

Bibliography of Process Biochemistry

1 BOOKS, REVIEWS & SYMPOSIA

Anton Leeuwenhoek Int J Gen Microbiol 1995 68 (4)

Special issue: Anaerobic processes for bioenergy and environment

Anton Leeuwenhoek Int J Gen Microbiol 1996 69 (1)

Special issue: Anaerobic processes for bioenergy and environment II

Special issue: International Dairy Lactic Acid Bacteria Conference

Bell G, Halling PJ, Moore BD, Partridge J, Rees DG// Univ Strathclyde, Dept Chem & Proc Engn, Glasgow G1 1XW, Scotland Trends Biotech 1995 13 (11) 468

Biocatalyst behaviour in low-water systems (Review)

Brindle K, Stephenson T*// *Cranfield Univ, Sch Water Sci, Cranfield MK43 OAL, Beds, England

Biotechnol Bioeng 1996 49 (6) 601
The application of membrane biological reactors for the treatment of wastewaters (Mini-Review)

le Gooijer CD, Bakker WAM, Beeftink HH, Tramper J// Wageningen Univ ∧gr, Food & Bioproc Engn Grp, POB 8129, 6700 EV Wageningen, The Neth-

Enzyme Microb Technol 1996 18 (3) 202

Bioreactors in series: An overview of design procedure and practical applica-

I razer AC, Coschigano PW, Young LY*// *Rutgers State Univ, Ctr Agr Molec Biol, New Brunswick, NJ 08903, USA

Anaerobe 1995 1 (6) 293

Toluene metabolism under anaerobic conditions: A review

Frebort I, Adachi O// Yamaguchi Univ, Dept Biol Chem, 1677-1 Yoshida, Yamaguchi 753, Japan

Ferment Bioeng 1995 80 (6) 625

Copper/quinone-containing amine oxidases, an exciting class of ubiquitous enymes (Review)

Gijsen HJM, Qiao L, Fitz W, Wong CH*// *Scripps Clin & Res Inst, Dept Chem, 10666 Nth Torrey Pines Rd, La Jolla, Ca 92037, USA

Them Rev 1996 96 (1) 443

Recent advances in the chemoenzymatic synthesis of carbohydrates and carbohydrate mimetics

Gill I, Lopez-Fandino R, Jorba X, Vulfson EN*// *BBSRC, Inst Food Res, Dept Biotechnol & Enzymol, Earley Gate, Whiteknights Rd, Reading RG6

Enzyme Microb Technol 1996 18 (3) 162

Biologically active peptides and enzymatic approaches to their production (Re-

Kramer R// KFA Julich GmbH, Forschungszentrum, Inst Biotechnol 1, Posttach 1913, D-52425 Julich, Germany

' Biotechnol 1996 45 (1) 1

Genetic and physiological approaches for the production of amino acids (Minireview)

McFarlane CM, Nienow AW// Univ Birmingham, Sch Chem Engn, BBSRC Ctr Biochem Engn, Birmingham B15 2TT, England

Biotechnol Progr 1996 12 (1) 1

Studies of high solidity ratio hydrofoil impellers for aerated bioreactors. III. Fluids of enhanced viscosity and exhibiting coalescence repression (Review)

McFarlane CM, Nienow AW// Address as above

Siotechnol Progr 1996 12 (1) 9

Studies of high solidity ratio hydrofoil impellers for aerated bioreactors. IV. Comparison of impeller types (Review)

Murby M, Uhlen M, Stahl S// Royal Inst Technol, Dept Biochem & Biotechnol, S-10044 Stockholm, Sweden Protein Express Purif 1996 7 (2) 129

Upstream strategies to minimise proteolytic degradation upon recombinant production in Escherichia coli (Review)

Phillips RS// Univ Georgia, Dept Chem, Athens, Ga 30602, USA Trends Biotech 1996 14 (1) 13

Temperature modulation of the stereochemistry of enzymatic catalysis: Prospects for exploitation (Review)

Pouton CW, Akhtar S// Univ Bath, Sch Pharm & Pharmacol, Claverton Down, Bath BA2 7AY, England

Advan Drug Delivery Rev 1996 18 (2) 133

Biosynthetic polyhydroxyalkanoates and their potential in drug delivery

Romano P, Suzzi G// Univ Basilicata, Dipt Biol Difesa & Biotecnol Agroforestal, Via Nazario Sauro 85, I-85100 Potenza, Italy

Appl Environ Microbiol 1996 62 (2) 309
Origin and production of acetoin during wine yeast fermentation (Minireview)

Rosazza JPN, Huang Z, Dostal L, Volm T, Rousseau B// Univ Iowa, Div Med & Nat Prod Chem, Iowa City, Ia 52242, USA J Ind Microbiol 1995 15 (6) 457

Review: Biocatalytic transformations of ferulic acid: An abundant aromatic natural product

Schmidt JE, Ahring BK*// *Tech Univ Denmark, Anaerob Microbiol Biotechnol Res Grp, DK-2800 Lyngby, Denmark Biotechnol Bioeng 1996 49 (3) 229

Granular sludge formation in upflow anaerobic sledge blanket (UASB) reactors

Stephenson JR, Warnes A*// *Ctr Appl Microbiol & Res, Salisbury SP4 0JG, England

J Chem Technol Biotechnol 1996 65 (1) 5

Release of genetically modified micro-organisms into the environment (Re-

Thomas KC, Hynes SH, Ingledew WM// Univ Saskatchewan, Dept Appl Microbiol & Food Sci, 51 Campus Dr, Saskatoon, Saskatchewan, Canada S7N

Process Biochem 1996 31 (4) 321

Practical and theoretical considerations in the production of high concentrations of alcohol by fermentation (Review)

2 IMMOBILISED ENZYMES & CELLS

Alkorta I, Garbisu C, Llama MJ, Serra JL*// *Univ Pais Vasco, Dept Bioquim & Biol Molec, Apdo 644, E-48080 Bilbao, Spain Enzyme Microb Technol 1996 18 (2) 141

Immobilization of pectin lyase from Penicillium italicum by covalent binding to nylon

Artelt U, Staude E*// *Univ Essen Gesamthsch, Inst Tech Chem, D-45117 Essen, Germany

Macromol Symposia 1996 103 127

Immobilization of invertase on porous membranes made from modified poly-

Bardi EP, Koutinas AA, Soupioni MJ, Kanellaki ME*// *Univ Patras, Dept Chem, GR-26500 Patras, Greece

J Agr Food Chem 1996 44 (2) 463

Immobilization of yeast on delignified cellulosic material for low temperature

Cashin MM// 108 Barkly St, Ararat, Vic 3377, Australia

J Inst Brew 1996 102 (1) 5

Comparative studies of five porous supports for yeast immobilisation by adsorption attachment

Ciani M, Ferraro L// Univ Perugia, Dipt Biol Vegetale, Via Borgo XX Giugno 74, I-06121 Perugia, Italy

Appl Environ Microbiol 1996 62 (1) 128

Enhanced glycerol content in wines made with immobilized Candida stellata

Czaczyk K, Trojanowska K, Albrecht A// Acad Agr Poznan, Dept Biotechnol & Food Microbiol, PL-60623 Poznan, Poland

Folia Microbiol Prague 1995 40 (3) 337

Batch production of propionic acid by immobilized Propionibacterium sp

De Cuyper M, De Meulenaer B, Van der Meeren P, Vanderdeelen J// Katholieke Univ Leuven, Interdisciplinary Res Ctr, Campus Kortrijk, B-8500 Kor-

As a service to subscribers, each issue of the Journal contains a bibliography of newly published material in the field of process biochemistry. The bibliography is divided into nine sections: 1 Books, Reviews & Symposia, 2 Immobilised Enzymes & Cells, 3 Industrial Applications, 4 Waste Treatment & Biotransformations, 6 Product Recovery, 7 Products, 8 Microbial Physiology, 9 Fermentation Systems. Within each section, articles are listed in alphabetical order with respect to the author. When there are no publications to appear under one of these headings, that section will be omitted

trijk, Belgium

Biotechnol Bioeng 1996 49 (6) 654

Catalytic durability of magnetoproteoliposomes captured by high-gradient magnetic forces in a miniature fixed-bed reactor

Dong XY, Bai S, Sun Y*// *Tianjin Univ, Dept Chem Engn, Tianjin 300072, Peoples Rep China

Biotechnol Lett 1996 18 (2) 225
Production of L(+)-lactic acid with Rhizopus oryzae immobilized in polyurethane foam cubes

Hermanowicz SW, Schindler U, Wilderer P// Univ Calif Berkeley, Dept Civil Engn, Berkeley, Ca 94720, USA Water Res 1996 30 (3) 753

Anisotropic morphology and fractal dimensions of biofilms

Huckel M, Wirth HJ, Hearn MTW*// *Monash Univ, Ctr Bioproc Technol, Clayton, Vic 3168, Australia

J Biochem Biophys Meth 1996 31 (3-4) 165

Porous zirconia: A new support material for enzyme immobilization

Huguet ML, Neufeld RJ, Dellacherie E// URA CNRS 494, Lab Chim Phys Macromolec, ENSIC, BP 451, F-54001 Nancy, France Process Biochem 1996 31 (4) 347

Calcium-alginate beads coated with polycationic polymers: Comparison of chitosan and DEAE-dextran

Husain S, Jafri F, Saleemuddin M// Med Coll Georgia, Dept Biochem & Molec Biol, Augusta, Ga 30912, USA

Enzyme Microb Technol 1996 18 (4) 275

Effects of chemical modification on the stability of invertase before and after

Jirku V// Inst Chem Technol, Dept Fermentat Chem & Bioengn, CR-16628 Prague 6, Czech Republic

J Chem Technol Biotechnol 1996 65 (2) 179

The use of covalently immobilized mycelia to modify the β-glucanase system of Aspergillus vesicolor

Jordao RCC, Da Silva NH, Carvalho LB// Univ Fed Pernambuco, Dept Bioquim, Cidade Univ, BR-50670-420 Recife, PE, Brazil Biotechnol Technique 1996 10 (1) 59

Glyptal as a support for enzyme immobilisation

Kumakura M// Nishi Tokyo Univ, Dept Biosci, Kitatsuru, Yamanashi 40901,

J Mol Catal B-Enzym 1995 1 (1) L1

Effect of heat treatment on enzymes entrapped into polymer gels (Letter)

Laugero C, Sigoillot JC, Moukha S, Frasse P, Bellon-Fontaine MN, Bonnarme P, Mougin C, Asther M// Fac Sci Luminy, INRA, Lab Biotechnol Champig-nons Filamenteux, Parc Sci & Technol, CP 929, F-13288 Marseille 09, France Appl Microbiol Biotechnol 1996 44 (6) 717

Selective hyperproduction of manganese peroxidases by Phanerochaete chrysosporium I-1512 immobilized on nylon net in a bubble column reactor

Lee DC, Lee SG, Kim HS*// *KAIST, Dept Biotechnol, 373-1 Kusung dong,

Yusung gu, Taejon 305701, South Korea

Enzyme Microb Technol 1996 18 (1) 35

Production of D-p-hydroxyphenylglycine from D,L-5-(4-hydroxyphenyl)hydantoin using immobilized thermostable D-hydantoinase from Bacillus stearothermophilus

Lin SF, Hwang YL, Tsai YC// Tatung Inst Technol, Dept Bioengn, Taipei,

Biotechnol Technique 1996 10 (1) 63

Immobilization of glucooligosaccharide oxidase of Acremonium strictum for oligosaccharic acid production

Lloyd JR, Bunch AW*// *Univ Kent, Biol Lab, Canterbury CT2 7NJ, England Enzyme Microb Technol 1996 18 (2) 113

The physiological state of an ethylenogenic Escherichia coli immobilized in hollow-fiber bioreactors

Mateus DMR, Alves SS, Da Fonseca MMR*// *Inst Super Tecn, Engn Bioquim Lab, P-1096 Lisbon, Portugal

Bioprocess Eng 1996 14 (3) 151

Model for the production of L-tryptophan from L-serine and indole by immobilized cells in a three-phase liquid-impelled loop reactor

Moreno JM, O'Fagain C*// *Dublin City Univ, Sch Biol Sci, Dublin 9, Rep Ireland

Biotechnol Lett 1996 18 (1) 51

Stabilization of alanine aminotransferase by consecutive modification and im-

Mutlu M, Turhan N, Ercan MT, Ozdural AR, Celebi SS// Hacettepe Univ, Dept Food Engn, Beytepe Campus, Ankara 06532, Turkey Biotechnol Technique 1996 10 (2) 71

Kinetics of invertase immobilised on poly(Phe-Lys) coated polystyrene beads

Paquot M, Deleu M, Beaufils C, Blecker C*// *Gembloux Fac Agron Sci, Dept Food Sci, 2 Passage Deportes, B-5030 Gembloux, Belgium Biotechnol Lett 1996 18 (1) 73

Electrical microenvironment influence on the hydrolytic activity of free and

immobilized Yarrowia lipolytica lipase

Petro M, Svec F, Frechet JMJ*// *Cornell Univ, Dept Chem, Baker Lab, Ithaca, NY 14853, USA

Biotechnol Bioeng 1996 49 (4) 355
Immobilization of trypsin onto "molded" macroporous poly(glycidyl methacrylate-co-ethylene dimethacrylate) rods and use of the conjugates as bioreactors and for affinity chromatography

Pyun JC, Jang AS, Park JS*// *Seoul Natl Univ, Ctr Molec Catalysis, Dept Chem, Seoul 151742, South Korea

Enzyme Microb Technol 1996 18 (1) 41

Facile enzyme immobilization and assay technique using polyethyleneiminecellulose thin-layer chromatography as a solid support

Reetz MT, Zonta A, Simpelkamp J// Max Planck Inst Kohlenforsch, Kaiser Wilhelm Pl 1, D-45470 Mulheim, Germany

Biotechnol Bioeng 1996 49 (5) 527

Efficient immobilization of lipases by entrapment in hydrophobic sol-gel mate-

Riley MR, Muzzio FJ*, Buettner HM, Reyes SC// *Rutgers State Univ, Dept Chem & Biochem Engn, POB 909, Piscataway, NJ 08855, USA Biotechnol Bioeng 1996 49 (2) 223

A simple correlation for predicting effective diffusivities in immobilized cell

Ryabokon AM, Pusheva MA, Detkova EN, Rainina EI// MV Lomonosov State Univ, Moscow 119899, Russia

Microbiology-Engl Tr 1995 64 (6) 657

Reduction of CO2 to acetate by immobilized cells of the thermophilic homoacetogenic bacterium Thermoanaerobacter kivui

Schussel LJ, Atwater JE*// *Umpqua Res Co, POB 791, Myrtle Creek, Or 97457 USA

Enzyme Microb Technol 1996 18 (3) 229

A continuous alcohol oxidase bioreactor for regenerative life support

West TP, Strohfus BRH// Sth Dakota State Univ, Dept Chem & Biochem, Box 2170, Brookings, SD 57007, USA Lett Appl Microbiol 1996 22 (2) 162

