

DAFTAR PUSTAKA

- Acikel, U., Ersan, M., Sag-Acikel, Y., 2010. Optimization Of Critical Medium Components Using Response Surface Methodology For Lipase Production By *Rhizopus delemar*. *Food Bioprod. Process.* (88): 31–39.
- Adham, Nehad Z. , Ahmed, · E. M. 2009. Extracellular lipase of *Aspergillus niger* NRRL3; production, partial purification and properties. *Indian J Microbiol* 49:77–83
- Ahmed el-Imam, Amina M., Kazeem, Muinat O. Odebisi, Mutiat B., Oke, Mushaffa A., Abidoeye, Azeezat O. 2013. Production of Itaconic Acid from *Jatropha curcas* Seed Cake by *Aspergillus terreus*. *Not Sci Biol.* 5(1):57-61.
- Barua, Pranab K. 2011. Biodiesel from Seeds of *Jatropha* Found in Assam, India. *International Journal of Energy, Information and Communications.* 2(1):53-65.
- Becker, K. And Makkar, H. P. S. 1998. Toxic Effects Of Phorbol Esters In Carp (*Cyprinus carpio* L.), *Vet. Human. Toxicol.* (40) : 82-86.
- Bora, L., M.C. Kalita. 2008. Production Of Extra Cellular Lipase From *Bacillus* Sp LBN 4 By Solid State Fermentation. *The Internet Journal Of Microbiology* 7(2)
- Bose, Anjali., Keharia, Haresh. 2013. Production, characterization and applications of organic solvent tolerant lipase by *Pseudomonas aeruginosa* AAU2. *Biocatalysis and Agricultural Biotechnology.* 2 :255–266.
- Campbell, Neil A. Reece, Jane B., Urry, Lisa A., Cain, Michael L., Wasserman, Steven A., Minorsky, Peter V., Jackson, Robert B. 2009. *Biology eight edition*. Pearson Benjamin Cummings. USA.
- Cheison, eronei Chelulei., Schmitt, Meike., Leeb, Elena. , Letzel, Thomas., Kulozik, Ulrich. 2010. Influence of temperature and degree of hydrolysis on the peptide composition of trypsin hydrolysates of b-lactoglobulin: Analysis by LC–ESI-TOF/MS. *Food Chemistry* 121 : 457–467
- Cihangir, Nilufer., Sarikaya, Elif. 2004. Investigation of lipase production by a new isolate of *Aspergillus* sp. *World Journal of Microbiology & Biotechnology* 20: 193–197.
- Colin, Verónica Leticia., Baigorí, Mario Domingo., Pera, Licia María. 2013. Tailoring fungal morphology of MYA 135 by altering the hyphal morphology and the conidia adhesion capacity: biotechnological applications. *AMB express.* 1-13

