

DAFTAR PUSTAKA

- Abomohra, A. E. F., El-Sheekh, M., & Hanelt, D. (2017). Screening of marine microalgae isolated from the hypersaline Bardawil lagoon for biodiesel feedstock. *Renewable Energy*, 101, 1266–1272. <https://doi.org/10.1016/j.renene.2016.10.015>
- Ajala, S. O., & Alexander, M. L. (2020). Assessment of *Chlorella vulgaris*, *Scenedesmus obliquus*, and *Oocystis minuta* for removal of sulfate, nitrate, and phosphate in wastewater. *International Journal of Energy and Environmental Engineering*, 11(3), 311–326. <https://doi.org/10.1007/s40095-019-00333-0>
- Alishah Aratboni, H., Rafiei, N., Garcia-Granados, R., Alemzadeh, A., & Morones-Ramírez, J. R. (2019). Biomass and lipid induction strategies in microalgae for biofuel production and other applications. *Microbial Cell Factories*, 18(1), 1–17. <https://doi.org/10.1186/s12934-019-1228-4>
- Arroyo, J., Hutzler, J., Bermejo, C., Ragni, E., García-Cantalejo, J., Botías, P., Piberger, H., Schott, A., Sanz, A. B., & Strahl, S. (2011). Functional and genomic analyses of blocked protein O-mannosylation in baker's yeast. *Molecular Microbiology*, 79(6), 1529–1546. <https://doi.org/10.1111/j.1365-2958.2011.07537.x>
- Axelsson, M., & Gentili, F. (2014). A Single-Step Method for Rapid Extraction of Total Lipids from Green Microalgae. 9(2), 17–20. <https://doi.org/10.1371/journal.pone.0089643>
- Baiee, M. A. (2016). Effect of phosphorus concentration and light intensity on protein content of microalga *Chlorella vulgaris*.
- Bharathiraja, B., Iyyappan, J., Gopinath, M., Jayamuthunagai, J., & PraveenKumar, R. (2022). Transgenicism in algae: Challenges in compatibility, global scenario and future prospects for next generation biofuel production. *Renewable and Sustainable Energy Reviews*, 154(October 2021), 111829. <https://doi.org/10.1016/j.rser.2021.111829>
- Bligh, & Dyer. (1959). a rapid method of total lipid extraction and purification. 37.
- Brányiková, I., Maršáľková, B., Doucha, J., Brányik, T., Bišová, K., Zachleder, V., & Vítová, M. (2011). *Microalgae-novel highly efficient starch producers*. *Biotechnology and Bioengineering*, 108(4), 766–776. <https://doi.org/10.1002/bit.23016>
- Breil, C., Abert Vian, M., Zemb, T., Kunz, W., & Chemat, F. (2017). “Bligh and Dyer” and Folch methods for solid–liquid–liquid extraction of lipids from

microorganisms. Comprehension of solvation mechanisms and towards substitution with alternative solvents. *International Journal of Molecular Sciences*, 18(4), 1–21. <https://doi.org/10.3390/ijms18040708>

Breuer, G., Lamers, P. P., Martens, D. E., Draaisma, R. B., & Wijffels, R. H. (2012). The impact of nitrogen starvation on the dynamics of triacylglycerol accumulation in nine microalgae strains. *Bioresource Technology*, 124, 217–226. <https://doi.org/10.1016/j.biortech.2012.08.003>

Brown, M. R., Dunstan, G. A., Torred, S. J., & Mzller, K. A. (1996). effects of harvest stage and light o n t h e biochemical composition o f t h e diatom thalassiosira pseudonana ' Marine microalgae are the primary food source for at least some stages in the life cycle of most in their nutritional value , frequently beca. *Journal of Phycology*, 73, 64–73.