Polysaccharide production by sponge-immobilized cells of the fungus Aureobasidium pullulans

Zayed G, Winter J*// *Univ Karlsruhe, Inst Ingenieurbiol & Biotechnol, Fasan-

engarten, D-76131 Karlsruhe, Germany Appl Microbiol Biotechnol 1995 44 (3-4) 362

Batch and continuous production of lactic acid from salt whey using free and immobilized cultures of lactobacilli

3 INDUSTRIAL APPLICATIONS

Ansanay V, Dequin S*, Camarasa C, Schaeffer V, Grivet JP, Blondin B, Salmon JM, Barre P// *IPV-Lab Microbiol Technol Ferment, INRA-ENSAM, 2 Pl Viala, F-34060 Montpellier 01, France

Yeast 1996 12 (3) 215

Malolactic fermentation by engineered Saccharomyces cerevisiae as compared with engineered Schizosaccharomyces pombe

Bakoyianis V, Koutinas AA*// *Univ Patras, Dept Chem, GR-26500 Patras,

Biotechnol Bioeng 1996 49 (2) 197

A catalytic multistage fixed-bed tower bioreactor in an industrial-scale pilot plant for alcohol production

Barton S, Bullock C*, Weir D// *Roehampton Inst, Dept Biol & Chem Sci, West Hill, London SW15 3SN, England

Enzyme Microb Technol 1996 18 (3) 190

The effects of ultrasound on the activities of some glycosidase enzymes of industrial importance

Brimer L, Cicalini AR, Federici F, Petruccioli M// Royal Vet & Agr Univ, Dept Pharmacol & Pathobiol, 13 Bulowsvej, DK-1870 Frederiksberg C, Copenhagen, Denmark

Ital J Food Sci 1995 7 (4) 387

β-Glycosidase as a side activity in commercial pectinase preparations of fungal origin. The hydrolysis of cyanogenic glycosides

Butler PR, Brown M, Oliver SG*// *UMIST, Dept Biochem & Appl Molec Biol, POB 88, Manchester M60 1QD, England Biotechnol Bioeng 1996 49 (2) 185

Improvement of antibiotic titers from Streptomyces bacteria by interactive continuous selection

Chartrain M, Katz L, Taylor C, Zhang J, Brix T, Salmon P, Greasham R// Merck & Co Res Labs, POB 2000, Rahway, NJ 07065, USA J Ind Microbiol 1995 15 (5) 414

Physostigmine production by Streptomyces griseofuscus NRRL 5324: Process development and scale-up studies

Christov LP, Prior BA// Univ Orange Free State, Dept Microbiol & Biochem, POB 339, Bloemfontein 9300, Rep Sth Africa

Enzyme Microb Technol 1996 18 (4) 244

Repeated treatments with Aureobasidium pullulans hemicellulases and alkali enhanced biobleaching of sulphite pulps

Chung MC, Chun HK, Han KH, Lee HJ, Lee CH, Kho YH*// *KIST, Korea Res Inst Biosci & Biotechnol, POB 115, Taejon 305600, South Korea J Antibiot 1996 49 (1) 99

MR-387A and B, new aminopeptidase N inhibitors, produced by Streptomyces neyagawaensis SL-387

Connors N, Prevoznak R, Brix T, Seeley A, Gbewonyo K, Greasham R, Salmon P// Merck & Co Inc, Bioproc R&D, POB 2000, Rahway, NJ 07065, USA

Ind Microbiol 1995 15 (6) 503

Effects of medium sterilization on the production of zaragozic acids by the ungus Leptodontidium elatius

Enomoto Y, Shiomi K, Hayashi M, Masuma R, Kawakubo T, Tomosawa K, twai Y, Omura S*// *Kitasato Inst, Biol Funct Res Ctr, Minato ku, 5-9-1 Shiokane, Tokyo 108, Japan

Antibiot 1996 49 (1) 50

Herquline B, a new platelet aggregation inhibitor produced by Penicillium herquei Fg-372

Fang A, Demain AL// MIT, Dept Biol, Fermentat Microbiol Lab, Cambridge, Ma 02139, USA

Ind Microbiol 1995 15 (5) 407

Dependence of nitrogen- and phosphorus-regulation of β-lactam antibiotic production by Streptomyces clavuligerus on aeration level

ang A, Keables P, Demain AL*// *Address as above.

Appl Microbiol Biotechnol 1996 44 (6) 705

Jnexpected enhancement of β-lactam antibiotic formation in Streptomyces clauligerus by very high concentrations of exogenous lysine

Fu J, Parker CB, Burke P, Schultz LD, Montgomery DL, Arnold BA, McGinnis K// Merck Res Labs, Dept Vaccine Bioproc R&D, West Point, Pa 19486, JSA

Biotechnol Progr 1996 12 (1) 145

Higher ploidy in Saccharomyces cerevisiae supports enhanced hepatitis B virus 3 cloned gene expression at the pilot scale

Gerth K. Washausen P. Hofle G. Irschik H. Reichenbach H// Gesell Biotechnol Forsch MbH, Abt Naturstoffbiol, Mascheroder Weg 1, D-38124 Braunschweig,

J Antibiot 1996 49 (1) 71

The jerangolids: A family of new antifungal compounds from Sorangium cellulosum (Myxobacteria): Production, physico-chemical and biological properties of jerangolid A

Gunata Z, Vallier MJ, Sapis JC, Bayonove C, Arnaudon V, Madarro A, Polaina J// INRA, Inst Prod Vigne, Lab Aromes & Subst Nat, 2 Pl Pierre Viala, F-34060 Montpellier 01, France
Enzyme Microb Technol 1996 18 (4) 286

Hydrolysis of monoterpenyl-β-D-glucosides by cloned β-glucosidases from Bacillus polymyxa

Harazono K, Kondo R*, Sakai K// *Kyushu Univ, Dept Forest Prod, Fukuoka 81281, Japan

Appl Environ Microbiol 1996 62 (3) 913

Bleaching of hardwood kraft pulp with manganese peroxidase from Phanerochaete sordida YK-624 without addition of MnSO4

Hayashi K, Nishikawa M*, Aramori I, Kiyoto S, Okuhara M// *Fujisawa Pharmaceut Co Ltd, Exploratory Res Labs, 5-2-3 Tokodai, Tsukuba, Ibaraki 30026,

J. Antibiot 1996 49 (1) 110

Tachykinin antagonists screening from microbial origin

Hobbs GR, Mitra RK, Chauhan RP, Woodley JM, Lilly MD*// *UCL, Dept Chem & Biochem Engn, Torrington Pl, London WC1E 7JE, England J Biotechnol 1996 45 (2) 173

Enzyme-catalysed carbon-carbon bond formation: Large-scale production of Escherichia coli transketolase

Isobe K, Nishise H// Amano Pharmaceut Co Ltd, Div Res & Dev, Aichi 481,

J Mol Catal B-Enzym 1995 1 (1) 37

A new enzymatic method for glycoaldehyde production from ethylene glycol

Izumida H, Imamura N, Sano H// Shimizu Labs, Marine Biotechnol Inst, 1900 Sodeshi, Shimizu, Shizuoka 424, Japan

J Antibiot 1996 49 (1) 76

A novel chitinase inhibitor from a marine bacterium, Pseudomonas sp

Kajimura Y, Kaneda M*// *Hiroshima Univ, Inst Pharmaceut Sci, Minami ku, 1-2-3 Kasumi, Hiroshima 734, Japan

J Antibiot 1996 49 (2) 129

Fusaricidin A, a new depsipeptide antibiotic produced by Bacillus polymyxa KT-8: Taxonomy, fermentation, isolation, structure elucidation and biological

Kamigiri K, Suzuki Y, Shibazaki M, Morioka M, Suzuki K, Tokunaga T, Setiawan B, Rantiatmodjo RM// Yamanouchi Pharmaceut Co Ltd, Drug Serendip Res Lab. Itabashi ku. 1-1-8 Azusawa, Tokyo 174, Japan J Antibiot 1996 49 (2) 136

Kalimantacins A, B, and C, novel antibiotics from Alcaligenes sp YL-02632S. I. Taxonomy, fermentation, isolation and biological properties

Kelly CT, McTigue MA, Doyle EM, Fogarty WM// Univ Coll Dublin, Dept Ind Microbiol, Dublin 4, Rep Ireland

J Ind Microbiol 1995 15 (5) 446

The raw starch-degrading alkaline amylase of Bacillus sp IMD 370

Kim WG, Kim JP, Kim CJ, Lee KH, Yoo ID*// *KIST, Korea Res Inst Biosci & Biotechnol, Microbial Chem Res Grp, Taejon 305600, South Korea J Antibiot 1996 49 (1) 20

Benzastatins A, B, C, and D: New free radical scavengers from *Streptomyces nitrosporeus* 30643. I. Taxonomy, fermentation, isolation, physico-chemical properties and biological activities

Kim YK, Lee HW, Son KH, Kwon BM, Jeong TS, Lee DH, Shin J, Seo YW, Kim SU*, Bok SH// *KIST, Korea Res Inst Biosci & Biotechnol, Bioprod Res Grp, POB 115, Taejon 305600, South Korea J Antibiot 1996 49 (1) 31

GERI-BP002-A, novel inhibitor of acyl-CoA: cholesterol acyltransferase produced by Aspergillus fumigatus F93

Kruse B, Schugerl K*// *Univ Hannover, Inst Tech Chem, Callinstr 3, D-30167 Hannover, Germany Process Biochem 1996 31 (4) 389

Investigation of ethanol formation by Pachysolen tannophilus from xylose and glucose/xylose co-substrates

Lam KS, Veitch JA, Lowe SE, Forenza S// Bristol Myers Squibb Pharmaceut Res Inst, Dept 114, 5 Res Pkwy, Wallingford, Ct 06492, USA

J Ind Microbiol 1995 15 (5) 453

Effect of neutral resins on the production of dynemicins by Micromonospora

Mamma D, Koullas D, Fountoukidis G, Kekos D, Macris BJ*, Koukios E// *Natl Tech Univ Athens, Dept Chem Engn, 5 Iroon Polytechniou St, Zografou Campus, Athens 15700, Greece

Process Biochem 1996 31 (4) 377

Bioethanol from sweet sorghum: Simultaneous saccharification and fermentation of carbohydrates by a mixed microbial culture

McIntyre JJ, Bull AT, Bunch AW// Univ Kent, Res Sch Biosci, Canterbury CT2 7NJ, Kent, England

Biotechnol Bioeng 1996 49 (4) 412

Vancomycin production in batch and continuous culture

McKinnon CM, Gelinas P*, Simard RE// *Agr & Agri-Food Canada, Ctr Food Res & Dev, 3600 Casavant Blvd West, St Hyacinthe, Quebec, Canada J2S 8E3 Cereal Chem 1996 73 (1) 45

Wine yeast preferment for enhancing bread aroma and flavor

Miskiewicz T, Wilczynski S// Oscar Lange Acad Econ, Food Biotechnol Dept, Komandorska 118-120, PL-53345 Wrocław 2, Poland

Biotechnol Lett 1996 18 (1) 1

A real-time feed rate control system for pilot plant baker's yeast production

Nagamasu Y, Ozeki KJ, Kanda A, Hamachi M, Kumagai C, Nunokawa Y// Ozeki Corp, Gen Res Lab, 4-9 Imazu Dezaike cho, Nishinomiya, Hyogo 663,

Seibutsu-Kogaku Kaishi 1996 74 (1) 1

Production of vitamin C by Aspergillus oryzae and its extraction in sake (Japanese, English Abstract)

Nagano Y, Takeuchi N, Muramatsu R, Ohba Y, Abe S*, Hayashi H, Inouye Y// *Japan Energy Corp, Pharmaceut & Biotechnol Lab, Niizo-Minami, Toda, Saitama, Japan

J Antibiot 1996 49 (1) 81

Improved production of phenomycin by a genetically engineered Escherichia

Oda S, Inada Y, Kato A, Matsudomi N, Ohta H// Kansai Paint Co Ltd, Tech Res Lab, 4-17-1 Higashi Yawata, Hiratsuka, Kanagawa 254, Japan J Ferment Bioeng 1995 **80** (6) 559

Production of (S)-citronellic acid and (R)-citronellol with an interface bioreac-

Ogawa T, Ando K, Tanaka T, Uosaki Y, Matsuda Y// Kyowa Hakko Kogyo Co Ltd, Tokyo Res Labs, 3-6-6 Asahimachi, Machida, Tokyo 194, Japan J Antibiot 1996 49 (1) 1

RES-1149-1 and 2, novel non-peptidic endothelin type B receptor antagonists produced by *Aspergillus* sp. I. Taxonomy of producing strain, fermentation, isolation, and physico-chemical and biological properties

Ozawa S, Sato K, Endo I// Sci Univ Tokyo, Dept Ind Chem, Shinjuku ku, Kagurazaka 1-3, Tokyo 160, Japan Bioprocess Eng 1996 14 (2) 63

Repeated batch production of alkaline protease by solid-state fermentation using urethane foam as carriers

Petitdemange E, Durr C, Andaloussi SA, Raval G// Fac Sci, Lab Chim Biol, BP 239, F-54506 Vandoeuvre les Nancy, France J Ind Microbiol 1995 15 (6) 498

Fermentation of raw glycerol to 1,3-propanediol by new strains of Clostridium

Puri M, Marwaha SS, Kothari RM// Punjabi Univ, Dept Biotechnol, Patiala 147002, Punjab, India

Enzyme Microb Technol 1996 18 (4) 281

Studies on the applicability of alginate-entrapped naringinase for the debittering of kinnow juice

Roggo BE, Petersen F, Sills M, Roesel JL, Moerker T, Peter HH// Ciba Geigy Ltd, Div Pharmaceut, Core Drug Discovery Technol, CH-4002 Basel, Switzerland

J Antibiot 1996 49 (1) 13

Novel spirodihydrobenzofuranlactams as antagonists of endothelin and as inhibitors of HIV-1 protease produced by Stachybotrys sp. I. Fermentation, isolation and biological activity

Sakamoto K, Tsujii E, Abe F, Nakanishi T, Yamashita M, Shigematsu N, Izumi S*, Okuhara M// *Fujisawa Pharmaceut Co Ltd, Exploratory Res Labs, 5-2-3 Tokodai, Toyosato machi, Tsukuba, Ibaraki 30026, Japan J Antibiot 1996 49 (1) 37

FR901483, a novel immunosuppressant isolated from Cladobotryum sp No 11231. Taxonomy of the producing organism, fermentation, isolation, physicochemical properties and biological activities

Selva E, Gastaldo L, Saddler GS, Toppo G, Ferrari P, Carniti G, Goldstein BP// Marion Merrell Dow Res Inst, Lepetit Res Ctr, Gerenzano, Va, Italy J Antibiot 1996 49 (2) 145

