

DAFTAR PUSTAKA

- (1) Norfadilah, N.; Raheem, A.; Harun, R.; Ahmadun, F. Bio-Hydrogen Production from Palm Oil Mill Effluent (POME): A Preliminary Study. *Int. J. Hydrogen Energy* **2016**, *41* (28), 11960–11964.
- (2) Shomal, R.; Hisham, H.; Mlhem, A.; Hassan, R.; Al-Zuhair, S. Simultaneous Extraction–Reaction Process for Biodiesel Production from Microalgae. *Energy Reports* **2019**, *5*, 37–40.
- (3) Kadir, W. N. A.; Lam, M. K.; Uemura, Y.; Lim, J. W.; Lee, K. T. Harvesting and Pre-Treatment of Microalgae Cultivated in Wastewater for Biodiesel Production: A Review. *Energy Convers. Manag.* **2018**, *171* (June), 1416–1429.
- (4) Milano, J.; Ong, H. C.; Masjuki, H. H.; Chong, W. T.; Lam, M. K.; Loh, P. K.; Vellayan, V. Microalgae Biofuels as an Alternative to Fossil Fuel for Power Generation. *Renew. Sustain. Energy Rev.* **2016**, *58*, 180–197.
- (5) Chen, J.; Li, J.; Dong, W.; Zhang, X.; Tyagi, R. D.; Drogui, P.; Surampalli, R. Y. The Potential of Microalgae in Biodiesel Production. *Renew. Sustain. Energy Rev.* **2018**, *90* (December 2016), 336–346.
- (6) Sari, F. Y. A.; Suryajaya, I. M. A.; Hadiyanto. Kultivasi Mikroalga Spirulina Platensis Dalam Media Pome Dengan Variasi Konsentrasi POME Dan Komposisi Jumlah Nutrien. *J. Teknol. Kim. dan Ind.* **2012**, *1* (1), 487–494.
- (7) Nur, M. M. A.; Hadiyanto, H. Enhancement of Chlorella Vulgaris Biomass Cultivated in Pome Medium as Biofuel Feedstock under Mixotrophic Conditions. *J. Eng. Technol. Sci.* **2015**, *47* (5), 487–497.
- (8) Cheah, W. Y.; Show, P. L.; Juan, J. C.; Chang, J. S.; Ling, T. C. Microalgae Cultivation in Palm Oil Mill Effluent (POME) for Lipid Production and Pollutants Removal. *Energy Convers. Manag.* **2018**, *174* (June), 430–438.
- (9) Yan, W.; Pau, C.; Show, L.; Ching, J.; Chang, J. S.; Ling, T. C. Waste to Energy : The Effects of Pseudomonas Sp . on Chlorella Sorokiniana Biomass and Lipid Productions in Palm Oil Mill Effluent. *Clean Technol. Environ. Policy* **2018**, No. 0123456789.