Carli, M. F., Susanto, B. H., & Habibie, T. K. (2018). Sythesis of bioavture through hydrodeoxygenation and catalytic cracking from oleic acid using NiMo/Zeolit catalyst. *E3S Web of Conferences*, 67, 1–5. <https://doi.org/10.1051/e3sconf/20186702023>

Cheirsilp, B., & Torpee, S. (2012). Enhanced growth and lipid production of microalgae under mixotrophic culture condition: Effect of light intensity, glucose concentration and fed-batch cultivation. *Bioresource Technology*, 110, 510–516. <https://doi.org/10.1016/j.biortech.2012.01.125>

Chen, Z., Chen, Y., Zhang, H., Qin, H., He, J., Zheng, Z., Zhao, L., Lei, A., & Wang, J. (2022). Evaluation of *Euglena gracilis* 815 as a New Candidate for Biodiesel Production. *Frontiers in Bioengineering and Biotechnology*, 10(March), 1–11. <https://doi.org/10.3389/fbioe.2022.827513>

Cheng, C. L., Lo, Y. C., Huang, K. Lou, Nagarajan, D., Chen, C. Y., Lee, D. J., & Chang, J. S. (2022). Effect of pH on biomass production and carbohydrate accumulation of *Chlorella vulgaris* JSC-6 under autotrophic, mixotrophic, and photoheterotrophic cultivation. *Bioresource Technology*, 351(March), 127021. <https://doi.org/10.1016/j.biortech.2022.127021>

Cheng, D., Li, D., Yuan, Y., Zhou, L., Li, X., Wu, T., Wang, L., Zhao, Q., Wei, W., & Sun, Y. (2017). Improving carbohydrate and starch accumulation in *Chlorella* sp. AE10 by a novel two-stage process with cell dilution. *Biotechnology for Biofuels*, 10(1), 1–14. <https://doi.org/10.1186/s13068-017-0753-9>

Chisti, Y. (2007). Biodiesel from microalgae. *Biotechnology Advances*, 25(3), 294–306. <https://doi.org/10.1016/j.biotechadv.2007.02.001>

Chiu, S. Y., Kao, C. Y., Chen, C. H., Kuan, T. C., Ong, S. C., & Lin, C. S. (2008).

Reduction of CO₂ by a high-density culture of *Chlorella* sp. in a semicontinuous photobioreactor. *Bioresource Technology*, 99(9), 3389–3396. <https://doi.org/10.1016/j.biortech.2007.08.013>

Chiu, S. Y., Kao, C. Y., Tsai, M. T., Ong, S. C., Chen, C. H., & Lin, C. S. (2009). Lipid accumulation and CO₂ utilization of *Nannochloropsis oculata* in response to CO₂ aeration. *Bioresource Technology*, 100(2), 833–838. <https://doi.org/10.1016/j.biortech.2008.06.061>

Chunzhuk, E. A., Grigorenko, A. V., Kiseleva, S. V., Chernova, N. I., Vlaskin, M. S., Ryndin, K. G., Butyrin, A. V., Ambaryan, G. N., & Dudoladov, A. O. (2023). Effects of Light Intensity on the Growth and Biochemical Composition in Various Microalgae Grown at High CO₂ Concentrations. *Plants*, 12(22). <https://doi.org/10.3390/plants12223876>

Constantopoulos, G., & Bloch, K. (1967). Effect of Light Intensity of *Euglena* - I. *Journal of Biological Chemistry*, 242(15), 3538–3542. [http://dx.doi.org/10.1016/S0021-9258\(18\)95895-3](http://dx.doi.org/10.1016/S0021-9258(18)95895-3)

De Silva, G. P. D., Ranjith, P. G., & Perera, M. S. A. (2015). Geochemical aspects of CO₂ sequestration in deep saline aquifers: A review. *Fuel*, 155, 128–143. <https://doi.org/10.1016/j.fuel.2015.03.045>

Department of Economic and Social Affairs, P. D. (2022). World Population Prospects 2022. In United Nation (Issue 9). www.un.org/development/desa/pd/.

