DAFTAR PUSTAKA

Abubakar, A., Suberu, H.A., Bello, I.M., Abdulkadir, R., Daudu, O.A. & Lateef, A.A. 2013. Effect of pH on Mycelial Growth and Sporulation of *Aspergillus parasiticus*. *Journal of Plant Science,* 1(4): 64-67.

Ahn, Y., Jeon,J.H., Baek, C.S., Yu, Y.H., Thenepalli,T., Ahn, J.W. & Han, C. 2016. Synthesis and Non-Isothermal Crystallization Behaviors of Maleic Anhydride onto High Density Polyethylene. *Journal of the Korean Ceramic Society,* 53(1): 24-33.

Alauddin, M., Choudkury, I. A., Baradie, M. A., & Hashmi, M. S. J. 1995. Plastics and Their Machining: A Review. *Materials Processing Technology*, 54: 40–46.

Al-Hawash, A.B., Zhang, J., Li, S., Liu, J., Ghalib, H.B., & Zhang, X. 2018a. Biodegradation of n-Hexadecane by *Aspergillus* sp. RFC-1 and Its Mechanism. *Ecotoxicology and Environmental Safety,* 164: 398-408. https://doi.org/10.1016/j.ecoenv.2018.08.049.

Al-Hawash, A.B., Dragh, M.A., Zhang, J., Li, S., Alhujaily, A., Abbood, H.A., Zhang, X., & Ma, F. 2018b. Principles of Microbial Degradation of Petroleum Hydrocarbons in the Environment. *Egyptian Journal of Aquatic Research*, 44: 71-76. https://doi.org/10.1016/j.ejar.2018.06.001.

Al-Jailawi, M.H., Ameen, R.S. & Al-Saraf, A.A. 2015. Polyethylene Degradation by *Pseudomonas putida* S3A. *Int.J.Adv.Res.Biol.Sci*., 2(1): 90-97.

Al-Jawhari, I.F.H. 2014. Ability of some Soil Fungi in Biodegradation of Petroleum Hydrocarbon. *Journal of Applied & Environmental Microbiology*, 2(2): 46-52.

Andrady, A. L. 2000. Assesment of Biodegradability in Organic Polymer. In : Hamid, S. H. (Eds.), **Handbook of polymer degradation**. Marcel Dekker, Inc., New York.

Arslan, M., Afzal, M., Amin, I., Iqbal, S, & Khan, Q.M. 2014. Nutriens Can Enhence the Abundance and Expression of Alkane Hydroxylase CYP153 Gene in the Rhizosphere of Ryegrass Planted in Hydrocarbon-Polluted Soil. *PLOS ONE,* 9(10): e111208.

Arutchelvi, J., Sudhakar, M., Arkatkar, A., Doble, M., Bhaduri, S., & Uppara, P.V. 2008. Biodegradation of Polyethylene and Polypropylene. *Indian Journal of Biotechnology,* 7: 9-22.

Atiq, N., Safia, A., Ishtiaq, A.M, Saadja, A., Bashir, A., & Geoffery R. 2011. Isolation and Identification of Polystyrene Biodegrading Bacteria from Soil. *African Journal of Microbiology Research*, 4: 1537-1541.

Awasthi, S., Srivastava, N., Singh, T., Tiwary, D. & Mishra, P.K. 2017. Biodegradation of Thermally Treated Low Density Polyethylene by Fungus *Rhizopus oryzae* NS5. *Biotec,* 7: 73.

Balasubramanian, V., Natarajan, K., & Rajeshkannan, V. 2014. Enhancement of in Vitro High-Density Polyethylene (HDPE) Degradation by Physical, Chemical, and Biologycal Treatments. *Environ Sci Pollut Res,* 21: 12549-12562.

Barnett, H. L. 1969. **Illustrated Genera of Imperfect Fungi**. Burgess Publishing Company, Virginia.

Barrat, S.R., Ennos, A.R., Greenhalgh, M., Robson, G.D., & Handley, P.S. 2003. Fungi are the Predominant Microorganisms Responsible for Degradation of Soil-Buried Polyester Polyurethane Over A Range of Soil Water Holding Capacities. *Journal of Applied Microbiology,* 95: 78-85.

Basu, S., Bose, C., Ojha, N., Das, N., Das, J., Pal, M. & Khurana, S. 2015. Evolutin of Bacterial and Fungal Growth Media. *Bioinformation*, 11(4): 182-184.

Bonilla, M., Olivaro, C., Caronal, M., Vazquez, A., & Soubes, M. 2005. Production and Characterization of a New Bioemulsifier from *Pseudomonas putida* ML2. *J. Appl. Microbiol*, 98: 456-463.

Buchanan, R.E. 1918. Life Phases in a Bacterial Culture. *J.Infect. Dis*., 23: 109-125. doi: 10.1086/infdis/23.2.109.

