, Texas Coll Osteopath Med, Dept Biochem, Tissue Repair Unit, Ft Worth, Tx 76107, USA

CARBOHYD RES 1990, 195 (2) 247

Biodegradation of oxidized regenerated cellulose

Martel P, Gould JM//Atom Energy Canada Ltd, Chalk River Nucl Labs, Chalk River, Ontario, Canada K0J 1J0

J APPL POLYM SCI 1990, 39 (3) 707

Cellulose stability and delignification after alkaline hydrogen peroxide treatment of straw

Meluch TB, Lloyd DR//Univ Texas, Dept Chem Engn, Ctr Polymer Res, Separat Res Program, Austin, Tx 78712, USA

J LIQ CHROMATOGR 1989, 12 (15) 2971

Effect of solute structure on solute distribution in water-alcohol-cellulose acetate systems

Munro HS, Short RD//Univ Durham, Dept

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 ten sections: 1 Books, Reviews and Symposia; 2 Cellulose; 3 Cellulose-degrading Enzymes; 4 Cyclodextrins; 5 Lignin; 6 Polysaccharides - Named; 7 Polysaccharides - Other; 8 Lipopolysaccharides; 9 Starch; 10 Starch-degrading Enzymes. Within each section, articles are listed in alphabetical order with respect to the subject. When there are no publications to appear under one of these headings, that section will be omitted.

Chem, South Rd, Durham DH1 3LE, England
J APPL POLYM SCI 1990, 39 (3) 539

A study of the low temperature nitration of cellulose in mixed acids

Ott G, Schempp W, Krause T//TH Darmstadt, Inst Makromolek Chem, Cellulose & Papierchem Abt, Alexanderstr 24, D-6100 Darmstadt, Fed Rep Ger

ANGEW MAKROMOL CHEM 1989, 173 (DEC) 213

Cationisation of cellulose under homogeneous reaction conditions

Paakkari T, Serimaa R, Fink HP//Univ Helsinki, Dept Phys, Siltavuorenpenger 20 D, SF-00170 Helsinki 17, Finland

ACTA POLYM 1989, 40 (12) 731

Structure of amorphous cellulose

Sidorova MP, Savina IA, Ermakova LE//AA Zhdanov State Univ, Leningrad B-164, USSR

COLLOID J USSR-ENGL TR 1989, 51 (3) 449

Features of filtration of an electrolyte through weakly charged cellulose acetate membranes

So S, Teh JW, Rudin A*, Tchir WJ, Fyfe CA// *Univ Waterloo, Inst Polymer Res, Dept Chem, Waterloo, Ontario, Canada N2L 3G1

J APPL POLYM SCI 1990, 39 (3) 531

Effects of resol phenol adhesives on the crystallinity of cellulose

Soubelet O, Presta MA, Marz-Figini M*// *Natl Univ la Plata, Fac Ciencias Exactas, Inst Nacl Invest Fis Teor & Aplicadas, Div Polymer, RA-1900 La Plata, Argentina

MAKROMOL CHEM-MACRO CHEM PHYS 1989, 190 (12) 3251

On the distribution of the degree of polymerization occurring in the third kinetic stage of dilute-acid-catalyzed degradation of cellulose

Yoon KS, Lee CM//Univ Rhode Isl, Dept Food Sci & Nutr, Kingston, RI 02881, USA

J FOOD SCI 1990, 55 (1) 87

Effect of powdered cellulose on the texture and freeze-thaw stability of surimi-based shellfish analog products

Arwidsson H, Nicklasson M//Astra Lakemedel AB, S-15185 Sodertalje, Sweden

INT J PHARM 1990, 58 (1) 73

Application of intrinsic viscosity and interaction

constant as a formulation tool for film coating. 2. Studies on different grades of ethyl cellulose in organic solvent systems

Khan AW, Lamb KA, Overend RP//Natl Res Council Canada, Div Biol Sci, Ottawa, Ontario, Canada K1A 0R6

ENZYME MICROB TECHNOL 1990, 12 (2) 127

Comparison of natural hemicellulose and chemically acetylated xylan as substrates for the determination of acetyl-xylan esterase activity in aspergilli

Tanaka R, Meadows J, Phillips GO, Williams PA*//NE Wales Inst, Connah's Quay, Clwyd CH5 4BR, Wales

CARBOHYD POLYM 1990, 12 (4) 443

Viscometric and spectroscopic studies on the solution behaviour of hydrophobically modified cellulosic polymers

