DAFTAR PUSTAKA

Ahmed, E., Suzuki, K., & Nishida, T. 2023. Micro-and Macro-Algae Combination as a Novel Alternative Ruminant Feed with Methane-Mitigation Potential. *Animals*, 13(5): 796.

Al-Ashra, M., Abiad, M., & Allahem, A. 2014. Morphological and molecular taxonomical study of *Euglena* viridis Ehren and *Euglena* gracilis klebs growing in Aleppo, Syria. *J. King Abdulaziz Univ.*, 262: 3-18.

Amelia, R., Budiman, A., Nugroho, A. P., & Suyono, E. A. 2023. Influence of Salinity on The Growth and Fatty Acids Production of *Euglena* sp. Local Strain from Dieng Plateau, Indonesia. *Squalen Bulletin of Marine and Fisheries Postharvest and Biotechnology*, 18(3): 202-213.

Andreeva, A., Budenkova, E., Babich, O., Sukhikh, S., Ulrikh, E., Ivanova, S., Prosekov, A., & Dolganyuk, V. 2021. Production, purification, and study of the amino acid composition of microalgae proteins. *Molecules*, 26(9): 2767.

Anjos, L., Estêvão, J., Infante, C., Mantecón, L., & Power, D. M. 2022. Extracting protein from microalgae (Tetraselmis chuii) for proteome analysis. *MethodsX*, 9: 101637.

Anton Paar Application Report. 2021. *Protein Hydrolysis for Total Amino Acid Analysis in Proteins and Peptides*

AOAC Official Method 988.15. 1995. *Tryptophan in Foods and Food and Feed Ingredients, Ion Exchange Chromatography Method* In: AOAC Official Methods Analysis 45.4.04.

Araya, M., García, S., Rengel, J., Pizarro, S., & Álvarez, G. 2021. Determination of free and protein amino acid content in microalgae by HPLC-DAD with pre-column derivatization and pressure hydrolysis. *Marine Chemistry*, 234, 103999.

Bakku, R. K., Yamamoto, Y., Inaba, Y., Hiranuma, T., Gianino, E., Amarianto, L., Mahrous, W., Suzuki, H., & Suzuki, K. 2023. New insights into raceway cultivation of *Euglena* gracilis under long-term semi-continuous nitrogen starvation. *Scientific Reports*, 13(1): 7123.

Becker, E. W. 2007. Micro-algae as a source of protein. *Biotechnology advances*, 25(2): 207-210.

Borowitzka, M. A., Beradall, J., & Raven, J.A. 2016. *Algal physiology and large-scale outdoor cultures of microalgae*. Springer International Publishing. pp. 601-652

Bradford, M. M. 1976. A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding. *Analytical biochemistry*, 72(1-2): 248-254.

Chen, C., Tang, T., Shi, Q., Zhou, Z., & Fan, J. 2022. The potential and challenge of microalgae as promising future food sources. *Trends in Food Science & Technology*, 126: 99-112.

Chia, S.R., Chew, K.W., Zaid, H.F.M., Chu, D.T., Tao, Y., & Show, P.L. 2019. Microalgal protein extraction from *Chlorella vulgaris* FSP-E using triphasic partitioning technique with sonication. *Frontiers in bioengineering and biotechnology*, 7(396): 1-13.

Choudhary, A. R., Karmakar, R., Kundu, K., & Dahake, V. R. 2011. "Algal" biodiesel: future prospects and problems. *Water and Eenrgy International*, 68(11): 44-51.

Chowdury, K. H., Nahar, N., & Deb, U. K. 2020. The growth factors involved in microalgae cultivation for biofuel production: a review. *Computational Water, Energy, and Environmental Engineering*, 9(4): 185-215.

Cramer, M., & Myers, J. 1952. Growth and photosynthetic characteristics of *Euglena gracilis*. *Archives of Microbiology*, 17(1): 384-402.