- (10) Sati, H.; Mitra, M.; Mishra, S.; Baredar, P. Microalgal Lipid Extraction Strategies for Biodiesel Production : A Review. *Algal Res.* **2019**, *38* (July 2018), 101413.
- (11) Cheng, C.; Che, P.; Chen, B.; Lee, W.; Lin, C.; Chang, J. Biobutanol Production from Agricultural Waste by an Acclimated Mixed Bacterial Microflora. *Appl. Energy* **2012**, *100*, 3–9.
- (12) Fazal, T.; Mushtaq, A.; Rehman, F.; Ullah Khan, A.; Rashid, N.; Farooq, W.; Rehman, M. S. U.; Xu, J. Bioremediation of Textile Wastewater and Successive Biodiesel Production Using Microalgae. *Renew. Sustain. Energy Rev.* **2018**, *82* (February 2017), 3107–3126.
- (13) Tan, X. B.; Lam, M. K.; Uemura, Y.; Lim, J. W.; Wong, C. Y.; Lee, K. T. Cultivation of Microalgae for Biodiesel Production: A Review on Upstream and Downstream Processing. *Chinese J. Chem. Eng.* **2018**, *26* (1), 17–30.
- (14) Sun, X.; Ren, L. BBA - Molecular and Cell Biology of Lipids Enhancement of Lipid Accumulation in Microalgae by Metabolic Engineering. *BBA - Mol. Cell Biol. Lipids* **2019**, *1864* (4), 552–566.
- (15) Widyastuti, R. C.; Dewi, A. C. Sintesis Biodiesel Dari Minyak Mikroalga *Chlorella Vulgaris* Dengan Reaksi Transesterifikasi Menggunakan Katalis KOH. *J. bahan alam terbarukan* **2015**, *4* (1), 29–33.
- (16) Efendi, R.; Faiz, H. A. N.; Firdaus, A. R. *Pembuatan Biodiesel Minyak Jelantah Menggunakan Metode Esterifikasi- Transesterifikasi Berdasarkan Jumlah Pemakaian Minyak Jelantah*; Subang, 2015.
- (17) Yan, W.; Chuan, T.; Loke, P.; Ching, J.; Chang, J.; Lee, D. Cultivation in Wastewaters for Energy : A Microalgae Platform. *Appl. Energy* **2016**, *179*, 609–625.
- (18) Saputra, A. T.; Wicaksono, M. A.; Irsan. Pemanfaatan Minyak Goreng Bekas Untuk Pembuatan Biodiesel Menggunakan Katalis Zeolit Alam Teraktivasi. *J. Chemurg.* **2017**, *1* (02), 2–7.
- (19) Choong, Y. Y.; Chou, K. W.; Norli, I. Strategies for Improving Biogas Production of

Palm Oil Mill Effluent (POME) Anaerobic Digestion: A Critical Review. *Renew. Sustain. Energy Rev.* **2018**, *82*, 2993–3006.

- (20) Kamal, S. A.; Jahim, J. M.; Anuar, N.; Hassan, O.; Daud, W. R. W.; Mansor, M. F.; Rashid, S. S. Pre-Treatment Effect of Palm Oil Mill Effluent (POME) during Hydrogen Production by a Local Isolate *Clostridium Butyricum*. *Int. J. Adv. Sci. Eng. Inf. Technol.* **2016**, *2* (4), 325.
- (21) Matinja, A. I.; Mohd Zain, N. A.; Suhaimi, M. S.; Alhassan, A. J. Optimization of Biodiesel Production from Palm Oil Mill Effluent Using Lipase Immobilized in PVA-Alginate-Sulfate Beads. *Renew. Energy* **2019**, *135*, 1178–1185.
- (22) Khazraie, T.; Zhang, Y.; Tarasov, D.; Gao, W.; Price, J.; Demartini, N.; Hupa, L.; Fatehi, P. Biotechnology for Biofuels A Process for Producing Lignin and Volatile Compounds from Hydrolysis Liquor. *Biotechnol. Biofuels* **2017**, 1–14.
- (23) Senan, S.; Jahim, J.; Mohamed, P. ScienceDirect Pretreatment Conditions of Palm Oil Mill Effluent (POME) for Thermophilic Biohydrogen Production by Mixed Culture. *Int. J. Hydrogen Energy* **2017**, *42* (45), 27512–27522.
- (24) Nurwahdah; Naini, A. A.; Nadia, A.; Lestari, R. Y.; Sunardi. Pretreatment Lignoselulosa Dari Jerami Padi Dengan *Deep Eutectic Solvent* Untuk Meningkatkan Produksi Bioetanol Generasi Dua. *J. Ris. Ind. Has. Hutan* **2015**, *10* (1), 43–54.
- (25) Amin, F. R.; Khalid, H.; Zhang, H.; Rahman, S.; Zhang, R.; Liu, G.; Chen, C. Pretreatment Methods of Lignocellulosic Biomass for Anaerobic Digestion. *AMB Express* **2017**.
- (26) Sajjadi, B.; Chen, W. Y.; Raman, A. A. A.; Ibrahim, S. Microalgae Lipid and Biomass for Biofuel Production: A Comprehensive Review on Lipid Enhancement Strategies and Their Effects on Fatty Acid Composition. *Renew. Sustain. Energy Rev.* **2018**, *97*, 200–232.
- (27) Lin, B.; Ahmed, F.; Du, H.; Li, Z.; Yan, Y.; Huang, Y. Plant Growth Regulators Promote Lipid and Carotenoid Accumulation in *Chlorella Vulgaris*. *J. Appl. Phycol.* **2017**.

