

DAFTAR PUSTAKA

- Abbasi, T., Tauseef, S. M., & Abbasi, S. A. (2012). Biogas energy. In *Biogas Energy*. Springer New York. <https://doi.org/10.1007/978-1-4614-1040-9>
- Abercrombie, M. D., Boutaiba, S., Bhatnagar, T., Hacene, H., Mitchell, D. A., & Baratti, J. C. (1990). Peliczar, Michael J, dkk, 1986. "Dasar – Dasar Mikrobiologi" Universitas Indonesia; Jakarta. In *Journal of Molecular Catalysis B: Enzymatic* (Vol. 41, Issues 1–2). Erlangga.
- Al Seadi, T., Rutz, D., Prassl, H., Köttner, M., Finsterwalder, T., Volk, S., & Janssen, R. (2008). *Biogas handbook*. University of Southern Denmark Esbjerg.
- Aldigui, A. S., Alfenore, S., Cameleyre, X., Goma, G., Uribelarrea, J. L., Guillouet, S. E., & Molina-Jouve, C. (2004). Synergistic temperature and ethanol effect on *Saccharomyces cerevisiae* dynamic behaviour in ethanol bio-fuel production. *Bioprocess and Biosystems Engineering*, 26(4), 217–222. <https://doi.org/10.1007/s00449-004-0352-6>
- Bergey's Manual® of Systematic Bacteriology. (2005). In *Bergey's Manual® of Systematic Bacteriology*. Springer US. <https://doi.org/10.1007/0-387-29298-5>
- Biogas Production and Utilization. (1984). *Solar Energy*, 33(5), 472–473. [https://doi.org/10.1016/0038-092x\(84\)90209-3](https://doi.org/10.1016/0038-092x(84)90209-3)
- Budiyanto, M. A. K. (2011). Tipologi Pendayagunaan Kotoran Sapi Dalam Upaya Mendukung Pertanian Organik Di Desa Sumbersari Kecamatan Poncokusumo Kabupaten Malang. *Gamma*, 7(1), 42–49.
- Cappuccino, J. G., & Sherman, N. (2014). Manual Laboratory Mikrobiologi. In *Clinical application*. Buku Penerbit Kedokteran EGC.
- Chasanah, E. (2018). *Identifikasi Fenotip Bakteri Amilolitik dan Selulolitik dari Isolat Bekatul dengan Metode Profile Mactcing berdasarkan Bergey's Manual of Determinative Bacteriology*. Skripsi. Universitas Islam Negeri Maulana Malik Ibrahim: Malang.
- Chou, Y., & Su, J. (2019). Biogas Production by Anaerobic Co-Digestion of Dairy Wastewater with the Crude Glycerol from Slaughterhouse Sludge Cake Transesterification. *Journal Animals* 9(618), 1-17.
- Darnoko, D., & Cheryan, M. (2000). Kinetics of palm oil transesterification in a batch reactor. *JAOCs, Journal of the American Oil Chemists' Society*. <https://doi.org/10.1007/s11746-000-0198-y>