Breijo FJ, Yufera EP//Ceu San Pablo, Dept Microbiol, Moncada, Spain

REV AGROQUIM TECNOL ALIMENT 1989, 29 (4) 501

Alcohol from biomass. III. Hydrolysis of the lignocellulosic fraction obtained from agricultural wastes and sorghum harvest (Spanish, English Abstract)

Dekker RFH//CSIRO, Div Biotechnol, Private Bag 10, Clayton, Vic 3168, Australia

APPL BIOCHEM BIOTECHNOL 1990, 23 (1) 25

Application of a magnetic immobilized beta-glucosidase in the enzymatic saccharification of steam-exploded lignocellulosic residues

Mishra C, Leatham, GF*// *Univ Wisconsin, Dept Bot, Madison, WI 53706, USA

J FERMENT BIOENG 1990, 69 (1) 8

Recovery and fractionation of the extracellular degradative enzymes from *Lentinula edodes* cultures cultivated on a solid lignocellulosic substrate

Szende B, Jeney A, Lapis K//Simmelweis Univ Med, Inst Pathol & Exptl Canc Res, H-1085 Budapest 8, Hungary

J TOXICOL ENVIRON HLTH 1990, 29 (1) 59

Methylcellulose prevents the regression of carbon tetrachloride-induced liver fibrosis and cirrhosis in rats

3 Cellulose-degrading Enzymes

Okoshi H, Ozaki K, Shikata S, Oshino K, Kawai S, Ito S**Kao Corp, Tochigi Res Labs, 2606 Akbane, Haga, Tochigi 32134, Japan

AGR BIOL CHEM TOKYO 1990, 54 (1) 83

Purification and characterization of multiple carboxymethyl cellulases from *Bacillus* sp KSM-522

Bagga PS, Sandhu DK*, Sharma S/**Guru Nanak Dev Engn Coll, Sch Life Sci, Microbiol Unit, Amritsar 143005, Punjab, India

J APPL BACTERIOL 1990, 68 (1) 61

Purification and characterization of cellulolytic enzymes produced by *Aspergillus nidulans*

Shikata S, Saeki K, Okoshi H, Yoshimatsu T, Ozaki K, Kawai S, Ito S**Kao Corp, Tochigi Res Labs, 2606 Akabane, Haga, Tochigi 32134, Japan

AGR BIOL CHEM TOKYO 1990, 54 (1) 91

Alkaline cellulases for laundry detergents: Production by alkalophilic strains of *Bacillus* and some properties of the crude enzymes

Zazdi MT, Woodward JR*, Radford A/**Univ Leeds, Biotechnol Unit, Leeds LS2 9JT, W Yorkshire, England

ENZYME MICROB TECHNOL 1990, 12 (2) 116

Cellulase production by *Neurospora crassa*: The enzymes of the complex and their regulation

Zazdi MT, Radford A, Keen JN, Woodward JR**Univ Leeds, Biotechnol Unit, Leeds LS2 9JT, W Yorkshire, England

ENZYME MICROB TECHNOL 1990, 12 (2) 120

Cellulase production by *Neurospora crassa*: Purification and characterization of cellulolytic enzymes

Paul J, Varma AK**Jawaharlal Nehru Univ, Sch Life Sci, Microbiol Unit, New Delhi 110067, India

BIOTECHNOL LETT 1990, 12 (1) 61

Influence of sugars on endoglucanase and beta-xylanase activities of a *Bacillus* strain

Sharma P, Gupta JK, Vadehra DV, Dube DK//Punjab Univ, Dept Microbiol, Chandigarh 160014, India

ENZYME MICROB TECHNOL 1990, 12 (2) 132

Purification and properties of an endoglucanase from a *Bacillus* isolate

4 Cyclodextrins

Armstrong DW, Bertrand GL, Ward KD, Ward TJ, Secor HV, Seeman JI//Univ Missouri, Dept Chem, Rolla, Mo 65401, USA

ANAL CHEM 1990, 62 (4) 332

Evaluation of the effect of organic modifier and pH on retention and selectivity in reversed-phase liquid chromatographic separation of alkaloids on a cyclodextrin bonded phase

Bar R//Hebrew Univ Jerusalem, Hadassah Med Sch, Dept Appl Microbiol, Biochem Engn Lab, POB 1172, IL-91010 Jerusalem, Israel

APPL MICROBIOL BIOTECHNOL 1990, 32 (4) 470

A new cyclodextrin-agar medium for surface cultivation of microbes on lipophilic substrates