Dharma, A., Sekatresna, W., Zein, R., Chaidir, Z., & Nasir, N. (2017). ISSN 0975-413X CODEN (USA): PCHHAX Chlorophyll and Total Carotenoid Contents in Microalgae Isolated from Local Industry Effluent in West Sumatera, Indonesia. *Pharma Chemica*, 9(918), 9–11. <http://www.derpharmachemica.com/archive.html>

Difusa, A., Talukdar, J., Kalita, M. C., Mohanty, K., & Goud, V. V. (2015). Effect of light intensity and pH condition on the growth, biomass and lipid content of microalgae *Scenedesmus* species. *Biofuels*, 6(1–2), 37–44. <https://doi.org/10.1080/17597269.2015.1045274>

Duong, V. T., Thomas-Hall, S. R., & Schenk, P. M. (2015). Growth and lipid accumulation of microalgae from fluctuating brackish and sea water locations in South East Queensland—Australia. *Frontiers in Plant Science*, 6(MAY), 1–8. <https://doi.org/10.3389/fpls.2015.00359>

Erickson, E., Wakao, S., & Niyogi, K. K. (2015). Light stress and photoprotection in *Chlamydomonas reinhardtii*. 449–465. <https://doi.org/10.1111/tpj.12825>

- Friedlingstein, P., Jones, M. W., O'Sullivan, M., Andrew, R. M., & Bakker, D. C. E. (2022). Global Carbon Budget 2021, raport Earth System Science Data. *Earth System Science Data*, 14, 1917–2005. <http://www.globalcarbonatlas.org/en/content/global-carbon-budget>
- Gammanpila, A. M., Rupasinghe, C. P., & Subasinghe, S. (2015). Light Intensity and Photo Period Effect on Growth and Lipid Accumulation of Microalgae *Chlorella Vulgaris* and *Nannochloropsis* Sp for Biodiesel Production 1 Anjala M. Proceedings of 12th ISERD International Conference, 51–55.
- Gaurav, K., Neeti, K., & Singh, R. (2024). Microalgae-based biodiesel production and its challenges and future opportunities: A review. *Green Technologies and Sustainability*, 2(1), 100060. <https://doi.org/10.1016/j.grets.2023.100060>
- Gim, G. H., Kim, J. K., Kim, H. S., Kathiravan, M. N., Yang, H., Jeong, S. H., & Kim, S. W. (2014). Comparison of biomass production and total lipid content of freshwater green microalgae cultivated under various culture conditions. *Bioprocess and Biosystems Engineering*, 37(2), 99–106. <https://doi.org/10.1007/s00449-013-0920-8>
- Gim, G. H., Ryu, J., Kim, M. J., Kim, P. Il, & Kim, S. W. (2016). Effects of carbon source and light intensity on the growth and total lipid production of three microalgae under different culture conditions. *Journal of Industrial Microbiology and Biotechnology*, 43(5), 605–616. <https://doi.org/10.1007/s10295-016-1741-y>
- Giossi, C., Cartaxana, P., & Cruz, S. (2020). Photoprotective role of neoxanthin in plants and algae. *Molecules*, 25(20). <https://doi.org/10.3390/molecules25204617>
- Gissibl, A., Sun, A., Care, A., Nevalainen, H., & Sunna, A. (2019). Bioproducts From *Euglena gracilis*: Synthesis and Applications. *Frontiers in Bioengineering and Biotechnology*, 7(May), 1–16. <https://doi.org/10.3389/fbioe.2019.00108>
- Goh, B. H. H., Ong, H. C., Cheah, M. Y., Chen, W. H., Yu, K. L., & Mahlia, T. M. I. (2019). Sustainability of direct biodiesel synthesis from microalgae biomass: A critical review. *Renewable and Sustainable Energy Reviews*, 107(May 2018), 59–74. <https://doi.org/10.1016/j.rser.2019.02.012>
- Harun, R., Jason, W. S. Y., Cherrington, T., & Danquah, M. K. (2010). WITHDRAWN: Microalgal biomass as a cellulosic fermentation feedstock for, bioethanol production. *Renewable and Sustainable Energy Reviews*, 9905. <https://doi.org/10.1016/j.rser.2010.07.071>
- Humphrey, I., Chendo, M. A. C., Njah, A. N., & Nwankwo, D. I. (2021).

