



## DAFTAR PUSTAKA

- Akpınar-Bayizit, A., 2014. Fungal lipids: the biochemistry of lipid accumulation. *International Journal of Chemical Engineering and Applications*, 5(5), p.409.
- Alleman, T.L., McCormick, R.L., Christensen, E.D., Fioroni, G., Moriarty, K. and Yanowitz, J., 2016. *Biodiesel handling and use guide*. National Renewable Energy Lab.(NREL), Golden, CO (United States).
- Amanullah, A., Christensen, L.H., Hansen, K., Nienow, A.W. and Thomas, C.R., 2002. Dependence of morphology on agitation intensity in fed-batch cultures of *Aspergillus oryzae* and its implications for recombinant protein production. *Biotechnology and Bioengineering*, 77(7), pp.815-826.
- Bardhan, P., Gohain, M., Daimary, N., Kishor, S., Chattopadhyay, P., Gupta, K., Chaliha, C., Kalita, E., Deka, D., & Mandal, M. (2019). Microbial lipids from cellulolytic *oleaginous* fungus *Penicillium citrinum* PKB20 as a potential feedstock for biodiesel production. *Annals of Microbiology*, 69(11), 1135–1146.
- Carvalho, A.K.F., Bento, H.B., Rivaldi, J.D. and de Castro, H.F., 2018. Direct transesterification of *Mucor circinelloides* biomass for biodiesel production: effect of carbon sources on the accumulation of fungal lipids and biofuel properties. *Fuel*, 234, pp.789-796.
- Chan, L.G., Dias, F.F., Saarni, A., Cohen, J., Block, D., Taha, A.Y. and de Moura Bell, J.M., 2020. Scaling up the bioconversion of cheese whey permeate into fungal oil by *Mucor circinelloides*. *Journal of the American Oil Chemists' Society*, 97(7), pp.703-716.
- Chang, L., Lu, H., Chen, H., Tang, X., Zhao, J., Zhang, H., Chen, Y.Q. and Chen, W., 2021. Lipid metabolism research in *oleaginous* fungus *Mortierella alpina*: Current progress and future prospects. *Biotechnology Advances*, p.107794.
- Chindyastuti, A. & Ilmi, M. 2023. Produksi Biomassa dan Pelletisasi *Mucor irregularis* JR 1.1 dengan Penambahan Talc sebagai Mikropartikel. *Skripsi*. Universitas Gadjah Mada
- Deesuth, O., Laopaiboon, P., Laopaiboon, L., 2016. High ethanol production under optimal aeration conditions and *yeast* composition in a very high gravity fermentation from sweet sorghum juice by *Saccharomyces cerevisiae*. *Ind. Crops Prod.* 92, 263–270.
- Driouch, H., Hänsch, R., Wucherpfennig, T., Krull, R. and Wittmann, C., 2012. Improved enzyme production by bio-pellets of *Aspergillus niger*: Targeted morphology engineering using titanate microparticles. *Biotechnology and Bioengineering*, 109(2), pp.462-471.



- Dutta, A., Panchali, T., Khatun, A., Jarapala, S.R., Das, K., Ghosh, K., Chakrabarti, S. and Pradhan, S., 2023. Anti-cancer potentiality of linoelaidic acid isolated from marine Tapra fish oil (*Ophisthopterus tardoore*) via ROS generation and caspase activation on MCF-7 cell line. *Scientific Reports*, 13(1), p.14125.
- Fazili, A.B.A., Shah, A.M., Zan, X., Naz, T., Nosheen, S., Nazir, Y., Ullah, S., Zhang, H. and Song, Y., 2022. Mucor circinelloides: a model organism for *oleaginous* fungi and its potential applications in bioactive lipid production. *Microbial cell factories*, 21(1), pp.1-19.
- Gheni, S.A., Abdulaziz, Y.I. and Al-Dahhan, M.H., 2016. Effect of L/D ratio on phase holdup and bubble dynamics in slurry bubble column using optical fiber probe measurements. *International Journal of Chemical Reactor Engineering*, 14(2), pp.653-664.
- Goud, N. R., Neogi, U., & Saumya, R. (2007). Fungal Production of Omega-6 Fatty Acid: Gamma-Linolenic Acid. *International Journal of Biological Chemistry*, 1(2), 127–130.
- Haaland, P.D., 1989. Experimental Design in Biotechnology, first ed. CRC Press.
- Haura, A. & Ilmi, 2022. Isolasi dan Karakterisasi Fungi Mucorales *Oleaginous* dari Buah-Buahan Di Sleman, Daerah Istimewa Yogyakarta. *Skripsi*. Universitas Gadjah Mada
- Hurdeal, V.G., Gentekaki, E., Hyde, K.D., Nguyen, T.T. and Lee, H.B., 2021. Novel Mucor species (Mucoromycetes, Mucoraceae) from northern Thailand. *MycoKeys*, 84, p.57.
- Jin, M., Slininger, P.J., Dien, B.S., Waghmode, S., Moser, B.R., Orjuela, A., da Costa Sousa, L. and Balan, V., 2015. Microbial lipid-based lignocellulosic biorefinery: feasibility and challenges. *Trends in biotechnology*, 33(1), pp.43-54.
- Kamoun, O., Muralitharan, G., Belghith, H., Gargouri, A. and Trigui-Lahiani, H., 2019. Suitable carbon sources selection and ranking for biodiesel production by *oleaginous* *Mucor circinelloides* using multi-criteria analysis approach. *Fuel*, 257, p.116117.
- Khot, M., Katre, G., Zinjarde, S. and RaviKumar, A., 2018. Single Cell Oils (SCOs) of *oleaginous* fungi as a renewable feedstock: a biodiesel biorefinery approach. In *Fungal Biorefineries*. pp. 145-183.
- Khuri, A.I. and Mukhopadhyay, S., 2010. Response surface methodology. *Wiley Interdisciplinary Reviews: Computational Statistics*, 2(2), pp.128-149.
- Liao, W., Liu, Y. and Chen, S., 2007. Studying pellet formation of a filamentous fungus *Rhizopus oryzae* to enhance organic acid production. *Applied Biochemistry and Biotechnology*, 137(1), pp.689-701.
- Ling, J., Xu, Y., Lu, C., He, P., Chen, J., Zheng, L., Talawar, M.P., Xie, G. and Du, Q., 2019. Accelerated lipid production from distillery wastewater by