Budiman, A. & Setyawan, S. 2013. Pengaruh Konsentrasi Substrat, Lama Inkubasi, dan PH dalam Proses Isolasi Enzim Xylanase dengan Menggunakan Media Jerami Padi. **Thesis**. Jurusan Teknik Kimia Fakultas Teknik Universitas Diponegoro.

Cicatiello, P., Gravagnuolo, M.A., Gnavi, G., Varese, G.C., & Giardina, P. 2016. Marine Fungi as Source of New Hydrophobins. *International journal of Biolgical Macromolecules,* 92:1229-1233.

Chen, W., Li, J., Sun, X., Min, J. & Hu, X. 2017. High Efficiency Degradation of Alkanes and Crude Oil by A Salt-tolerant Bacterium *Dietzia* Species CN-3. *International Biodeterioration & Biodegradation*, 118: 110-118.

Ching, C., Kaplan, D.L., & Thomas, E.L. 1993. **Biodegradable Polymer and Packaging**. Technomic Publishing Company, Inc., Pensylvania, USA.

Cockburn, D.W. & Clarke, A.J. 2011. Modulating the pH-activity Profile of Cellulase A from *Cellulomonas fimi* by Replacement of Surface Residues. *Protein Engineering, Design & Selection,* 24(5): 429-437.

Cooper, D.G. & Goldenberg, B.G. 1987. Surface-Active Agents from Two *Bacillus* Spesies. *Applied and Environmental Microbiology,* 53(2): 224-229.

Da Silva, L.C.A., Honorato, T.L., Cavalcante, R.S., Franco, T.T. & Rodrigues, S. 2012. Effect of pH and Temperature on Enzyme Activity of Chitosanase Produced Under Solid Stated Fermentation by *Trichoderma* spp. Indian J. Microbiol, 52(1): 60-65.

Daniel, R.M., Danson, M.J., Eisenthal, R. Lee, C.K. & Peterson, M.E. 2008. The effect of temperature on enzyme activity: new insights and their imlications. *Extremophiles,* 12: 51-59.

Daniel, R.M. & Danson, M.J. 2013. Review: Temperature and the Catalytic Activity of Enzymes: A Fresh Understanding. *FEBS Letters,* 587: 2738-2743.

Dashti, N., Al-Awadhi, H., Khanafer, M., Abdelghany, S. & Radwan, S. 2008. Potential of Hexadecane-Utilizing Soil-Microorganisms for Growth on Hexadecanol, Hexadecanal and Hexadecanoic Acid as Sole Sources of Carbon and Energy. *Chemosphere*, 70: 475-479.

Davidovits, P. 2019. **Fluids. Physics in Biology and Medicine**, Elsevier Inc.: 85-101. https://doi.org/10.1016/B978-0-12-813716-1.00007-0

De Vries, O.M.H., Moore, S., Arntz, C., Wessels, J.G.H., & Tudzynski, P. 1999. Identification and Characterization of a Tri-Partite Hydrophobin from *Claviceps fusiformis*. *Eur.J.Biochem,* 262: 377-385.

Dennison, C. 2002. **A Guide for Protein Isolation**. Kluwer Academic Publisher, New York: 186.

Devi, R.S., Kannan, V.R., Nivas, D., Kannan, K., Chandru, S., & Antony, A.R. 2015. Biodegradation of HDPE by *Aspergillus* spp. from Marine Ecosystem of Gulf of Mannar, India. *Marine Pollution Bulletin,* 96:32-40.

Dodd, S.L., Crowhurst, R.N., Rodrigo, A.G., Samuel, G.J., Hill, R.A., & Steward, A. 2000. Examination of *Trichoderma* Phylogenies Derived from Ribosomal DNA Sequence Data. *Mycol.Res*. 104(1):23-34.

Duong, L.M., Jeewon, R., Lumyong, S., & Hyde, K.D. 2006. DGGE Coupled with Ribosomal DNA Gene Phylogenies Reveal Uncharacterized Fungal Phylotypes. *Fungal Diversity,* 23: 121–138.

Duvnjak, Z., Cooper, D. G., & Kosaric, N. 1982. Production of Surfactant by *Arthrobacter*

parafineus ATCC 19558. Biotechnology and Bioengineering**,** XXIV : 165-175.

Efendi, M.R.S. 2016. Deteksi Gen serta Uji Aktivitas Enzim Katabolik pada *Bacillus subtilis* 3KP pada Substrat Hidrokarbon. *Tesis*. Universitas Airlangga, Surabaya: xiii + 42 hlm.

Elumalai, P., Parthipan, P., Karthikeyan, O.P., & Rajasekar, A. 2017. Enzyme-Mediated Biodegradation of Long-Chain n-alkanes (C32 and C40) by Thermophilic Bacteria. *Biotech,* 7:116.

Esmaeili, A., Pourbabaee, A.A., Alikhani, H.A., Shabani, F., & Esmaeili, E. 2013. Biodegradation of Low-Density Polyethylene (LDPE) by Mixed Culture of *Lysinibacillus xylanilyticus* and *Aspergillus niger* in Soil. *Plos one,* 8(9): e71720.