Optimization of microalgae growth for biofuel production using a new empirical dynamic model. *Biofuels*, 12(10), 1209–1224. <https://doi.org/10.1080/17597269.2019.1608012>

Husna, F., Rachmawati, B., Samudra, T. T., Pradana, Y. S., Budiman, A., & Suyono, E. A. (2020). Effectivity of various media for biomass and lipid production of mixed culture of glagah in open pond. *AIP Conference Proceedings*, 2260(September). <https://doi.org/10.1063/5.0016181>

Hussain, F., Shah, S. Z., Ahmad, H., Abubshait, S. A., Abubshait, H. A., Laref, A., Manikandan, A., Kusuma, H. S., & Iqbal, M. (2021). Microalgae an ecofriendly and sustainable wastewater treatment option: Biomass application in biofuel and bio-fertilizer production. A review. *Renewable and Sustainable Energy Reviews*, 137(November 2020), 110603. <https://doi.org/10.1016/j.rser.2020.110603>

Huzir, N. M., Aziz, M. M. A., Ismail, S. B., Abdullah, B., Mahmood, N. A. N., Umor, N. A., & Syed Muhammad, S. A. F. ad. (2018). Agro-industrial waste to biobutanol production: Eco-friendly biofuels for next generation. *Renewable and Sustainable Energy Reviews*, 94(November 2017), 476–485. <https://doi.org/10.1016/j.rser.2018.06.036>

Jacob-Lopes, E., Revah, S., Hernández, S., Shirai, K., & Franco, T. T. (2009). Development of operational strategies to remove carbon dioxide in photobioreactors. *Chemical Engineering Journal*, 153(1–3), 120–126. <https://doi.org/10.1016/j.cej.2009.06.025>

Jafarihaghighi, F., Ardjmand, M., Salar Hassani, M., Mirzajanzadeh, M., & Bahrami, H. (2020). Effect of Fatty Acid Profiles and Molecular Structures of Nine New Source of Biodiesel on Combustion and Emission. *ACS Omega*, 5(26), 16053–16063. <https://doi.org/10.1021/acsomega.0c01526>

Katam, K., Ananthula, R., Anumala, S., Sriariyanun, M., & Bhattacharyya, D. (2022). The impact of light intensity and wavelength on the performance of algal-bacterial culture treating domestic wastewater. *E3S Web of Conferences*, 355, 02003. <https://doi.org/10.1051/e3sconf/202235502003>

Kee, M., Iqram, M., Uemura, Y., Wei, J., Gek, C., Teong, K., & Chyuan, H. (2017). Cultivation of *Chlorella vulgaris* using nutrients source from domestic wastewater for biodiesel production : Growth condition and kinetic studies. *Renewable Energy*, 103, 197–207. <https://doi.org/10.1016/j.renene.2016.11.032>

Khairunnisa, K., Hartati, R., & Widowati, I. (2024). Chlorophyll Content of *Chlorella vulgaris* (Beijerinck, 1890) on Different Light Intensity. *Buletin Oseanografi Marina*, 13(1), 107–112.

- <https://doi.org/10.14710/buloma.v13i1.59218>
- Khoeiyi, Z. A., Seyfabadi, J., & Ramezanpour, Z. (2012). Effect of light intensity and photoperiod on biomass and fatty acid composition of the microalgae, *Chlorella vulgaris*. *Aquaculture International*, 20(1), 41–49. <https://doi.org/10.1007/s10499-011-9440-1>
- Khoo, K. S., Ahmad, I., Chew, K. W., Iwamoto, K., Bhatnagar, A., & Show, P. L. (2023). Enhanced microalgal lipid production for biofuel using different strategies including genetic modification of microalgae: A review. *Progress in Energy and Combustion Science*, 96(December 2022). <https://doi.org/10.1016/j.pecs.2023.101071>
- Kim, S., Im, H., Yu, J., Kim, K., Kim, M., & Lee, T. (2023). Biofuel production from *Euglena*: Current status and techno-economic perspectives. *Bioresourc Technology*, 371(January), 128582. <https://doi.org/10.1016/j.biortech.2023.128582>
- Korn, E. D. (1964). The fatty acids of *Euglena gracilis*. *Journal of Lipid Research*, 5(3), 352–362. [https://doi.org/10.1016/s0022-2275\(20\)40204-4](https://doi.org/10.1016/s0022-2275(20)40204-4)
- Koyande, A. K., Chew, K. W., Rambabu, K., Tao, Y., Chu, D. T., & Show, P. L. (2019). Microalgae: A potential alternative to health supplementation for humans. *Food Science and Human Wellness*, 8(1), 16–24. <https://doi.org/10.1016/j.fshw.2019.03.001>
- Krichen, E., Rapaport, A., H. E. L. F., Fouilland, E., Krichen, E., Rapaport, A., H. E. L. F., & Fouilland, E. (2020). A new kinetics model to predict the growth of micro-algae subjected to fluctuating availability of light To cite this version : HAL Id : hal-02942081 A new kinetics model to predict the growth of micro-algae subjected to fluctuating availability of light.
- Kumar, G., Nguyen, D. D., Huy, M., Sivagurunathan, P., Bakonyi, P., Zhen, G., Kobayashi, T., Xu, K. Q., Nemestóthy, N., & Chang, S. W. (2019). Effects of light intensity on biomass, carbohydrate and fatty acid compositions of three different mixed consortia from natural ecological water bodies. *Journal of Environmental Management*, 230(September 2018), 293–300. <https://doi.org/10.1016/j.jenvman.2018.09.026>
- Lee, E., Jalalizadeh, M., & Zhang, Q. (2015). Growth kinetic models for microalgae cultivation: A review. *Algal Research*, 12, 497–512. <https://doi.org/10.1016/j.algal.2015.10.004>
- Lestari, R. A. S., Nurlaili, E. P., & Kusumo, P. (2019). The effect of carbon dioxide concentration and the dimension of photobioreactor on the growth of microalgae *Nannochloropsis* sp. *AIP Conference Proceedings*, 2097(April), 1–6. <https://doi.org/10.1063/1.5098284>