Antibiotics A21459 A and B, new inhibitors of bacterial protein synthesis. I. Taxonomy, isolation and characterization

Shah MM, Cheryan M*// *Univ Illinois, Agr Bioproc Lab, 1302 West Penn Ave, Urbana, Il 61801, USA

J Ind Microbiol 1995 15 (5) 424

Acetate production by Clostridium thermoaceticum in corn steep liquor media

Sreenath HK, Shah AB, Yang VW, Gharia MM, Jeffries TW*// *Inst Microbial & Biochem Technol, Forest Prod Lab, Madison, Wi 53705, USA J Ferment Bioeng 1996 81 (1) 18

Enzymatic polishing of jute/cotton blended fabrics

Stevens-Miles S, Goetz MA, Bills GF, Giacobbe RA, Tkacz JS, Chang RSL, Mojena M, Martin I, Diez MT, Pelaez F, Hensens OD, Jones T, Burg RW, Kong YL, Huang LY// Merck Res Labs, Rahway, NJ 07065, USA J Antibiot 1996 49 (2) 119

Discovery of an angiotensin II binding inhibitor from a Cytospora sp. Using semi-automated screening procedures

Takatsu T, Takahashi M, Kawase Y, Enokita R, Okazaki T, Matsukawa H, Ogawa K, Sakaida Y, Kagasaki T, Kinoshita T, Nakajima M, Tanzawa K// Sankyo Co Ltd, Biol Res Labs, Shinagawa ku, 2-58 Hiromachi 1 chome, Tokyo 140, Japan

J Antibiot 1996 49 (1) 54

A-72363 A-1, A-2, and C, novel heparanase inhibitors from *Streptomyces nobilis* SANK 60192: Taxonomy of producing organism, fermentation, isolation,

Tokuyama S, Hatano K// Takeda Chem Ind Ltd, Hikari Branch Lab, Yamaguchi 743, Japan

Appl Microbiol Biotechnol 1996 44 (6) 774

Overexpression of the gene for N-acylamino acid racemase from Amycolatopsis sp TS-1-60 in Escherichia coli and continuous production of optically active methionine by a bioreactor

Torres NV, Voit EO*, Gonzalez-Alcon C// *Univ La Laguna, Dept Bioquim & Biol Molec, E-38206 La Laguna, Tenerife, Spain Biotechnol Bioeng 1996 49 (3) 247

Optimization of nonlinear biotechnological processes with linear programming: Application to citric acid production by Aspergillus niger

Vertesy L, Fehlhaber HW, Kogler H, Limbert M// Hoechst AG, Gen Pharma Res, D-65926 Frankfurt, Germany

J Antibiot 1996 49 (1) 115

New 4-oxovancosamine-containing glycopeptide antibiotics from Amycolatopsis sp Y-86,21022

Weinberg ZG, Ashbell G, Hen Y, Azrieli A// Agr Res Org, Volcani Ctr, IL-50250 Bet Dagan, Israel

J Ind Microbiol 1995 15 (6) 493

The effect of a propionic acid bacterial inoculant applied at ensiling on the aerobic stability of wheat and sorghum silages

Yang SS, Swei WJ// Natl Taiwan Univ, Dept Agr Chem, Taipei 10617, Tai-

World J Microbiol Biotechnol 1996 12 (1) 43

Oxytetracycline production by Streptomyces rimosus in solid-state fermentation of corn-cob

Yang VW, Zhuang Z, Elegir G, Jeffries TW*// *US Forest Serv, Forest Prod Lab, 1 Gifford Pinchot Dr, Madison, Wi 53705, USA

J Ind Microbiol 1995 15 (5) 434

Alkaline-active xylanase produced by an alkaliphilic Bacillus sp isolated from kraft pulp

Yang YK, Morikawa M, Shimizu H, Shioya S*, Suga K, Nihira T, Yamada Y// *Osaka Univ, Dept Biotechnol, Suita, Osaka 565, Japan

Biotechnol Bioeng 1996 49 (4) 437

Maximum virginiamycin production by optimization of cultivation conditions in batch culture with autoregulator addition

Yasui K, Tamura Y, Nakatani T, Horibe I, Kawada K*, Koizumi K, Suzuki R, Ohtani M// *Shionogi Res Labs, Fukushima ku, Osaka 553, Japan J Antibiot 1996 49 (2) 173

Chemical modification of PA-48153C, a novel immunosuppressant isolated from Streptomyces prunicolor PA-48153

Zalacain I, Zapelena MJ, Astiasaran I*, Bello J// *Univ Navarra, Dept Bromatol Toxicol & Tecnol Alimentos, E-31080 Pamplona, Spain Meat Sci 1996 42 (2) 155

Addition of lipase from Candida cylindracea to a traditional formulation of a dry fermented sausage

4 WASTE TREATMENT & **BIOREMEDIATION**

Akthar MN, Mohan PM// Osmania Univ, Dept Biochem, Hyderabad 500007, Andhra Pradesh, India

Curr Sci 1995 69 (12) 1028

Bioremediation of toxic metal ions from polluted lake waters and industrial effluents by fungal biosorbent

Bayman P, Ritchey SD, Bennett JW*// *Tulane Univ, Dept Cell & Molec Biol, New Orleans, La 70118, USA

J Ind Microbiol 1995 15 (5) 418

Fungal interactions with the explosive RDX (hexahydro-1,3,5-trinitro-1,3,3triazine)

Beaubien A, Baty M, Jeannot F, Francoeur E, Manem J// Degremont Infilco, 160 Blvd St Joseph, Lachine, Quebec, Canada H8S 2L3 J Membrane Sci 1996 109 (2) 173

Design and operation of anaerobic membrane bioreactors: Development of a filtration testing strategy

Bezalel L, Hadar Y, Cerniglia CE*// *US/FDA, Natl Ctr Toxicol Res, Div Microbiol, Jefferson, Ar 72079, USA Appl Environ Microbiol 1996 62 (1) 292

Mineralization of polycyclic aromatic hydrocarbons by the white rot fungus Pleurotus ostreatus

Bjerre AB, Olesen AB, Fernqvist T, Ploger A, Schmidt AS// Riso Natl Lab, Dept Environm Sci & Technol, POB 49, DK-4000 Roskilde, Denmark Biotechnol Bioeng 1996 49 (5) 568

Pretreatment of wheat straw using combined wet oxidation and alkaline hydrolysis resulting in convertible cellulose and hemicellulose

Borja R, Banks CJ// CSIC, Inst Grasa, Avda Padre Garcia Tejero 4, E-41012 Seville, Spain

Biotechnol Appl Biochem 1996 23 (1) 55

Evaluation of instability and performance of an upflow anaerobic sludge blanket (USAB) reactor treating high-strength ice-cream wastewater

Borja R, Banks CJ, Sanchez E// Address as above

J Biotechnol 1996 45 (2) 125

Anaerobic treatment of palm oil mill effluent in a two-stage up-flow anaerobic sludge blanket (UASB) system

Chong KH, Volesky B*// *McGill Univ, Dept Chem Engn, 3480 Univ St, Montreal, Quebec, Canada H3A 2A7 Biotechnol Bioeng 1996 49 (6) 629

Metal biosorption equilibria in a ternary system

Coates JD, Anderson RT, Lovley DR*// *Univ Massachusetts, Dept Microbiol, Amherst, Ma 01003, USA

Appl Environ Microbiol 1996 62 (3) 1099

Oxidation of polycyclic aromatic hydrocarbons under sulfate-reducing condi-

Colby CB, O'Neill BK*, Middelberg APJ// *Univ Adelaide, Dept Chem Engn, Adelaide, SA 5005, Australia Biotechnol Progr 1996 12 (1) 92

A modified version of the volume-averaged continuum theory to predict pressure drop across compressible packed beds of Sepharose Big-Beads SP

Davison AD, Karuso P, Jardine DR, Veal DA// Macquarie Univ, Sch Biol Sci, Sydney, NSW 2109, Australia

Can J Microbiol 1996 42 (1) 66

Halopicolinic acids, novel products arising through the degradation of chloroand bromo-biphenyl by Sphingomonas paucimobilis BPSI-3

Deshusses MA, Hamer G, Dunn IJ// Univ Calif Riverside, Coll Engn, Riverside, Ca 92521, USA

Biotechnol Bioeng 1996 49 (5) 587

Transient-state behavior of a biofilter removing mixtures of vapors of MEK and MIBK from air

Diez MC, Inostroza L, Ramirez S// Univ La Frontera, Dept Ingn Quim, Casilla

54-D, Temuco, Chile

Biotechnol Lett 1996 18 (2) 187

Efficiency evaluation of activated sludge treatments of wastewater from fiber board manufacturing

Fernandez N, Chachin E, Gutierrez E, Alastre N, Llamoza B, Forster CF*// *Univ Birmingham, Sch Civil Engn, Edgbaston, Birmingham, England Process Biochem 1996 31 (4) 333

An analysis of the absorption of alkyl benzene sulphonate by algal residues

Fernandez N, Chacin E, Garcia C, Alastre N, Leal F, Forster CF*// *Address

Process Biochem 1996 31 (4) 383

The use of seed pods from Albizia lebbek for the removal of alkyl benzene sulphonates from aqueous solution

Fitch MW. Speitel GE. Georgiou G*// *Univ Texas, Dept Chem Engn, Austin, Tx 78702, USA

Appl Environ Microbiol 1996 62 (3) 1124

Degradation of trichloroethylene by methanol-grown cultures of Methylosinus trichosporium OB3b PP358

Harrison AB, Brown AP, Betts WB*, O'Neill JG// *York Univ, Dept Biol, POB 373, York YQ1 5YW, England Microbios 1995 84 (338) 53

A laboratory biofilm generator adaptable for recirculatory or flow-through op-

Kennes C, Wu WM, Bhatnagar L, Zeikus JG*// *Michigan Biotechnol Inst, 3900 Collins Rd, Lansing, Mi 48910, USA Appl Microbiol Biotechnol 1996 44 (6) 801 Anaerobic dechlorination and mineralization of pentachlorophenol and 2,4,6-

trichlorophenol by methanogenic pentachlorophenol-degrading granules

Kruger M, Harrison AB, Betts WB*// *York Univ, Microbiol Res Unit, York YO1 5YW, England

Microbios 1995 83 (337) 243

Treatment of hydrocarbon contaminated soil using a rotating drum bioreactor

Leahy JG, Bryne AM, Olsen RH*// *Univ Michigan, Dept Microbiol & Immunol, Ann Arbor, Mi 48109, USA

Appl Environ Microbiol 1996 62 (3) 825

Comparison of factors influencing trichloroethylene degradation by tolueneoxidizing bacteria

Lenke H, Knackmuss HJ*// *Univ Stuttgart, Inst Microbiol, Allmandring 31, D-70569 Stuttgart, Germany

Appl Environ Microbiol 1996 62 (3) 784

Initial hydrogenation and extensive reduction of substituted 2,4-dinitrophenols

Lepine F, Bisaillon JG, Milot S, Khalid TH, Beaudet R, Villemur R// Univ Quebec, Ctr Rech Microbiol Appl, 531 Blvd Prairies, Laval, Quebec, Canada H7N 4Z3

Appl Environ Microbiol 1996 62 (3) 809

Transformation of phenol into phenylalanine by a methanogenic consortium

Lo KV, Liao PH// Univ Brit Columbia, Dept Bioresource Engn, Vancouver, Brit Columbia, Canada V6T 1Z4

Can Agr Eng 1995 37 (4) 335

Comparison between conventional and fixed film sequencing batch reactors in the treatment of screened dairy manure

Macarie H, Guyot JP// Univ Autonoma Metropolitana Iztapalapa, ORSTOM, Dept Biotecnol, Mexico City 09340, DF, Mexico

Environ Technol 1995 16 (12) 1185

Use of ferrous sulphate to reduce the redox potential and allow the start-up of UASB reactors treating slowly biodegradable compounds: Application to a wastewater containing 4-methylbenzoic acid

Mars AE, Houwing J, Dolfing J, Janssen DB*// *Univ Groningen, Dept Biochem, 9747 AG Groningen, The Netherlands
Appl Environ Microbiol 1996 62 (3) 886

Degradation of toluene and trichloroethylene by Burkholderia cepacia G4 in growth-limited fed-batch culture

Meher KK, Kadam P, Ranade DR*// *Agharkar Res Inst, Div Microbial Sci, GG Agarkar Rd, Poona 411004, Maharashtra, India

World J Microbiol Biotechnol 1996 12 (1) 105

Butyrate-degrading syntrophic culture from an anaerobic digester treating cattle

Migaud ME, Chee-Sanford JC, Tiedje JM, Frost JW*// *Michigan State Univ, Dept Chem, East Lansing, Mi 48824, USA Appl Environ Microbiol 1996 62 (3) 974
Benzylfumaric, benzylmaleic, and Z- and E-phenylitaconic acids: Synthesis, characterization, and correlation with a metabolite generated by Azoarcus tolulyticus Tol-4 during anaerobic toluene degradation

Nigam P, McMullan G*, Banat IM, Marchant R// *Univ Ulster, Biotechnol Res Grp, Coleraine BT52 1SA, Northern Ireland Biotechnol Lett 1996 18 (1) 117

Decolourisation of effluent from the textile industry by a microbial consortium

Nussinovitch A, Aboutboul Y, Gershon Z, Van Rijn J// Hebrew Univ Jerusalem, Dept Biochem, POB 12, IL-76100 Rehovot, Israel

Biotechnol Progr 1996 12 (1) 26

Changes in mechanical, structural, and denitrifying properties of entrapped Pseudomonas stutzeri bacteria preparations

Pasti-Grigsby MB, Lewis TA, Crawford DL*, Crawford RL// *Univ Idaho, Ctr Hazardous Waste Remediat Res, Moscow, Id 83844, USA

Appl Environ Microbiol 1996 62 (3) 1120

Transformation of 2,4,6-trinitrotoluene (TNT) by Actinomycetes isolated from TNT-contaminated and uncontaminated environments

Patel C, Sastry V, Madamwar D*// *Sardar Patel Univ, Postgrad Dept Biosci, Vallabh Vidyanagar 388120, Gujarat, India Appl Biochem Biotech 1996 56 (1) 89

Tegoprens in anaerobic digestion of a mixture of cheese whey, poultry waste, and cattle dung for improved biomethanation

Perea A. Ugalde U// Univ Ind Santander, Dept Ouim, AP 678, Bucarmanga, Colombia

Enzyme Microb Technol 1996 18 (1) 29

Continuous hydrolysis of whey proteins in a membrane recycle reactor

Radwan KH, Ramanujam TK*// *IIT, Dept Chem Engn, Madras 600036, India Bioprocess Eng 1996 14 (3) 125

Organic reduction of tapioca wastewaters using modified RBC

Ramanathan MP, Lalithakumari D*// *Univ Madras - Guindy Campus, Pesticide Res Lab, Madras 600025, India