- Colla LM, Rizzardi J, Pinto MH, Reinehr CO, Bertolin TE, Vieira Costa JA. 2010. Simultaneous Production Of Lipases And Biosurfactants By Submerged And Solid-State Bioprocesses. *Bioresour Technol.* (101) : 8308–14.
- Coniwanti, Pamilia., Novela, Rika., Azimah, Fauzan. 2010. Proses Ekstraksi Minyak Biji Rosella. *Jurnal Teknik Kimia*, No. 2, Vol. 17
- Contesini FJ, Da Silva VCF, Maciel RF, De Lima RJ, Barros FFC, Carvalho PD. 2009. Response Surface Analysis For The Production Of An Enantioselective Lipase From *Aspergillus niger* By Solid State Fermentation. *J Microbiol.* 47(5):563–71
- Contesini, Fabiano Jares., Lopes, Danielle Branta., Macedo, Gabriela Alves., Gra, Maria da., Nascimento., Carvalho, Patrícia de Oliveira. 2010. *Aspergillus* sp. lipase: Potential biocatalyst for industrial use. *Journal of Molecular Catalysis B: Enzymatic.* 67 : 163–171
- Cunha, F.M., Esperança, M.N., Zangirolami, T.C., Badino, A.C., Farinas, C.S. 2012. Sequential solid-state and submerged cultivation of *Aspergillus niger* on sugarcane bagasse for the production of cellulose. *Bioresource Technology.* 112 :270–274.
- Dai, Ziyu., Mao, Xingxue., Magnuson, Jon K., Lasure, Linda L.. 2004. Identification of Genes Associated with Morphology in *Aspergillus niger* by Using Suppression Subtractive Hybridization. *Applied and Environmental Microbiology.*2474–2485
- Damaso, M.C.T., M. A. Passianoto, S. C. Freitas, D. M. G. Freire; R. C. A. Lago, Dan S. Couri. 2008. Utilization Of Agroindustrial Residues For Lipase Production By Solid State-Fermentation. *Braz. J. Microbiol.* (39):676-681
- Darmasiwi, Sari. 2010. Screening Isolat Fungi Lipolitik Indigenus Dan Karakterisasi Lipase Yang Dihasilkan Pada Solid-State Fermentation. *Tesis.* UGM. Indonesia.
- Dobrev, Georgi., Zhekova, Boriana., Dobрева, Valentina., Strinska, Hristina., Doykina, Pavlina ., Krastanov, Albert. 2015. Lipase biosynthesis by *Aspergillus carbonarius* in a nutrient mediumcontaining products and byproducts from the oleochemical industry. *Biocatalysis and Agricultural Biotechnology* 4 : 77–82
- Edwinoliver, N.G., Thirunavukarasu, K. , Naidu, R.B., Gowthaman, M.K., Kambe, T. Nakajima., Kamini, N.R. 2010. Scale up of a novel tri-substrate fermentation for enhanced production of *Aspergillus niger* lipase for tallow hydrolysis. *Bioresource Technology.* 101 : 6791–6796.

- Ejedegba, B.O., E. C. Onyeneke, And P. O. Oviasogie. 2007. Characteristics Of Lipase Isolated From Coconut (*Cocos nucifera linn*) Seed Under Different Nutrient Treatments. *African Journal Of Biotechnology*. 6 (6): 723-727
- Esakkiraj, P., M. Rajkumarbharathi, A. Palavesam, G. Imman. 2010. Lipase Production By *Staphylococcus epidermidis* CMST-Pi 1 Isolated From The Gut Of Shrimp *Penaeus indicus*. *Ann Microbiol* 60: 37–42
- Esmaceli, Moein. Yolmeh, Mahmoud., Shakerardakani, Ahmad., Golivari, Hamid. 2015. A Central Composite Design For The Optimizing Lipase And Protease Production From *Bacillus Subtilis* PTCC 1720. *Biocatalysis And Agricultural Biotechnology*.
[Http://Dx.Doi.Org/10.1016/J.Bcab.2015.05.002](http://dx.doi.org/10.1016/j.bcab.2015.05.002)
- Falony, G., J. C. Armas, J.C. Dustet, Mendoza Dan J.L.M. Hernández. 2006. Production Of Extracellular Lipase From *Aspergillus niger* By Solid-State Fermentation. *Food Technol. Biotechnol.* 44 (2) 235–240.
- Ghasemi, Masoumeh., Farahbakhsh, Afshin., Farahbakhsh, Arman., Safari, Ali Asghar. 2014. Using Submerge Fermentation Method to Production of Extracellular Lipase by *Aspergillus niger*. *International Journal of Biological, Biomolecular, Agricultural, Food and Biotechnological Engineering* 8(9) : 994-997
- Ghosh, P.K., R.K. Saxena, R. Gupta, R.P. Yadav, S. Davidson. 1996. Microbial Lipase: Production And Application. *Science Progress*. 79 (2): 119-157
- Gómez-Alarcón, Gonzalo., Lahoz, Rafael. Saiz-Jiménez, Cesáreo. 1986. Production of some enzymes in the autolysis of the white-rot fungus *Coriolus versicolor* in fermenter. *Microbiología* 2 (1986), 97-103.
- Halasz, Anna. Lasztity, Radomir. 1991. *Use of yeast biomass in food production*. CRC press. Inc. USA
- Hasan-Beikdashti, M., Forootanfar, H., Safarian, M.S., Ameri, A., Ghahreman, M.H., Khoshayand, M.R., Faramarzi, M.A. 2012. Optimization Of Culture Conditions For Production Of Lipase By A Newly Isolated Bacterium *Stenotrophomonas maltophilia*. *Journal Of The Taiwan Institute Of Chemical Engineers* (43) : 670–677.
- Haslinawati, Wheni. 2011. Optimasi produksi lipase dari *Aspergillus niger* 6516 pada medium fermentasi bungkil biji jarak menggunakan metode solid state fermentation (SSF). *Tesis*. UGM. Indonesia.
- Hui, Y.H., Khachatourians, George G. 1995. *Food biotechnology: microorganisms food science and technology*. John wiley & son. USA
- Issac, Susan. 1996. *Mycology answers: what are the factor that contribute to the onset of autolysis in fungal hyphae and does the proses confer any*