- Li, G., Hao, Y., Yang, T., Xiao, W., Pan, M., Huo, S., & Lyu, T. (2022). Enhancing Bioenergy Production from the Raw and Defatted Microalgal Biomass Using Wastewater as the Cultivation Medium. *Bioengineering*, 9(11). <https://doi.org/10.3390/bioengineering9110637>
- Li, Y., Zhou, W., Hu, B., Min, M., Chen, P., & Ruan, R. R. (2012). Effect of light intensity on algal biomass accumulation and biodiesel production for mixotrophic strains *Chlorella kessleri* and *Chlorella protothecoides* cultivated in highly concentrated municipal wastewater. *Biotechnology and Bioengineering*, 109(9), 2222–2229. <https://doi.org/10.1002/bit.24491>
- Liu, J., Huang, J., & Che, F. (2011). Microalgae as Feedstocks for Biodiesel Production. *Biodiesel - Feedstocks and Processing Technologies*, November. <https://doi.org/10.5772/25600>
- Lucakova, S., Branyikova, I., & Hayes, M. (2022). Microalgal Proteins and Bioactives for Food, Feed, and Other Applications. *Applied Sciences* (Switzerland), 12(9). <https://doi.org/10.3390/app12094402>
- Lv, B., Liu, Z., Chen, Y., Lan, S., Mao, J., Gu, Z., Wang, A., Yu, F., Zheng, X., & Vasquez, H. E. (2022). Effect of Different Colored LED Lighting on the Growth and Pigment Content of *Isochrysis zhanjiangensis* under Laboratory Conditions.
- Maltsev, Y., & Maltseva, K. (2021). Fatty acids of microalgae: diversity and applications. In *Reviews in Environmental Science and Biotechnology* (Vol. 20, Issue 2). Springer Netherlands. <https://doi.org/10.1007/s11157-021-09571-3>
- Maltsev, Y., Maltseva, K., Kulikovskiy, M., & Maltseva, S. (2021a). Influence of light conditions on microalgae growth and content of lipids, carotenoids, and fatty acid composition. *Biology*, 10(10), 1–24. <https://doi.org/10.3390/biology10101060>
- Maltsev, Y., Maltseva, K., Kulikovskiy, M., & Maltseva, S. (2021b). Influence of light conditions on microalgae growth and content of lipids, carotenoids, and fatty acid composition. *Biology*, 10(10). <https://doi.org/10.3390/biology10101060>
- Markou, G., Angelidaki, I., & Georgakakis, D. (2012). Microalgal carbohydrates: An overview of the factors influencing carbohydrates production, and of main bioconversion technologies for production of biofuels. *Applied Microbiology and Biotechnology*, 96(3), 631–645. <https://doi.org/10.1007/s00253-012-4398-0>
- Maryam Al-Qasbi, Nitin Raut Member, IAENG, Sahar Talebi, Sara Al-Rajhi, T.

