

DAFTAR PUSTAKA

- Akoh, C. C. dan David B. Min. 2008. Food Lipids: Chemistry, Nutrition, and Biotechnology, Third edition. CRC Press, Florida.
- Alford, J. A., Pierce, D. A. dan Frank, G. 1964. Activity of microbial lipase on nature fats and synthetic triglycerides. J. Lipid Res., 5: 390-394.
- Aoyama, S., Yoshida N., dan Inouya S. 1988. Cloning, sequencing and expression of lipase gene from *Pseudomonas fragi* IFD-12049 in *Escherichia coli*. FEBS Lett., 242: 36-40.
- Boonchan S., Britz M. L., dan Stanley G. A. 2000 Degradation and mineralization of high molecular weight polycyclic aromatic hydrocarbons by defined fungal-bacterial cocultures. Appl. Environ. Microbiol., 66: 1007-1019.
- Chen, C. Y., dan Chen S. D. 2000. Biofilm characteristics in biological denitrification biofilm reactors. Water Sci. Technol., 41: 147-154.
- Christie, W. W. 1992. Gas Chromatography and Lipids: A Practical Guide. The Oil Press, Scotland.
- Costerton, J. W., Philip S. S., dan Greenberg E. P. 1999. A common cause of persistent infections. Sci., 284: 1318-1322.
- Dunn, R.O. 2005. Effect of antioxidants on the oxidative stability of methyl soyate (biodiesel). J. Fuel Pro. Technol., 86: 1071-1085.
- Ellaiah, P., Prabhakar, T., Ramakrishna, B., Taleb, A. T., dan Adinarayana, K. 2004. Production of lipase by immobilized cells of *Aspergillus niger*. Proc. Biochem., 39: 525-528.
- Fessenden, R. J. dan J. S. Fessenden. 1986. Organic Chemistry: Third Edition. Wadsworth, Inc., California.
- Gertz, C., Klostermann S., dan Kochhar S. P. 2000. Testing and comparing oxidative stability of vegetable oils and fats at frying temperature. Euro. J. Lipid Sci. Technol., 102: 543- 541.
- Gilbert, E.J., Drozd, J.W., dan Jones C.W. 1991. Physiological regulation and optimization of lipase activity in *Pseudomonas aeruginosa* EF2. J. General Microbiol., 131: 2215-2221.
- Goel, A, Muller M. B., dan Sharma M. 2003. Biodegradation of nonylphenol ethoxylate surfactants in biofilm reactors. Acta Hydroch. Hydrob., 31: 108-119.

- Gunstone, F. 2009. The Chemistry of Oils and Fats: Sources, Composition, Properties, and Uses. Blackwell Publishing, California.
- Hammond, E. W. 2003a. Vegetable oil: composition and analysis. *Ency. Food. Sci. Nutri.*, 10: 5916-5921.
- Hammond, E. W. 2003b. Vegetable oil: types and properties. *Ency. Food. Sci. Nutri.*, 10: 5899-5904.
- Hanisah, K., Kumar S., dan Tajul A.Y. 2013. The management of waste cooking oil: a preliminary survey. *Health and Environ. J.*, 4: 76-81.
- Hou, C. T. 1994. pH dependence and thermostability of lipases from cultures from ARS culture collection. *J. Ind. Microbiol.*, 13: 242-8.
- Harayama, S., H. Kishira., Y. Kasai, dan K. Shutsubo. 1999. Petroleum biodegradation in marine environments. *J. Mol. Microbiol. Biotechnol.*, 1: 63-70.
- Hogan, D. A., Vik, A., dan Kolter, R. 2004. A *Pseudomonas aeruginosa* quorum-sensing molecule influences *Candida albicans* morphology. *Mol. Microbiol.* 54: 1212-1223.
- Ito, T., Kikuta H., Nagamori E., Honda H., Ogino H., Ishikawa H., dan Kobayashi T. 2001. Lipase production in two-step fed-batch culture of organic solvent-tolerant *Pseudomonas aeruginosa* LST-03. *J. Biosci. Bioeng.*, 91: 245-50.
- Jafari, N. 2010. Review of pollution sources and controls in caspian sea region. *J. Ecol. Natural Environ.*, 2: 25-29.
- Johannes, E. 2012. Pemanfaatan Senyawa Bioaktif Hasil Isolasi Hydroid *Aglaophenia Cupressina Lamoureaux* sebagai Bahan Sanitizer Pada Buah dan Sayuran Segar. Universitas Hasanuddin. Disertasi Doktor.
- Kathiravan T., J. Marykala, A. Sundaramanickam, S. Kumaresan dan T. Balasubramanian. 2012. Studies on nutritional requirements of *Pseudomonas aeruginosa* for lipase production. *Appl. Sci. Res.*, 3: 591-598.
- Kim, B. H. dan G. M. Gadd. 2008. Bacterial Physiology and Metabolism. Cambridge University Press, Cambridge.
- Kulkarni, M. G. dan Dalai, A. K. 2006. Waste cooking oil-an economical source for biodiesel: A review. *Ind. Eng. Chem. Res.*, 45: 2901-2913.
- Larios, A., Garcia, H. S., Oliart, R. M., dan Valerio-Alfaro, G. 2004. *Appl. Microbiol. and Biotechnol.*, 65: 373-376.