Daneshvar, E., Zarrinmehr, M. J., Hashtjin, A. M., Farhadian, O., & Bhatnagar, A. 2018. Versatile applications of freshwater and marine water microalgae in dairy wastewater treatment, lipid extraction and tetracycline biosorption. *Bioresource technology*, 268, 523-530.

Dehghani, J., Movafeghi, A., Mathieu-Rivet, E., Mati-Baouche, N., Calbo, S., Lerouge, P., & Bardor, M. 2022. Microalgae as an efficient vehicle for the production and targeted delivery of therapeutic glycoproteins against SARS-CoV-2 variants. *Marine drugs*, 20(11), 657.

De Jesús-Campos, D., López-Elías, J.A., Medina-Juarez, L.Á., Carvallo-Ruiz, G., Fimbres-Olivarria, D., & Hayano-Kanashiro, C. 2020. Chemical composition, fatty acid profile and molecular changes derived from nitrogen stress in the diatom *Chaetoceros muelleri*. *Aquaculture Reports*, *16*, 100281.

Di Caprio, F. 2020. Methods to quantify biological contaminants in microalgae cultures. *Algal Research*, 49: 101943.

Dietzen, D. J. 2018. Amino acids, peptides, and proteins. In *Principles and Applications of Molecular Diagnostics* (pp. 345-380). Elsevier.

EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA). 2011. Scientific Opinion on the substantiation of health claims related to intense sweeteners and contribution to the maintenance or achievement of a normal body weight (ID 1136, 1444, 4299), reduction of post-prandial glycaemic responses (ID 4298), maintenance of normal blood glucose concentrations (ID 1221, 4298), and maintenance of tooth mineralisation by decreasing tooth demineralisation (ID 1134, 1167, 1283) pursuant to Article 13 (1) of Regulation (EC) No 1924/2006. *EFSA Journal*, 9(6): 2229.

EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA). 2012. Scientific opinion on dietary reference values for protein. *EFSA Journal*, 10(2): 2557.

EFSA Panel on Food Additives and Nutrient Sources added to Food (ANS). 2013. Scientific Opinion on the re-evaluation of aspartame (E 951) as a food additive. *Efsa Journal*, 11(12): 3496.

Eilam, Y., Khattib, H., Pintel, N., & Avni, D. 2023. Microalgae—sustainable source for alternative proteins and functional ingredients promoting gut and liver health. *Global Challenges*, 7(5): 2200177.

Erfianti, T., Maghfiroh, K. Q., Amelia, R., Kurnianto, D., Sadewo, B. R., Marno, S., Devi, I., Dewayanto, N., Budiman, A., & Suyono, E. A. 2023. Nitrogen sources affect the growth of local strain *Euglena* sp. isolated from Dieng Peatland, Central Java, Indonesia, and their potential as bio-avtur. In *IOP Conference Series: Earth and Environmental Science* 1151(1): 012059).

Erfianti, T., Daryono, B. S., Budiman, A., & Suyono, E. A. 2024. Growth and Metabolite Enhancement of Acidophile *Euglena* sp. Isolated from Indonesia under Different Photoperiod Cycles. *Scientific Journal of Fisheries &*

Marine/Jurnal Ilmiah Perikanan dan Kelautan, 16(1):15-30.

FAO. 2021. *The State of The World's Land and Water Resources For Food and Agriculture – Systems at Breaking Poin, Synthesis report*. Food and Agriculture Organization of the United Nations. Rome. https://doi.org/10.4060/cb7654en

Forget, N., Belzile, C., Rioux, P., & Nozais, C. 2010. Teaching the microbial growth curve concept using microalgal cultures and flow cytometry. *Journal of Biological Education*, 44(4): 185-189.

Flores, E., & Herrero, A. 2005. Nitrogen assimilation and nitrogen control in cyanobacteria. *Biochemical Society Transactions.* 33: 164-167.

Ganesh, S., Khan, F., Ahmed, M.K., Velavendan, P., Pandey, N.K., & Kamachi Mudali, U. 2012. Spectrophotometric determination of trace amounts of phosphate in water and soil. *Water Science and Technology*, 66(12): 2653-2658.