Espino, D., Haruvy-Manor, Y., & Mastay, Y. 2019. $COFe_2O_4$ Nano Particles for Radical Oxydative Degradation of High Molecular Weight Polybutadiene. *Journal of Polymer and Environmental,* 27: 827-836.

Feng, J., Zhang, H., He, H., Huang, X., & Shi, Q. 2016. Effects of Fungicides on Mold Resistance and Mechanical Properties of Wood and Bambo Flour/ High-Density Polyethylene Composites. *BioResources,* 11(2): 4069-4085.

Francy, D.S., Thomas, J.M., Raymon, R.L., & Ward, C.H. 1991. Emulsification of Hydrocarbons by Subsurface Bacteria. *Journal of Industrial Microbiology,* 8: 237-246.

Fröhlich, J., Hyde, K.D. & Petrini, O. 2000. Endophytic Fungi Associated with Palms. *Mycological Research,* 104: 1202-1212.

Fromm,H.J. 1975. The Effect of pH and Temperature on Enzyme Activity. *Molecular*, 22. Springer-Verlag Berlin, Heidelberg: 201-235.

Golyshina, O.V & Timmis, K.N. 2005. Minireview: Ferroplasma and Relatives, Recently Discovered Cell Wall-Lacking Archaea Making a Living in Extremely Acid, Heavy Metal Rich Environments. *Enviro.Microbiol.,* 7(9): 1277-1288.

Gandier, Julie-Anne, Langelaan, D.N., Won, A., O'Donnell, K., Grondin, J.L., Spencer, H.L., Wong, P., Tillier, E. Yip, C., Smith, S.P., & Master, E.R. 2017. Characterization of Basidiomycota Hydrophobin Reveals the Structural Basis for a High-Similarity Class I Subdivision. *Scientific Report,* 7: 45863

Gardes, M. & Bruns, T. D. 1993. ITS Primers with Enhanced Specificity for Basidiomycetes Application to the Identification of Mycorrhizae and Rusts. *Molecular Ecology,* 2: 113-118.

Geewely, N.S. & Ouf, S.A., 2011. Enhancement of Fungal Degradation of Starch Based Plastics Polymer by Laser-Induced Plasma. *African Journal of Microbiology Research,* 5(20): 3273-3281.

Ghosh, S.K., Pal,S., & Ray, S. 2013. Study of Microbes Having Potentiality for Biodegradation of Plastics. *Environmental Science and Pollution Research International,* 20(7): 4339-4355.

Grund, A., Shapiro, M., Fennewald, M., Bacha, P., Leahy, J., Markbretter, K.,Nieder, M. & Toepfer, M. 1975. Regulation of Alkane Oxidation in Pseudomonas putida. *Journal of Bacteriology*, 123(2): 546-556.

Hall, I.R., Stephenson, S.L., Buchanan, P.K., Yun, W., & Cole, A.L.J. 2003. **Edible and Poisonous Mushroom of the Word**. Timber Press.,Inc. Portland : 371 pp.

Hill, D.M. & Dixon, M.T. 1991. Ribosomal DNA: Molecular Evolution & Phylogenetic Inference. *The Quartely Review of Biology,* 66(4): 411-455.

Horikoshi, K. 1999. Alkaliphiles: Some Applications of Their Products for Biotechnology. *Microbiol.mol.biol.Rev,*: 735-750.

Hosseini, S., Salari, M., Jamalizadeh, E., Khezripoor, S., & Seifi, M. 2010. Inhibition of Mild Steel Corrosion in Sulfuric Acid by Some Newly Synthesized Organic Compounds. *Material Chemistry Physics,* 119: 100–105.

Hourston, D.J. 2010. Degradation of Plastic and Polymers. 3rd ed. Brysdon, J.A (rev.). vol 2: 18: 53 – 18:77 pp.

Hrenovic, J., Kocac, V., & Ivankovic, T. 2011. Microbial Colonization of High Density Polyethylene Garbage Bags. *Croatian Journal of Food Technology and Nutrition,* 6 (1-2), 52-57.

ICN. 2007. Laporan Market Intelligence: Perkembangan Industri Polyethylena (PE) Resin di Indonesia. *Laporan Bulanan*: Mei 2007.

Indumathi, A. & Gayathri, T. 2016. Plastic Degrading Ability of *Aspergillus oryzae* Isolated from The Garbage Dumping Sites of Thanjavur, India. *Int.J.Curr.Microbiol.App Sci*. Special issue, 3: 8-13.

Ingavale, R.R & Raut, P.D. 2018. Comparative Biodegradation Studies of LDPE and HDPE Using Bacillus weihenstephanensis Isolated from Garbage Soil. *Nature Environment and Pollution Technology,* 17(2): 649-655.