Chung W-S, Turro NJ*, Silver J, Le Noble WJ// *Columbia Univ, Dept Chem, New York, NY 10027, USA

J AMER CHEM SOC 1990, 112 (3) 1202

Modification of face selectivity by inclusion in cyclodextrins

Fujita K, Tahara T, Yamamura H, Imoto T, Koga T, Fujioka T, Mihashi K//Fukuyama Univ, Fac Pharmaceut Sci, Higashimura cho, Fukuyama 72902, Japan

J ORG CHEM 1990, 55 (3) 877

Specific preparation and structure determination of 3^A,3^C,3^E-tri-O-sulfonyl-beta-cyclodextrin

Hassan MA, Suleiman MS, Najib NM//Jordan Univ Sci & Technol, Fac Pharm, Dept Med Chem, Irbid, Jordan

INT J PHARM 1990, 58 (1) 19

Improvement of the in vitro dissolution characteristics of Famotidine by inclusion in beta-cyclodextrin

Hirsch W, Choy CK, Ng KW, Fried V//CUNY Brooklyn Coll, Dept Chem, Brooklyn, NY 11210, USA

ANAL LETT 1989, 22 (13-14) 2861

Determination of cyclodextrin-guest association constants by competition with indicator dyes

Horiuchi Y, Hirayama F, Uekama K**Kumamoto Univ, Fac Pharmaceut Sci, 5-1 Oe Honmachi, Kumamoto 862, Japan

J PHARM SCI 1990, 79 (2) 128

Slow-release characteristics of Diltiazem from ethylated beta-cyclodextrin complexes

König WA, Krebber R, Wenz G//Univ Hamburg, Inst Organ Chem, Martin Luther King Pl 6, D-2000 Hamburg 13, Fed Rep Ger
HRC-J HIGH RES CHROMATOGR 1989, 12 (10) 641

Enantioselective capillary gas chromatography on the basis of host-guest interactions with modified cyclodextrins

Miyajima K, Komatsu H*, Inoue K, Handa T, Nakagaki M//*Kyoto Univ, Fac Pharmaceut Sci, Yoshida Shimoadachi cho, Sakyo ku, Kyoto 606, Japan

BULL CHEM SOC JPN 1990, 63 (1) 6

The protective effects of cyclodextrins against the oxidation of methyl orange by singlet oxygen

Nelson G, Warner IM//*Emory Univ, Dept Chem, Atlanta, Ga 30322, USA

J PHYS CHEM 1990, 94 (2) 576

Fluorescence quenching studies of cyclodextrin complexes of pyrene and naphthalene in the presence of alcohols

Niino H, Miyasaka H, Ouchi A, Kawabata Y, Yabe A, Miyasaka T, Tagaki W, Nakahara H, Fukuda K//Nat'l Chem Lab Ind, Tsukuba, Ibaraki 305, Japan

THIN SOLID FILMS 1989, 179 (NOV) 53

Photopolymerization in a Langmuir-Blodgett film of an amphiphilic cyclodextrin derivative containing a diacetylene group

Paduano L, Sartorio R, Vitagliano V, Costantino L//Naples Univ, Dipartimento Chim, via Mezzocannone 4, I-80134 Naples, Italy

J SOLUT CHEM 1990, 19 (1) 31

Diffusion properties of cyclodextrins in aqueous solution at 25°C

Puglisi G, Santagati NA, Pignatello R, Ventura FA, Mangiafico S, Mazzone G//Univ Catania, Ist Chim Farmaceut & Tossicol, Viale A Doria 6, I-95125 Catania, Italy

DRUG DEVELOP IND PHARM 1990, 16 (3) 395

Inclusion complexation of 4-biphenylacetic acid with beta-cyclodextrin

Shimizu S, Sasaki Y, Hirai C//Nihon Univ, Coll Ind Technol, Dept Ind Chem, Izumi cho, Nara-

shino, Chiba 275, Japan

BULL CHEM SOC JPN 1990, 63 (1) 176

Inverse phase-transfer catalysis by cyclodextrins. Palladium-catalyzed reduction of bromoanisoles with sodium formate

Szejtli J//Cyclolab, Cyclodextrin Res & Dev Lab, 1026, Budapest, Endrodi S.38/40, Hungary
CARBOHYD POLYM 1990, 12 (4) 375

The cyclodextrins and their applications in biotechnology

Vigh G, Quintero G, Farkas G//Texas A&M Univ Syst, Dept Chem, College St, Tx 77843, USA