ecological advantage?. Volume 10 part 4. University of Liverpool.
Liverpool.

Iwai, M., Tsujisaka, Y., 1984. Fungal Lipases. In: Brockman, H.L. (Ed.), *Lipases*.
443–469.

Jagtap, Shweta., Gore, Sharad., Yavankar, Supriya., Pardesi, Karishma., Chopade,
Balu. 2010. Optimization of medium for lipase production by *Acinetobact
haemolyticus* from healthy human skin. *Indian Journal of Experimental
Biology*. 48 : 936-941.

Kamini, N.R., Mala, J.G.S., Puvanakrishnan, R., 1998. Lipase Production From
Aspergillus niger By Solid State Fermentation Using Gingelly Oil Cake.
Process Biochem. 33 :505–511.

Karaj., Shkelqim., Müller. 2009. Joachim Optimization of mechanical extraction
of *Jatropha curcas* seeds. *Landtechnik*. 64 (3): 164 – 167.

Kumar, A., S. Sharma. 2008. An Evaluation Of Multipurpose Oil Seed Crop For
Industrial Uses (*Jatropha curcas* L.): A Review. *Industrial Crops And
Products* 28: 1-10

Kumar, Gopalakrishnan., Sen, Biswarup., Lin, Chiu-Yue. 2013. Pretreatment and
hydrolysis methods for recovery of fermentable sugars from de-oiled
Jatropha waste. *Bioresource Technology*. 145 :275–279.

Lanser A.C., L. K., Manthey, C.T. Hou. 2002. Regioselectivity Of New Bacterial
Lipases Determined By Hydrolysis Of Triolein. *Current Microbiology* 44:
336-340

Madigan, M. T Dan J. M. Martinko. 2012. *Brock; Biology Of Microorganism.
13th Edition*. Pearson Prentice Hall, USA

Mahadik, N.D., U.S. Puntambekar, K.B. Bastawde, J.M. Khire, D.V. Gokhale.
2002. Production Of Acidic Lipase By *Aspergillus niger* In Solid State
Fermentation. *Process Biochem* 38 (5): 715–721

Makkar, H.P.S., Francis, G., Becker, K., 2008. Protein Concentrate From
Jatropha curcas Screw-Pressed Seed Cake And Toxic And Antinutritional
Factors In Protein Concentrate. *J. Sci. Food Agric*. 88, 1542–1548.

Matkar, Ketna., Chapla, Digantkumar., Divecha, Jyoti., Nighojkar, Anand.,
Madamwar, Datta. 2013. Production of cellulase by a newly isolated strain
of *Aspergillus sydowii* and its optimization under *submerged fermentation*.
International Biodeterioration & Biodegradation.78 : 24-33.