Gani, P., Sunar, N. M., Matias-Peralta, H. M., & Apandi, N. 2019. An overview of environmental factor's effect on the growth of microalgae. *Journal of Applied Chemistry and Natural Resources*, 1(2).

Giordano, M., & Wang, Q. 2018. Microalgae for industrial purposes. *Biomass and green chemistry: Building a renewable pathway*, 133-167.

Gissibl, A., Sun, A., Care, A., Nevalainen, H., & Sunna, A. 2019. Bioproducts from *Euglena* gracilis: synthesis and applications. *Frontiers in bioengineering and biotechnology*, 7, 108.

Guo, H., & Fang, Z. 2020. Effect of light quality on the cultivation of *Chlorella pyrenoidosa. E3S Web of Conferences*, (143): 1-6.

Hakim, W. H. A., Erfianti, T., Dhiaurahman, A. N., Maghfiroh, K. Q., Amelia, R., Nurafifah, I., Kurnianto, D., Siswanti, D. U., Suyono, E. A., Marno, S., & Devi, I. 2023. The Effect of IAA Phytohormone (Indole-3-Acetic Acid) on the Growth, Lipid, Protein, Carbohydrate, and Pigment Content in *Euglena* sp. *Malaysian Journal of Fundamental and Applied Sciences*, 19(4): 513-524.

Haris, N., Manan, H., Jusoh, M., Khatoon, H., Katayama, T., & Kasan, N.A. 2022. Effect of different salinity on the growth performance and proximate composition of isolated indigenous microalgae species. *Aquaculture Reports*, 22: 100925.

Hashemian, M., Ahmadzadeh, H., Hosseini, M., Lyon, S., & Pourianfar, H. R. 2019. Production of microalgae-derived high-protein biomass to enhance food for animal feedstock and human consumption. In *Advanced bioprocessing for alternative fuels, biobased chemicals, and bioproducts* (pp. 393-405). Woodhead Publishing.

He, J., Liu, C., Du, M., Zhou, X., Hu, Z., Lei, A., & Wang, J. 2021. Metabolic responses of a model green microalga *Euglena* gracilis to different environmental stresses. *Frontiers in Bioengineering and Biotechnology*, 9, 662655.

Hu, J., Meng, W., Su, Y., Qian, C., & Fu, W. 2023. Emerging technologies for advancing microalgal photosynthesis and metabolism toward sustainable production. *Frontiers in Marine Science*, 10, 1260709.

Hussian, A. E. M. 2018. *Marine Ecology-Biotic and Abiotic Interactions*. The Role of Microalgae in Renewable Energy Production: Challenges and

Opportunities, chapter 12. p. 263. http://dx.doi.org/10.5772/intechopen. 73573

Ingrisano, R., Tosato, E., Trost, P., Gurrieri, L., & Sparla, F. 2023. Proline, Cysteine and Branched-Chain Amino Acids in Abiotic Stress Response of Land Plants and Microalgae. *Plants*, 12(19): 3410.

Inwongwan, S., Kruger, N. J., Ratcliffe, R. G., & O'Neill, E. C. 2019. *Euglena* central metabolic pathways and their subcellular locations. *Metabolites*, 9(6), 115.

Jerney, J., & Spilling, K. 2020. Large scale cultivation of microalgae: open and closed systems. *Biofuels from Algae: Methods and Protocols*, 1-8.

Karimi, F., Hamidian, Y., Behrouzifar, F., Mostafazadeh, R., Ghorbani-HasanSaraei, A., Alizadeh, M., Mortazavi, S.M, Janbazi, M., & Asrami, P.N. 2022. An applicable method for extraction of whole seeds protein and its determination through Bradford's method. *Food and Chemical Toxicology*, 164: 113053.

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. In *E3S Web of Conferences*. 355: 02003

Kato, S., & Nam, H. G. 2021. The Cell Division Cycle of *Euglena* gracilis Indicates That the Level of Circadian Plasticity to the External Light Regime Changes in Prolonged-Stationary Cultures. *Plants*, 10(7): 1475.