- Dasari, M. A., Kiatsimkul, P. P., Sutterlin, W. R., & Suppes, G. J. (2005). Low-pressure hydrogenolysis of glycerol to propylene glycol. *Applied Catalysis A: General*, 281(1–2), 225–231. <https://doi.org/10.1016/j.apcata.2004.11.033>
- Demirbas, A. (2002). Biodiesel from vegetable oils via transesterification in supercritical methanol. *Energy Conversion and Management*, 43(17), 2349–2356. [https://doi.org/10.1016/S0196-8904\(01\)00170-4](https://doi.org/10.1016/S0196-8904(01)00170-4).
- Demirbas, A. (2006). Biodiesel production via non-catalytic SCF method and biodiesel fuel characteristics. *Energy Conversion and Management*, 47(15–16), 2271–2282. <https://doi.org/10.1016/j.enconman.2005.11.019>
- Demirbas, A. (2008). Biodiesel: A realistic fuel alternative for diesel engines. In *Biodiesel: A Realistic Fuel Alternative for Diesel Engines*. Springer London. <https://doi.org/10.1007/978-1-84628-995-8>
- Demirel, B., & Scherer, P. (2008). The roles of acetotrophic and hydrogenotrophic methanogens during anaerobic conversion of biomass to methane: A review. In *Reviews in Environmental Science and Biotechnology* (Vol. 7, Issue 2, pp. 173–190). <https://doi.org/10.1007/s11157-008-9131-1>
- Deublein, D., & Steinhauser, A. (2010). Biogas from Waste and Renewable Resources: An Introduction, Second Edition. In *Biogas from Waste and Renewable Resources: An Introduction, Second Edition*. Wiley-VCH. <https://doi.org/10.1002/9783527632794>
- Diwani, G. El, Attia, N. K., & Hawash, S. I. (2009). Development and evaluation of biodiesel fuel and by-products from jatropha oil. *Int. J. Environ. Sci. Tech*, 6(2), 219–224.
- Dunn, M., Domsch, K. H., Gams, W., & Anderson, T.-H. (1982). Compendium of Soil Fungi. *Taxon*, 31(3), 600. <https://doi.org/10.2307/1220704>
- Endah Pratita, M. Y., & Putra, S. R. (2012). Isolasi Dan Identifikasi Bakteri Termofilik Dari Sumber Mata Air Panas Di Songgoriti Setelah Dua Hari Inkubasi. *Teknik Pomits*, Vol. 1(1), 1–5.
- Fountoulakis, M. S., & Manios, T. (2009). Enhanced methane and hydrogen production from municipal solid waste and agro-industrial by-products co-digested with crude glycerol. *Bioresource Technology*, 100(12), 3043–3047. <https://doi.org/10.1016/j.biortech.2009.01.016>
- Fountoulakis, M. S., Petousi, I., & Manios, T. (2010). Co-digestion of sewage sludge with glycerol to boost biogas production. *Waste Management*, 30(10), 1849–1853. <https://doi.org/10.1016/j.wasman.2010.04.011>
- Garrity, G. M. (2009). *Systematic Bacteriology Second Edition Volume Two Introductory Essays*.

- Garrity, G. M., & Holt, J. G. (2001). The Road Map to the Manual. In *Bergey's Manual® of Systematic Bacteriology*. https://doi.org/10.1007/978-0-387-21609-6_15
- Graboski, M. S., & McCormick, R. L. (1998). Combustio of Fat and Vegetable Oil Derived Fuels in Diesel Engines. In *Prog. Energy Combust. Sci* (Vol. 24).
- Hadioetomo, R. S. (1993). *Mikrobiologi Dasar dalam Praktik*. Jakarta: Gramedia.
- Hallenbeck, P. C., Rahman, M. S., Xu, C. (Charles), Jiang, Z.-H., & Qin, W. (2015). Value-added utilization of crude glycerol from biodiesel production. In *Advances in Enzymatic Conversion of Biomass to Biofuels* (pp. 126–139). Future Medicine Ltd. <https://doi.org/10.4155/fseb2013.14.242>
- Hariansyah, M. (2018). Pemanfaatan Kotoran Ternak Sapi Sebagai Penghasil Bio Gas. *Jurnal Teknik*, 8(April 2009).
- Hatmanti, A. (2000). Pengenalan *Bacillus Spp.* In *Oseanagrafi* (Vol. XXV, pp. 31–41).
- Hazimah, a H., Ooi, T. L., & Salmiah, a. (2003). Recovery of Glycerol and Diglycerol From Glycerol Pitch Recovery of Glycerol and Diglycerol From Glycerol Pitch. *Journal of Oil Palm Research*, 15(1), 1–5.
- Hulshoff Pol, L. W., Lens, P. N. L., Stams, A. J. M., & Lettinga, G. (1998). Anaerobic treatment of sulphate-rich wastewaters. *Biodegradation*, 9(3–4), 213–224. <https://doi.org/10.1023/a:1008307929134>
- Hwang, S., Lee, Y., & Yang, K. (2001). Maximization of acetic acid production in partial acidogenesis of swine wastewater. *Biotechnology and Bioengineering*, 75(5), 521–529. <https://doi.org/10.1002/bit.10068>
- Iltchenco, J., Almeida, L. G., Beal, L. L., Marconatto, L., dos Anjos Borges, L. G., Giongo, A., & Paesi, S. (2020). Microbial consortia composition on the production of methane from sugarcane vinasse. *Biomass Conversion and Biorefinery*, 10(2), 299–309. <https://doi.org/10.1007/s13399-019-00426-0>
- Instruments, G. (2016). *BIOGAS 5000 Gas Analyser Operating Manual*. *Geotechnical Instruments (UK) Ltd.*
- Juangga. (2007). *Proses Anaerobic Digestion*. Medan: USU Press.
- Kalyuzhnyi, S., Veeken, A., & Hamelers, B. (2000). Two-particle model of anaerobic solid state fermentation. *Water Science and Technology*, 41(3), 43–50. <https://doi.org/10.2166/wst.2000.0054>
- Ken, R., Wibowo, A., Jati, N., Indah, L., & Yulianti, M. (2019). The Role of