World J Microbiol Biotechnol 1996 12 (1) 107

Methylparathion degradation by Pseudomonas sp A3 immobilized in sodium alginate beads

Rhee SK, Lee GM*, Lee ST// *KAIST, Dept Biol Sci, Yusong gu, Kusong dong, Taejon 305701, South Korea

Appl Microbiol Biotechnol 1996 44 (6) 816

Influence of a supplementary carbon source on biodegradation of pyridine by freely suspended and immobilized Pimelobacter sp

Sanchez E, Borja R*, Travieso L// *CSIC, Inst Grasa, Avda Padre Garcia Tejero 4, E-41012 Seville, Spain

Bioprocess Eng 1996 14 (3) 145

Kinetics of sugar mill wastewater treatment by down-flow anaerobic fixed bed

Sharma PK, McCarty PL// Stanford Univ, Western Reg Hazardous Subst Res Ctr, Stanford, Ca 94305, USA

Appl Environ Microbiol 1996 62 (3) 761

Isolation and characterization of a faculatively aerobic bacterium that reductively dehalogenates tetrachlorothene to cis-1,2-dichloroethene

Shen CF, Guiot SR*// *Natl Res Council Canada, Biotechnol Res Inst, 6100 Royalmount Ave, Montreal, Quebec, Canada H4P 2R2 Biotechnol Bioeng 1996 49 (6) 611

Long-term impact of dissolved O2 on the activity of anaerobic granules

Shimizu Y, Uryu K, Okuno Y, Watanabe A// Toto Ltd, Biotechnol & Water Treatment Lab, Kokurakita ku, 2-1-1 Nakashima, Kitakyushu, Fukuoka 802,

J Ferment Bioeng 1996 81 (1) 55

Cross-flow microfiltration of activated sludge using submerged membrane with air bubbling

Shinabe K, Oketani S, Ochi T, Matsumura M// Kubota Corp, Water & Sewerage Plant Eng Dept, Tokyo 103, Japan J Ferment Bioeng 1995 80 (6) 592

Characteristics of hydrogen sulfide removal by Thiobacillus thiooxidans KS1 isolated from a carrier-packed biological deodorization system

Simoni S, Klinke S, Zipper C, Angst W, Kohler HPE*// *EAWAG, Dept Mi-

crobiol, Ueberlandstr 133, CH-8600 Dubendorf, Switzerland Appl Environ Microbiol 1996 62 (3) 749
Enantioselective metabolism of chiral 3-phenylbutyric acid, an intermediate of linear alkylbenzene degradation, by Rhodococcus PB1

Wanner O, Reichert P// Swiss Fed Inst Environm Sci & Technol, CH-8600 Dubendorf, Switzerland

Biotechnol Bioeng 1996 49 (2) 172

Mathematical modeling of mixed-culture biofilms

White GF, Snape JR, Nicklin S// Univ Wales Coll Cardiff, Biochem Unit, POB 911, Cardiff CF1 3US, Wales

Appl Environ Microbiol 1996 62 (2) 637

Biodegradation of glycerol trinitrate and pentaerythritol tetranitrate by Agrobacterium radiobacter

Whyte LG, Greer CW*, Inniss WE// *Natl Res Council Canada, Biotechnol Res Inst, 6100 Royalmount Ave, Montreal, Quebec, Canada H4P 2R2 Can J Microbiol 1996 42 (2) 99

Assessment of the biodegradation potential of psychrotrophic microorganisms

Wilkes H, Wittich RM*, Timmis KN, Fortnagel P, Francke W// *Natl Res Ctr Biotechnol, Div Microbiol, Mascheroder Weg 1, D-38124 Braunschweig, Ger-

Appl Environ Microbiol 1996 62 (2) 367

Degradation of chlorinated dibenzofurans and dibenzo-p-dioxins by Sphingomonas sp strain RW1

Willems HPL, Berry DF*, Mullins DE// *Virginia Polytech Inst & State Univ. Dept Crop & Soil Environm Sci, Blacksburg, Va 24061, USA J Environ Qual 1996 25 (1) 162

Carbofuran degradation and metabolite incorporation during solid state fermen-

Wilson NG, Bradley G// Univ Plymouth, Dept Biol Sci, Plymouth PL4 8AA, England

J Appl Bacteriol 1996 80 (1) 99

Enhanced degradation of petrol (Slovene diesel) in an aqueous system by immobilized *Pseudomonas fluorescens*

Xu P, Qian XM, Wang YX, Xu YB// Shandong Univ, Dept Microbiol, Jinan 250100, Shandong, Peoples Rep China

Appl Microbiol Biotechnol 1996 44 (5) 676

Modelling for waste water treatment by Rhodopseudomonas palustris Y6 immobilized on fibre in a columnar bioreactor

Zaiat M, Vieira LGT, Foresti E*// *Univ Sao Paulo, Escola Engn Sao Carlos, CP 970, BR-13565-770 Sao Carlos, SP, Brazil

Biotechnol Technique 1996 10 (2) 121 Liquid-phase mass transfer in fixed-bed of polyurethane foam matrices containing immobilized anaerobic sludge

Zilli M, Fabiano B, Ferraiolo A, Converti A// Univ Genoa, Inst Chem & Proc Engn GB Bonino, Via Opera Pia 15, I-16145 Genoa, Italy Biotechnol Bioeng 1996 49 (4) 391

Macro-kinetic investigation on phenol uptake from air biofiltration: Influence of superficial gas flow rate and inlet pollutant concentration

5 BIOTRANSFORMATIONS

Acai P, Michalkova E, Bales V// Slovak Tech Univ, Dept Chem & Biochem Engn, Radlinskeho 9, Bratislava 81237, Slovakia Bioprocess Eng 1996 14 (2) 105

Biotransformation of cephalosporin C to 7-aminocephalosporanic acid with coimmobilized biocatalyst in a batch bioreactor. II. Mathematical and experimental modelling

Bellucci G, Chiappe C*, Cordoni A// *Univ Pisa, Dipt Chim Bioorgan, Via Bonanno 33, I-56126 Pisa, Italy

Tetrahedron-Asymmetry 1996 7 (1) 197

Enantioconvergent transformation of racemic cis-β-alkyl substituted styrene oxides to (R,R) three diels by microsomal epoxide hydrolase catalysed hydrolysis

Bhabhe MD, Athawale VD*// *Univ Bombay, Dept Chem, Bombay 400098, India

J Chromatogr A 1995 718 (2) 299

Gel permeation chromatographic method for monitoring the transesterification reaction in a two-step chemoenzymatic synthesis of methane oil based on vege-

Buisson D, Azerad R// Univ Paris 05, CNRS, Lab Chim, 45 rue St Peres, F-75270 Paris 06, France

Tetrahedron-Asymmetry 1996 7 (1) 9

A chemoenzymatic preparation of both enantiomers of ω-hydroxymethyl-substitute lactones

Carelli A, Borghi A, Carrano L, Gastaldo L, Marinelli F*// *Lepetit Res Ctr, Via R Lepetit 34, I-21040 Gerenzano, Italy J Ind Microbiol 1995 15 (5) 429

Biotransformation of the lipoglycopeptide antibiotic A40926 by Actinoplanes teichomyceticus cells

Cerovsky V, Jakubke HD// Acad Sci Czech Republ, Inst Organ Chem & Biochem, CR-16610 Prague 6, Czech Republic

Biotechnol Bioeng 1996 49 (5) 553

Nucleophile specificity of subtilisin in an organic solvent with low water content: Investigation via acyl transfer reactions

Clapes P, Valverde I, Jaime C, Torres JL// CSIC, CID, Unit Prot Chem & Biochem, Jordi Girona 18-26, E-08034 Barcelona, Spain Tetrahedron Lett 1996 37 (3) 417

Enzymatic resolution of Z-γ,γ'-di-tert-butyl-D,L-carboxyglutamic acid methyl

Colonna S, Gaggero N, Carrea G, Pasta P// Fac Farm, Ctr CNR, Via Venezian 21, I-20133 Milan, Italy

Tetrahedron-Asymmetry 1996 7 (2) 565

Enantio and diastereoselectivity of cyclohexanone monooxygenase catalyzed oxidation of 1,3-dithioacetals

Danieli B, Lesma G*, Passarella D, Silvani A// *Univ Milan CNR, Dipt Chim Organ & Ind, Via Venezian 21, I-20133 Milan, Italy Tetrahedron-Asymmetry 1996 7 (2) 345

Stereoselective enzymatic hydrolysis of dimethyl meso-piperidine-3,5-dicarb-

De Carvalho IB, De Sampaio TC, Barreiros S*// *Univ Nova Lisboa, Inst Tecnol Quim & Biol, Rua da Quinta Grande 6, Apdo 127, P-2780 Oeiras, Portugal Biotechnol Bioeng 1996 49 (4) 399

Solvent effects on the catalytic activity of subtilisin suspended in compressed

De Raadt A, Griengl H, Petsch M, Plachota P, Schoo N, Weber H, Braunegg De Raadt A, Oriengi H, Peisch M, Plachota P, Schoo N, Weber H, Braunegg G, Kopper I, Kreiner M, Zeiser A et all! Graz Tech Univ, Inst Organ Chem, Stremayrgasse 16, A-8010 Graz, Austria

Tetrahedron-Asymmetry 1996 7 (2) 467

Microbial hydroxylation of 2-cycloalkylbenzoxazoles. I. Product spectrum obtained from Cunninghamella blakesleeana DSM 1906 and Bacillus megaterium

DSM 32

De Raadt A, Griengl H, Petsch M, Plachota P, Schoo N, Weber H, Braunegg G, Kopper I, Kreiner M, Zeiser K// Address as above.

Tetrahedron-Asymmetry 1996 7 (2) 473

Microbial hydroxylation of 2-cycloalkylbenzoxazoles. II. Determination of product structures and enhancement of enantiomeric excess

De Raadt A, Griengl H, Petsch M, Plachota P, Schoo N, Weber H, Braunegg G, Kopper I, Kreiner M, Zeiser Al/ Address as above.

Tetrahedron-Asymmetry 1996 7 (2) 491

Microbial hydroxylation of 2-cycloalkylbenzoxazoles. III. Determination of product enantiomeric excess and cleavage of benzoxazoles

Dingler C, Ladner W, Krei GA, Cooper B, Hauer B*// *BASF AG, Biotechnol Zhb, D-67056 Ludwigshafen, Germany

Pestic Sci 1996 46 (1) 33

Preparation of (R)-2-(4-hydroxyphenoxy) propionic acid by biotransformation

Eaton RW, Selifonov SA// US/EPA, NHEERL, Gulf Ecol Div, 1 Sabine Isl Dr, Gulf Breeze, Fl 32561, USA

Appl Environ Microbiol 1996 62 (3) 756
Biotransformation of 6,6-dimethylfulvene by Pseudomonas putida RE213

Fantin G, Fogagnolo M, Giovannini PP, Medici A*, Pedrini P, Gardini F, Lanciotti R// *Univ Ferrara, Dipt Chim, Via Borsari 46, I-44100 Ferrara, Italy Tetrahedron 1996 52 (10) 3547

Anti-prelog microbial reduction of prochiral carbonyl compounds

Feliu JA, De Mas C, Lopez-Santin J*// *Univ Autonoma Barcelona, Unitat Engn Quim, E-08193 Barcelona, Spain Bioprocess Eng 1996 14 (3) 163

A mathematical model for the synthesis of Gly-Phe by papain in an aqueousorganic system

Field JA, Vledder RH, Van Zeist JG, Rulkens WH// Wageningen Univ Agr, Dept Environm Technol, POB 8129, 6700 EV Wageningen, The Netherlands Enzyme Microb Technol 1996 18 (4) 300

The tolerance of lignin peroxidase and manganese-dependent peroxidase to miscible solvents and the *in vitro* oxidation of anthracene in solvent-water mix-

Franssen MCR, Jongejan H, Kooijman H, Spek AL*, Nuno LFL, Mondril NLFLC, Dos Santos PMACB, De Groot A// *Agr Univ Wageningen, Dept Organ Chem, Drejenplein 8, 6703 HB Wageningen, The Netherlands Tetrahedron-Asymmetry 1996 7 (2) 497

Resolution of a tetrahydrofuran ester by Candida rugosa lipase (CRL) and an examination of CRL's stereochemical preference in organic media

Fronza G, Fuganti C*, Mendozza M, Rallo RS, Ottolina G, Joulain D//
*Politecn Milan, CNR, Dipt Chim, Ctr Chim Sostanze Organ Nat, Via Mancinelli 7, I-20131 Milan, Italy

Tetrahedron 1996 52 (11) 4041

Stereochemistry of the double bond saturation in the formation of baker's yeast of 4-(4-hydroxyphenyl)-2-butanone (raspberry ketone)

Garcia-Granados A, Linan E, Martinez A, Onorato ME// Univ Granada, Dept Quim Organ, E-18071 Granada, Spain

J Nat Prod 1995 58 (11) 1695

New polyoxygenated ent-manoyl oxides obtained by biotransformation with filamentous fungi

Green EM, Stephens GM*// *UMIST, Dept Chem Engn, POB 8, Manchester M60 1QD, England

Appl Microbiol Biotechnol 1996 44 (5) 553

Biotransformations by Clostridium beijerinckii NCIMB 8052 in pH-auxostat

Green KD, Gill IS, Khan JA*, Vulfson EN// *Food Res Inst, Dept Biotechnol & Enzymol, Whiteknights Rd, Reading RG6 6BZ, England Biotechnol Bioeng 1996 49 (5) 535

Microencapsulation of yeast cells and their use as a biocatalyst in organic sol-

Habulin M, Krmelj V, Knez Z*// *Fac Chem & Chem Engn, Smetanova ul 17, Maribor 62000, Slovenia

J Agr Food Chem 1996 44 (1) 338

Synthesis of oleic acid esters catalyzed by immobilized lipase

Heidt M, Bornscheuer U, Schmid RD// Univ Stuttgart, Inst Tech Biochem, Alimandring 31, D-70569 Stuttgart, Germany Biotechnol Technique 1996 10 (1) 25

Studies on the enantioselectivity in the lipase-catalyzed synthesis of monoacylglycerols from isopropylidene glycerol

Howell JAS, Palin MG, Salaun J, McArdle P, Cunningham D, O'Gara M// Univ Keele, Dept Chem, Keele ST5 5BG, England

Tetrahedron-Asymmetry 1996 7 (1) 95

Enzymatic generation of planar chirality in the (arene)Cr(CO)3 series. Experimental results and modelling studies

Howell JAS, O'Leary PJ, Palin MG, Jaouen G, Top S// Address as above.

