

Journal of Molecular Catalysis B: Enzymatic 48 (2007) I-II



www.elsevier.com/locate/molcatb

# Subject Index

# Aromatic dihydroxylating dioxygenase

Hydroxylations of substituted naphthalenes by *Escherichia coli* expressing aromatic dihydroxylating dioxygenase genes from polycyclic aromatic hydrocarbon-utilizing marine bacteria 77

#### Benzofuran

Biotransformation of aromatic heterocyclic compounds by Caragana chamlagu and Wasabia japonica 59

#### Biocatalysis

Regio- and enantioselective reduction of methyleneketoesters mediated by Saccharomyces cerevisiae 70

#### Biotransformation

Biotransformation of  $5\alpha$ -hydroxy-14-eudesm-11-en-3-one by *Rhizopus nigricans*, *Cunninghamella elegans* and *Mucor plumbeus* 23

Microbial transformation of three bufadienolides by *Penicillium auranti-griseum* and its application for metabolite identification in rat 42

#### Bufadienolides

Microbial transformation of three bufadienolides by *Penicillium auranti*griseum and its application for metabolite identification in rat 42

# Caragana chamlagu

Biotransformation of aromatic heterocyclic compounds by Caragana chamlagu and Wasabia japonica 59

# Chloroperoxidase

Immobilization of chloroperoxidase on silica-based materials for 4,6-dimethyl dibenzothiophene oxidation 90

# Cycloclasticus

Hydroxylations of substituted naphthalenes by *Escherichia coli* expressing aromatic dihydroxylating dioxygenase genes from polycyclic aromatic hydrocarbon-utilizing marine bacteria 77

# Desulfurization

Immobilization of chloroperoxidase on silica-based materials for 4,6-dimethyl dibenzothiophene oxidation 90

# 4,6-Dimethyldibenzothiophene

Immobilization of chloroperoxidase on silica-based materials for 4,6-dimethyl dibenzothiophene oxidation 90

# Dimethylnaphthalene

Hydroxylations of substituted naphthalenes by *Escherichia coli* expressing aromatic dihydroxylating dioxygenase genes from polycyclic aromatic hydrocarbon-utilizing marine bacteria 77

# Enantioselective hydrolysis

Enzymatic hydrolytic resolution of (R,S)- $\alpha$ -chlorophenyl acetates in biphasic media 16

# Enantioselectivity

Resolution of 2-octanol by SBA-15 immobilized Pseudomonas sp. lipase 64

# Enzymatic transesterification

One- and two-step enzymatic synthesis of polymerizable vinyladipoyl mono- and diesters of non-reducing trisaccharides 8

#### Eudesmanes

Biotransformation of  $5\alpha$ -hydroxy-14-eudesm-11-en-3-one by *Rhizopus nigricans*, *Cunninghamella elegans* and *Mucor plumbeus* 23

#### Fatty acid esters

Lipase-catalyzed in situ reactive extraction of oilseeds with short-chained alkyl acetates for fatty acid esters production 28

#### Glucoamylase

Reversible immobilization of glucoamylase by metal affinity adsorption on magnetic chelator particles  $\boldsymbol{1}$ 

# Halogenated phenyl 2-hydroxypropanones

Synthesis of optically pure halogenated phenyl 2-hydroxypropanones by lipase-catalyzed enantioselective transesterification 38

# Immobilization

Reversible immobilization of glucoamylase by metal affinity adsorption on magnetic chelator particles 1

Immobilized recombinant *Aspergillus oryzae* expressing heterologous lipase: An efficient whole-cell biocatalyst for enantioselective transesterification in non-aqueous medium 33

Resolution of 2-octanol by SBA-15 immobilized Pseudomonas sp. lipase 64

Influence of self-assembled monolayer surface chemistry on *Candida antarctica* lipase B adsorption and specific activity 84

Immobilization of chloroperoxidase on silica-based materials for 4,6-dimethyl dibenzothiophene oxidation 90

# In situ reactive extraction

Lipase-catalyzed in situ reactive extraction of oilseeds with short-chained alkyl acetates for fatty acid esters production 28

## Indole

Biotransformation of aromatic heterocyclic compounds by Caragana chamlagu and Wasabia japonica 59

# Jatropha curcas L seed

Lipase-catalyzed in situ reactive extraction of oilseeds with short-chained alkyl acetates for fatty acid esters production 28

## Ketoesters

Regio- and enantioselective reduction of methyleneketoesters mediated by Saccharomyces cerevisiae 70

## Kinetic resolution

Synthesis of optically pure halogenated phenyl 2-hydroxypropanones by lipase-catalyzed enantioselective transesterification 38

## Lipase

One- and two-step enzymatic synthesis of polymerizable vinyladipoyl mono- and diesters of non-reducing trisaccharides 8

Immobilized recombinant *Aspergillus oryzae* expressing heterologous lipase: An efficient whole-cell biocatalyst for enantioselective transesterification in non-aqueous medium 33

II Subject Index

Synthesis of optically pure halogenated phenyl 2-hydroxypropanones by lipase-catalyzed enantioselective transesterification 38

Microwave-assisted resolution of (R,S)-2-octanol by enzymatic transesterification 51