Indigenous Bacteria in Degrading Liquid Waste of Tofu Production. *Biota*, Vol 4(1), 8–15.

Khalid, A., Arshad, M., Anjum, M., Mahmood, T., & Dawson, L. (2011). The anaerobic digestion of solid organic waste. In *Waste Management* (Vol. 31, Issue 8, pp. 1737–1744). <https://doi.org/10.1016/j.wasman.2011.03.021>

Kim, J. K., Oh, B. R., Chun, Y. N., & Kim, S. W. (2006). Effects of temperature and hydraulic retention time on anaerobic digestion of food waste. *Journal of Bioscience and Bioengineering*, 102(4), 328–332. <https://doi.org/10.1263/jbb.102.328>

Kim, J., Park, C., Kim, T., Lee, M., Kim, S., Eung-wook Kim, S., & Lee, J. (2003). Effects of Various Pretreatments for Enhanced Anaerobic Digestion with Waste Activated Sludge. In *Journal of Bioscience and Bioengineering* (Vol. 95, Issue 3).

Knothe, G. (2005). Dependence of biodiesel fuel properties on the structure of fatty acid alkyl esters. *Fuel Processing Technology*, 86(10), 1059–1070. <https://doi.org/10.1016/j.fuproc.2004.11.002>

Kolesárová, N., Hutan, M., Bodík, I., & Špalková, V. (2011). Utilization of biodiesel by-products for biogas production. In *Journal of Biomedicine and Biotechnology* (Vol. 2011). <https://doi.org/10.1155/2011/126798>

Li, A., Chu, nan, Wang, X., Ren, L., Yu, J., Liu, X., Yan, J., Zhang, L., Wu, S., & Li, S. (2013). A pyrosequencing-based metagenomic study of methane-producing microbial community in solid-state biogas reactor. <http://www.biotechnologyforbiofuels.com/content/6/1/3>

Li, Y., Park, S. Y., & Zhu, J. (2011). Solid-state anaerobic digestion for methane production from organic waste. In *Renewable and Sustainable Energy Reviews* (Vol. 15, Issue 4, pp. 821–826). Elsevier Ltd. <https://doi.org/10.1016/j.rser.2010.07.042>

Ma, F., & Hanna, M. A. (1999). Biodiesel production: A review. *Bioresource Technology*, 70(1), 1–15. [https://doi.org/10.1016/S0960-8524\(99\)00025-5](https://doi.org/10.1016/S0960-8524(99)00025-5)

Maryani, S. (2016). Potensi Sampah Sayuran dan Kotoran Sapi sebagai Penghasil Biogas. *Skripsi*. Univeritas Islam Negeri Malang: Malang.

Mayasari, H. D., Riftanto, I. M., Aini, L. N., & Ariyanto, M. R. (2010). Pembuatan biodigester dengan uji coba kotoran sapi sebagai bahan baku. *Program Studi Di Teknik Kimia Jurusan Teknik Kimia Fakultas Teknik Universitas Sebelas Maret Surakarta*.

Merlin Christy, P., Gopinath, L. R., & Divya, D. (2014). A review on anaerobic decomposition and enhancement of biogas production through enzymes and

microorganisms. In *Renewable and Sustainable Energy Reviews* (Vol. 34, pp. 167–173). Elsevier Ltd. <https://doi.org/10.1016/j.rser.2014.03.010>

Nurtjahya, E. (2016). Pemanfaatan Limbah Ternak Ruminansia untuk Mengurangi Pencemaran Lingkungan. *Makalah Pengantar Falsafah Sains*. Program Pascasarjana IPB: Bogor.