Tetrahedron-Asymmetry 1996 7 (1) 307
Diastereoselectivity in the bakers yeast reduction of [1-2H](sorboaldehyde) Fe(CO)3

Huang JK, Keudell KC, Seong SJ, Klopfenstein WE, Wen L, Bagby MO*, Norton RA, Vesonder RF// *USDA/ARS, Natl Ctr Agr Utilizat Res, 1815 Nth Univ St, Peoria, Il 61604, USA

Biotechnol Lett 1996 18 (2) 193

Conversion of 12-hydroxyoctadecanoic acid to 12,15-, 12,16- and 12,17-dihydroxyoctadecanoic acids with Bacillus sp U88

Huber P, Bratovanov S, Bienz S*, Syldatk C, Pietzsch M// *Univ Zurich, Inst Organ Chem, Winterthurerstr 190, CH-8057 Zurich, Switzerland *Tetrahedron-Asymmetry* 1996 7 (1) 69
Chiral silicon groups as auxiliaries for enantioselective synthesis: Access to optically active silanes by biotransformation and the enantiospecific preparation

of (R)-(+)-1-phenylethanol

Jachmanian I, Schulte E, Mukherjee KD*// *BAGKF, HP Kaufmann Inst, Inst Biochem & Technol Fette, Piusallee 68, D-48147 Munster, Germany Appl Microbiol Biotechnol 1996 44 (5) 563

Substrate selectivity in esterification of less common fatty acids catalysed by lipases from different sources

Kelly DR, Knowles CJ, Mahdi JG, Taylor IN, Wright MA// Univ Wales Coll Cardiff, Dept Chem, POB 912, Cardiff CF1 3TB, Wales Tetrahedron-Asymmetry 1996 7 (2) 365

The enantioselective oxidation of sulfides to sulfoxides with Acinetobacter sp, NCIMB 9871, Pseudomonas sp, NCIMB 9872, Xanthobacter autotrophicus DSM 431 (NCIMB 10811) and the black yeast NV-2

Kolossvary GJ, Banky-Elod E// Cent Food Res Inst, Dept Enzymol, Herman O 15, H-1025 Budapest, Hungary

Biotechnol Technique 1996 10 (2) 115

Enhancement of enzymatic hydrolysis of triolein in aqueous solution by cyclodextrin derivatives

Kutney JP, Du XY, Naidu R, Stoynov NM, Takemoto M// Univ British Columbia, Dept Chem, 2036 Main Mall, Vancouver, Brit Columbia, Canada V6T

Heterocycles 1996 42 (2) 479

Biotransformation of dibenzylbutanolides by peroxidase enzymes. Routes to the podophyllotoxin family

Lebreton J, Alphand V, Furstoss R*// *CNRS, Fac Sci Luminy, Grp Chim Organ & Bioorgan, Case 901, 163 Ave Luminy, F-13288 Marseille 9, France Tetrahedron Lett 1996 37 (7) 1011

A short chemoenzymatic synthesis of (+)-multifidene and (+)-viridiene

Lee IY, Hong WK, Hwang YB, Kim CH, Choi ES, Rhee SK, Park YH*//
*KIST, Korea Res Inst Biosci & Biotechnol, POB 115, Taejon, South Korea

J Ferment Bioeng 1996 81 (1) 79

Production of D-β-hydroxyisobutyric acid from isobutyric acid by Candida ru-

Lee WH, Kim KJ, Kim MG, Lee SB*// *Pohang Univ Sci & Technol, Dept Chem Engn, San 31, Pohang 790784, South Korea

J Ferment Bioeng 1995 80 (6) 613

Enzymatic resolution of racemic ibuprofen esters: Effects of organic co-solvents and temperature

Linko YY, Wu XY// Helsinki Univ Technol, Dept Chem Engn, SF-02150 Espoo, Finland

J Chem Technol Biotechnol 1996 65 (2) 163

Biocatalytic production of useful esters by two forms of lipase from Candida

Liu WH, Horng WC, Tsai MS// Natl Taiwan Univ, Grad Inst Agr Chem, Taipei 10764, Taiwan

Enzyme Microb Technol 1996 18 (3) 184

Bioconversion of cholesterol to cholest-4-en-3-one in aqueous organic solvent two-phase reactors

Matsumoto K, Kitajima H, Nakata T// Fukui Univ, Dept Appl Chem & Biotechnol, Bunkyo ku 3-9-1, Fukui 910, Japan J Mol Catal B-Enzym 1995 1 (1) 17

Enantioselectivity-promoting factor in enzyme-mediated asymmetric hydrolysis of enol esters

Michor H. Marr R*, Gamse T, Schilling T, Klingsbichel E, Schwab H// *Graz Univ Technol, Dept Chem Engn & Environm Technol, Inffeldgasse 25, A-8010 Graz, Austria

Biotechnol Lett 1996 18 (1) 79

Enzymatic catalysis in supercritical carbon dioxide: Comparison of different lipases and a novel esterase

Miya H, Kawada M, Sugiyama Y// Takeda Chem Ind Ltd, Div Discovery Res, Integrated Technol Labs, Wadai 10, Tsukuba, Ibaraki 30042, Japan Biosci Biotechnol Biochem 1996 60 (1) 95

Stereoselective reduction of ethyl 2-methyl-3-oxobutanoate by bacteria

Miyazawa M, Okamura S, Kameoka H// Kinki Univ, Dept Appl Chem, Osaka 577, Japan

J Chem Technol Biotechnol 1996 65 (2) 171

Biological enantioselective reduction of methylcyclohexanones by Glomerella cingulata

Molinari F, Gandolfi R, Aragozzini F// Univ Milan, Dipt Sci & Tecnol Alimentari & Microbiol, Sez Microbiol Ind, Via Celoria 2, I-20133 Milan, Italy Biotechnol Technique 1996 10 (2) 103

Microbial catalyzed esterification of primary and secondary alcohols in organic

Mukherjee KD, Kiewitt I// BAGKF, HP Kaufmann Inst, Inst Biochem & Technol Fette, Piusallee 68, D-48147 Munster, Germany Appl Microbiol Biotechnol 1996 44 (5) 557

Enrichment of very-long-chain mono-unsaturated fatty acids by lipase catalysed hydrolysis and transesterification

Nair MS, Anilkumar AT// CSIR, Reg Res Lab, Trivandrum 695019, Kerala,

Tetrahedron-Asymmetry 1996 7 (2) 511

Versatile chiral intermediates for terpenoid synthesis using lipase catalysed acylation

Nakamura K, Kondo S, Kawai Y, Hida K, Kitano K, Ohno A// Kyoto Univ, Chem Res Inst, Uji, Kyoto 611, Japan Tetrahedron-Asymmetry 1996 7 (2) 409

Enantio- and regioselective reduction of α-diketones by baker's yeast

Nakamura K, Kitano K, Matsuda T, Ohno A// Kyoto Univ, Inst Chem Res, Uii, Kyoto 611, Japan

Tetrahedron Lett 1996 37 (10) 1629

Asymmetric reduction of ketones by the acetone powder of Geotrichum can-

Napier PE, Lacerda HM, Rosell CM, Valivety RH, Vaidya AM*, Halling PJ// *Univ Strathclyde, Dept Chem Engn, Glasgow G1 1XJ, Scotland Biotechnol Progr 1996 12 (1) 47

Enhanced organic-phase enzymatic esterification with continuous water removal in a controlled air-bleed evacuated-headspace reactor

Nishino N, Arai T, Ueno Y, Ohba M// Kyushu Inst Technol, Dept Appl Chem, Tobata ku, Kitakyushu, Fukuoka 804, Japan Chem Pharm Bull Tokyo 1996 44 (1) 212

Tandem enzymatic resolution yielding L-α-aminoalkanedioic acid ω-esters

North M// Univ Wales, Dept Chem, Bangor LL57 2UW, Wales Tetrahedron Lett 1996 37 (10) 1699

Baker's yeast reduction of β-keto esters in petrol

Oda S, Kato A, Matsudomi N, Ohta H// Kansai Paint Co Ltd, Tech Res Lab, 4-17-1 Higashi Yawata, Hiratsuka, Kanagawa 254, Japan Biosci Biotechnol Biochem 1996 60 (1) 83

Enantioselective oxidation of racemic citronellol with an interface bioreactor

Otero C, Robledo L, Alcantara AR// CSIC, Inst Catalisis, E-28049 Madrid, Spain

J Mol Catal B-Enzym 1995 1 (1) 23

Study of the stabilization of pure lipases: Comparison of two different lipasemicrogel derivatives

Patil PN, Salvi NA, Udupa SR, Banerji A*// *Bhabha Atom Res Ctr, Div Bioorgan, Bombay 400085, Maharashtra, India Biotechnol Lett 1996 18 (2) 159

Enantiomeric synthesis of pyridyl-1-ethanols using Rhizopus arrhizus

Peczynska-Czoch W, Osiadacz J, Kaczmarek T, Zal T// Wroclaw Tech Univ, Inst Organ Chem Biochem & Biotechnol, 27 Wybrzeze Wyspainskiego, PL-50370 Wroclaw, Poland

Biotechnol Lett 1996 18 (2) 123

Microbial transformation of azacarbazoles X: Regioselective hydroxylation of 5,11-dimethyl-5H-indolo [2,3-b]quinoline, a novel DNA topoisomerase II inhibitor, by Rhizopus arrhizus

Plou FJ, Barandiaran M, Calvo MV, Ballesteros A, Pastor E// Univ Autonoma Madrid, CSIC, Dept Biocatalisis, E-28049 Madrid, Spain

Enzyme Microb Technol 1996 18 (1) 66

High yield production of mono- and di-oleylglycerol by lipase-catalyzed hydrolysis of triolein

Poire C, Rabiller C, Chon C, Hudhomme P// Univ Nantes, URA 472, Lab RMN & React Chim, 2 rue Houssiniere, F-44072 Nantes 03, France J Chem Educ 1996 73 (1) 93

Enzymatic resolution of (+/-)-methanol using transesterification with methyl (2R)-(+)-2-chloropropanoate: A biocatalyzed reaction studied by NMR spectroscopy and polarimetry for an advanced undergraduate project in modern organic chemistry

Rosell CM, Vaidya AM, Halling PJ// Univ Strathclyde, Dept Chem Engn, 75 Montrose St, Glasgow G1 1XJ, Scotland Biotechnol Bioeng 1996 49 (3) 284

Continuous in situ water activity control for organic phase biocatalysis in a

packed bed hollow fiber reactor

Santin M, Rosso F, Sada A, Peluso G*, Improta R, Trincone A// *CNR, Ist Biochim Prot & Enzimol, Via Toiano 6, I-80072 Arco, Naples, Italy Biotechnol Bioeng 1996 49 (2) 217

Enzymatic synthesis of 2-β-D-galactopyranosyloxy ethyl methacrylate (Gal-EMA) by the thermophilic archeon Sulfolobus solfataricus

Schoffers E, Golebiowski A, Johnson CR*// *Wayne State Univ, Dept Chem, Detroit, Mi 48202, USA

Tetrahedron 1996 52 (11) 3769

Enantioselective synthesis through enzymatic asymmetrization

Shin HS, Rogers PL*// *Univ NSW, Dept Biotechnol, Sydney, NSW 2052.

Biotechnol Bioeng 1996 49 (4) 429

Kinetic evaluation of biotransformation of benzaldehyde to L-phenylacetylcarbinol by immobilized pyruvate decarboxylase from Candida utilis

Shiomori K, Hayashi T, Baba Y, Kawano Y, Hano T// Miyazaki Univ, Dept Mat Sci, 1-1 Gakuenkibanadai, Miyazaki 88921, Japan

J Ferment Bioeng 1995 80 (6) 552

Hydrolysis rates of olive oil by lipase in a monodispersed O/W emulsion system using membrane emulsification

Shiotani S, Okada H, Yamamoto T, Nakamata K, Adachi J, Nakamoto H// Toyama Univ, Dept Chem, Gofuku 3190, Toyama 930, Japan Heterocycles 1996 43 (1) 113

Asymmetric synthesis of (+) and (-)-eptazocine via an enzymatic reaction

Song JJ, Yoon SC*// *Gyeongsang Natl Univ, Dept Microbiol, Biomacromolec Res Lab, Chinju 660701, South Korea

Appl Environ Microbiol 1996 62 (2) 536

Biosynthesis of novel aromatic copolyesters from insoluble 11-phenoxyundecanoic acid by Pseudomonas putida BM01

Tsai SW, Liu BY, Chang CS// Natl Cheng Kung Univ, Dept Chem Engn, Tainan, Taiwan

J Chem Technol Biotechnol 1996 65 (2) 156

Enhancement of (S)-naproxen ester productivity from racemic naproxen by lipase in organic solvents

Wakamatsu H, Terao Y*// *Shizuoka Univ, Grad Sch Nutr & Environm Sci, 52-1 Yada, Shizuoka 422, Japan

Chem Pharm Bull Tokyo 1996 44 (1) 261

Lipase-catalyzed optical resolution of 2-oxazolidinones

Warwel S, Klaas MRG// Fed Ctr Cereal Potato & Lipid Res, Piusallee 68, D-48417 Munster, Germany

J Mol Catal B-Enzym 1995 1 (1) 29

Chemo-enzymatic epoxidation of unsaturated carboxylic acids

Wiseman A// Univ Surrey, Sch Biol Sci, Guildford GU2 5XH, Surrey, England J Chem Technol Biotechnol 1996 65 (1) 3

Biocatalyst replacement by mimetics in bioconversions: Can the time-scale be predicted? (Comment)

Woudenberg-van Oosterom M, Van Rantwijk F, Sheldon RA*// *Delft Univ Technol, Lab Organ Chem & Catalysis, Julianalaan 136, 2628 BL Delft, The Netherlands

Biotechnol Bioeng 1996 49 (3) 328

Regioselective acylation of disaccharides in tert-butyl alcohol catalyzed by Candida antarctica lipase

Yamamoto K, Otsubo K, Matsuo A, Hayashi T, Fujimatsu I, Komatsu K// Noguchi Inst, Res Dept, Itabashi ku, 1-8-1 Kaga, Tokyo 173, Japan Appl Environ Microbiol 1996 62 (1) 152

Production of R(-)-ketoprofen from an amide compound by Comamonas acido-vorans KPO-2771-4

Yamane T, Chen XF*, Ueda S// *Nagoya Univ, Dept Appl Biol Sci, Chikusa ku, 1 Furo cho, Nagoya, Aichi 46401, Japan

Appl Environ Microbiol 1996 62 (2) 380

Growth-associated production of poly(3-hydroxyvalerate) from n-pentanol by a methylotrophic bacterium, Paracoccus denitrificans

Yamazaki Y, Achiwa K*// *Shizuoka Univ, Sch Pharmaceut Sci, 52-1 Yada, Shizuoka 422, Japan

Heterocycles 1996 42 (1) 169

Lipase AH-catalyzed asymmetric synthesis of (S)-(-)-NB 818

Yang FX, Russell AJ*// *Univ Pittsburgh, Dept Chem Engn, Pittsburgh, Pa 15261, USA

Biotechnol Bioeng 1996 49 (6) 700

The role of hydration in enzyme activity and stability. I. Water adsorption by alcohol dehydrogenase in a continuous gas phase reactor

Yang FX, Russell AJ+// *Address as above

Biotechnol Bioeng 1996 49 (6) 709

The role of hydration in enzyme activity and stability. II. Alcohol dehydrogenase activity and stability in a continuous gas phase reactor

Yun JW, Kang SC, Song SK// Taegu Univ, Dept Biotechnol, Kyungbuk 713714, South Korea

Biotechnol Lett 1996 18 (1) 35

Microbial transformation of fructose to mannitol by Lactobacillus sp KY-107

6 PRODUCT RECOVERY

Ariga O, Toyofuku H, Matsudaira K, Sano Y, Kuroiwa I// Shinshu Univ. Dept. Fine Mat Engn, 3-15-1 Tokida, Ueda, Nagano 386, Japan

J Ferment Bioeng 1995 80 (6) 616

Effects of incubation conditions on the release of a recombinant product in immobilized Escherichia coli cells

Bompensieri S, Gonzalez R, Kok R, Miranda MV, Nutgeren-Roodzant I, Hellingwerf KJ, Cascone O, Nudel BC*// *Univ Buenos Aires, Fac Farm & Bioquim, Junin 956, RA-1113 Buenos Aires, DF, Argentina Biotechnol Appl Biochem 1996 23 (1) 77

Purification of a lipase from Acinetobacter calcoaceticus AAC323-I by hydrophobic-interaction methods

Chang QL, Chem JY// Chinese Acad Sci, Inst Chem Met, POB 353, Beijing 100080, Peoples Rep China

Process Biochem 1996 31 (4) 371

Liquid-liquid reversed micellar extraction for isolating enzymes: Studies on the purification of α-amylase

Chang QL, Chen JY// Address as above. Appl Biochem Biotech 1996 56 (2) 197

Selective recovery of two enzymes from Bacillus subtilis using aliquat 336 reversed micelles

Chang YK, Chase HA*// *Univ Cambridge, Dept Chem Engn, Pembroke St, Cambridge CB2 3RA, England

Biotechnol Bioeng 1996 49 (2) 204

Ion exchange purification of G6PDH from unclarified yeast cell homogenates using expanded bed adsorption

Chang YK, Chase HA*// *Address as above.