- (28) Zhu, L. *Sustainable Biodiesel Production from Microalgae Cultivated with Piggery Wastewater*.
- (29) Hosseini, N. S.; Shang, H.; Scott, J. A. Increasing Microalgal Lipid Productivity for Conversion into Biodiesel by Using a Non-Energy Consuming Light Guide. *Biochem. Eng. J.* **2018**, *134*, 60–68..
- (30) Wahyuni, M. S. Optimasi Medium Pertumbuhan Mikroalga *Scenedesmus dimorphus* Untuk Memperoleh Kadar Lipid Tinggi Sebagai Bahan Baku Biodiesel, Universitas Andalas, 2018.
- (31) Idris, N. U. R. A.; Loh, S. O. H. K.; Lik, H.; Lau, N.; Yau, T. A. N. C.; Mustafa, E. M.; Vello, V.; Moi, P. S. Palm Oil Mill Effluent As Algae Cultivation Medium For Biodiesel Production. **2018**, *30*, 141–149.
- (32) Paulo, R.; Machado, M.; Gomes, M.; Vieira, M.; Vinson, C. C.; Leite, M.; Richard, R.; Brantes, L.; Mendes, B.; Araujo, W. L.; et al. Exploring the Metabolic and Physiological Diversity of Native Microalgal Strains (Chlorophyta) Isolated from Tropical Freshwater Reservoirs. *Algal Res.* **2017**, *28* (March), 139–150.
- (33) Zhang, Y.; Kong, X.; Wang, Z.; Sun, Y. Optimization of Enzymatic Hydrolysis for Effective Lipid Extraction from Microalgae *Scenedesmus Sp* . *Renew. Energy* **2018**, *125*, 1049–1057.
- (34) Novais, D.; Arêdes, M.; Soares, J.; Gomes, M.; Vieira, M.; Oliveira, M. De; Covell, L.; Brantes, L.; Mendes, B. Bioresource Technology Combination of Trace Elements and Salt Stress in Di Ff Erent Cultivation Modes Improves the Lipid Productivity of *Scenedesmus Spp* . *Bioresour. Technol.* **2019**, *289*, 121644.
- (35) Darki, B. Z.; Seyfabadi, J.; Fayazi, S. Effect of Nutrients on Total Lipid Content and Fatty Acids Profile of *Scenedesmus obliquus*. **2017**, *60*, 1–12.
- (36) Zhao, G.; Yu, J.; Jiang, F.; Zhang, X.; Tan, T. Bioresource Technology The Effect of Different Trophic Modes on Lipid Accumulation of *Scenedesmus quadricauda*. *Bioresour. Technol.* **2012**, *114*, 466–471.