- Madigan, Michael T., dan Martinko M. M. 2014. Brock Biology of Microorganism. Pearson Education Inc., San Francisco.
- Marjadi, D. S. dan Dharaiya, N. A. 2010. Analysis of edible oil contaminated soil within North Gujarat Region. Life Sci. Leaflets, 10: 287-291.
- Matz, C, Bergfeld T., dan Rice S.A. 2004. Microcolonies, quorum sensing and cytotoxicity determine the survival of *Pseudomonas aeruginosa* biofilms exposed to protozoan grazing. Environ. Microbiol. 6: 218-226.
- McDougald, D., Janosch K., Tolker-Nielsen, Jeremy S. W., Tim C., Scott A. R, Sylvia M. K., Carsten M., dan Staffan K. 2008. *Pseudomonas aeruginosa*: A Model for Biofilm Formation. WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim.
- Mistry, M. A. dan A. K. Khambete. 2011. Extraction of biodiesel from waste vegetable oil. Int. J. Earth Sci. and Engineer., 4: 419-422.
- Moat, A. G. T., J. W. Foster, dan M. P. Spector. 2002. Microbial Physiology: Fourth Edition. Wiley-Liss, Inc., New York.
- Mongkolthanaruk, W. dan Dharmsthiti, S. 2002. Biodegradation of lipid-rich waste water by a mixed bacterial consortium. Int. Biodeterioration Biodegrad, 50: 101-105.
- Nardini, M., Dietmar A. L., Klaus L., Karl-Erich J., dan Bauke W. 2000. Dijkstra Crystal structure of *Pseudomonas aeruginosa* Lipase in the open conformation: the prototype for family i.1 of bacterial lipases. J. Biol. Chem., 275: 31219-31225.
- Odeyemi A. T., Aderiye B. I., dan Bamidele O. S. 2013. Lipolytic activity of some strains of *Klebsiella*, *Pseudomonas* and *Staphylococcus* spp. from restaurant wastewater and receiving stream. J. Microbiol. Res., 3: 43-52.
- Ogunseitan, O. 2005. Microbial Diversity. Blackwell Publishing, USA.
- Ong, A. S. H. dan Goh S. H. 2002. Palm oil: a healthful and cost-effective dietary component. Food Nutri. Bull., 23: 11-22.
- Palmer, R. J, dan D. C. White. 1997. Developmental biology of biofilms implications for treatment and control. Trends in Microbiol., 5: 435-439.
- Pratiwi, J.A. 2013. Identifikasi Jamur Pendegradasi Limbah Minyak Bumi yang Mampu Berasosiasi dengan Bakteri dalam Bentuk *Co-culture*. Universitas Gadjah Mada. Skripsi.

