

Author Index

- Akita, H., see Shimada, H. 29
- Asada, Y., see Watanabe, A. 379
- Asakawa, M., see Shimada, H. 29
- Ashiuchi, M., Kamei, T. and Misono, H.
Poly- γ -glutamate synthetase of *Bacillus subtilis* 101
- Ashiuchi, M., Nakamura, H., Yamamoto, T., Kamei, T., Soda, K.,
Park, C., Sung, M.-H., Yagi, T. and Misono, H.
Poly- γ -glutamate depolymerase of *Bacillus subtilis*: production,
simple purification and substrate selectivity 249
- Ashiuchi, M., see Yamashita, T. 213
- Brown, J.J., see Xia, Y.M. 3
- Ceynowa, J. and Rauchfleisch, M.
High enantioselective resolution of racemic 2-arylpropionic
acids in an enzyme membrane reactor 43
- Chin, H.S., see Sim, J. 17
- Edlund, H., see Hedenström, E. 53
- Eriguchi, S., see Inoue, H. 265
- Esaki, N., see Fuchikami, Y. 321
- Esaki, N., see Kato, S.-i. 373
- Esaki, N., see Kurihara, T. 347
- Esaki, N., see Kwak, M.-S. 367
- Esaki, N., see Li, Y.-F. 337
- Esaki, N., see Park, C. 329
- Esaki, N., see Wei, Y.-I. 357
- Esaki, N., see Yow, G.-Y. 311
- Fang, Y., see Xia, Y.M. 3
- Fuchikami, Y., Yoshimura, T. and Esaki, N.
D-Amino acid aminotransferase: fragmentation at a flexible loop
is an efficient method to generate mutant enzymes with new
substrate specificities and elevated activities 321
- Fujiki, S., see Shimada, H. 29
- Fukuda, H., see Ogino, C. 107
- Fukuda, S., see Okamura-Matsui, T. 133
- Furukawa, K., see Shindo, K. 9
- Galkin, A., see Kato, S.-i. 373
- Goda, S., see Ohshima, T. 281
- Goda, S., see Sakuraba, H. 273
- Hamada, A., see Tanimura, R. 291
- Hamada, H., see Ishihara, K. 145
- Hara, A., see Shimada, H. 29
- Hara, A., see Shindo, K. 9
- Hedenström, E., Edlund, H. and Lund, S.
Stereoselective esterification of 2,6-dimethyl-1,7-heptanedioic
acid, catalysed by *Candida rugosa* lipase 53
- Hirata, T., see Ishihara, K. 145
- Hirose, Y., see Wakayama, M. 71
- Ichiyama, S., see Kurihara, T. 347
- Ichiyama, S., see Li, Y.-F. 337
- Ikehara, K., see Tanimura, R. 291
- Ikenaga, H., see Shindo, K. 9
- Imamura, Y., see Shimada, H. 29
- Inagaki, K., see Inoue, H. 265
- Inagaki, K., see Tamura, T. 257
- Inoue, H., Nishito, A., Eriguchi, S., Tamura, T., Inagaki, K. and
Tanaka, H.
Purification and substrate characterization of α -ketobutyrate
decarboxylase from *Pseudomonas putida* 265
- Ishihara, K. and Nakajima, N.
Structural aspects of acylated plant pigments: stabilization
of flavonoid glucosides and interpretation of their functions
411
- Improvement of marine environmental pollution using eco-
system: decomposition and recovery of endocrine disrupting
chemicals by marine phyto- and zooplanktons 419
- Ishihara, K., Hamada, H., Hirata, T. and Nakajima, N.
Biotransformation using plant cultured cells 145
- Ishihara, K., see Nakajima, N. 191
- Ishihara, K., see Sugimoto, M. 405
- Ishihara, K., Yamaguchi, H. and Nakajima, N.