Meyer V. 2008. Genetic Engineering Of Filamentous Fungi-Progress, Obstacles
And Future Trends. *Biotechnol Adv* 26:177–185

- Mishra, Mohit S., B. Chandrashekhar., Chatterjee, Tanushree., Singh, Kanwal . 2011. Production Of Bio-Ethanol From *Jatropha* Oilseed Cakes Via Dilute Acid Hydrolysis And Fermentation By *Saccharomyces cerevisiae*. *International Journal Of Biotechnology Applications*.(3) :41-47
- Montes, J.M., Aliciardi, M. Rodríguez., Chávez, J. Vaca., Guzmán, C., Calandri, E. 2011. Characterization Of *Jatropha curcas* L. Seed And Its Oil, From Argentina And Paraguay. *The Journal Of The Argentine Chemical Society* 98 :1-9.
- Nakajima-Kambe, T., Edwinoliver, N.G., Maeda, H., Thirunavukarasu, K., Gowthaman, M.K., Masaki, K., Mahalingam, S., Kamini, N.R. 2012. Purification, Cloning And Expression of an *Aspergillus niger* Lipase For Degradation Of Poly(Lactic Acid) And Poly(E-Caprolactone). *Polymer Degradation And Stability* 97 : 139-144.
- Nasir, Subriyer., Fitriyanti., Kamila, Hilma., 2009. Ekstraksi Dedak Padi Menjadi Minyak Mentah Dedak Padi (Crude Rice Bran Oil) Dengan Pelarut N-Hexane Dan Ethanol. *Jurnal Teknik Kimia*, 2(16)
- Papagianni M (2004) Fungal Morphology And Metabolite Production In Submerged Mycelial Processes. *Biotechnol Adv.* 22:189–259
- Papagora, Christina., Roukas, Triantafyllos. Kotzekidou, Parthena. 2013. Optimization Of Extracellular Lipase Production By *Debaryomyces hansenii* Isolates From Dry-Salted Olives Using Response Surface Methodology. *Food And Bioproducts Processing* (91) : 413–420.
- Pramudono, Bambang., Widioko, Septian Ardi., Rustyawan, Wawan. 2008. Ekstraksi Kontinyu Dengan Simulasi Batch Tiga Tahap Aliran Lawan Arah: Pengambilan Minyak Biji Alpukat Menggunakan Pelarut N-Hexane dan Iso Propil Alkohol. *Reaktor*. 12 (1) : 37-41
- Qian, J., H. Shi, Z. Yun. 2010. Preparation Of Biodiesel From *Jatropha Curcas* L. Oil Produced by Two-Phase Solvent Extraction. *Bioresource Technology* 101: 7025–7031
- Ramyasree, Sita., Dutta, Jayati Ray. 2013. The effect of process parameters in enhancement of lipase production by co-culture of lactic acid bacteria and their mutagenesis study. *Biocatalysis and Agricultural Biotechnology*.2 : 393–398.
- Reis, Laísa dos., Fontana, Roselei Claudete., Delabona, Priscila da Silva., Lima, Deise Juliana da Silva., Camassola, Marli., Pradella, José Geraldo da Cruz., Dillon, Aldo José Pinheiro. 2013. Increased production of cellulases and xylanases by *Penicillium echinulatum* S1M29 in batch and fed-batch culture. *Bioresource Technology*. 146 : 597–603.