Kawaroe, M.,T. Prartono, A. Rachmat, D.W. Sari, and D. Augustine. 2012. Laju Pertumbuhan Spesifik dan Kandungan Asam Lemak pada Mikroalga *Spirulina platensis*, *Isochrysis* sp. dan *Porphyridium cruentum*. Bogor: IPB Press.udaya

Kishore, G., Kadam, A. D., Kumar, U., & Arunachalam, K. 2018. Modeling *Euglena* sp. growth under different conditions using an artificial neural network. *Journal of applied phycology*, 30: 955-967.

Kitaya, Y., Azuma, H., & Kiyota, M. 2005. Effects of temperature, CO_2/O_2 concentrations and light intensity on cellular multiplication of microalgae, *Euglena* gracilis. *Advances in Space Research*, 35(9): 1584-1588.

Knoshaug, E. P., Gerritsen, A. T., Henard, C. A., & Guarnieri, M. T. 2020. Methods for algal protein isolation and proteome analysis. *Metabolic Pathway Engineering*, 51-59.

Ko, S., Speckmaier, S., & Wang, N. 2019. The effect of temperature on the growth rate of *Euglena* gracilis. *The Expedition*, *9*.

Kostygov, A. Y., Karnkowska, A., Votýpka, J., Tashyreva, D., Maciszewski, K., Yurchenko, V., & Lukeš, J. 2021. Euglenozoa: taxonomy, diversity and ecology, symbioses and viruses. *Open biology*, 11(3): 200407.

Kottuparambil, S., Thankamony, R. L., & Agusti, S. 2019. *Euglena* as a potential natural source of value-added metabolites. A review. *Algal research*, 37: 154-159.

Krishnan, V., Uemura, Y., Thanh, N. T., Khalid, N. A., Osman, N., & Mansor, N. 2015. Three types of Marine microalgae and Nannocholoropsis oculata cultivation for potential source of biomass production. In *Journal of Physics: Conference Series* 622 (1): 012034).

Lee, E., Jalalizadeh, M., & Zhang, Q. 2015. Growth kinetic models for microalgae cultivation: A review. *Algal research*, 12: 497-512.

Levasseur, W., Perré, P., & Pozzobon, V. 2020. A review of high value-added

molecules production by microalgae in light of the classification. *Biotechnology advances*, 41: 107545.

Li, Z., Haifeng, L., Zhang, Y., Shanshan, M., Baoming, L., Zhidan, L., Na, D., Minsheng, L., Buchun, S., & Jianwen, L. 2017. Effects of strain, nutrients concentration and inoculum size on microalgae culture for bioenergy from post hydrothermal liquefaction wastewater. *International Journal of Agricultural and Biological Engineering*, 10(2): 194-204.

Li, G., Xiao, W., Yang, T., & Lyu, T. 2023. Optimization and process effect for microalgae carbon dioxide fixation technology applications based on carbon capture: a comprehensive review. *C*, 9(1): 35.

Li, Y., Zhao, T., Sun, W., Gao, R., & Ma, G. 2024. Supplementation of alanine improves biomass accumulation and lipid production of Chlorella pyrenoidosa by increasing the respiratory and metabolic processes. *Journal of Oceanology and Limnology*, 1-10.

Liu, J., Huang, J., & Chen, F. 2011. Microalgae as feedstocks for biodiesel production. *Biodiesel-feedstocks and processing technologies*, 58-78.

Lopez, M.J., Mohiuddin, S.S. 2024. *Biochemistry, Essential Amino Acids*. In: StatPearls [Internet]. Treasure Island: StatPearls Publishing; https://www.ncbi.nlm.nih.gov/books/NBK557845/

Matsumoto, T., Hiroshi, I., Miyatake, K., Nakano, Y., & Murakami, K. 2009. Comparison of nutrients in *Euglena* with those in other representative food sources. *Eco-Engineering*, 21(2), 81-86.