Jambeck, J.R., Geyer, R., Wilcox, C., Siegler, T.R., Perryman, M., Andrady, A., Narayan, R., & Law, K.L. 2015. Plastic Waste Inputs from Land Into The Ocean. *Sciencemag.org*., 347 (6223).

Jeon, H.J. & Kim, M.N. 2016. Comparison of the Functional Characterization Between Alkane Monooxygenases for Low Molecular-Weight Polyethylene Biodegradation. *International Biodeterioration & Biodegradation,* 114: 202-208.

Ji, Y., Mao, G., Wang, Y., & Bartlam, M. 2013. Structural Insights Into Diversity and n-Alkane Biodegradation Mechanisms of Alkane Hydroxylases. *Frontier in Microbiology,* 4(58): 1-13.

Jin, Q. & Kirk, M.F. 2018. pH as a Primary Control in Environmental Microbiology:1. Thermodynamic Perspective. *Front.Environt.Sci*, 6: 21.

Jung, J., Noh, J., & Park, W. 2011. Physichologycal & Metabolis Respon for Hexadecane Degradation. *The Journal of Microbiology,* 49(2): 208-215.

Kale, S.K., Deshmukh, A.G., Dudhare, M.S., & Patil, V.B. 2015. Microbial Degradation of Plastic: A Review. *J.Biochem.Tech,* 6(1): 952-961.

Kar, D. 2011. Material Properties of Plastics. dalam: Klein,R. 2011. *Laser Welding of Plastics.* Wiley-VCH Verlag Gmb H & Co KGaA: 1-68.

Kathiresan, K. 2003. Polythene and Plastics-Degrading Microbes from Mangrove Soil. *Rev.Bio.trop*., 51(3): 629-634.

Kavanagh, K. 2011. ***FUNGI: Biology and Application***. Wiley Press, USA.

Koutny, M., Sancelme, M., Dabin, C., Pichon, N., Delort, A.-M., & Lemaire, J. 2006. Acquired Biodegradability of Polyethylenes Containing Pro-oxidant Additives. *Polymer Degradation Stability,* 91: 1495-1503.

Krueger, M.C., Hofmann, U., Moeder, M., & Schlosser, D. 2015. Potensial of Wood-Rotting Fungi to Attack Polystyrene Sulfonate and Its Depolymerisation by *Gleophyllum trabeum* via Hydroquinone-Driven Fenton Chemistry. *Journal Plosone,* 10.1371:1-11.

Krzan, A. 2012. Biodegradable Polymers and Plastics. *Plastice*, Central Europe: 1-8 pp. www.plastice.org

Kulkarni, S., Nene, S., & Joshi, K. 2017. Production of Hydrophobins from Fungi. *Process Biochemistry,* 61: 1-11.

Kumar, S., Hatha, A.A.M., & Christi, K.S. 2007. Diversity and Effectiveness of Tropical Mangrove Soil Micro Flora on the Degradation of Polythene Carry Bags. *Revista de Biologia Tropical,* 55 (3-4): 777-786.

Kumar Sen, S. & Raut, S. 2015. Microbial Degradation of Low Density Polyethylene (LDPE): A Review. *Journal of Environmental Chemical Engineering,* 3: 462-473.

Kurtzman, C.P. & Blanz., P.A. 1998. Ribosomal RNA/DNA Sequence Comparisons for Assessing Phylogenetic Relationship. In *The Yeasts – a Taxonomic Study*, 4th revised edn, pp. 69–74. Edited by C. P. Kurtzman & J. W. Fell, Elsevier, Amsterdam.

Kuswytasari, N. D., Shovitri, M., & Andriyadi, R.D. 2011. Soil Mold Diversity in he Coastal Wonorejo Surabaya. *Proceedings of International Conference on Mathematics and Science.* Surabaya: ITS Press.

Labuzek, S., Nowak, B., & Pajak, J. 2004. The Susceptibility of Polyethylene Modified with Bionolle to Biodegradation by Filamentous Fungi. *Polish Journal of Environmental Studies,* 13(1): 59-68.

Larone, D. 2002. **Medically Important Fungi: A Guide to Identification**. Ed. (4). ASM Press, Washington DC.

Lee, B., Pometto, A.L., Fratzke, A. & Bayle Jr., T.B. 1991. Biodegradation of Biodegradable Plastic Polyethylene by *Phanerochaetes* and *Streptomyces* Species. *Appl. Environ. Microbiol.,* 57: 678-688.

Lee, C-F. & Hseu, T-H. 2002. Genetic Relatedness of *Trichoderma* sect. *pachybasium* Spesies Based on Molecular Approaches. *Canadian Journal of Microbiology,* 49(9): 831-840.

Lee, S-M., Lee, J-W., Koo, B-W., Kim, M-K., Choi, D-H. & Choi, I-G. 2007. Dibutyl Phtalate Biodegradation by The White Rot Fungus, *Polyporus brumalis*. *Biotechnology & Bioengeneering*, 97(6): 1516-1522.