Biotechnol Bioeng 1996 49 (5) 512

Development of operating conditions for protein purification using expanded bed techniques: The effect of the degree of bed expansion on adsorption performance

Chung BH, Nam SW, Kim BM, Park YH// Korea Res Inst Biosci & Biotechnol, POB 115, Yusong, Taejon 305600, South Korea Biotechnol Bioeng 1996 49 (4) 473

Highly efficient secretion of heterologous proteins from Saccharomyces cerevisiae using inulinase signal peptides

Clarkson AI, Bulmer M, Titchener-Hooker NJ*// *UCL, Dept Chem & Biochem Engn, Torrington Pl, London WC1E 7JE, England Bioprocess Eng 1996 14 (2) 69

Pilot-scale verification of a computer-based simulation for fractional protein precipitation

Clarkson AI, Bulmer M, Titchener-Hooker NJ*// *Address as above. Bioprocess Eng 1996 14 (2) 81

Pilot-scale verification of a computer-based simulation for the centrifugal recovery of biological particles

Filho EXF, Puls J, Coughlan MP// Univ Brasilia, Dept Biol Celular, BR-70910-900 Brasilia, DF, Brazil

Appl Environ Microbiol 1996 62 (1) 168

Purification and characterization of two arabinofuranosidases from solid-state cultures of the fungus Penicillium capsulatum

Franco TT, Andrews AT, Asenjo JA*// *Univ Chile, Dept Chem Engn, Beauchef 861, Santiago, Chile Biotechnol Bioeng 1996 49 (3) 290

Conservative chemical modification of proteins to study the effects of a single protein property on partitioning in aqueous two-phase systems

Franco TT, Andrews AT, Asenjo JA*// *Address as above.

Biotechnol Bioeng 1996 49 (3) 300

Use of chemically modified proteins to study the effect of a single protein property on partitioning in aqueous two-phase systems: Effect of surface hydrophobicity

Franco TT, Andrews AT, Asenjo JA*// *Address as above. Biotechnol Bioeng 1996 49 (3) 309

Use of chemically modified proteins to study the effect of a single protein property on partitioning in aqueous two-phase systems. Effect of surface

Frey DD// Univ Baltimore, Dept Chem & Biochem Engn, Baltimore, Md 21228, USA

Biotechnol Progr 1996 12 (1) 65

Local-equilibrium behavior of retained pH and ionic strength gradients in preparative chromatography

Garro MS, De Valdez GF, Oliver G, De Giori GS*// *Ctr Referencia Lactobacilos, Chacabuco 145, RA-4000 Tucuman, Argentina

J Biotechnol 1996 45 (2) 103

Purification of a-galactosidase from Lactobacillus fermentum

Gubitz GM, Hayn M, Urbanz G, Steiner W// Graz Tech Univ, Inst Biotechnol,

Petergasse 12-1, A-8010 Graz, Austria

J Biotechnol 1996 45 (2) 165

Purification and properties of an acidic β-mannase from Sclerotium rolfsii

Han SW, Rossi A*// *USP, FFCLRP, Dept Quim, Avda Bandeirantes 3900, BR-14040-901 Ribeirao Preto, SP, Brazil World J Microbiol Biotechnol 1996 12 (1) 109

Purification and properties of acid phosphatase (EC 3.1.3.2) secreted by strain 74A of the mould Neurospora crassa

Hu ZY, Gulari E*// *Univ Michigan, Dept Chem Engn, Ann Arbor, Mi 48109,

J Chem Technol Biotechnol 1996 65 (1) 45

Extraction of aminoglycoside antibiotics with reverse micelles

Janecek J. Dobrova Z. Moravec V. Naprstek J// Acad Sci Czech Republic, Inst Microbiol, Videnska 1083, CR-14220 Prague, Czech Republic

1 Biochem Biophys Meth 1996 31 (1-2) 9

improved method for rapid purification of protein kinase from Streptomycetes

Kallio PT, Bailey JE*// *ETH Zurich, Inst Biotechnol, CH-8093 Zurich, Switzerland

Biotechnol Progr 1996 12 (1) 31 Intracellular expression of Vitreoscilla hemoglobin (VHb) enhances total protein secretion and improves the production of α -amylase and neutral protease n Bacillus subtilis

Kurane R, Mita H// Agcy Ind Sci & Technol, Natl Inst Biosci & Human Technol, 1-1-3 Higashi, Tsukuba, Ibaraki 305, Japan

J Ferment Bioeng 1996 81 (1) 90

Simple and cost-effective procedure for purification of biopolymer from highly viscous Alcaligenes latus culture broth

Lin DQ, Zhu ZQ, Mei LH// Zhejiang Univ, Dept Chem Engn, Hangzhou 310027, Peoples Rep China

Biotechnol Technique 1996 10 (1) 41

Affinity extraction of lactate dehydrogenase by aqueous two-phase systems using free triazine dves

Lin SF, Chiou CM, Yeh CM, Tsai YC// Natl Ying Ming Univ, Tatung Inst Fechnol, Dept Bioengn, Taipei, Taiwan Appl Environ Microbiol 1996 62 (3) 1093

Purification and partial characterization of an alkaline lipase from Pseudomon-

Marco JL, Bataus LA, Valencia FF, Ulhoa CJ, Astolfi S, Felix CR*// *Univ Brasilia, Dept Biol Celular, Brasilia-70910-900, DF, Brazil

Appl Microbiol Biotechnol 1996 44 (6) 746

Purification and characterization of a truncated Bacillus subtilis α-amylase produced by Escherichia coli

Matsusaki E, Endo N, Sonomoto K, Ishizaki A// Kyushu Univ, Lab Microbial Technol, Higashi ku, 6-10-1 Hakozaki, Fukuoka 812, Japan J Fac Agr Kyushu Univ 1995 40 (1-2) 73

Purification and identification of a peptide antibiotic produced by Lactococcus

Mattison KW, Brittain IJ, Dubin PL*// *Indiana Univ Purdue Univ, Dept

Chem, Indianapolis, In 46202, USA Biotechnol Progr 1995 11 (6) 632

Protein-polyelectrolyte phase boundaries

Mukhopadhyay T, Roy K, Sawant SN, Deshmukh SK, Ganguli BN, Fehlhaber HW// Hoechst India Res Ctr, Dept Microbiol, Mulund 400080, India J Antibiot 1996 49 (2) 210

On an unstable antifungal metabolite from Trichoderma koningii: Isolation and structure elucidation of a new cyclopentenone derivative (3-dimethylamino-5hydroxy-5-vinyl-2-cyclopenten-1-one)

Nakamura S, Ishiguro Y, Nakai R, Wakobayashi K, Aono R, Horikoshi K// Tokyo Inst Technol, Dept Bioengn, Midori ku, 4259 Nagatsuta, Yokohama, Kanagawa 226, Japan

J Mol Catal B-Enzym 1995 1 (1) 7

Purification and characterization of a thermophilic alkaline xylanase from thermoalkaliphilic Bacillus sp strain TAR-1

Nojima S, Mineki S, Iida M*// *Sci Univ Tokyo, Dept Appl Biol Sci, Noda, Chiba 278, Japan

J Ferment Bioeng 1996 81 (1) 72

Purification and characterization of extracellular poly(3-hydroxybutyrate) depolymerases produced by Agrobacterium sp K-03

O'Brien DJ, Craig JC// USDA, Eastern Reg Res Ctr, 600 East Mermaid Lane, Philadelphia, Pa 19118, USA

Appl Microbiol Biotechnol 1996 44 (6) 699

Ethanol production in a continuous fermentation membrane pervaporation sys-

Ohta H, Katoh T, Fujio Y// Kyushu Univ, Lab Food Technol, Fukuoka 81281, Japan

J Fac Agr Kyushu Univ 1995 40 (1-2) 9

Purification and some properties of a thermostable protease, BSP2, produced from Bacillus stearothermophilus No 2

Rao KJ, Panda T*// *Indian Inst Technol, Dept Chem Engn, Madras 600036,

Bioprocess Eng 1996 14 (2) 101

Release of periplasmic penicillin amidase from Escherichia coli by chloroform

Salgueiro AA, Ferreira MSS// Univ Fed Pernambuco, Dept Engn Quim, BR-50740-521 Recife, PE, Brazil Arq Biol Tecnol 1995 38 (3) 835

Partial purification and properties of Arthrobacter sp ATCC 13717 glucose isomerase soluble and immobilized by covalent linkage to nylon-polyethyleimine beads

Sebastiao MJ, Cabral JMS, Aires-Barros MR// Inst Super Tecn, Engn Bioquim Lab, P-1000 Lisbon, Portugal

Enzyme Microb Technol 1996 18 (4) 251

Improved purification protocol of a Fusarium solani pisi recombinant cutinase by phase partitioning in aqueous two-phase systems of polyethylene glycol and phosphate

Tano T, Kitaguchi H, Harada M, Nagasawa T, Sugio T*// *Okayama Univ, Dept Biol Funct & Genet Resources Sci, 1-1-1 Tsushima Naka, Okayama 700, Janan

Biosci Biotechnol Biochem 1996 60 (2) 224

Purification and some properties of a tetrathionate decomposing enzyme from Thiobacillus thiooxidans

Terashima M, Suzuki K, Katoh S// Kyoto Univ, Dept Synthet Chem & Biol Chem, Kyoto 60601, Japan Process Biochem 1996 31 (4) 341

Effective refolding of fully reduced lysozyme with a flow-type reactor

Umakoshi H, Yano K, Kuboi R*, Komasawa I// *Osaka Univ, Dept Chem Engn, Toyonaka, Osaka 560, Japan Biotechnol Progr 1996 12 (1) 51

Extractive cultivation of recombinant Escherichia coli using aqueous two-phase systems for production and separation of intracellular heat shock proteins

Varley J, Kaul A, Ball S// Univ Reading, Biotechnol & Biochem Engn Grp, Reading RG6 2AP, England

Biotechnol Technique 1996 10 (2) 133

Partition of protein from binary mixtures by a batch foaming process

Vunnum S, Gallant S, Cramer S*// *Rensselaer Polytech Inst, Dept Chem Engn, Troy, NY 12180, USA

Biotechnol Progr 1996 12 (1) 84

Immobilized metal affinity chromatography: Displacer characteristics of traditional mobile phase modifiers

7 PRODUCTS

Barron N, Marchant R, McHale L, McHale AP*// *Univ Ulster, Biotechnol Res Grp, Coleraine BT52 1SA, Northern Ireland

World J Microbiol Biotechnol 1996 12 (1) 103

Ethanol production from cellulose at 45°C using a hatch-fed system containing alginate-immobilized Kluyveromyces marxianus IMB3

Carlsen M, Nielsen J, Villadsen J// Tech Univ Denmark, Ctr Proc Biotechnol, DK-2800 Lyngby, Denmark J Biotechnol 1996 45 (1) 81

Growth and α-amylase production by Aspergillus oryzae during continuous cultivations

Chatterjee R, Dutta A, Banerjee R, Bhattacharyya BC*// *IIT Kharagpur, Dept Chem Engn, Kharagpur 721302, West Bengal, India Bioprocess Eng 1996 14 (3) 159

Production of tannase by solid-state fermentation

Chen WC// Tatung Inst Technol, Dept Bioengn, Taipei 10451, Taiwan Biotechnol Lett 1996 18 (1) 69

β-Fructofuranosidase production by Aspergillus japonicus in shaking batch cultures as affected by initial sucrose concentrations

Chen WC. Liu CH// Address as above

Enzyme Microb Technol 1996 18 (2) 153

Production of β -fructofuranosidase by Aspergillus japonicus

De Lima VLAG, Stamford TLM, Salgueiro AA// UFRPE, Dept Ciencias Domest, Recife, PE, Brazil
Arq Biol Tecnol 1995 38 (3) 773

Citric acid production from pineapple waste by solid state fermentation using Aspergillus niger (Portuguese, English Abstract)

De Milo AB, Lee CJ, Moreno DS, Martinez AJ// USDA/ARS, Inst Plant Sci, Insect Chem Ecol Lab, Beltsville, Md 20705, USA J Agr Food Chem 1996 44 (2) 607

Identification of volatiles derived from Citrobacter freundii fermentation of a trypticase soy broth

Du Preez JC, Immelman M, Kilian SG// Univ Orange Free State, Dept Microbiol & Biochem, POB 339, Bloemfontein 9300, Rep Sth Africa World J Microbiol Biotechnol 1996 12 (1) 68

The utilization of short-chain monocarboxylic acids as carbon sources for the production of γ-linolenic acid by Mucor strains in fed-batch culture

Eroshin VK, Dedyukhina EG, Chistyakova TI, Zhelifonova VP, Kurtzman CP, Bothast RJ*// *USDA/ARS, Natl Ctr Agr Utilizat Res, Fermentat Biochem Res Unit, 1815 Nth Univ St, Peoria, Il 61604, USA