Motlagh, S. R., Elgharbawy, A. A., Khezri, R., Harun, R., & Omar, R. 2021. Ionic liquid-based microwave-assisted extraction of protein from Nannochloropsis sp. biomass. *Biomass conversion and biorefinery*, 1-12.

Muchut, R. J., Calloni, R. D., Arias, D. G., Arce, A. L., Iglesias, A. A., & Guerrero, S. A. 2021. Elucidating carbohydrate metabolism in *Euglena* gracilis: Reverse genetics-based evaluation of genes coding for enzymes linked to paramylon accumulation. *Biochimie*, 184: 125-131.

Noreen, A., Mahmood, S., Aziz, I., Takriff, M.S., Gulzar, S., Ditta, A., Khalid, A., & Mahmood, T. 2021. Microalgae as potential protein sources: Evidence from protein extraction and amino acid profiling of *Chlorella vulgaris* and *Scenedesmus* sp. *Pakistan Journal of Agricultural Sciences*, 58(3): 821-829.

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 Prima-ry Metabolite Contents of *Euglena* sp. *Makara Journal of Science*, 27(2): 3.

O'neill, E. C., Trick, M., Hill, L., Rejzek, M., Dusi, R. G., Hamilton, C. J., Zimba, P. V., Henrissat, B., & Field, R. A. 2015. The transcriptome of *Euglena* gracilis reveals unexpected metabolic capabilities for carbohydrate and natural product biochemistry. *Molecular BioSystems*, 11(10): 2808-2820.

Park, Y. H., Han, S. I., Oh, B., Kim, H. S., Jeon, M. S., Kim, S., & Choi, Y. E. 2022. Microalgal secondary metabolite productions as a component of biorefinery: A review. *Bioresource technology*, 344, 126206.

Price, K., & Farag, I. H. 2013. Resources conservation in microalgae biodiesel production. *International Journal of Engineering and Technical Research*, 1(8), 49-56.

Rahman, N. A., Katayama, T., Wahid, M. E. A., Kasan, N. A., Khatoon, H., Yamada, Y., & Takahashi, K. 2020. Taxon-and growth phase-specific antioxidant production by chlorophyte, bacillariophyte, and haptophyte strains isolated from tropical waters. *Frontiers in Bioengineering and Biotechnology*, 8, 581628.

Reza, A. M., Zhou, Y., Tavakoli, J., Tang, Y., & Qin, J. 2021. Understanding the lipid production mechanism in *Euglena* gracilis with a fast-response AIEgen bioprobe, DPAS. *Materials Chemistry Frontiers*, 5(1): 268-283.

Richmond, A. 2003. *Handbook of Microalgal Culture: Biotechnology and Applied Phycology*. WILEY

Roche. 2024. *Lab FAQs Find a Quick Solution* (3rd Ed). (pp. 98-100). Mannheim, Germany

Romagnoli, F., Weerasuriya-Arachchige, A. R. P. P., Paoli, R., Feofilovs, M., & Ievina, B. 2021. Growth kinetic model for microalgae cultivation in open raceway ponds: a system dynamics tool. *Rigas Tehniskas Universitates Zinatniskie Raksti*, 25(1), 1317-1336.

Roopnarain, A., Gray, V. M., & Sym, S. D. 2014. Phosphorus limitation and starvation effects on cell growth and lipid accumulation in Isochrysis galbana U4 for biodiesel production. *Bioresource technology*, 156: 408-411.

Rusdiani, R. R., Boedisantoso, R., & Hanif, M. 2016. Optimalisasi teknologi fotobioreaktor mikroalga sebagai dasar perencanaan strategi mitigasi gas CO2. *Jurnal Teknik ITS*, 5(2), F188-F192.

Santos-Ballardo, D.U., Rossi, S., Hernández, V., Gómez, R.V., del Carmen Rendón-Unceta, M., Caro-Corrales, J., & Valdez-Ortiz, A. 2015. A simple spectrophotometric method for biomass measurement of important microalgae species in aquaculture. *Aquaculture*, 448: 87-92.