- A.-B. (2022). A Review of Effect of Light on Microalgae Growth. *Developments in American Politics* 9, I, 137–154. https://doi.org/10.1007/978-3-030-89740-6_9
- MarzeMarzetz, V., Spijkerman, E., Striebel, M., & Wacker, A. (2020). (2020). Phytoplankton Community Responses to Interactions Between Light Intensity , Light Variations , and Phosphorus Supply. 8(December), 1–11. <https://doi.org/10.3389/fenvs.2020.539733>
- Metsoviti, M. N., Katsoulas, N., Karapanagiotidis, I. T., & Papapolymerou, G. (2019). Effect of nitrogen concentration, two-stage and prolonged cultivation on growth rate, lipid and protein content of *Chlorella vulgaris*. *Journal of Chemical Technology and Biotechnology*, 94(5), 1466–1473. <https://doi.org/10.1002/jctb.5899>
- Metsoviti, M. N., Papapolymerou, G., Karapanagiotidis, I. T., & Katsoulas, N. (2020). Effect of light intensity and quality on growth rate and composition of *Chlorella vulgaris*. *Plants*, 9(1), 1–17. <https://doi.org/10.3390/plants9010031>
- Minhas, A. K., Hodgson, P., Barrow, C. J., & Adholeya, A. (2016). A Review on the Assessment of Stress Conditions for Simultaneous Production of *Microalgal Lipids and Carotenoids*. 7(May), 1–19. <https://doi.org/10.3389/fmicb.2016.00546>
- Montoya-Vallejo, C., Guzmán Duque, F. L., & Quintero Díaz, J. C. (2023). Biomass and lipid production by the native green microalgae *Chlorella sorokiniana* in response to nutrients, light intensity, and carbon dioxide: experimental and modeling approach. *Frontiers in Bioengineering and Biotechnology*, 11(May), 1–16. <https://doi.org/10.3389/fbioe.2023.1149762>
- Mosibo, O. K., Ferrentino, G., & Udenigwe, C. C. (2024). Microalgae Proteins as Sustainable Ingredients in Novel Foods: Recent Developments and Challenges. *Foods*, 13(5). <https://doi.org/10.3390/foods13050733>
- Mulgund, A. (2022). Increasing lipid accumulation in microalgae through environmental manipulation, metabolic and genetic engineering: a review in the energy NEXUS framework. *Energy Nexus*, 5(February). <https://doi.org/10.1016/j.nexus.2022.100054>
- Nurafifah, I., & Amelia, R. (2023). The Effect of Acidic pH on Growth Kinetics , Biomass Productivity , and Prima-ry Metabolite Contents of *Euglena* sp . The Effect of Acidic pH on Growth Kinetics , Biomass Productivity , and Prima-ry. 27(2). <https://doi.org/10.7454/mss.v27i2.1506>
- Nurafifah, I., Hardianto, M. A., Erfianti, T., Amelia, R., Maghfiroh, K. Q., Kurnianto, D., Siswanti, D. U., Sadewo, B. R., Maggandari, R., & Suyono, E.