World J Microbiol Biotechnol 1996 12 (1) 91

Arachidonic-acid production by species of Mortierella

Fabregas J, Morales ED, Polanco N, Patino M, Otero A, Tobar JF// Univ Santiago de Compostela, Dept Microbiol, E-15706 Santiago de Compostela, Spain World J Microbiol Biotechnol 1996 12 (1) 47

Use of agricultural surpluses for production of biomass by marine microalgae

Guvenilir YA, Deveci N// Istanbul Tech Univ, Dept Chem Engn, Maslak 80626, Istanbul, Turkey

Appl Biochem Biotech 1996 56 (2) 181

Production of acetone-butanol-ethanol from corn mash and molasses in batch fermentation

Hamid S, Khan SA, Iqbal MZ// Pakistan Council Sci & Ind Res, Appl Chem Res Ctr, Lahore 54600, Pakistan Fett Wiss Technol 1995 97 (12) 449

Lipid production by Lipomyces lipoferus

Haraguchi K, Kodama T// Minist Agr Forestry & Fisheries, Natl Food Res Inst, 2-1-2 Kannondai, Tsukuba, Ibaraki 305, Japan Appl Microbiol Biotechnol 1996 44 (5) 576

Purification and properties of poly(β-D-mannuronate) lyase from Azotobacter

Huh KR, Cho EH, Lee SO, Na DS*// *Univ Ulsan, Coll Med, Dept Biochem, Songpa ku, 388-1 Poongnap dong, Seoul 138040, South Korea Biotechnol Lett 1996 18 (2) 163

High level expression of human lipocortin (annexin) 1 in Escherichia coli

Ismail AMS, Abdel-Naby MA, Abdel-Fattah AF// Natl Res Ctr, Dept Nat & Microbial Prod Chem, Tahrir St, Cairo, Egypt

Microbios 1995 83 (336) 191

Utilization of water hyacinth cellulose for production of cellobiase-rich preparation by Aspergillus niger 1

Jan S, Roblot C, Courtois J, Courtois B, Barbotin JN, Seguin JP// Univ Picardie Jules Verne, Lab Genie Cellulaire, 33 rue St Leu, F-80039 Amiens, France

Enzyme Microb Technol 1996 18 (3) 195

1H NMR spectroscopic determination of poly 3-hydroxybutyrate extracted from microbial biomass

Kim SW, Kim P, Lee HS, Kim JH*// *KAIST, Dept Biotechnol, Yusong gu, 373-1 Kusong dong, Taejon 305701, South Korea *Biotechnol Lett* 1996 18 (1) 25

High production of poly-\(\beta\)-hydroxybutyrate (PHB) from Methylobacterium organophilum under potassium limitation

Kondo T. Kondo M// Aichi Prefectural Govt, Inst Food Res, Nishi ku, 2-1-1 Shinpukuji cho, Nagoya, Aichi 451, Japan J Ferment Bioeng 1996 81 (1) 42

Efficient production of acetic acid from glucose in a mixed culture of Zymomonas mobilis and Acetobacter sp

Lee PC, Ho CC*// *Univ Malaya, Dept Biol Cellul & Genet, Kuala Lumpur 59100, Malaysia

World J Microbiol Biotechnol 1996 12 (1) 73

Production of clavulanic acid and cephamycin C by Streptomyces clavuligerus in palm oil medium

Lu SF, Chang PP*// *Food Ind Res & Dev Inst, Culture Collect & Res Ctr. POB 246, Hsinchu, Taiwan

Lett Appl Microbiol 1996 22 (1) 5

A thermostable neutral protease from Pseudomonas aeruginosa CCRC 15541

Marin M, Pedregosa A, Laborda F*// *Univ Alcala de Henares, Dept Microbiol & Parasitol, Ctra Madrid-Barcelona, E-28871 Alcala de Henares, Spain Appl Microbiol Biotechnol 1996 44 (5) 660

Emulsifier production and microscopical study of emulsions and biofilms formed by the hydrocarbon-utilizing bacteria Acinetobacter calcoaceticus MM5

Moritz JW. Duff SJB*// *Univ British Columbia, Ctr Pulp & Paper, 2216 Main Mall, Vancouver, Brit Columbia, Canada V6T 1Z4

Simultaneous saccharification and extractive fermentation of cellulosic sub-

Nam JS, Kwon GS, Lee SO, Hwang JS, Lee JD, Yoon BD, Lee TH*// *Pusan Natl Univ, Dept Microbiol, Pusan 609735, South Korea

Biosci Biotechnol Biochem 1996 60 (2) 325 Bioflocculant produced by Aspergillus sp JS-42

Nampoothiri KM, Pandey A*// *CSIR, Reg Res Lab, Biotechnol Unit, Trivandrum 695019, Kerala, India

Biotechnol Lett 1996 18 (2) 199

Solid state fermentation of L-glutamic acid production using Brevibacterium sp Nishimura T, Kometani T, Nakae T, Takii H, Okada S// Ezaki Glico Co Ltd, Biochem Res Lab, Nishiyodogawa ku, 4-6-5 Utajima, Osaka 555, Japan J Ferment Bioeng 1996 81 (1) 26

Cyclic α-1,4-glucan formation by bacterial α-amylases

Novak M, Stanek J, Hollerova I// Acad Sci Czech Republ, Inst Microbiol, Videnska 1083, CR-14220 Prague, Czech Republic Biotechnol Lett 1996 18 (2) 211

Formation of oligofructosides during gluconate production by Aspergillus niger

Nunoura N, Ohdan K, Yano T, Yamamoto K, Kumagai H// Kyoto Univ, Dept Food Sci & Technol, Sakyo ku, Kyoto 606, Japan Biosci Biotechnol Biochem 1996 60 (2) 188

Purification and characterization of β-D-glucosidase (β-D-fucosidase) from Bifidobacterium breve cLB acclimated to cellobiose

Odibo FJC, Obi SKC// Univ Technol, Dept Appl Microbiol & Brewing, PMB 5025, Awka, Nigeria

Discov Innovat 1995 7 (1) 11

Production of extracellular thermostable neutral protease of Thermoactinomyces thalpophilus

Pallares J, Rodriguez S, Sanroman A// Univ Vigo, Dept Chem Engn, E-36200 Vigo, Spain Biotechnol Technique 1996 10 (1) 53

Citric acid production by immobilized Aspergillus niger in a fluidized bed re-

Parada JL, Zapata E, De Fabrizio SV, Martinez A// Univ Buenos Aires, Dept Quim Organ, RA-1428 Buenos Aires, DF, Argentina World J Microbiol Biotechnol 1996 12 (1) 53

Microbiological and technological aspects of cassava starch fermentation

Rani KS, Swamy MV, Sunitha D, Haritha D, Seenayya G*// *Osmania Univ, Dept Microbiol, Hyderabad 500007, India

World J Microbiol Biotechnol 1996 12 (1) 57 Improved ethanol tolerance and production in strains of Clostridium thermocel-

Saad RR// Ain Shams Univ, Dept Biol Sci, Cairo, Egypt Folia Microbiol Prague 1995 40 (3) 263

Production of lipase from Aspergillus tamarii and its compatibility with commercial detergents

Saha BC, Bothast RJ// USDA/ARS, Natl Ctr Agr Utilizat Res, Fermentat Biochem Res Unit, 1815 Nth Univ St, Peoria, Il 61604, USA Biotechnol Lett 1996 18 (2) 155

Glucose tolerant and thermophilic \(\beta \)-glucosidases from yeasts

Sarada R, Joseph R// Cent Food Technol Res Inst, Dept Microbiol, Mysore 570013. India

Process Biochem 1996 31 (4) 337

A comparative study of single and two stage processes for methane production from tomato processing waste

Shah NN, Hanna ML, Taylor RT*// *Lawrence Livermore Natl Lab, Bldg 361, Rm 1241, 7000 East Ave, Livermore, Ca 94550, USA Biotechnol Bioeng 1996 49 (2) 161

Batch cultivation of Methylosinus trichosporium OB3b. V. Characterization of poly-β-hydroxybutyrate production under methane-dependent growth conditions

Shi FY, Gross RA*, Rutherford DR// *Univ Lovell, Dept Chem, 1 Univ Ave, Lowell, Ma 01854, USA

Macromolecules 1996 29 (1) 10

Microbial polyester synthesis: Effects of poly(ethylene glycol) on product composition, repeat unit sequence, and end group structure

Singh A, Wilson S, Ward OP*// *Univ Waterloo, Microbial Biotechnol Lab, Waterloo, Ontario, Canada N2L 3G1

World J Microbiol Biotechnol 1996 12 (1) 76

Docosahexaenoic acid (DHA) production by Thraustochytrium sp ATCC 20892

Stratilova E, Breierova E, Vadkertiova R// Slovak Acad Sci, Inst Chem, Dubravska Cesta 9, Bratislava 84238, Slovakia

Biotechnol Lett 1996 18 (1) 41

Effect of cultivation and storage pH on the production of multiple forms of polygalacturonase by Aspergillus niger

Theodore K, Panda T*// *Indian Inst Technol, Dept Chem Engn, Madras 600036, India

Bioprocess Eng 1996 14 (2) 111

Self-directing optimization of β -1,3-glucanase production by *Trichoderma harzianum* in batch culture

Tsipouras A, Ondeyka J, Dufresne C, Lee S, Salituro G, Tsou N, Goetz M, Singh SB, Kearsley SK// Merck Res Labs, Dept Nat Prod Chem, POB 2000, Rahway, NJ 07065, USA

Anal Chim Acta 1995 316 (2) 161

Using similarity searches over database of estimated ¹³C NMR spectra for structure identification of natural product compounds

Tzeng YM, Young YH// Da Yeh Inst Technol, Food & Biol Engn Ctr, 112 Shanjiao Rd, Dahtsuen 515, Taiwan

World J Microbiol Biotechnol 1996 12 (1) 32

Production of thuringiensin from Bacillus thuringiensis using a net-draft-tube, modified airlift reactor

Van den Hombergh JPTW, Van de Vondervoort PJI, Visser J// Agr Univ Wageningen, Molec Genet Ind Microorganisms Sect, 6703 HA Wageningen, The Netherlands

Chemtech 1996 26 (2) 30

Improve the efficiency of protein expression by fungi

Vermani MV, Kelkar SM, Kamat MY*// *Univ Bombay, Dept Chem Technol, Bombay 400019, India

J Ferment Bioeng 1995 80 (6) 599

Production and optimization of certain growth parameters for an exopolysac-charide from Azotobacter vinelandii MTCC 2460 isolated from a plant rhi-

Wang DZ, Sakakibara M*, Kondoh N, Suzuki K// *Fukui Univ, Dept Appl Chem & Biotechnol, Fukui 910, Japan

J Chem Technol Biotechnol 1996 65 (1) 86

Ultrasound-enhanced lactose hydrolysis in milk fermentation with Lactobacillus bulgaricus

Yim KS, Lee SY*, Chang HN//*KAIST, Dept Chem Engn, Yusong gu, 373-1 Kusong dong, Taejon 305701, South Korea *Biotechnol Bioeng* 1996 49 (5) 495
Synthesis of poly-(3-hydroxybutyrate-co-3-hydroxyvalerate) by recombinant *Escherichia coli*

Yokoi H, Onkawara T, Hirose J, Hayashi S, Takasaki Y// Miyazaki Univ, Dept Mat Sci, 1-1 Nishi, Miyazaki 88921, Japan J Ferment Bioeng 1995 80 (6) 571

Characteristics of hydrogen production by aciduric Enterobacter aerogenes strain HO-39

Yoshida E, Fujimoto H*, Yamazaki M// *Chiba Univ, Fac Pharmaceut Sci, Inage ku, 1-33 Yayoi cho, Chiba 263, Japan Chem Pharm Bull Tokyo 1996 44 (2) 284

Isolation of three new azaphilones, luteusins, C, D, and E, from an ascomycete, Talaromyces luteus

Yoshino T, Asakura T, Toda K*// *Univ Tokyo, Inst Molec & Cellular Biosci, Bunkyo ku, 1-1-1 Yayoi, Tokyo 113, Japan

J Ferment Bioeng 1996 81 (1) 32

Cellulose production by Acetobacter pasteurianus on silicone membrane

Znidarsic P, Pavko A, Komel R// Univ Ljubljana, Dept Chem & Chem Technol, Askerceva 5, Ljubljana 61000, Slovenia J Ind Microbiol 1995 15 (5) 397

The growth form of the inducing microorganism and chitin addition affect mycolytic enzyme production by Trichoderma harzianum

8 MICROBIAL PHYSIOLOGY

Alexandre H, Charpentier C// Univ Bourgogne, Inst Univ Vigne & Vin, F-21000 Dijon, France

Sci Aliment 1995 15 (6) 579

Influence of fermentation medium aeration on cell lipid composition and fatty acids and acetic acid production by Saccharomyces cerevisiae (French, English Abstract)

Bae W, Rittmann BE// Natl Inst Environm Res, Seoul 122040, South Korea Biotechnol Bioeng 1996 49 (6) 683
A structured model of dual-limitation kinetics

Bae W. Rittmann BE// Address as above

Biotechnol Bioeng 1996 49 (6) 690

Responses of intracellular cofactors to single and dual substrate limitations

Baker WL, Sabapathy K, Vibat M, Lonergan G// Swinburne Univ Technol, Dept Appl Chem, POB 218, Melbourne, Vic 3122, Australia Enzyme Microb Technol 1996 18 (2) 90

Laccase catalyzes formation of an indamine dye between 3-methyl-2-benzothiazolinone hydrazone and 3-dimethylaminobenzoic acid

Carrillo PG, Mardaraz C, Pitta Alvarez SI, Giulietti AM*// *Univ Buenos Aires, Fac Farm & Bioquim, Junin 956, RA-1113 Buenos Aires, DF, Argentina World J Microbiol Biotechnol 1996 12 (1) 82

Isolation and selection of biosurfactant-producing bacteria

Castrillo JI, Kaliterna J, Weusthuis RA, Van Dijken JP, Pronk JT+// *Delft Univ Technol, Dept Microbiol & Enzymol, Julianalaan 67, 2628 BC Delft, The

Biotechnol Bioeng 1996 49 (6) 621

High-cell-density cultivation of yeasts on disaccharides in oxygen-limited batch

Cocaign-Bousquet M, Guyonvarch A, Lindley ND*// *Inst Natl Sci Appl, Ctr Bioingn Gilbert Durand, URA CNRS, Complexe Sci Rangueil, F-31077 Toulouse. France

Appl Environ Microbiol 1996 62 (2) 429

Growth rate-dependent modulation of carbon flux through central metabolism

and the kinetic consequences for glucose-limited chemostat cultures of Corvnebacterium glutamicum