- (37) Bordoloi, N.; Narzari, R.; Sut, D.; Saikia, R.; Chutia, R. S.; Kataki, R. Characterization of Bio-Oil and Its Sub-Fractions from Pyrolysis of *Scenedesmus dimorphus*. *Renew. Energy* **2016**, *98*, 245–253.
- (38) Chng, L. M.; Chan, D. J. C.; Lee, K. T. Sustainable Production of Bioethanol Using Lipid-Extracted Biomass from *Scenedesmus dimorphus*. *J. Clean. Prod.* **2016**, *130*, 68–73..
- (39) Akubude, V. C.; Nwaigwe, K. N.; Dintwa, E. Production of Biodiesel from Microalgae via Nanocatalyzed Transesterification Process : A Review. *Mater. Sci. Energy Technol.* **2019**, *2* (2), 216–225.
- (40) Wayne, K.; Ying, J.; Loke, P.; Hui, N.; Ching, J.; Chuan, T.; Lee, D.; Chang, J. Microalgae Biorefinery : High Value Products Perspectives. *Bioresour. Technol.* **2017**, *229*, 53–62.
- (41) Ferreira, G. F.; Pinto, L. F. R.; Filho, R. M.; Fregolente, L. V. A Review on Lipid Production from Microalgae : Association between Cultivation Using Waste Streams and Fatty Acid profiles. *Renew. Sustain. Energy Rev.* **2019**, *109*
- (42) Deshmukh, S.; Kumar, R.; Bala, K. Microalgae Biodiesel : A Review on Oil Extraction , Fatty Acid Composition , Properties and e Ff Ect on Engine Performance and Emissions. *Fuel Process. Technol.* **2019**, *191*, 232–247.
- (43) Cavonius, L. R.; Carlsson, N.; Undeland, I. Quantification of Total Fatty Acids in Microalgae : Comparison of Extraction and Transesterification Methods. *Anal. Bioanal. Chem.* **2014**, *28* (406), 7313–7322.
- (44) Zhang, Y.; Li, Y.; Zhang, X.; Tan, T. Biodiesel Production by Direct Transesterification of Microalgal Biomass with Co-Solvent. *Bioresour. Technol.* **2015**, *196*, 712–715.
- (45) Chaidir, Z.; Fadjria, N.; Zainul, R. Isolation and Molecular Identification of Freshwater Microalgae in Maninjau Lake West Sumatra. *Der Pharm. Lett.* **2018**, *8* (20), 177–187.
- (46) Bajunaid, H.; Sobri, M.; Haiza, N.; Yasin, M.; Ba-abbad, M. M.; Irma, N.; Mohd, N.

Potential of the Microalgae-Based Integrated Wastewater Treatment and CO₂ Fixation System to Treat Palm Oil Mill Effluent (POME) by Indigenous Microalgae ; *Scenedesmus Sp . and Chlorella Sp .* **2019**, 32.

- (47) Nazari, L.; Sarathy, S.; Santoro, D.; Ho, D.; Ray, M. B. *Recent Advances in Energy Recovery from Wastewater Sludge* 3; 2018.
- (48) Yan, W.; Loke, P.; Ching, J.; Chang, J.; Chuan, T. Enhancing Biomass and Lipid Productions of Microalgae in Palm Oil Mill Effluent Using Carbon and Nutrient Supplementation. *Energy Convers. Manag.* **2018**, 164, 188–197.
- (49) Jung, Y. H.; Kim, K. H. *Chapter 3- Acidic Pretreatment*; Elsevier B.V., 2015.
- (50) Ran, W.; Wang, H.; Liu, Y.; Qi, M.; Xiang, Q.; Yao, C.; Zhang, Y.; Lan, X. Storage of Starch and Lipids in Microalgae: Biosynthesis and Manipulation by Nutrients. *Bioresour. Technol.* **2019**, 121894.
- (51) Show, P. L.; Tan, C. H.; Cheah, W. Y.; Ling, T. C.; Juan, J. C.; Chang, J. Algae Cultivation in Wastewater for Biodiesel – A Review. *Chem. Eng. Trans.* **2015**, 45, 1393–1398.
- (52) Piligaev, A. V.; Sorokina, K. N.; Shashkov, M. V.; Parmon, V. N. Screening and Comparative Metabolic Profiling of High Lipid Content Microalgae Strains for Application in Wastewater Treatment. *Bioresour. Technol.* **2018**, 250, 538–547.
- (53) Daneshvar, E.; Javad, M.; Malekzadeh, A. Versatile Applications of Freshwater and Marine Water Microalgae in Dairy Wastewater Treatment , Lipid Extraction and Tetracycline Biosorption. *Bioresour. Technol.* **2018**, 268, 523–530.
- (54) Sharma, T.; Gour, R. S.; Kant, A.; Chauhan, R. S. Lipid Content in *Scenedesmus* Species Correlates with Multiple Genes of Fatty Acid and Triacylglycerol Biosynthetic Pathways. *ALGAL* **2015**, 12, 341–349.
- (55) Gao, F.; Yang, H. L.; Li, C.; Peng, Y. Y.; Lu, M. M.; Jin, W. H.; Bao, J. J.; Guo, Y. M. Effect of Organic Carbon to Nitrogen Ratio in Wastewater on Growth, Nutrient Uptake and Lipid Accumulation of a Mixotrophic Microalgae *Chlorella Sp.* *Bioresour. Technol.* **2019**, 282, 118–124.