- A. (2023). The Effect of Acidic pH on Growth Kinetics, Biomass Productivity, and Primary Metabolite Contents of *Euglena* sp. *Makara Journal of Science*, 27(2), 97–105. <https://doi.org/10.7454/mss.v27i2.1506>
- Nuria Pedrol Bonjoch and Pilar Ramos Tamayo. (2001). chapter 19 protein content quantification by bradford method. 283–284.
- Nzayisenga, J. C., Farge, X., Groll, S. L., & Sellstedt, A. (2020). Effects of light intensity on growth and lipid production in microalgae grown in wastewater. *Biotechnology for Biofuels*, 13(1), 1–8. <https://doi.org/10.1186/s13068-019-1646-x>
- Papilo, P., Marimin, M., Hambali, E., Machfud, M., Yani, M., Asrol, M., Evanila, E., Prasetya, H., & Mahmud, J. (2022). Palm oil-based bioenergy sustainability and policy in Indonesia and Malaysia: A systematic review and future agendas. *Heliyon*, 8(10), e10919. <https://doi.org/10.1016/j.heliyon.2022.e10919>
- Praharyawan, S. (2021). Peningkatan Produksi Biomassa Sebagai Strategi Jitu Dalam Mempercepat Produksi Biodiesel Berbasis Mikroalga Di Indonesia. *Jurnal Bioteknologi & Biosains Indonesia*, 8(December), 294–320.
- Razzak, S. A. (2019). In situ biological CO₂ fixation and wastewater nutrient removal with *Neochloris oleoabundans* in batch photobioreactor. *Bioprocess and Biosystems Engineering*, 42(1), 93–105. <https://doi.org/10.1007/s00449-018-2017-x>
- Ritchie, R. J. (2006). Consistent sets of spectrophotometric chlorophyll equations for acetone, methanol and ethanol solvents. *Photosynthesis Research*, 89(1), 27–41. <https://doi.org/10.1007/s11120-006-9065-9>
- Ruangsomboon, S. (2012). Effect of light, nutrient, cultivation time and salinity on lipid production of newly isolated strain of the green microalga, *Botryococcus braunii* KMITL 2. *Bioresource Technology*, 109, 261–265. <https://doi.org/10.1016/j.biortech.2011.07.025>
- Sandnes, J. M., Källqvist, T., Wenner, D., & Gislerød, H. R. (2005). Combined influence of light and temperature on growth rates of *Nannochloropsis oceanica*: Linking cellular responses to large-scale biomass production. *Journal of Applied Phycology*, 17(6), 515–525. <https://doi.org/10.1007/s10811-005-9002-x>
- Sathya, A. B., Thirunavukkarasu, A., Nithya, R., Nandan, A., Sakthishobana, K., Kola, A. K., Sivashankar, R., Tuan, H. A., & Deepanraj, B. (2023). Microalgal biofuel production: Potential challenges and prospective research. *Fuel*, 332(P2), 126199. <https://doi.org/10.1016/j.fuel.2022.126199>

- Schött, H. F., Konings, M. C. J. M., Schrauwen-Hinderling, V. B., Mensink, R. P., & Plat, J. (2021). A Validated Method for Quantification of Fatty Acids Incorporated in Human Plasma Phospholipids by Gas Chromatography-Triple Quadrupole Mass Spectrometry. *ACS Omega*, 6(2), 1129–1137. <https://doi.org/10.1021/acsomega.0c03874>
- Shokravi, H., Heidarrezaei, M., Shokravi, Z., Ong, H. C., Lau, W. J., Din, M. F. M., & Ismail, A. F. (2022). Fourth generation biofuel from genetically modified algal biomass for bioeconomic development. *Journal of Biotechnology*, 360(October), 23–36. <https://doi.org/10.1016/j.jbiotec.2022.10.010>
- Sibi, G., Shetty, V., & Mokashi, K. (2016). Enhanced lipid productivity approaches in microalgae as an alternate for fossil fuels e A review. 89, 2015–2017.
- Siddiki, S. Y. A., Mofijur, M., Kumar, P. S., Ahmed, S. F., Inayat, A., Kusumo, F., Badruddin, I. A., Khan, T. M. Y., Nghiem, L. D., Ong, H. C., & Mahlia, T. M. I. (2022). Microalgae biomass as a sustainable source for biofuel, biochemical and biobased value-added products: An integrated biorefinery concept. *Fuel*, 307(June 2021). <https://doi.org/10.1016/j.fuel.2021.121782>
- Singh, P., Kumari, S., Guldhe, A., Misra, R., Rawat, I., & Bux, F. (2016). Trends and novel strategies for enhancing lipid accumulation and quality in microalgae. *Renewable and Sustainable Energy Reviews*, 55(November), 1–16. <https://doi.org/10.1016/j.rser.2015.11.001>
- Singh, S. P., & Singh, P. (2015). Effect of temperature and light on the growth of algae species: A review. *Renewable and Sustainable Energy Reviews*, 50, 431–444. <https://doi.org/10.1016/j.rser.2015.05.024>
- Song, X., Liu, B. F., Kong, F., Song, Q., Ren, N. Q., & Ren, H. Y. (2023). Lipid accumulation by a novel microalga *Parachlorella kessleri* R-3 with wide pH tolerance for promising biodiesel production. *Algal Research*, 69(December 2022), 102925. <https://doi.org/10.1016/j.algal.2022.102925>
- Strickland J.D.H, & T.R, P. (1972). A practical handbook of seawater analysis. A Practical Handbook of Seawater Analysis, 167.
- Sudibyo, H., Pradana, Y. S., Samudra, T. T., Budiman, A., Indarto, & Suyono, E. A. (2017). Study of Cultivation under Different Colors of Light and Growth Kinetic Study of *Chlorella zofingiensis* Dönn for Biofuel Production. *Energy Procedia*, 105, 270–276. <https://doi.org/10.1016/j.egypro.2017.03.313>
- Sui, Y., & Harvey, P. J. (2021). Effect of light intensity and wavelength on biomass growth and protein and amino acid composition of *dunaliella salina*. *Foods*, 10(5). <https://doi.org/10.3390/foods10051018>