J CHROMATOGR 1989, 484 (DEC) 237

Displacement chromatography on cyclodextrin-silicas. I. Separation of positional and geometrical isomers in the reversed-phase mode

Vigh G, Quintero G, Farkas G//Texas A&M Univ Syst, Dept Chem, College St, Tx 77843, USA

J CHROMATOGR 1989, 484 (DEC) 251

Displacement chromatography on cyclodextrin-silicas. II. Separation of cis-trans isomers in the reversed-phase mode on alpha-cyclodextrin-silica

5 Lignin

Arai M, Wakino K, Murao S//Univ Osaka Prefecture, Coll Agr, Dept Agr Chem, Sakai, Osaka 591, Japan

HAKKOKOGAKU KAISHI 1990, 68 (1) 9

Isolation and identification of lignin-modifying microorganism (Japanese, English Abstract)

Glowna E, Fiedler HJ//Tech Univ Dresden, Wissenschaftl Bereich Bodenkunde & Standortslehre, Sekt Fortwirtschaft, DDR-8223 Tharandt, Ger Dem Rep

ARCH ACKER PFLANZ BODENK 1989, 33 (12) 747

The fertilizing effect of nitram lignin as compared with urea and AO lignin

Guillen F, Martinez AT*, Martinez MJ//*CSIC, Ctr Invest Biol, Unidad Microbiol Aplicada, Velazquez 144, E-28006 Madrid, Spain

APPL MICROBIOL BIOTECHNOL 1990, 32 (4) 465

Production of hydrogen peroxide by aryl-alcohol oxidase from the ligninolytic fungus *Pleurotus eryngii*

Jimenez S, Cartagena MC, Arce A//Escuela Tecn Super Ingn Agrin, Dept Chem & Agr Anal, Ciudad Univ, E-28040 Madrid, Spain
BIOMASS 1990, 21 (1) 43

Influence of lignin on the methanization of lignocellulosic wastes

Van Loon WMGM, Pouwels A, Veenendaal P, Boon JJ//FOM, Inst Atom & Molec Phys, Mass Spectrometry Macromolec Syst Unit, Kruislaan 407, 1098 SJ Amsterdam, The Netherlands
INT J ENVIRON ANAL CHEM 1990, 38 (2) 255

Ultrafiltration and pyrolysis gas chromatography mass spectrometry of chlorolignins in pulp mill effluent

Varma KVR, Swaminathan T, Subrahmanyam PVR//Met & Engr Consultants India Ltd, Div Environm Engrn, Ranchi 834002, India
J ENVIRON SCI HEALTH A-SCI E 1989, 24 (8) 847

Studies on copper removal by lignin solution/suspension

Wariishi H, Gold MH*//Oregon Grad Inst Sci & Tech Ctr, Dept Chem & Biol Sci, 19600 NW von Neumann Dr, Beaverton, Or 97006, USA
J BIOL CHEM 1990, 265 (1) 2070

Lignin peroxidase compound III. Mechanism of formation and decomposition

Yang Y, Ladisch MR, Ladisch CM*//Purdue Univ, Dept Agr Engrn & Text Sci, Consumer Sci & Retailing, W Lafayette, In 47907, USA
BIOTECHNOL BIOENG 1990, 35 (3) 268
Alcohol adsorption on softwood lignin from aqueous solutions

6 Polysaccharides - Named

Costello MJ//Fermoy House, POB 14, Cherm-side, Qld 4032, Australia

AUST DENT J 1989, 34 (6) 577

Dental alginates and quality control (Letter)

Gadkari D//Univ Bayreuth, Lehrstuhl Mikrobiol, D-8580 Bayreuth, Fed Rep Ger
SOIL BIOL BIOCHEM 1990, 22 (1) 17

Nitrification in the presence of soil particles, sand, alginate beads and agar strands

Gray CJ, Griffiths AJ, Stevenson DL, Kennedy JF//Res Lab Chem Bioactive Carbohydrates &

Prots, Dept Chem, Univ Birmingham, Birmingham B15 2TT, England

CARBOHYD POLYM 1990, 12 (4) 419

Studies on the chemical stability of propylene glycol alginate esters

Mehmetoglu U//Univ Ankara, Fac Sci, Dept Chem Engrn, Ankara, Turkey

ENZYME MICROB TECHNOL 1990, 12 (2) 124

Effective diffusion coefficient of sucrose in calcium alginate gel

Trout GR, Chen CM, Dale S//Auburn Univ, Alabama Agr Exptl Stn, Dept Anim & Dairy Sci, Auburn, Al 36849, USA