Leja, K. & Lewandowicz, G. 2010. Polymer Biodegradation and Biodegradable Polimers – a Review. *Polish Journal of Environment Study*, 19(2) : 255-266.

Li, L., Liu, X., Yang, W., Xu, F., Wang, W., Feng, L., Bartlam, M., Wang, L. & Rao, Z. 2008. Crystal Structure of Long-Chain Alkane Monooxygenase (LadA) in Complex with Coenzyme FMN: Unveiling the Long Chain Alkane Hydroxylase. *J. Mol. Biol*., 376: 453-465.

Li, W.C., Tse, H.F., & Fok, L. 2016. Plastic waste in the Marine Environment: A Review of Sources, Occurrence and Effect. *Science of the Total Environment,* 566-567:333-349.

Linder, M.B., Szilvay, G.R., Nakari-Setala, T., & Penttila, M.E. 2005. Hydrophobins: The Protein-Amphiphiles of Filamentous Fungi. *FEMS Microbiology Reviews,* 29(5): 877-896.

Linder, M.B. 2009. Hydrophobins: Protein that Self Assemble at Interfaces. *Current opinion in colloid & Interface Science,* 14: 356-363.

Liu, J., Yu, Y., Cai, Z., Bartlam, M., & Wang, Y. 2015. Comparison of ITS and 18S rDNA for Estimating Fungal Diversity Using PCR-DGGE. *Word J Microbiol Biotechnol*.

Liu, Y., Murata, K. & Inaba, M. 2006. Direct Oxidation of Benzene to Phenol by Molecular Oxygen Over Catalytic System Containing $Pd(OAc)_2$ and Heteropolyacid Immobilized on HMS or PIM. *Journal of Molecular Catalysis A: Chemical*, 256:m247-255.

Liyoshi, Y., Tsutsumi, Y., & Nishida, T. 1998. Polyethylene Degradation by Lignin-Degrading Fungi and Manganase Peroxidase. *J Wood Sci,* 44: 222-229.

Lobelle, D. & Cunliffe, M. 2011. Early Microbial Biofilm Formation on Marine Plastic Debris. *Marine Pollution Bulletin,* 62: 197-200.

Lo,S-C. 1994. Isolation and Characterization of Microorganisms Selected from Poultry Litter that Grow on Hydrocarbon Containing Media. *Thesis*. University of Maryland Eastern Shore. 67 p.

Luepongpattana, S., Jindmarakot, S., Thaniyavaran, S., & Thaniyavaran, J. 2014. Screening of Biosurfactant Production Yeast and Yeast-Like Fungi Isolated from The Coastal

Areas of Koh Si Chang. *The 26th Annual Meeting of the Thai Society for Biotechnology and International Conference*:468-477.

Maddela, N.R., Scalvenzi, L., Perez, M., Montero, C., & Gooty, J.M. 2015. Efficiency of Indigenous Filamentous Fungi for Bioremediation of Petroleum Hydrocarbons in Medium and Soil: Laboratory Study from Ecuador. *Bull Environ Contam Toxicol,* 95: 385-394.

Maeda, H. Yamagata, Y., Keietsu, A., Hasegawa, F., & Machida, M. 2005. Purification and Characterization of A Biodegradable Plastic-Degrading Enzyme from *Aspergillus oryzae*. *Applied Microbiology and Biotechnology,* 67: 778–788.

Mahalakshmi, V. & Siddiq, S.A. 2015. Enhanced Biodegradation of Polyethylene by Development of a Consortium. *Pelagia Research Library*, 6(4): 183-189.

Mahalakshmi, V. & Andrew, S.N. 2012. Assessment of Physicochemically Treated Plastic by Fungi. *Annals of Biological Research,* 3 (9): 4374-4381.

Malcolm, P. & Stevens 2001. **Polymer Chemistry: An Introduction**. *2nd ed*., Oxford university press, New York.

Malinverno, A. & Martinez, E.A. 2015. The Effect of Temperature on Organic Carbon Degradation in Marine Sediments. *Scientific Report,* 5: 7861. DOI: 10.1038/srep17861.

Mankowski, M. & Morrell, J.J. 2000. Patterns of Fungal Attack in Wood-Plastic Composites Following Exposure in A Soil Block Test. *Wood and Fiber Science*, 32 (3): 340-345.

Martin, K.J. & Rygiewicz, P.T. 2005. Fungal-Specific PCR Primers Developed for Analysis of the ITS Region of Environmental DNA Extracts. *BMC Microbiology,* 5: 28-39.

Mathur, G., Mathur, A. & Prasad, R. 2011. Colonization and Degradation of Thermally Oxidized High Density Polyethylene by *Aspergillus niger* (ITCC No.6052) Isolated from Plastic Waste Dumpsite. *Bioremediation Journal,* 15(2): 69-76.