Rhodosporidium toruloides using an open-bubble-column reactor under non-aseptic conditions. *International Biodegradation & Biodegradation*, 143, p.104720.

Mudrončeková, S., Mazán, M., Nemčovič, M., & Šalamon, I. (2019). Entomopathogenic Fungus Species *Beauveria bassiana* (Bals.) and *Metarrhizium anisopliae* (Metsch.) Used as Mycoinsecticide Effective in Biological Control of *Ips typographus* (L.). *Journal of Microbiology, Biotechnology and Food Sciences*, 9(1), 2469–2472.

Montgomery, D.C., 1997. *Design and Analysis of Experiment*. Arizona State University Press.

Morin-Sardin, S., Nodet, P., Coton, E. and Jany, J.L., 2017. Mucor: A Janus-faced fungal genus with human health impact and industrial applications. *Fungal Biology Reviews*, 31(1), pp.12-32.

Niyas, M.M. and Shaija, A., 2022. Effect of repeated heating of coconut, sunflower, and palm oils on their fatty acid profiles, biodiesel properties and performance, combustion, and emission, characteristics of a diesel engine fueled with their biodiesel blends. *Fuel*, 328, p.125242.

Nili, S., Arshadi, M. and Yaghmaei, S., 2022. Fungal bioleaching of e-waste utilizing molasses as the carbon source in a bubble column bioreactor. *Journal of Environmental Management*, 307, p.114524.

Nsa, I.Y., Adeloye, G.B., Odunsi, A.A., Akinyemi, B.T., Tubonemi, J.T., Saliu, M.O. and Adepoju, J.P., 2020. FAMEs profile of oil produced by *oleaginous* fungi isolated from fermented beverage wastewaters and soil. *Nigerian Journal of Biotechnology*, 37(1), pp.138-149.

Nouri, H., Moghimi, H., Rad, M.N., Ostovar, M., Mehr, S.S.F., Ghanaatian, F. and Talebi, A.F., 2019. Enhanced growth and lipid production in *oleaginous* fungus, *Sarocladium kiliense* ADH17: Study on fatty acid profiling and prediction of biodiesel properties. *Renewable Energy*, 135, pp.10-20.

Oliver, L., Dietrich, T., Marañón, I., Villarán, M.C. and Barrio, R.J., 2020. Producing omega-3 polyunsaturated fatty acids: A review of sustainable sources and future trends for the EPA and DHA market. *Resources*, 9(12), p.148.

Onifade, M., Genc, B., 2020. A review of research on spontaneous combustion of coal. *Int. J. Min. Sci. Technol.* 30, 303–311

Papagianni, M. Fungal morphology and metabolite production in submerged mycelial processes. *Biotechnol. Adv.* 2004, 22, 189–259.

Papanikolaou, S., Rontou, M., Belka, A., Athenaki, M., Gardeli, C., Mallouchos, A., Kalantzi, O., Koutinas, A.A., Kookos, I.K., Zeng, A.P. and Aggelis, G., 2017. Conversion of biodiesel-derived glycerol into biotechnological products of industrial significance by yeast and fungal strains. *Engineering in Life Sciences*, 17(3), pp.262-281.