Salbitani, G., & Carfagna, S. 2021. Ammonium utilization in microalgae: A sustainable method for wastewater treatment. *Sustainability*, 13(2): 956.

Scherholz, M. L., & Curtis, W. R. 2013. Achieving pH control in microalgal cultures through fed-batch addition of stoichiometrically-balanced growth media. *BMC biotechnology*, 13: 1-17.

Silva, N. F. P., Gonçalves, A. L., Moreira, F. C., Silva, T. F. C. V., Martins, F. G., Alvim-Ferraz, M. C. M., Boaventura, R.A.R., Vilar, V.J.P., & Pires, J. C. M. 2015. Towards sustainable microalgal biomass production by phycoremediation of a synthetic wastewater: A kinetic study. *Algal Research*, 11: 350-358.

Steele, D. J. 2014. *Cellular viability and the occurence and significance of chlorophyll allomers during phytoplankton turnover* (Doctoral dissertation, Bournemouth University).

Stoessel, D., Stellmann, J. P., Willing, A., Behrens, B., Rosenkranz, S. C., Hodecker, S. C., Sturner, K. H., Reinhardt, S., Fleischer, S., Deuschle. C., Maetzler. W., Berg. D., Heesen, C., Walther, D., Schauer, N., Friese, M. A. & Pless, O. 2018. Metabolomic profiles for primary progressive multiple sclerosis stratification and disease course monitoring. *Frontiers in human neuroscience*, 12: 226.

Suzuki, K., Mitra, S., Iwata, O., Ishikawa, T., Kato, S., & Yamada, K. 2015. Selection and characterization of *Euglena* anabaena var. minor as a new candidate *Euglena* species for industrial application. *Bioscience*,

biotechnology, and biochemistry, 79(10): 1730-1736.

Templeton, D. W., Quinn, M., Van Wychen, S., Hyman, D., & Laurens, L. M. 2012. Separation and quantification of microalgal carbohydrates. *Journal of Chromatography A*, 1270: 225-234.

Tomečková, L. 2020. The lipid composition of *Euglena gracilis* middle plastid membrane resembles that of primary plastid envelopes. *Plant Physiology*, 184(4): .2052–2063.

Tomita, Y., Takeya, M., Suzuki, K., Nitta, N., Higuchi, C., Marukawa-Hashimoto, Y., & Osanai, T. 2019. Amino acid excretion from *Euglena gracilis* cells in dark and anaerobic conditions. *Algal Research*, *37*, 169-177.

Tossavainen, M., Ilyass, U., Ollilainen, V., Valkonen, K., Ojala, A., & Romantschuk, M. 2019. Influence of long term nitrogen limitation on lipid, protein and pigment production of *Euglena* gracilis in photoheterotrophic cultures. *PeerJ*, 7: e6624.

Toyama, T., Hanaoka, T., Yamada, K., Suzuki, K., Tanaka, Y., Morikawa, M., & Mori, K. 2019. Enhanced production of biomass and lipids by *Euglena* gracilis via co-culturing with a microalga growth-promoting bacterium, Emticicia sp. EG3. *Biotechnology for biofuels*, 12 (205): 1-12.

Udayan, A., Sirohi, R., Sreekumar, N., Sang, B. I., & Sim, S. J. 2022. Mass cultivation and harvesting of microalgal biomass: Current trends and future perspectives. *Bioresource technology*, 344, 126406.

Van der Spiegel, M., Noordam, M. Y., & Van der Fels-Klerx, H. J. 2013. Safety of novel protein sources (insects, microalgae, seaweed, duckweed, and rapeseed) and legislative aspects for their application in food and feed production. *Comprehensive reviews in food science and food safety*, 12(6): 662-678.

Van Wychen, S., & Laurens, L. M. L. 2017. Total carbohydrate content determination of microalgal biomass by acid hydrolysis followed by spectrophotometry or liquid chromatography. In *Biofuels from algae: methods and protocols* (pp. 191-202). New York, NY: Springer New York.