Meng, L., Li, H., Bao, M., & Sun, P. 2017. Metobolic Pathway for a New Strain *Pseudomonas synxantha* LSH-7: from Chemotaxis to Uptake of n-Hexadecane. *Scientific Report,* 7: 39068: 1-13.

Misra, S. & Singh, S.N. 2012. Microbial Degradation of n Hexadecane in Mineral Salt Medium as Mediated by Degradative Enzyme. *Bioresourse Technology,* 111: 148-154.

Nathania, T. R. & Kuswytasari, N. D. 2013. Studi Potensi Isolat Kapang Wonorejo Surabaya dalam Mendegradasi Polimer Bioplastik Poly Hydroxy Butyrate (PHB). *Jurnal Sains Dan Seni Pomits ITS*, 2 (2): 2337-3520.

Naing, S-H., Parvez, S., Pender-Cudlip, M., Groves, J.T. & Austin, R.N. 2013. Substrat Specificity and Reaction Mechanism of Purified Alkane Hydroxylase from the Hydrocarbonoclastic Bacterium *Alcanivorax berkumensis* (AbAlkB). *Journal of Inorganic Biochemistry*, 121: 46-52.

Nelson, P.E., Tousson, T.A., & Marasas, W.F.O. 1983. ***Fusarium*** **spesies: An Illustration Manual for Identification.** The Pennsylvania University Press, Washington. X + 193 hlm.

Nie, H.,Nie, M., Xiao, T., Wang, Y., & Tian, X. 2016. Hexadecane Degradation of *Pseudomonas aeruginosa* NY3 Promoted by Glutaric Acid. *Sci Total Environ*., DOI: 10.1016/j.scitotenv.2016.09.223.

Nie, Y., Chi, C-Q., Fang, H.,Liang, J ., Lu, S .,Lai, G ., Tang, Y., & Wu, X. 2014. Diverse Alkane Hydroxylase Genes in Microorganisms and Environments. *Scientific reports*, 4: 4968.

O'Brine, T. & Thompson, R.C. 2010. Degradation of Plastic Carrier Bags in The Marine Environment. *Marine Pollution bulletin,* 60: 2279-2283.

Ojha, N., Pradhan, N., Singh, S., Barla, A.,Shrivastava, A., Khatua, P., Rai, V., & Bose, S. 2017. Evaluation of HDPE and LDPE Degradation by Fungus Implemented by Statistical Optimization. *Scientific Report,* 7: 39515. DOI: 10.1038/srep39515.

Ojeda, T. 2013. **Polymers and the Environment**. Yilmaz, F., *ed*. CC BY 3.0 license:1-26

Otzen, D.E. 2017. Biosurfactants and Surfactants Interacting with Membranes and Proteins: Same but Different?. *Biochimica et Biophysica Acta,* 1859: 639-649.

Perni, S., Andrew, P.W. & Shama, G. 2005. Estimating the Maximum Growth Rate from Microbial Growth Curves: Definition is Everything. *Food Microbiology*, 22: 491-495.

Peter, S., Kinne, M., Wang, X., Ullrich, R., Kayser, G., Groves, J.T., & Hofricher, M. 2011. Selective Hydroxylation of Alkanes by Extracellular Fungal Peroxydase. *The FEBS Journal*, 278: 3667-3675

Picolo, L.L., De Pasquale, C., Fodale, R., Puglia, A.M., & Quatrini, P.2011. Involvement of an Alkane Hydroxylase System of *Gordonia* sp. Strain SoCg in Degradation of Solid n-Alkanes. *Appl.Environ.Microbiol*., 77(4): 1204-1213.

Plaza, G., Zjawiony, I., & Banat, I. 2006. Use of Different Methods for Detection of Thermophilic Biosurfactant-Producing Bacteria from Hydrocarbon-Contaminated Bioremediated Soils. *J Petro Sains Eng*., 50: 71-77.

Powell, K.A., Renwick, A., & Peberdy, J.F. 1994. The Genus *Aspergillus*. Springer Science +Business Media, LLC. New York.

Pradeep, S., Faseela, P., Josh, M.K.S., Balachandran, S., Devi,R.S. & Benjamin, S. 2013. Fungal Biodegradation of Pthalate Plasticizer in Situ. *Biodegradation*, 24: 257-267.

Pramila & Ramest. 2011. Biodegradation of Low Density Polyetylen (LDPE) by Fungi Isolated from Municipal Landfill Area. *J.Microbiol. Biotech.Res.,* 1(4): 131-136.

Prasetiya, D., Latifah, S., Isroni, M. & Rakhmawati, A. 2018. Characteristics and Biodegradation Ability on Low-Density Polyethylene Plastic (LDPE) by Isolated Raincoat Molds. The Proceedings Book of The 8th Annual Basic Science International Conference: 59-68.

Priyadarsini, I., Bhuvaneswari, V., & Kumar, K.S. 2011. Isolation, Identification and Phylogenetic Analysis of White Root Fungus and Heterologous Expression of Gene Encoding Laccase. *Journal of Apllied in Environment,* 6(1): 69-83.