- Sun, H., Wang, Y., He, Y., Liu, B., Mou, H., Chen, F., & Yang, S. (2023). Microalgae-Derived Pigments for the Food Industry. *Marine Drugs*, 21(2). <https://doi.org/10.3390/md21020082>
- Suyono, E. A., Nopitasari, S., Zusron, M., Khoirunnisa, P., Islami, D. A., & Prabeswara, C. B. (2016). Effect of silica on carbohydrate content of mixed culture *Phaeodactylum* sp. and *Chlorella* sp. *Biosciences Biotechnology Research Asia*, 13(1), 109–114. <https://doi.org/10.13005/bbra/2011>
- Tang, D., Han, W., Li, P., Miao, X., & Zhong, J. (2011). CO₂ biofixation and fatty acid composition of *Scenedesmus obliquus* and *Chlorella pyrenoidosa* in response to different CO₂ levels. *Bioresource Technology*, 102(3), 3071–3076. <https://doi.org/10.1016/j.biortech.2010.10.047>
- Ugya, A. Y., & Meguellati, K. (2022). Microalgae Biomass Modelling and Optimisation for Sustainable Biotechnology - A Concise Review. *Journal of Ecological Engineering*, 23(9), 309–318. <https://doi.org/10.12911/22998993/150627>
- Um, B., & Kim, Y. (2009). Journal of Industrial and Engineering Chemistry Review : A chance for Korea to advance algal-biodiesel technology. 15, 1–7. <https://doi.org/10.1016/j.jiec.2008.08.002>
- Valdovinos-García, E. M., Juan Barajas-Fernández, María de los Ángeles Olán-Acosta, Moisés Abraham Petriz-Prieto, Adriana Guzmán-López, & Micael Gerardo Bravo-Sánchez. (2020). Techno-Economic Study of CO₂ Capture of a Thermoelectric Plant Using Microalgae (*Chlorella*). *Energies*, 13(2), 1–19.
- Vicente, G., Martínez, M., & Aracil, J. (2007). Optimisation of integrated biodiesel production. Part I. A study of the biodiesel purity and yield. *Bioresource Technology*, 98(9), 1724–1733. <https://doi.org/10.1016/j.biortech.2006.07.024>
- Wahidin, S., Idris, A., & Shaleh, S. R. M. (2013). The influence of light intensity and photoperiod on the growth and lipid content of microalgae *Nannochloropsis* sp. *Bioresource Technology*, 129, 7–11. <https://doi.org/10.1016/j.biortech.2012.11.032>
- Wang, Y., Tibbetts, M. S., & McGinn, P. J. (2021). Microalgae as Sources of High-Quality Protein for Human Food and Protein Supplements. 2019, 1–18.
- Xin, K., Guo, R., Zou, X., Rao, M., Huang, Z., Kuang, C., Ye, J., Chen, C., Huang, C., Zhang, M., Yang, W., & Cheng, J. (2023). CO₂ gradient domestication improved high-concentration CO₂ tolerance and photoautotrophic growth of *Euglena gracilis*. *Science of the Total Environment*, 868(November 2022). <https://doi.org/10.1016/j.scitotenv.2023.161629>