- Romero S, Blázquez P, Caminal G, Font X, Sarrà M, Gabarrell X, Vincent T. 2006. Different Approaches to Improving the Textile Dye Degradation Capacity of *Trametes Versicolor*. *Biochem En J* 31:42–47.
- Salihu, Aliyu., Alam, Md. Zahangir., Abdulkarim, M. Ismail., Salleh, Hamzah M. 2011. Optimization of Lipase Production by *Candida cylindracea* In Palm Oil Mill Effluent Based Medium Using Statistical Experimental Design. *Journal of Molecular Catalysis B: Enzymatic* (69) : 66–73.
- Salihu, Aliyu., Alama, Md. Zahangir., Abdulkarima, M. Ismail., Salleh, Hamzah M. 2012. Lipase Production: An Insight In The Utilization Of Renewable Agricultural Residues. *Resources, Conservation And Recycling*. (58): 36–44.
- Sami, Laszlo. 2003. The role of chitinolytic enzyme and free radicals in the autolysis of *Penicillium chrysogenum*. *Theses of the PhD dissertation*. University of Debrecen.
- Sharma, Disha., Kumbhar, B.K., Verma, A.K., Tewari, Lakshmi. 2014. Optimization of Critical Growth Parameters For Enhancing Extracellular Lipase Production by Alkalophilic *Bacillus Sp.* *Biocatalysis And Agricultural Biotechnology* (3) : 205–211.
- Silvestre, M. P. C.; Morais, H. A.; Silva, V. D. M.; Silva, M. R. Grau. 2013. Hydrolysis of whey protein. *Nutrire: rev. Soc. Bras. Alim. Nutr.= J. Brazilian Soc. Food Nutr., São Paulo, SP*, 38(3): 278-290.
- Singhania, R.R., Sukumaran, R.K., Patel, A.K., Larroche, C., Pandey, A., 2010. Advancement and comparative profiles in the production technologies using solid-state and *submerged fermentation* for microbial celullases. *Enzyme Microb. Technol.* 46: 541–549.
- Sirisomboon P, Kitchaiya P, Pholphoa T, Mahuttanyavanitch W. 2007. Physical And Mechanical Properties of *Jatropha curcas* L. Fruits, Nuts and Kernels. *Biosystems Eng.* 97:201–207.
- Stergiou, Panagiota-Yiolanda., Foukis, Athanasios., Filippou, Michalis., Koukouritaki, Maria., Parapouli, Maria., Theodorou, Leonidas G., Hatziloukas, Efstathios., Afendra, Amalia., Pandey, Ashok., Papamichael, Emmanuel M. 2013. Advances in lipase-catalyzed esterification reactions. *Biotechnology Advances*.31 : 1846–1859.
- Suganthi, R., Benazir, J.F., Santhi, R., Kumar, Ramesh.V., Hari, Anjana., Meenakshi, Nitya. Nidhiya, K. A., Kavitha, G., Lakshmi, R. 2011. Amylase Production by *Aspergillus niger* Under Solid State Fermentation Using Agroindustrial Wastes. *International Journal of Engineering Science and Technology (IJEST)*.3 (2):1756-1763.

- Sundar, William Arputha., Kumaresapillai, Natarajan. 2013. Isolation, Purification And Medium Optimization of Lipase Enzyme Producing Strains Of *Aspergillus Niger* Isolated From Natural Sources. *International Journal of Pharmacy and Pharmaceutical Sciences*. 5(2) : 321-324.
- Veerapagu, M., Narayanan, DR .A. Sankara, Ponmurugan, K., Jeya, K.R. 2013. Screening Selection Identification Production And Optimization Of Bacterial Lipase From Oil Spilled Soil. *Asian J Pharm Clin Res*. 6 (3) : 62-67.
- Wang, Jinshui ., Su, Yinjie., Jia, Feng., Jin, Huali. 2013. Characterization of casein hydrolysates derived from enzymatic hydrolysis. *Chemistry Central Journal*, 7:62
- Weete, J.D., Oi-Ming. Lai, C.C Akoh. 2008. *Mikrobal Lipase*. In: *Food Lipid Chemistry, Nutrition and Biotechnology, 3rd Ed*. CRC Press. Taylor and Francis Group: New York: 767-783
- Widdel, F. 2007. *Theory and Measurement of Bacterial Growth*. Universitas Bremen. Jerman.
- Wong, Dominic W. S. 1995. *Food enzyme : Structure and mechanism*. Springer science & business media. USA.
- Wucherpfennig, Thomas., Hestler, Timo., Krull, Rainer. 2011. Morphology engineering - Osmolality and its effect on *Aspergillus niger* morphology and productivity. *Microbial Cell Factories* : 1-15
- Yuwono, T. 2005. *Biologi Molekular*. Penerbit Erlangga: Jakarta.: 20-21
- Zanotto, S.P., I. P. Romano, L. U. S. Lisboa, S.Duvoisin Jr., M. Martins, F.A. Lima, S.F. Silva Dan P.M Albuquerque. 2009. Potential Application In Biocatalysis Of Mycelium-Bound Lipases From Amazonian Fungi.*J. Braz. Chem. Soc.*, 20(6) : 1046-1059.