Raaman, N., Rajitha, N., Jayshree, A. & Jegadeesh, R. 2012. Biodegradation of Plastic by *Aspergillus* spp. Isolated from Polythene Polluted Sites Around Chennai. *J.Acad.Indus.Res*., 1(6): 313-316.

Ramirez-Chan, D.E., Lopez-Naranjo, E.J., Canto-Canche, B., Burgos-Canul, Y.Y., & Cruz-Estrada, R.H. 2014. Effect of Accelerated Weathering and *Phanerochaete chrysosporium* on the Mechanical Properties of a Plastic Composite Prepared with Discarded Coir and Recycled HDPE. *BioResources,* 9(3): 4022-4037.

Restrepo-Florez, Juan-Manuel., Bassi, A., & Thompson, M.R. 2014. Microbial Degradation and Deterioration of Polyethylene e A Review. *International Biodeterioration & Biodegradation,* 88 (83) e 90.

Rodrigues da Luz , J.M., Paes, S.A., Nunes, M.D.,Soares da Silva, M de Cassia & Kasuya, M.C.M. 2013. Degradation of Oxo-Biodegradable Plastic by *Pleurotus ostreatus*. *PLOS ONE,* 8 (8) e 69386.

Rohaeti, E. 2009. Karakterisasi Degradasi Polimer. *Prosiding Seminar Nasional Penelitian, Pendidikan dan Penerapan MIPA*, UNY: K 248-257.

Rojo, F. 2009. Degradation of Alkanes by Bacteria. *Journal of Environmental Mycrobiology,* 11(10): 2477 – 2490.

Roosheroe, I.G., Sjamsuridzal, W., & Oetari, A. 2014. **Mikologi: Dasar dan Terapan**. Ed.rev. Yayasan Pustaka Obor Indonesia, Jakarta: xii + 241 hlm.

Shimao, M., 2001. Biodegradation of Plastics. *Current Opinion in Biotechnology*, 12: 242-247.

Siddiquee, S., Guan, F.A.T.S., & Aziz, E.R. 2007. Phylogenetic Relationships of *Trichoderma harzianum* Based on the Sequence Analysis of the Internal Transcribed Spacer Region-1 of the rDNA. *Journal of Applied sciences Research*, 3(9):896-903.

Sierra, A.P. & Béatrice, H. 2002. Identification of Fungal Species Beyond Morphology. *Mycologist*, 16, Part 2.

Singh, J. & Gupta, K.C. 2014. Screening and Identification of Low Density Polyethylene (LDPE) Degrading Soil Fungi Isolated from Soil Fungi Isolated from Polythene Polluted Sites around Gwalior city (M.P.). *Int.J.Curr.Microbiol.App.Sci.,* 3(6): 443-448.

Smits, T.H.M., Balada, S.B., Witholt, B., & van Beilen, J.B. 2002. Functional Analysis of Alkane Hydroxylases from Gram Negatif and Gram Positif Bacteria. *Jounal of Bacteriology,* 184(6): 1733-1742.

Sunde, M., Kwan, A.H.Y., Templeton, M.D., Beever, R.E., & Mackay, J.P. 2008. Structural Analysis of Hidrophobins. *Micron,* 39: 773-784.

Takamatsu, S. 1998. PCR Application in Fungal Phylogeny. In : Bridge, P.D., Arora, D.K ., Reddy, C. A. And Elander, R. P. (eds). *Application of PCR in Mycology,* : 125-152. CAB International, Wallingford, UK.

Tani, A., Ishige, T., Sakai, Y. & Kato, N. 2001. Gene Structure and Regulation of the Alkane Hydroxylase Complex in *Acinetobacter* sp. Strain M-1. *Journal of Bacteriology*, 183(5): 1819-1823.

Talley, K. & Alexov, E. 2010. On the pH-Optimum of Activity and Stability of Protein. Protein, 78(12): 2699-2706.

Ursa, K., Jozefa, F., & Andrej, K. 2003. Polyamide – 6 Fibre Degradation by Lignolytic Fungus. *Polymer Degradation and Stability Journal,* 97: 99-104.

Valsecchi, I., Dupres, V., Stephen-Victor, E., Guijarro, J.I., Gibbons, J., Beau, R., Bayry, J., Coppee, J-Y., Lafont, F., Latge, J-P., & Beauvais, A. 2018. Role of Hydrophobins in *Aspergillus fumigatus*. *Journal of Fungi,* 4(2): 1-19.

Van Beilen, J.B., Panke, S., Rothlisberger, M., & Witholt, B. 2001. Analysis of *Pseudomonas putida* Alkane-Degradation Gene Clusters and Flanking Insertion Sequences: Evolution and Regulation of the Alk Genes. *Microbiology,* 147: 1621-1630.