J FOOD SCI 1990, 55 (1) 38

Effect of calcium carbonate and sodium alginate on the textural characteristics, color and color stability of restructured pork chops

Siddiqui IR//Agr Canada, Food Res Ctr, Ottawa, Ontario, Canada K1A 0C6

J AGR FOOD CHEM 1990, 38 (1) 38

Studies on vegetables. Investigation of water, oxalate, and sodium hydroxide soluble celery (*Apium graveolens*) polysaccharides: Celery arabinogalactan

Akhtar N, Haleem MA*//Univ Karachi, Dept Biochem, Biophys Unit, Karachi 32, Pakistan

Z NATURFORSCH SECT B 1990, 45 (1) 87

Studies on the structure of beta-chitin

Bai ZP, Nakamura T, Izutsu K*//Shinshu Univ, Fac Sci, Dept Chem, Matsumoto, Nagano 390, Japan

ELECTROANAL 1990, 2 (1) 75

The determination voltammetric waves of iron-(III)-EDTA at a chitin-containing carbon paste electrode and its analytical application

Forcher B, Beltrame PL, Naggi A, Torri G//Stn Sptl Cellulosa, Carta e Fibre Tessili, Piazza Leonardo da Vinci 26, 20133 Milan, Italy

CARBOHYD POLYM 1990, 12 (4) 405

Alkaline N-deacetylation of chitin enhanced by flash treatments. Reaction kinetics and structure modifications

Magdassi S, Neiroukh Z//Hebrew Univ Jerusalem, Sch Appl Sci & Technol, Casali Inst Appl Chem, IL-91904 Jerusalem, Israel

J DISPER SCI TECH 1990, 11 (1) 69

Chitin particles as O/W emulsion stabilizers

Wittenberg KM, Moshtaghi-Nia SA, Mills PA, Platford RG//Univ Mantiboa, Dept Anim Sci, Winnipeg, Manitoba, Canada R3T 2N2

ANIM FEED SCI TECH 1989, 27 (1-2) 101

Chitin analysis of hay as a means of determining fungal invasion during storage

Lubian LM//CSIC, Inst Ciencias Marinas Andaluca, Poligono Rio San Pedro SN, E-11510 Puerto Real, Spain

AQUACUL ENG 1989, 8 (4) 257

Concentrating cultured marine microalgae with chitosan

Nigalaye AG, Adusumilli P, Bolton S//St Johns Univ, Coll Pharm & Allied Hlth Profess, Jamaica, NY 11439, USA

DRUG DEVELOP IND PHARM 1990, 16 (3) 449

Investigation of prolonged drug release from matrix formulations of chitosan

Udaybaskar P, Iyengar L, Rao AVSP//Indian Inst Technol, Dept Civil Engn, Environm Engn Lab, Kampur 208016, Uttar Pradesh, India

J APPL POLYM SCI 1990, 39 (3) 739

Hexavalent chromium interaction with chitosan

Lass JH, Reinhart WJ, Skelnik DL, Bruner WE, Shockley RP, Park JY, Hom DL, Lindstrom RL//Univ Hosp Cleveland, 2074 Abington Rd, Cleveland, Oh 44106, USA

OPHTHALMOLOGY 1990, 97 (1) 96

An in vitro and clinical comparison of corneal storage with chondroitin sulfate corneal storage medium with and without dextran

Dol F, Petitou M, Lormeau J-C, Choay J, Caranobe C, Sie P, Saivin S, Houin G, Boneu B**// *Ctr Transfus, Hemostat Lab, F-31052 Toulouse, France

J LAB CLIN MED 1990, 115 (1) 43

Pharmacologic properties of a low molecular weight dermatan sulfate: Comparison with unfractionated dermatan sulfate

Inoue Y, Inouye Y, Nagasawa K**//Kitasato Univ, Sch Pharmaceut Sci, 5-9-1 Shirokane, Minato ku, Tokyo 108, Japan

BIOCHEM J 1990, 265 (2) 533

Conformational equilibria of the L-iduronate residue in non-sulphated di, tetra- and hexa-sac-

chardies and their alditols derived from dermatan sulphate

Marra A, Dong X, Petitou M, Sinay P**//Ecole Norm Super, Chim Lab, UA 1110, 24 rue Lhomond, F-75231 Paris 05, France