Resolution of 2-octanol by SBA-15 immobilized *Pseudomonas* sp. lipase 64

Influence of self-assembled monolayer surface chemistry on Candida antarctica lipase B adsorption and specific activity 84

#### Lipases

Enzymatic hydrolytic resolution of (R,S)- $\alpha$ -chlorophenyl acetates in biphasic media 16

#### Magnetic particles

Reversible immobilization of glucoamylase by metal affinity adsorption on magnetic chelator particles  $1\,$ 

#### Mammalian metabolism

Microbial transformation of three bufadienolides by *Penicillium auranti-griseum* and its application for metabolite identification in rat 42

#### Mesoporous materials

Immobilization of chloroperoxidase on silica-based materials for 4,6-dimethyl dibenzothiophene oxidation 90

# Metal chelating

Reversible immobilization of glucoamylase by metal affinity adsorption on magnetic chelator particles 1

#### Methylenation

Regio- and enantioselective reduction of methyleneketoesters mediated by Saccharomyces cerevisiae 70

#### Microbiological hydroxylation

Biotransformation of  $5\alpha$ -hydroxy-14-eudesm-11-en-3-one by *Rhizopus nigricans*, *Cunninghamella elegans* and *Mucor plumbeus* 23

#### Microwave irradiation

Microwave-assisted resolution of (R,S)-2-octanol by enzymatic transesterification 51

# Nocardioides

Hydroxylations of substituted naphthalenes by *Escherichia coli* expressing aromatic dihydroxylating dioxygenase genes from polycyclic aromatic hydrocarbon-utilizing marine bacteria 77

# Novozym 435

Synthesis of optically pure halogenated phenyl 2-hydroxypropanones by lipase-catalyzed enantioselective transesterification 38

Microwave-assisted resolution of (R,S)-2-octanol by enzymatic transesterification 51

# 2-Octanol

Resolution of 2-octanol by SBA-15 immobilized *Pseudomonas* sp. lipase 64

# Oligosaccharide

One- and two-step enzymatic synthesis of polymerizable vinyladipoyl mono- and diesters of non-reducing trisaccharides 8

# Oxidative cleavage reactions

Biotransformation of aromatic heterocyclic compounds by Caragana chamlagu and Wasabia japonica 59

# Penicillium aurantigriseum

Microbial transformation of three bufadienolides by *Penicillium auranti*griseum and its application for metabolite identification in rat 42

# Pistacia chinensis Bunge seed

Lipase-catalyzed in situ reactive extraction of oilseeds with short-chained alkyl acetates for fatty acid esters production 28

#### Polycyclic aromatic hydrocarbon

Hydroxylations of substituted naphthalenes by *Escherichia coli* expressing aromatic dihydroxylating dioxygenase genes from polycyclic aromatic hydrocarbon-utilizing marine bacteria 77

#### Protease

One- and two-step enzymatic synthesis of polymerizable vinyladipoyl mono- and diesters of non-reducing trisaccharides 8

#### Protein adsorption

Influence of self-assembled monolayer surface chemistry on *Candida* antarctica lipase B adsorption and specific activity 84

#### Resolution

Microwave-assisted resolution of (R,S)-2-octanol by enzymatic transesterification 51

Resolution of 2-octanol by SBA-15 immobilized *Pseudomonas* sp. lipase 64

# (R,S)- $\alpha$ -Chlorophenyl acetates

Enzymatic hydrolytic resolution of (R,S)- $\alpha$ -chlorophenyl acetates in biphasic media 16

# (R,S)-2-Octanol

Microwave-assisted resolution of (R,S)-2-octanol by enzymatic transesterification 51

### Saccharomyces cerevisiae

Regio- and enantioselective reduction of methyleneketoesters mediated by  $Saccharomyces\ cerevisiae\ 70$ 

#### SBA-15

Resolution of 2-octanol by SBA-15 immobilized *Pseudomonas* sp. lipase 64

# Sesquiterpenes

Biotransformation of  $5\alpha$ -hydroxy-14-eudesm-11-en-3-one by *Rhizopus nigricans, Cunninghamella elegans* and *Mucor plumbeus* 23

# Short-chained alkyl acetates

Lipase-catalyzed in situ reactive extraction of oilseeds with short-chained alkyl acetates for fatty acid esters production 28

# SNSM-87 carboxylesterase

Enzymatic hydrolytic resolution of (R,S)- $\alpha$ -chlorophenyl acetates in biphasic media 16

# Transesterification

Immobilized recombinant *Aspergillus oryzae* expressing heterologous lipase: An efficient whole-cell biocatalyst for enantioselective transesterification in non-aqueous medium 33

Synthesis of optically pure halogenated phenyl 2-hydroxypropanones by lipase-catalyzed enantioselective transesterification 38

Microwave-assisted resolution of (R,S)-2-octanol by enzymatic transesterification 51

# Vinyl ester monomer

One- and two-step enzymatic synthesis of polymerizable vinyladipoyl mono- and diesters of non-reducing trisaccharides 8

# Wasabia japonica

Biotransformation of aromatic heterocyclic compounds by Caragana chamlagu and Wasabia japonica 59

# Whole-cell biocatalyst

Immobilized recombinant *Aspergillus oryzae* expressing heterologous lipase: An efficient whole-cell biocatalyst for enantioselective transesterification in non-aqueous medium 33