Stereoselective reduction of keto esters: thermophilic bacteria
and microalgae as new biocatalysts 171
- Ito, Y., see Ohshima, T. 281
- Iwamoto, R., see Tanimura, R. 291
- Kagiyama, Y., see Shindo, K. 9
- Kamei, T., see Ashiuchi, M. 101, 249
- Kamekura, M., see Kato, R. 231
- Kanai, K., see Sakuraba, H. 273
- Kataoka, K. and Tanizawa, K.
Alteration of substrate specificity of leucine dehydrogenase by
site-directed mutagenesis 299
- Kato, K., see Shimada, H. 29

- Kato, S., Ohshima, T., Galkin, A., Kulakova, L., Yoshimura, T. and Esaki, N.
Purification and characterization of alanine dehydrogenase from a marine bacterium, *Vibrio proteolyticus* 373
- Kato, S.-i., see Yamashita, T. 213
- Katoh, R., Nagata, S. and Misono, H.
Cloning and sequencing of the leucine dehydrogenase gene from *Bacillus sphaericus* IFO 3525 and importance of the C-terminal region for the enzyme activity 239
- Katoh, R., Ngata, S., Ozawa, A., Ohshima, T., Kamekura, M. and Misono, H.
Purification and characterization of leucine dehydrogenase from an alkaliphilic halophile, *Natronobacterium magadii* MS-3 231
- Katoh, R., see Nagata, S. 223
- Kawarabayasi, Y., see Ohshima, T. 281
- Kawarabayasi, Y., see Sakuraba, H. 273
- Kazuoka, T., see Oikawa, T. 65
- Kobayashi, Y., see Nagata, S. 223
- Kondo, A., see Ogino, C. 107
- Kulakova, L., see Kato, S.-i. 373
- Kurihara, T., see Li, Y.-F. 337
- Kurihara, T., see Park, C. 329
- Kurihara, T., see Wei, Y.-I. 357
- Kurihara, T., Yamauchi, T., Ichiyama, S., Takahata, H. and Esaki, N.
Purification, characterization, and gene cloning of a novel fluoroacetate dehalogenase from *Burkholderia* sp. FA1 347
- Kuriyama, T., see Tamura, T. 257
- Kuroda, S., see Ogino, C. 107
- Kwak, M.-S., Mihara, H. and Esaki, N.
A novel regulatory function of selenocysteine lyase, a unique catalyst to modulate major urinary protein 367
- Li, Y.-F., Kurihara, T., Ichiyama, S., Miyagi, M., Tsunasawa, S. and Esaki, N.
Mass spectrometric analysis of the reactions catalyzed by L-2-haloacid dehalogenase mutants and implications for the roles of the catalytic amino acid residues 337
- Lund, S., see Hedenström, E. 53
- Manosroi, A., see Manosroi, J. 37
- Manosroi, J., Sripalakit, P. and Manosroi, A.
Factors affecting the biotransformation of chlormadinone acetate to delmadinone acetate 37
- Mihara, H., see Kwak, M.-S. 367
- Misawa, N., see Shindo, K. 9
- Misono, H., see Ashiuchi, M. 101, 249
- Misono, H., see Katoh, R. 231, 239
- Misono, H., see Nagata, S. 223
- Misono, H., see Yamashita, T. 213
- Misono, H., see Yokoigawa, K. 389
- Miyagi, M., see Li, Y.-F. 337
- Moriguchi, M., see Nandakumar, R. 87
- Moriguchi, M., see Wakayama, M. 71
- Nagata, S., Kobayashi, Y., Shinkawa, S., Katoh, R., Ohshima, T. and Misono, H.
Novel halophilic 2-aminobutyrate dehydrogenase from *Halo- bacterium saccharovorum* DSM 1137 223
- Nagata, S., see Katoh, R. 239
- Nagata, S., see Yamashita, T. 213
- Nakajima, N., see Ishihara, K. 145, 171, 411, 419
- Nakajima, N., see Sugimoto, M. 405
- Nakajima, N., Sugimoto, M. and Ishihara, K.
Earthworm-serine protease: characterization, molecular cloning, and application of the catalytic functions 191
- NakajimaGuest editor, N., see Oikawa, T. 61
- Nakamura, H., see Ashiuchi, M. 249
- Nakamura, R., see Shindo, K. 9
- Nakayama, T., Suzuki, H. and Nishino, T.