CARBOHYD RES 1989, 195 (1) 39

Synthesis of disaccharide fragments of dermatan sulfate

Artu F, Phillippon B, Flachaire E, Peyrieux JC, Boissel JP, Ferry S, Beleuze R//Hop Neurol, Unite Reanimat, BP Lyon Montchat, F-69394 Lyons 3, France

INTENS CARE MED 1989, 15 (8) 499

A controlled study of dextran-40 - Effect on cerebral blood flow and metabolic rates in acute head trauma

Esch B, Raptis G//Gosslerstr 1, D-1000 Berlin 33, Fed Rep Ger

Z HAUTKRANKHEITEN HG 1989, 64 (12) 1135

Treatment of decubital ulcer with crilanomer and dextranomer (German, English Abstract)

Fu D, Slodki E, Robyt JF**//Iowa State Univ Sci & Technol, Dept Biochem & Biophys, Ames, Ia 50011, USA

ARCH BIOCHEM BIOPHYS 1990, 276 (2) 460

Specificity of acceptor binding to Leuconostoc mesenteroides B-512F dextranase: Binding and acceptor-product structure of alpha-methyl-D-glucopyranoside analogs modified at C-2, C-3, and C-4 by inversion of the hydroxyl and by replacement of the hydroxyl with hydrogen

Gerson JJ, Mangar D//SUNY Hosp, Hlth Sci Ctr, Dept Anesthesiol, 750 E Adams St, Syracuse, NY 13210, USA

ANESTH ANALG 1990, 70 (2) 224

Hyskon^(R) (32% dextran 70), hysteroscopic surgery and pulmonary edema (Reply)

Hubble J, Eisenthal R, Herbert A, Tarr I, England R//Univ Bath, Sch Chem Engn, Bath BA2 7AY, Avon, England

ENZYME MICROB TECHNOL 1990, 12 (3) 196

Synthesis and characterization of soluble dextran-adenosine phosphate complexes: Kinetic effects of coenzyme loading

Kato A, Sasaki Y, Furuta R, Kobayashi K//Yamaguchi Univ, Fac Agr, Dept Agr Chem,

Yamaguchi 753, Japan

AGR BIOL CHEM TOKYO 1990, 54 (1) 107

Functional protein-polysaccharide conjugate prepared by controlled dry-heating of ovalbumin-dextran mixtures

Larsen C//Royal Danish Sch Pharm, Dept Pharmacut, 2 Univ Parken, DK-2100 Copenhagen, Denmark

J PHARMACEUT BIOMED ANAL 1989, 7 (10) 1173

Quantitative determination of dextran Naproxen ester pro-drugs with varying molecular weights and degrees of substitution in biological media by means of high-performance size exclusion chromatography with fluorescence detection

Schinagl EF//Pharmacia Inc, Med Prod Grp, 800 Centennial Ave, Piscataway, NJ 08855, USA

ANESTH ANALG 1990, 70 (2) 223

Hyskon^(R) (32% dextran 70), hysteroscopic surgery and pulmonary edema (Letter)

Weinans MJN, Kauer FM, Klompmaker IJ, Wijma J//State Univ Groningen Hosp, Dept Obstet & Gynecol, Oostersingel 59, 9713 EX Groningen, The Netherlands

FERTIL STERIL 1990, 53 (1) 159

Transient liver function disturbances after the intraperitoneal use of 32% dextran-70 as adhesion prophylaxis in infertility surgery

Yang KTA, Wu C-C, Chen J-Y//Changhua Christian Hosp, Dept Nucl Med, Changhua, Peoples R China

CLIN NUCL MED 1989, 14 (10) 772

Visualization of breast tissue by technetium-99m labeled dextran in chronic cystic mastitis

Zwaveling JH, Meulenbelt J, van Xanten NHW, Hene RJ//State Univ Hosp Utrecht, Dept Reanimat & Clin Toxicol, Catharijnesingel 101, 3511 GV Utrecht, The Netherlands

NETH J MED 1989, 35 (5-6) 321

Renal failure associated with the use of dextran-40

Sprenger M//Address not available

DAIRY IND INT 1990, 55 (1) 19

New stabilising systems using galactomannans

Chandrasekaran R, Thailambal VG//Whistler Ctr Carbohydrate Res, Smith Hall, Purdue Univ, W Lafayette, IN 47907, USA

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The influence of calcium ions, acetate and L-glycerate groups on the gellan double-helix