Van Beilen, J.B., Smiths, T.H.M., Roos, F.F., Brunner, T., Balada, S.B., Rothlisberger, M., & Witholt, B. 2005. Identification of an Amino Acid Position That Determines the Substrate Range of Integral Membrane Alkane Hydroxylases. *Journal of Bacteriology,* 187(1): 85-91.

Van der Vegt, W., van der Mei, H.C., Wosten, H.A.B., Wessels, J.G.H., & Busscher, H.J. 1996. A Comparison of the Surface Activity of the Fungal Hydrophobin SC3p with those of Other Proteins . *Biophysical chemistry,* 257: 253-260.

Vatsyayan, P., Kumar, A.K., Goswami, P. & Goswami, P. 2008. Broad Substrate Cytochrome P450 Monooxygenase Activity in the Cell of *Aspergillus terreus* MTCC 6324. *Bioresource Technology*, 99: 68-75.

Volke-Sepulveda, T., Gutierrez-Rojas, M., & Favela-Torres, E. 2006. Biodegradation of High Concentrations of Hexadecane by *Aspergillus niger* in a Solid-state System: Kinetic Analysis. *Bioresource Technology,* 97: 1583-1591.

Vrabl, P.,Scinagl, C.W., Artmann, D.J., Heiss, B., & Burgstaller, W. 2019. Fungal Growth in Batch Culture-What We Could Benefit If We Start Looking Closer. Front. *Microbiol*., 10:2391. Doi: 10.3389/fmicb.2019.02391.

Walter, V., Syldatk, C., & Hausmann, R. 2010. Screening Concept for the Isolation of Biosurfactant Producing Microorganisms. *Adv Exp Med Biol*, 672 : 1-13.

Wang, J. & Xu, W. 2017. Degradation of Dimethyl Pthalate Esters by a Filamentous Fungus *Aspergillus versicolor* Isolated from Deep-sea Sediment. *Botanica Marina*, 60(3): 351-359.

Wanner, U. & Egli, T. 1990. Dynamics of Microbial Growth and Cell Composition in Batch Culture. *FEMS Microbiology Reviews*, 75: 19-44.

Watanabe, T. 2002. **Pictorial Atlas of Soil and Seed Fungi : Morphologies of Cultured Fungi and Key to Species**. 2nd ed. CRC Press LLC., Florida.

Webb, J.S., Nixon, M., Eastwood, I.M., Greenhalgh, M., Robson, G.D., & Handley, P.S. 2000. Fungal Colonization and Biodeterioration of Plasticized Polyvinyl Chloride. *Applied Environmental Microbiology,* 66: 3194–3200.

Webb, H.K., Arnott, J., Crawford, R.J., & Ivanova, E.P. 2013. Plastic Degradation and Its Environmental Implications with Special Reference to Poly (ethylene terephthalate). *Polymers,* 5: 1-18; DOI: 10.3390/polym5010001. ISSN 2073-4360.

White, T,J., Bruns, T., Lee, T., & Taylor, S. 1990. Amplification and Direct Sequencing of Fungal rRNA Genes for Phylogenetics dalam Innis, M.A., Gelfand, D.H., Sninsky, J.J., Whit, T.J. (Eds.). **PCR Protocols: A Guide to Methods and Apllication**. Acc Press, San Diego. pp: 315-322.

Whyte, L.G., Hawari, J., Zhou, E., Bourbonniere,L., Innis, W.E. & Greer, C.W. 1998. Biodegradation of Variable-Chain-Length Alkanes at Low Temperatures by a Psychrotrophic Rhodococcus sp. *Appl. Environ. Microbiol*., 64(7): 2578-2584.

Whyte, L.G, Smits, T.H.M., Labbe, D., Withold, B., Greer, C.W. & van Beilen, J.B. 2002. Gene Cloning and Characterization of Multiple Alkane Hydroxylase Systems in Rhodococcus Strains Q15 and NRRL B-16531. *Appl. Environ. Microbiol*., 68(12): 5933-5942

Winandy, L., Hilpert, F., Schlebusch, O., & Fischer, R. 2018. Comparative Analysis of Surface Coating Properties of Five Hydrophobins from *Aspergillus nidulans* and *Trichoderma reseei*. *Scientific Reports,* 8: 12033.

Woese, C.R. 2000. Interpreting the Universal Phylogenetic Tree. *PNAS,* 97 (15): 8392-8396.

Yamada-Onodera, K., Mukumoto, H., Katsuyaya, Y., Saiganji,A., & Tani, Y. 2001. Degradation of Polyethylene by a Fungus, *Penicillium simplicissimum* YK. *Polym. Degrad.Stab*. 72:323-327.

Zahra, S., Abbas, S.S., Mahsa, M-T., & Mohsen, N. 2010. Biodegradation of Low-Density Polyethylen (LDPE) by Isolated Fungi in Solid Waste Medium. *Waste Management,* 30: 396-401.

Zheng, Y. & Yanful, E.K. 2005. A Review of Plastic Waste Biodegradation. *Critical Review of Biotechnology,* 25: 243-250.