Anthocyanin acyltransferases: specificities, mechanism, phylogenetics, and applications 117
- Nandakumar, R., Yoshimune, K., Wakayama, M. and Moriguchi, M.
Microbial glutaminase: biochemistry, molecular approaches and applications in the food industry 87
- Ngata, S., see Katoh, R. 231
- Nishino, T., see Nakayama, T. 117
- Nishito, A., see Inoue, H. 265
- Oba, K., see Tamura, T. 257
- Ogino, C., Kuroda, S., Tokuyama, S., Kondo, A., Shimizu, N., Tanizawa, K. and Fukuda, H.
Phospholipase D from *Streptovorticillium cinnamoneum*: protein engineering and application for phospholipid production 107
- Oginuma, M., see Shimada, H. 29
- Ohnishi, K., see Yamashita, T. 213
- Ohshima, T., Ito, Y., Sakuraba, H., Goda, S. and Kawarabayasi, Y.
The *Sulfolobus tokodaii* gene ST1704 codes highly thermostable glucose dehydrogenase 281
- Ohshima, T., see Kato, S.-i. 373
- Ohshima, T., see Katoh, R. 231
- Ohshima, T., see Nagata, S. 223
- Ohshima, T., see Sakuraba, H. 273
- Ohsugi, M., see Okamura-Matsui, T. 133
- Oikawa, T. and NakajimaGuest editor, N.
Enzyme biochemistry and biotechnology 61
- Oikawa, T., Kazuoka, T. and Soda, K.
Paradoxical thermostable enzymes from psychrophile: molecular characterization and potentiality for biotechnological application 65
- Okamura-Matsui, T., Tomoda, T., Fukuda, S. and Ohsugi, M.
Discovery of alcohol dehydrogenase from mushrooms and application to alcoholic beverages 133
- Okawara, T., see Shimada, H. 29
- Okubo, Y., see Yokoigawa, K. 389
- Ozawa, A., see Katoh, R. 231
- Park, C., Kurihara, T., Yoshimura, T., Soda, K. and Esaki, N.
A new DL-2-haloacid dehalogenase acting on 2-haloacid amides: purification, characterization, and mechanism 329
- Park, C., see Ashiuchi, M. 249
- Rauchfleisz, M., see Ceynowa, J. 43
- Sakuraba, H., Kanai, K., Goda, S., Kawarabayasi, Y. and Ohshima, T.
A nicotinamide mononucleotide adenyllyltransferase with

- unique adenyl group donor specificity from a hyperthermophilic archaeon, *Pyrococcus horikoshii* OT-3 273
- Sakuraba, H., see Ohshima, T. 281
- Sawamoto, Y., see Tamura, T. 257
- Shi, G.Y., see Xia, Y.M. 3
- Shimada, H., Fujiki, S., Oginuma, M., Asakawa, M., Okawara, T., Kato, K., Yamamura, S., Akita, H., Hara, A. and Imamura, Y. Stereoselective reduction of 4-benzoylpyridine by recombinant pig heart carbonyl reductase 29
- Shimizu, N., see Ogino, C. 107
- Shindo, K., Kagiya, Y., Nakamura, R., Hara, A., Ikenaga, H., Furukawa, K. and Misawa, N. Enzymatic synthesis of novel antioxidant flavonoids by *Escherichia coli* cells expressing modified metabolic genes involved in biphenyl catabolism 9
- Shinkawa, S., see Nagata, S. 223
- Sim, J., Wong, E., Chin, H.S. and Sim, T.S. Conserved structural modules and bonding networks in isopenicillin N synthase related non-haem iron-dependent oxygenases and oxidases 17
- Sim, T.S., see Sim, J. 17
- Soda, K., see Ashiuchi, M. 249
- Soda, K., see Oikawa, T. 65
- Soda, K., see Park, C. 329
- Soda, K., see Yokoigawa, K. 389
- Sripalakit, P., see Manosroi, J. 37