- PT. Astra Agro Lestari Tbk. 2013. Buletin Investor AALI : Second Editon July 2014. (www.astra-agro.co.id/index.php/investor-buletin//1144-investor-buletin-2013). Diakses tanggal 20 November 2014).
- Rajan, S., dan Saiman, L. 2002. Pulmonary infections in patients with cystic fibrosis. *Semin. Respir. Infect.* 17: 47–56.
- Ribeiro, B. D., de Castro, Coelho, and Freire. 2011. Production and use of lipases in bioenergy: a review from the feedstocks to biodiesel production. *Enzyme Research*, 2011:1-16.
- Ryder, C. B. dan M. Wozniak, D. J. 2007. Role of polysaccharides in *Pseudomonas aeruginosa* biofilm development. *Curr. Opin. Microbiol.*, 10, 644–648.
- Seneviratne G. 2003. Development of eco-friendly, beneficial microbial biofilms. *Curr. Sci.*, 85: 1395–1396.
- Seneviratne. G., K. Mihaly, dan I. K. Ivan. 2006a. Biofilmed biofertilizer: Novel inoculants for efficient nutrient use in plants. *Aciar Australia*: 126-130.
- Seneviratne G., Tennakoon N.S., Weerasekara. 2006b. Polyethylene biodegradation by a developed *Penicillium–Bacillus* biofilm. *Curr. Sci.*, 90: 20–21.
- Sharma, R., Y. Chisti, dan U. C. Banerjee. 2001. Production, purification, characterization, and applications of lipases. *Biotechnol. Advances* 19: 627–662.
- Sheila. 2013. Identifikasi Bakteri Pendegradasi Limbah Minyak Bumi Penyusun Biofilm pada Permukaan Jamur. Universitas Gadjah Mada. Skripsi.
- Singh, A.K. dan Mukhopadhyay. 2012. Overview of fungal lipase: a review. *Appl. Biochem. Biotechnol.*, 166: 486–520.
- Singh R., D. Paul, dan R. K. Jain. 2006. Biofilms: implications in bioremediation. *Trends in Microbiol.*, 14: 389-397.
- Soares, A., Guieysse B., dan Mattiasson B. 2003. Biodegradation of nonylphenol in a continuous packed-bed bioreactor. *Biotech. Lett.*, 25: 927–933.
- Stuer, W., Karl E. J., dan Ulrich K. W. 1986. Purification of extracellular lipase from *Pseudomonas aeruginosa*. *J. Bacteriol.*, 168: 1070-1074.
- Tan, T., Zhang, M., Wang, B., Ying, C., dan Deng, L. 2003. Screening of high lipase producing *Candida* sp. and production of lipase by fermentation. *Process. Biochem.*, 39: 459–465.
- USDA. 2014. World Agricultural Supply and Demand Estimates. WASDE report 536. <<http://usda.mannlib.cornell.edu/>>. Diakses tanggal 11 Januari 2015.



- Utami, D. 2012. Kemampuan Degradasi Hidrokarbon Minyak Bumi oleh *Co-Culture* Jamur and Bakteri dalam Bentuk Biofilm. Universitas Gadjah Mada. Skripsi.
- Wargo, M.J., dan Hogan D.A. 2006. Fungal—bacterial interactions: a mixed bag of mingling microbes. *Curr. Opin. Microbiol.*, 9: 359–364.
- Wei, Q. dan Ma, L. Z. 2013. biofilm matrix and its regulation in *Pseudomonas aeruginosa*. *Int. J. Mol. Sci.*, 14: 20983-21005.
- Zavahir, J. S., Seneviratne G. 2007 Potential of developed microbial biofilms in generating bioactive compounds. *Res. J. Microbiol.*, 2:397–401.
- Zouaoui, B. dan Abbouni B. 2012. Production, optimization and characterization of the lipase from *Pseudomonas aeruginosa*. *Romanian Biotechnol. Lett.* 17: 7187-7193.
- Zuo, R., dan Wood T. K. 2004. Inhibiting mild steel corrosion from sulfatereducing and iron-oxidizing bacteria using gramicidins-producing biofilms. *Appl. Microbiol. Biotechnol.*, 65:747–753.