Ordaz-Diaz, L. A., & Bailon-Salas, A. M. (2020). Molecular identification of microbial communities in the methane production from vinasse: A review. In *BioResources* (Vol. 15, Issue 2). <https://doi.org/10.15376/biores.15.2.4528-4552>

Orskov, E. R., Yongabi Anchang, K., Subedi, M., & Smith, J. (2014). Overview of holistic application of biogas for small scale farmers in Sub-Saharan Africa. *Biomass and Bioenergy*, 70, 4–16. <https://doi.org/10.1016/j.biombioe.2014.02.028>

Pariza, M. W., & Johnson, E. A. (2001). Evaluating the safety of microbial enzyme preparations used in food processing: Update for a new century. *Regulatory Toxicology and Pharmacology*, 33(2), 173–186. <https://doi.org/10.1006/rtp.2001.1466>

Pelczar, M. J., & Chan, E. C. S. (1988). *Dasar-Dasar Mikrobiologi Jilid 2*. Jakarta: Universitas Indonesia.

Pertiwiningrum, I. A. (2015). *Instalasi Biogas*. Pusat Kajian Peternakan Nasional. Fakultas Peternakan. Yogyakarta: Universitas Gajah Mada.

Riffat, R., & Krongthamchat, K. (2006). Specific methanogenic activity of halophilic and mixed cultures in saline wastewater. *International Journal of Environmental Science and Technology*, 2(4), 291–299. <https://doi.org/10.1007/BF03325889>

Robra, S., Serpa da Cruz, R., de Oliveira, A. M., Neto, J. A. A., & Santos, J. V. (2010). Generation of biogas using crude glycerin from biodiesel production as a supplement to cattle slurry. *Biomass and Bioenergy*, 34(9), 1330–1335. <https://doi.org/10.1016/j.biombioe.2010.04.021>

Rywińska, A., Rymowicz, W., Zarowska, B., & Wojtatowicz, M. (2009). Biosynthesis of citric acid from glycerol by acetate mutants of *Yarrowia lipolytica* in fed-batch fermentation. *Food Technology and Biotechnology*, 47(1), 1–6.

Schuchmann, K., & Müller, V. (2016). Energetics and application of heterotrophy in acetogenic bacteria. *Applied and Environmental Microbiology*, 82(14), 4056–4069. <https://doi.org/10.1128/AEM.00882-16>

Schnürer, A., & Jarvis, Å. (2009). *Microbiological Handbook for Biogas Plants*

Swedish Waste Management U2009:03 Swedish Gas Centre Report 207.
www.avfallsverige.se

Seadi, T. A., Rutz, D., Prassl, H., Köttner, M., Finsterwalder, T., Volk, S., & Janssen, R. (2008). Biogas Handbook. In *Igarss 2014* (Issue 1).
www.lemvigbiogas.com

Seadi, T. Al. (2001). Good Practice in Quality Management of AD Residues from Biogas Production. In *IEA Bioenergy* (IEA Bioenergy, Issue Task 24).

Sri Pananjung, A. M., Ulfa, E. U., Senjarini, K., & Arimurti, S. (2016). Karakterisasi Isolat Bakteri Fibrinolitik WU 021055* Asal Perairan Pantai Papuma, Jember. *Jurnal Bioteknologi & Biosains Indonesia (JBBI)*, 2(1), 1.
<https://doi.org/10.29122/jbbi.v2i1.528>

Taherzadeh, M. J., Adler, L., & Lidé;n, G. (2002). Strategies for enhancing fermentative production of glycerol - A review. *Enzyme and Microbial Technology*, 31(1-2), 53-66. [https://doi.org/10.1016/S0141-0229\(02\)00069-8](https://doi.org/10.1016/S0141-0229(02)00069-8)

Thompson, J. C., & He, B. B. (2006). Characterization of crude glycerol from biodiesel production from multiple feedstocks. *Applied Engineering in Agriculture*, 22(2), 261-265.

Trzcinski, A. P., & Stuckey, D. C. (2010). Treatment of municipal solid waste leachate using a submerged anaerobic membrane bioreactor at mesophilic and psychrophilic temperatures: Analysis of recalcitrants in the permeate using GC-MS. *Water Research*, 44(3), 671-680.
<https://doi.org/10.1016/j.watres.2009.09.043>

Valerie J, B. (2006). *Biogas: A bright Idea For Africa*. Vol 114 No 5. Environmental Health Perspectives.