- Sugimoto, M. and Takeda, K. Structure and function of a phospholipid hydroperoxide glutathione peroxidase-like protein from barley 397
- Sugimoto, M., Ishihara, K. and Nakajima, N. Structure and function of an isozyme of earthworm proteases as a new biocatalyst 405
- Sugimoto, M., see Nakajima, N. 191
- Sung, M.-H., see Ashiuchi, M. 249
- Suzuki, H., see Nakayama, T. 117
- Suzuki, T., see Wei, Y.-I. 357
- Takahata, H., see Kurihara, T. 347
- Takeda, K., see Sugimoto, M. 397
- Tamura, T., Sawamoto, Y., Kuriyama, T., Oba, K., Tanaka, H. and Inagaki, K. Cosynthesis of monofluoroacetate and 4-fluorothreonine by resting cells of blocked mutants of *Streptomyces cattleya* NRRL8057 257
- Tamura, T., see Inoue, H. 265
- Tanaka, H., see Inoue, H. 265
- Tanaka, H., see Tamura, T. 257
- Tanimura, R., Hamada, A., Ikehara, K. and Iwamoto, R. Enzymatic synthesis of 2-keto-D-gluconate and 2-keto-D-galactonate from D-glucose and D-galactose with cell culture of *Pseudomonas fluorescens* and 2-keto-galactonate from D-galactono 1,4-lactone with partially purified 2-ketogalactonate reductase 291
- Tanizawa, K., see Kataoka, K. 299
- Tanizawa, K., see Ogino, C. 107
- Tokuyama, S., see Ogino, C. 107
- Tomoda, T., see Okamura-Matsui, T. 133
- Tsunasawa, S., see Li, Y.-F. 337
- Urabe, K., see Watanabe, A. 379
- Wakayama, M., see Nandakumar, R. 87
- Wakayama, M., Yoshimune, K., Hirose, Y. and Moriguchi, M. Production of D-amino acids by N-acyl-D-amino acid amidohydrolase and its structure and function 71
- Watanabe, A., see Yow, G.-Y. 311
- Watanabe, A., Yamaguchi, S., Urabe, K. and Asada, Y. Occurrence of a unique amino acid racemase in a basidiomycetous mushroom, *Lentinus edodes* 379
- Wei, Y.-I., Kurihara, T., Suzuki, T. and Esaki, N. A novel esterase from a psychrotrophic bacterium, *Acinetobacter* sp. strain no. 6, that belongs to the amidase signature family 357
- Wong, E., see Sim, J. 17
- Xia, Y.M., Fang, Y., Zhang, K.C., Shi, G.Y. and Brown, J.J. Enzymatic synthesis of partial glycerol caprate in solvent-free media 3
- Yagi, T., see Ashiuchi, M. 249
- Yamaguchi, H., see Ishihara, K. 171
- Yamaguchi, S., see Watanabe, A. 379
- Yamamoto, T., see Ashiuchi, M. 249
- Yamamura, S., see Shimada, H. 29
- Yamashita, T., Ashiuchi, M., Ohnishi, K., Kato, S., Nagata, S. and Misono, H. Molecular characterization of alanine racemase from *Bifidobacterium bifidum* 213
- Yamauchi, T., see Kurihara, T. 347
- Yokoigawa, K., Okubo, Y., Soda, K. and Misono, H. Improvement in thermostability and psychrophilicity of psychrophilic alanine racemase by site-directed mutagenesis 389
- Yoshimune, K., see Nandakumar, R. 87
- Yoshimune, K., see Wakayama, M. 71
- Yoshimura, T., see Fuchikami, Y. 321
- Yoshimura, T., see Kato, S.-i. 373
- Yoshimura, T., see Park, C. 329
- Yoshimura, T., see Yow, G.-Y. 311
- Yow, G.-Y., Watanabe, A., Yoshimura, T. and Esaki, N. Conversion of the catalytic specificity of alanine racemase to a D-amino acid aminotransferase activity by a double active-site mutation 311
- Zhang, K.C., see Xia, Y.M. 3