Ui S, Suzuki M, Kubota S, Masuda H, Muraki H, Yamakawa Y, Sato T//Yamanashi Univ, Dept Fermentat Technol, Kofu, Yamanashi 400, Japan

AGR BIOL CHEM TOKYO 1990, 54 (1) 207

Cooperative effect of activated charcoal and gellan gum on grape protoplast culture

Kawagishi H, Kanao T, Inagaki R, Mizuno T, Shimura K, Ito H, Hagiwara T, Nakamura T//Dept Appl Biol Chem, Fac Agr, Shizuoka Univ, 836 Ohya, Shizuoka 422, Japan

CARBOHYD POLYM 1990, 12 (4) 393

Formolysis of a potent antitumor (1-6)-beta-D-glucan-protein complex from *Agaricus blazei* fruiting bodies and antitumor activity of the resulting products

MacGregor AW, Ballance GM, Dushnicky L//Canadian Grain Commiss, Grain Res Lab, 1404-303 Main St, Winnipeg, Manitoba, Canada R3C 3G8

FOOD MICROSTRUCT 1989, 8 (2) 235

Fluorescence microscopy studies on (1,3)-beta-D-glucan in barley endosperm

Rau U et al//Tech Univ Brunswick, Inst Biochem & Biotechnol, Konstantin Uhde Str 5, D-3300 Braunschweig, Fed Rep Ger

BIOPROCESS ENG 1990, 5 (2) 89

Process and molecular data of branched 1,3-beta-D-glucans in comparison with xanthan

Leroy Y, Lemoine J, Michalski J-C, Montreuil J, Fournet B//Univ Sci & Tech Lille Flandres Artois, Chim Biol Lab, CNRS, Unite Mixte 111, F-59655 Villeneuve Dascq, France

ANAL BIOCHEM 1990, 184 (2) 235

Separation of oligosaccharides by capillary supercritical fluid chromatography and analysis by direct coupling to high-resolution mass spectrometer: Application to analysis of oligomannosidic N-glycans

Vitovskaya GA, Samarkina GM, Anan'eva EP, Sinitskaya IA//Leningrad Pharmaceut Chem Res Inst, Leningrad, USSR

MICROBIOLOGY-ENGL TR 1989, 58 (2) 185

Synthesis of extracellular heteroglycans by yeasts of the genus *Cryptococcus*

Elling H, Stammberger I//Chem Pharmazeut

Fabrik, Luitpold Werkes, Pharmakol Lab, Zielstattstr 9-11, D-8000 Munich 70, Fed Rep Ger
ARZNEIM-FORSCH-DRUG RES 1990, 40 (1) 99

Experimental investigations on the influence of glycosaminoglycan polysulfate on wound healing (German, English Abstract)

Ferro DR, Provasoli A, Ragazzi M, Casu B, Torri G, Bossennec V, Perly B, Sinay P, Petitou M, Choay J//CNR, Ist Chim Macromolec, via E Bassini 15, I-20133 Milan, Italy
CARBOHYD RES 1990, 195 (2) 157

Conformer populations of L-iduronic acid residues in glycosaminoglycan sequences

Breiddin HK//Zentrum Innere Med, Angiol Abt, Theodor Stern Kai 7, D-6000 Frankfurt 71, Fed Rep Ger
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Ludwig A, Vanooteghem M//Univ Instelling Antwerp, Dept Pharmaceut Wetenschappen, Univ Pl 1, B-2610 Wilrijk, Belgium
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Guillon F, Thibault J-F//Inst Natl Rech Agr, Lab Technol Appl Nutr, BP 527, 44026 Nantes Cedex 03, France
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Niemela K//Helsinki Univ Technol, Wood Chem Lab, SF-02150 Espoo 15, Finland
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Siddiqui IR//Agr Canada, Food Res Ctr, Ottawa, Ontario, Canada K1A 0C6
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Kongtawelert P, Ghosh P/**Univ Sydney, Roy N Shore Hosp, Raymond Purves Res Labs, St Leonards, NSW 2065, Australia

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Akoh CC, Swanson BG//Texas A&M Univ Syst, Dept Anim Sci, Molec & Cell Biol Sect, College Stn, Tx 77843, USA

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Elsner W, Engst W, Mieth G, Schliemann H//Acad Sci GDR, Zent Inst Ernährung, Arthur Scheunert Allee 114-116, DDR-1505 Bergholz, Ger Dem Rep