Vavilin, V. A., Rytov, S. V., & Lokshina, L. Y. (1996). A description of hydrolysis kinetics in anaerobic degradation of particulate organic matter. *Bioresource Technology*, 56(2-3). [https://doi.org/10.1016/0960-8524\(96\)00034-X](https://doi.org/10.1016/0960-8524(96)00034-X)

Vertes, A. A. (2010). *Biomass to biofuels: strategies for global industries*. Wiley-Blackwell.

Viana, M. B., Freitas, A. V., Leitão, R. C., & Santaella, S. T. (2012). Biodegradability and methane production potential of glycerol generated by biodiesel industry. *Water Science and Technology*, 66(10), 2217-2222.
<https://doi.org/10.2166/wst.2012.455>

Volk. (1993). *Mikrobiologi Dasar Jilid 1*. In *Microbiology*. Gramedia.

- Wahyuni, S. (2015). *Panduan Praktis Biogas*. In *Penebar Swadaya*. Jakarta: Gramedia.
- Walter Borges de Oliveira, S. V., Leoneti, A. B., Magrini Caldo, G. M., & Borges de Oliveira, M. M. (2011). Generation of bioenergy and biofertilizer on a sustainable rural property. *Biomass and Bioenergy*, 35(7), 2608–2618. <https://doi.org/10.1016/j.biombioe.2011.02.048>
- Wang, Z., Zhuge, J., Fang, H., & Prior, B. A. (2001). Glycerol production by microbial fermentation: A review. *Biotechnology Advances*, 19(3), 201–223. [https://doi.org/10.1016/S0734-9750\(01\)00060-X](https://doi.org/10.1016/S0734-9750(01)00060-X)
- Ward, A. J., Hobbs, P. J., Holliman, P. J., & Jones, D. L. (2008). Optimisation of the anaerobic digestion of agricultural resources. In *Bioresource Technology* (Vol. 99, Issue 17, pp. 7928–7940). <https://doi.org/10.1016/j.biortech.2008.02.044>
- Wee, C. Y., & Su, J. J. (2019). Biofuel produced from solid-state anaerobic digestion of dairy cattle manure in coordination with black soldier fly larvae decomposition. *Energies*, 12(5). <https://doi.org/10.3390/en12050911>
- Weiland, P. (2010). Biogas production: Current state and perspectives. In *Applied Microbiology and Biotechnology* (Vol. 85, Issue 4, pp. 849–860). Springer Verlag. <https://doi.org/10.1007/s00253-009-2246-7>
- Wulandari, C., & Labiba, Q. (2017). Pembuatan Biogas dari Campuran Kulit Pisang dan Kotoran Sapi menggunakan Bioreaktor Anaerobik. *Skripsi*.
- Xing, J., Criddle, C., & Hickey, R. (1997). Effects of a long-term periodic substrate perturbation on an anaerobic community. *Water Research*, 31(9), 2195–2204. [https://doi.org/10.1016/S0043-1354\(97\)00064-X](https://doi.org/10.1016/S0043-1354(97)00064-X)
- Yunita, M., Hendrawan, Y., Yulianingsih, R., Keteknikan, J., Fakultas, P. –, & Kunci, K. (2015). Analisis Kuantitatif Mikrobiologi Pada Makanan Penerbangan (Aerofood ACS) Garuda Indonesia Berdasarkan TPC (Total Plate Count) Dengan Metode Pour Plate. *Jurnal Keteknikan Pertanian Tropis Dan Biosistem*, 3(3), 237–248.
- Zhang, T., Liu, L., Song, Z., Ren, G., Feng, Y., Han, X., & Yang, G. (2013). Biogas Production by Co-Digestion of Goat Manure with Three Crop Residues. *PLoS ONE*, 8(6). <https://doi.org/10.1371/journal.pone.0066845>
- Zhang, Y., Dubé, M. A., McLean, D. D., & Kates, M. (2003). Biodiesel production from waste cooking oil: 1. Process design and technological assessment. In *Bioresource Technology* (Vol. 89, Issue 1, pp. 1–16). Elsevier Ltd. [https://doi.org/10.1016/S0960-8524\(03\)00040-3](https://doi.org/10.1016/S0960-8524(03)00040-3)