Cordova-Lopez J, Gutierrez-Rojas M, Huerta S, Saucedo-Castaneda G, Favela-Torres E*// *Univ Autonoma Metropol Iztapalapa, Dept Biotecnol, Mexico City 09340, DF, Mexico

Biotechnol Technique 1996 10 (1) 1

Biomass estimation of Aspergillus niger growing on real and model supports in solid state fermentation

Eroshin VK, Dedyukhina EG, Chistyakova TI, Zhelifonova VP, Botast RJ// Russian Acad Sci, Inst Biochem & Physiol Microorganisms, Pushchino 142292, Russia

Microbiology-Engl Tr 1996 65 (1) 26

Studies on arachidonic acid production by Mortierella fungi: A microbiological method for selecting arachidonic acid producers

Hassan M, Blanc PJ*, Granger LM, Pareilleux A, Goma G// *URA-CNRS 544, Inst Natl Sci Appl, Complexe Sci Rangueil, Dept Genie Biochim Alimentaire, F-31077 Toulouse, France

Process Biochem 1996 31 (4) 355
Influence of nitrogen and iron limitations on lipid production by Cryptococcus curvatus grown in batch and fed-batch culture

Iida I, Nakahara T*, Yokochi T, Kamisaka Y, Yagi H, Yamaoka M, Suzuki O// *Natl Inst Biosci & Human Technol, 1-1 Higashi, Tsukuba, Ibaraki 305, Japan

J Ferment Bioeng 1996 81 (1) 76

Improvement of docosahexaenoic acid production in a culture of Thraustochytrium aureum by medium optimization

Jang JH, Rogers PL// Univ NSW, Dept Biotechnol, Sydney, NSW 2052, Aus-

Biotechnol Lett 1996 18 (2) 219

Effect of levulinic acid on cell growth and poly-β-hydroxyalkanoate production by Alcaligenes sp SH-69

Pompon D, Perret A, Bellamine A, Laine R, Gautier JC, Urban P// CNRS, UPR 2420, Ctr Genet Molec, F-91198 Gif sur Yvette, France Toxicol Lett 1995 82-3 815

Genetically engineered yeast cells and their applications

Raguenes G, Pignet P, Gauthier G, Peres A, Christen R, Rougeaux H, Barbier G, Guezennec J*// *IFREMER, Ctr Brest, DRO/EP LBMH, BP 70, F-29280 Plouzane, France

Appl Environ Microbiol 1996 62 (1) 67

Description of a new polymer-secreting bacterium from a deep-sea hydrothermal vent, Alteromonas macleodii subsp fijiensis, and preliminary characterization of the polymer

Shiloach J, Kaufman J, Guillard AS, Fass R// NIH, Biotechnol Unit, Bldg 6, Rm B1-33, Bethesda, Md 20892, USA

Biotechnol Bioeng 1996 49 (4) 421

Effect of glucose supply strategy on acetate accumulation, growth, and recombinant protein production by Escherichia coli BL21 (λDE3) and Escherichia coli JM109

Sirisansaneeyakul S, Staniszewski M, Rizzi M*// *Univ Stuttgart, Inst Bioverfahrenstech, Allmandring 31, D-70569 Stuttgart, Germany J Ferment Bioeng 1995 80 (6) 565

Screening of yeasts for production of xylitol from D-xylose

Watanabe Y, Hall DO*// *KCL, Div Life Sci, Campden Hill Rd, London W8 7AH, England

Appl Microbiol Biotechnol 1996 44 (6) 693

Photosynthetic production of the filamentous cyanobacterium Spirulina platensis in a cone shaped helical tubular photobioreactor

Waterman MR, Jenkins CM, Pikuleva I// Vanderbilt Univ, Dept Biochem, 221 Kirkland Hall, Nashville, Tn 37232, USA Toxicol Lett 1995 82-3 807

Genetically engineered bacterial cells and applications

Weir PM, Chase T// Felician Coll, Dept Nat Sci, Lodi, NJ 07644, USA J Ind Microbiol 1995 15 (5) 442 Effect of proteolipid on Zymomonas fermentation of 25% glucose media

Wightman P, Quain DE, Meaden PG*// *Heriot Watt Univ, Int Ctr Brewing & Distilling, Edinburgh EH14 4AS, Scotland

Lett Appl Microbiol 1996 22 (1) 90

Analysis of production brewing strains of yeast by DNA fingerprinting

Yang SJ, Enfors SO*// *Royal Inst Technol, Dept Biochem & Biotechnol, S-10044 Stockholm, Sweden

Biotechnol Lett 1996 18 (1) 7

Process conditions affecting proteolysis of recombinant proteins in Escherichia

Zhu Y, Knol W, Smits JP, Bol J// TNO, Nutr & Food Res, POB 360, 3700 AJ Zeist, The Netherlands

Enzyme Microb Technol 1996 18 (2) 108

Medium optimization for nuclease P1 production by Penicillium citrinum in solid-state fermentation using polyurethane foam as inert carrier

9 FERMENTATION SYSTEMS

Alves SS, Vasconcelos JMT// Inst Super Tecn, Dept Chem Engn, P-1096 Lisbon, Portugal

Bioprocess Eng 1996 14 (3) 119

Optimisation of agitation and aeration in fermenters

Aravinth S, Rao PG, Murugesan T*// *Anna Univ, Alagappa Coll Technol, Dept Chem Engn, Madras 600025, Tamil Nadu, India

Bioprocess Eng 1996 14 (2) 97
Critical impeller speed for solid suspension in turbine agitated contactors

Curless C, Baclaski J, Sachdev R// Amgen Inc, Amgen Ctr, Thousand Oaks. Ca 91320, USA

Biotechnol Progr 1996 12 (1) 22

Phosphate glass as a phosphate source in high cell density Escherichia coli fermentations

Furui M, Furutani T, Shibatani T, Nakamoto Y, Mori T// Tanabe Seiyaku Co Ltd, Pharmaceut Dev Res Lab, Yodogawa ku, 16-89 Kashima 3 chome, Osaka 532, Japan

J Ferment Bioeng 1996 81 (1) 21

A membrane bioreactor combined with crystallizer for production of optically active (2R,3S)-3-(4-methoxylphenyl)-glycidic acid methyl ester

Gaida T, Doblhoff-Dier O*, Strutzenberger K, Katinger H, Burger W, Groschl M, Handl B, Benes E// *Agr Univ Vienna, Inst Appl Microbiol, Nussdorfer Lande 11, A-1190 Vienna, Austria

Biotechnol Progr 1996 12 (1) 7:

Selective retention of viable cells in ultrasonic resonance field devices

Garcia LA, Argueso F, Garcia A, Diaz M*// *Univ Oviedo, IUBA, Dept Chem Engn, C/Julian Claveria s/n, E-33071 Oviedo, Spain

J Ind Microbiol 1995 15 (5) 401

Application of neural networks for controlling and predicting quality parameters in beer fermentation

Gee DA, Ramirez WF*// *Univ Colorado, Dept Chem Engn, Boulder, Co 80309, USA

Biotechnol Progr 1996 12 (1) 132

On-line state estimation and parameter identification for batch fermentation

Ghigliazza R, Lodi A, Converti A, Nicolella C, Rovatti M*// *Univ Genoa, Inst Chem Engn Sci & Technol, Via Opera Pia 15, I-16145 Genoa, Italy Bioprocess Eng 1996 14 (3) 131

Influence of the ratio of the initial substrate concentration to biomass concentration on the performance of a sequencing batch reactor

Gron S, Biedermann K, Emborg C*// *Tech Univ Denmark, Dept Biotechnol,

Bldg 223, DK-2800 Lyngby, Denmark

Appl Microbiol Biotechnol 1996 44 (6) 724

Production of proteinase A by Saccharomyces cerevisiae in a cell-recycling fermentation system: Experiments and computer simulations

Gusakov AV, Sinitsyn AP, Davydkin IY, Davydkin VY, Protas OV// MV Lomonosov State Univ, Dept Chem, Moscow 000958, Russia

Enhancement of enzymatic cellulose hydrolysis using a novel type of bioreactor with intensive stirring induced by electromagnetic field

Gutierrez-Rojas M, Hosn SAA, Auria R, Revah R, Favela-Torres E// Univ Autonoma Metropolitana-Iztapalapa, Dept Biotecnol, Apdo Postal 55-535, 09340 Mexico, DF, Mexico

Process Biochem 1996 31 (4) 363

Heat transfer in citric acid production by solid state fermentation

Hall JW, McNeil B, Rollins MJ, Draper I, Thompson BG, Macaloney G// NIR Syst Inc, 12101 Tech Rd, Silver Spring, Md 20904, USA

Appl Spectrosc 1996 50 (1) 102

Near-infrared spectroscopic determination of acetate, ammonium, biomass, and glycerol in an industrial Escherichia coli fermentation

Hsiao TY, Glatz CE*// *Iowa State Univ Sci & Technol, Dept Chem Engn, 2114 Sweeney Hall, Ames, Ia 50011, USA Biotechnol Bioeng 1996 49 (3) 341

Water reuse in the L-lysine fermentation process

Huang YL, Foellmer TJ, Ang KC, Khoo SB*, Yap MGS// *Natl Univ Singapore, Dept Chem, 10 Kent Ridge Crescent, Singapore 0511, Rep Singapore Anal Chim Acta 1995 317 (1-3) 223

Characterization and application of an on-line flow injection analysis wall-jet electrode system for glucose monitoring during fermentation

Kennedy MJ, Spooner NR// New Zealand Inst Ind Res & Dev, POB 31-310, Lower Hutt, New Zealand

Biotechnol Technique 1996 10 (1) 47

Using fuzzy logic to design fermentation media: A comparison to neural networks and factorial design

Kraemer-Schafhalter A, Moser A*// *Graz Tech Univ, Inst Biotechnol, Petersgasse 12, A-8010 Graz, Austria Bioprocess Eng 1996 14 (3) 139

Appl Biochem Biotech 1996 56 (2) 141

Italy

charomyces cerevisiae wine strains

Fukuoka 81281, Japan

J Fac Agr Kyushu Univ 1995 40 (1-2) 197

duction of poly-(D-3-hydroxybutyric acid) in an air-lift fermentor

Tartakovsky B, Sheintuch M*, Hilmer JM, Scheper T// *Technion Israel Inst Technol, Dept Chem Engn, IL-32000 Haifa, Israel

Application of scanning fluorometry for monitoring of a fermentation process

Van Putten AB, Spitzenberger F, Kretzmer G, Hitzmann B, Schugerl K*//*Univ Hannover, Inst Chem Tech, Callinstr 3, D-30167 Hannover, Germany Anal Chim Acta 1995 317 (1-3) 247

Bacillus licheniformis

140 West 19th Ave, Columbus, Oh 43210, USA

Biotechnol Bioeng 1996 49 (4) 456

Study of hydrodynamics in microcarrier culture spinner vessels: A particle

Zhang J, Marcin C, Shifflet MA, Salmon P, Brix T, Greasham R, Buckland B, Chartrain M// MSD Res Labs, Dept Bioproc R&D, POB 2000, Rahway, NJ

Appl Microbiol Biotechnol 1996 44 (5) 568

Development of a defined medium fermentation process for physostigmine production by Streptomyces griseofuscus

Lee GH, Hur W, Bremmon CE, Flickinger MC*// *Univ Minnesota, Inst Adv Studies Biol Proc Technol, St Paul, Mn 55108, USA Biotechnol Bioeng 1996 49 (6) 639 Lysine production from methanol at 50°C using Bacillus methanolicus: Model-

Kinetic study of Bacillus thuringiensis var. israelensis in lab-scale batch proc-

ing volume control, lysine concentration, and productivity using a three-phase continuous simulation

Nandakumar MP, Thakur MS, Raghavarao KSMS*, Ghildyal NP// *Cent Food Technol Res Inst, Dept Food Engn, Mysore 570013, Karnataka, India Enzyme Microb Technol 1996 18 (2) 121

Substrate particle size reduction by Bacillus coagulans in solid-state fermenta-

Nakano K, Kataoka H, Matsumura M*// *Univ Tsukuba, Inst Appl Biochem, 1-1-1 Tennodai, Tsukuba, Ibaraki 305, Japan

J Ferment Bioeng 1996 81 (1) 37

High density culture of Propionibacterium freudenreichii coupled with propionic acid removal system with activated charcoal

Noorman HJ, Romein B, Luyben KCAM, Heijnen JJ*// *Delft Univ Technol, Dept Biochem Engn, Julianalaan 67, 2628 BC Delft, The Netherlands Biotechnol Bioeng 1996 49 (4) 364

Classification, error detection, and reconciliation of process information in complex biochemical systems

Ozadali F, Glatz BA*, Glatz CE// *Iowa State Univ Sci & Technol, Dept Food Sci & Human Nutr, 2312 Food Sci Bldg, Ames, Ia 50011, USA Appl Microbiol Biotechnol 1996 44 (6) 710

Fed batch fermentation with and without on-line extraction for propionic and acetic acid production by Propionibacterium acidipropionici

Patnaik PR// Inst Microbial Technol, Sector 39-A, Chandigarh 160014, India Bioprocess Eng 1996 14 (2) 91

Incomplete mixing in large bioreactors: A study of its role in the fermentative production of streptokinase

Robinett RSR, George HA, Herber WK// MSD Res Labs, Vaccine Bioproc R&D, West Point, Pa 19486, USA J Chromatogr A 1995 718 (2) 319

Determination of inorganic cations in fermentation and cell culture media using cation-exchange liquid chromatography and conductivity detection

Roca E, Flores J, Rodriguez I, Cameselle C, Nunez MJ, Lema JM*// *Univ Santiago de Compostela, Dept Chem Engn, Avda Ciencias s/n, E-15706 Santiago de Compostela, Spain

Bioprocess Eng 1996 14 (3) 113

Knowledge based control applied to fixed bed pulsed bioreactors

Sanchez EN, Alhadeff EM, Rocha-Leao MHM, Fernandes RC, Pereira N*// *UFRJ, EQ, Dept Engn Bioquim, BR-21910-900 Rio de Janeiro, RJ, Brazil Biotechnol Lett 1996 18 (1) 91

Performance of a continuous bioreactor with immobilized yeast cells in the ethanol fermentation of molasses-stillage medium

Suzzi G, Romano P, Vannini L, Turbanti L, Domizio P// Univ Basilicata, Dipt Difesa Biol & Biotecnol Agroforestal, Via Nazario Sauro 85, I-85100 Potenza,

World J Microbiol Biotechnol 1996 12 (1) 25

Cell-recycle batch fermentation using immobilized cells of flocculent Sac-

Taga N, Tanaka K, Ishizaki A// Kyushu Univ, Dept Food Sci & Technol,

Effects of rheologic conditions in the culture medium on the autotrophic pro-

Biotechnol Progr 1996 12 (1) 126

On-line and off-line monitoring of the production of alkaline serine protease by

Venkat RV, Stock LR, Chalmers JJ*// *Ohio State Univ, Dept Chem Engn,

tracking velocimetry approach

07065, USA