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Brodel B, Samain E*, Debeire P/**INRA, Technol Alimentaire St, BP 39, F-59651 Villeneuve Dascq, France

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Koyama H, Ujiie M, Taniguchi J, Sasaki T/**Natl Food Res Inst, Div Food Resources, POB 11, Tsukuba, Ibaraki 305, Japan

ENZYME MICROB TECHNOL 1990, 12 (3) 218

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Roberts JC, McCarthy AJ, Flynn NJ, Broda P//Univ Manchester, Inst Sci & Technol, Dept Paper Sci, POB 88, Manchester M60 1QD, Lancs, England

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Fiszman S//CSIC, Inst Agroquim & Tecnol Alimentos, Jaime Roig 11, E-46010 Valencia, Spain

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Ryden P, Selvendran RR//AFRC, Inst Food Res, Norwich Lab, Colney Lane, Norwich NR4 7UA, Norfolk, England

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Saafan AA, Sakran MA, Abousekkina MM//Tanta Univ, Fac Sci, Dept Chem, Tanta, Egypt

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Norwich Lab, Colney Lane, Norwich NR4 7UA, Norfolk, England

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Sievert D, Pomeranz Y, Abdelrahman A//Washington State Univ, Dept Food Sci & Human Nutr, Pullman, Wa 99164, USA

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Takeuchi M, Yokota A//Inst Fermentat, Osaka 17-85, Juso Honmachi 2 chome, Yodogawa ku, Osaka 532, Japan

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Veeneman GH, Brugghe HF, van den Elst H, van Boom JH*//Gorlaeus Labs, POB 9502, 2300 RA Leiden, The Netherlands

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Zhemerichkin DA, Makarov OE, Skvortsov IM, Ignatov VV//Acad Sci USSR, Inst Biochem & Physiol Plants & Microorganisms, Saratov, USSR

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Ruhl G//Bundesforsch Anstalt Landwirtschaft Braunschweig Volkenrode, Inst Pflanzenbau & Pflanzenzüchtung, Braunschweig, Fed Rep Ger

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J FOOD SCI 1990, 55 (1) 232

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Chinachoti P//Univ Massachusetts, Dept Food Sci & Nutr, Amherst, MA 01003, USA

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Emneus J, Gorton L*//Univ Lund, Dept Analyt Chem, POB 124, S-22100 Lund, Sweden

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Faithfull NT//Univ Coll Wales, Agr Sci Analyt Lab, Frongoch Field Stn, Clarach Rd, Aberystwyth SY23 3DG, Dyfed, Wales

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Ghazi A, Khalil M, Atta MB//Tanta Univ, Fac Agr, Dept Food Sci & Technol, Kafr Al Sheikh, Egypt

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Huttenrauch R, Fricke S, Zielke P//VEB Jena-pharm, Bereich Forsch & Entwicklung, Otto Schott Str 15, DDR-6900 Jena, Ger Dem Rep

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Matsui T, Kitagawa H//Kagawa Univ, Fac Agr, Dept Agroind Sci, Miki, Kagawa 76107, Japan

J JPN SOC FOOD SCI TECHNOL 1990, 37 (1) 68

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Nnanna IA, Phillips RD*//Univ Georgia, Expt Stn, Dept Food Sci & Technol, Griffin, Ga 30223, USA

J FOOD SCI 1990, 55 (1) 151

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Okieimen FE, Said OB//Univ Benin, Dept Chem, Benin City, Nigeria

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NAHRUNG 1989, 33 (10) 949

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Espoo, Finland

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Saha BC, Zeikus JG//Michigan Biotechnol Inst,
3900 Collins Rd, Lansing, Mi 48910, USA

ENZYME MICROB TECHNOL 1990, 12 (3)
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Sirou Y, Lecommandeur D, Lauriere C*//
*CNRS, Physiol Organes Vegetaux, 4 Route
Gardes, F-92190 Meudon, France

J AGR FOOD CHEM 1990, 38 (1) 171

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Hakansson K, Svensson B//Carlsberg Lab, Dept
Chem, Gamle Carlsberg Vej 10, DK-2500
Copenhagen, Denmark

CARLSBERG RES COMMUN 1989, 54 (4) 145

Side chain reactivities of glucoamylase G2 from
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Ohnishi M, Hiromi K//Kyoto Univ, Coll Agr,
Dept Food Sci & Technol, Enzyme Chem Lab,
Sakyo Ward, Kyoto 606, Japan

CARBOHYD RES 1989, 195 (1) 138

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