Varshney, P., Mikulic, P., Vonshak, A., Beardall, J., & Wangikar, P. P. 2015. Extremophilic micro-algae and their potential contribution in biotechnology. *Bioresource technology*, 184, 363-372.

Viegas, C. V., Hachemi, I., Mäki-Arvela, P., Smeds, A., Aho, A., Freitas, S. P., Gorgonio, C. M. S., Carbonetti, G., Peurla, M., Paranko, J., Kumar, N., Aranda, D. A. G., & Murzin, D. Y. 2015. Algal products beyond lipids: Comprehensive characterization of different products in direct saponification of green alga Chlorella sp. *Algal research*, 11: 156-164.

Villarruel-López, A., Ascencio, F., & Nuño, K. 2017. Microalgae, a potential natural functional food source–a review. *Polish journal of food and nutrition sciences*, 67(4): 251-263.

Waghmare, A.G., Salve, M.K., LeBlanc, J.G., & Arya, S.S. 2016. Concentration and characterization of microalgae proteins from *Chlorella pyrenoidosa*. *Bioresources and Bioprocessing*, 3(16): 1-11.

Wang, Y., Seppänen-Laakso, T., Rischer, H., & Wiebe, M. G. 2018. *Euglena gracilis* growth and cell composition under different temperature, light and trophic conditions. *PLoS One*, 13(4), e0195329.

Waters. 2012. *Acquity UPLC H-Class and H-Class Bio Amino Acid Analysis System*

Guide. Irlandia: Waters Corportation

Wu, M., Li, J., Qin, H., Lei, A., Zhu, H., Hu, Z., & Wang, J. 2020. Pre-concentration of microalga *Euglena* gracilis by alkalescent pH treatment and flocculation mechanism of Ca 3 (PO 4) 2, Mg 3 (PO 4) 2, and derivatives. *Biotechnology for biofuels*, 13: 1-13.

Wu, M., Wu, G., Lu, F., Wang, H., Lei, A., & Wang, J. 2022. Microalgal photoautotrophic growth induces pH decrease in the aquatic environment by acidic metabolites secretion. *Biotechnology for Biofuels and Bioproducts*, 15(1): 115.

Yaakob, M. A., Mohamed, R. M. S. R., Al-Gheethi, A., Aswathnarayana Gokare, R., & Ambati, R. R. 2021. Influence of nitrogen and phosphorus on microalgal growth, biomass, lipid, and fatty acid production: an overview. *Cells*, 10(2): 393.

Yamada, K., Kazama, Y., Mitra, S., Marukawa, Y., Arashida, R., Abe, T., Ishikawa, T.,& Suzuki, K. 2016. Production of a thermal stress resistant mutant *Euglena* gracilis strain using Fe-ion beam irradiation. *Bioscience, Biotechnology, and Biochemistry*, 80(8): 1650-1656.

Yan, K. T., Hie, I. S., Samaranayake, E. A., Chang, J. L., & Wang, A. Z. 2023. Medium and process optimizations for *Euglena* gracilis with high biomass production enriched with protein. *Algal Research*, 75: 103265.

Yang, L., Chen, J., Qin, S., Zeng, M., Jiang, Y., Hu, L., Xiao, P., Hao, W., Hu, Z., Lei, A., & Wang, J. 2018. Growth and lipid accumulation by different nutrients in the microalga Chlamydomonas reinhardtii. *Biotechnology for biofuels*, 11: 1-12.

Yoshioka, K., Suzuki, K., & Osanai, T. 2020. Effect of pH on metabolite excretion and cell morphology of *Euglena gracilis* under dark, anaerobic conditions. *Algal Research*, 51, 102084.

Zohir, W. F., Makhlof, M. E., Abdallah, A. M., & El-Sheekh, M. M. 2023. Algae Cultivation Systems. In *Value-added Products from Algae: Phycochemical Production and Applications* (pp. 11-41). Cham: Springer International Publishing.