- Peace, G. S. 1993. *Taguchi Methods A Hands-on Approach*. Addison Wesley Publishing Company. Canada.
- Porcel, E.M., Casas Lopez, J.L., Sanchez Perez, J.A. and Chisti, Y., 2007. Enhanced production of lovastatin in a bubble column by *Aspergillus terreus* using a two-stage feeding strategy. *Journal of Chemical Technology & Biotechnology: International Research in Process, Environmental & Clean Technology*, 82(1), pp.58-64.
- Patel, A., Karageorgou, D., Rova, E., Katapodis, P., Rova, U., Christakopoulos, P., & Matsakas, L. (2020). An Overview of Potential *Oleaginous* Microorganisms and Their Role in Biodiesel and Omega-3 Fatty Acid -Based Industries. *Microorganisms*, 8(3), 434.
- Qiao, W., Tao, J., Luo, Y., Tang, T., Miao, J., & Yang, Q. (2018). Microbial oil production from solid-state fermentation by a newly isolated *oleaginous* fungus, *Mucor circinelloides* Q531 from mulberry branches. *Royal Society Open Science*, 5(11), 180551.
- Ren, X.D., Xu, Y.J., Zeng, X., Chen, X.S., Tang, L. and Mao, Z.G., 2015. Microparticle-enhanced production of  $\epsilon$ -poly-l-lysine in fed-batch fermentation. *Rsc Advances*, 5(100), pp.82138-82143.
- Shu, S., Vidal, D., Bertrand, F. and Chaouki, J., 2019. Multiscale multiphase phenomena in *Bubble Column Reactors*: A review. *Renewable Energy*, 141, pp.613-631.
- Sitepu, I.R., Sestric, R., Ignatia, L., Levin, D., German, J.B., Gillies, L.A., Almada, L.A. and Boundy-Mills, K.L., 2013. Manipulation of culture conditions alters lipid content and fatty acid profiles of a wide variety of known and new *oleaginous yeast* species. *Bioresource technology*, 144, pp.360-369.
- Sitepu, I. R., Garay, L. A., Sestric, R., Levin, D., Block, D. E., German, J. B., & Boundy-Mills, K. L. (2014). *Oleaginous yeasts* for biodiesel: Current and future trends in biology and production. *Biotechnology Advances*, 32(7), 1336–1360.
- Somashekar, D., Venkateshwaran, G., Sambaiah, K., & Lokesh, B. (2003). Effect of culture conditions on lipid and gamma-linolenic acid production by mucoraceous fungi. *Process Biochemistry*, 38(12), 1719–1724.
- Svensson, S.E., Bucuricova, L., Ferreira, J.A., Souza Filho, P.F., Taherzadeh, M.J. and Zamani, A., 2021. Valorization of bread waste to a fiber-and protein-rich fungal biomass. *Fermentation*, 7(2), p.91.
- Trzaska, W.J., Correia, J.N., Villegas, M.T., May, R.C. and Voelz, K., 2015. pH manipulation as a novel strategy for treating mucormycosis. *Antimicrobial Agents and Chemotherapy*, 59(11), pp.6968-6974.
- Walther, G., Wagner, L. and Kurzai, O., 2019. Updates on the taxonomy of Mucorales with an emphasis on clinically important taxa. *Journal of fungi*, 5(4), p.106.



- Wang, Z., Guo, H., Zhou, T., Cheng, Z. and Huang, Z., 2022. Influence of Sparger Type on Mass Transfer in a Pilot-Scale Internal Loop Airlift Reactor. *Processes*, 10(2), p.429.
- Wei, C., Wu, B., Li, G., Chen, K., Jiang, M. and Ouyang, P., 2014. Comparison of the hydrodynamics and mass transfer characteristics in internal-loop airlift bioreactors utilizing either a novel membrane-tube sparger or perforated plate sparger. *Bioprocess and biosystems engineering*, 37(11), pp.2289
- Widayat, W., Abdullah, A. and Hadi, M., 2011. Perpindahan Massa Gas–Cair Dalam Proses Fermentasi Asam Sitrat Dengan Bioreaktor Bergelumbung. *Momentum*, 7(2).
- Xia, C., Zhang, J., Zhang, W. and Hu, B., 2011. A new cultivation method for microbial oil production: cell pelletization and lipid accumulation by *Mucor circinelloides*. *Biotechnology for biofuels*, 4(1), pp.1-10.
- Yang, Y., Heidari, F. and Hu, B., 2019. Fungi (Mold)-based lipid production. *Microbial Lipid Production*, pp.51-89.
- Yen, H.W., Chang, J.T., 2015. Growth of *oleaginous Rhodotorula glutinis* in an internal loop airlift bioreactor by using lignocellulosic biomass hydrolysate as the carbon source. *J. Biosci. Bioeng.* 119, 580–584.
- Zhang, X.Y., Li, B., Huang, B.C., Wang, F.B., Zhang, Y.Q., Zhao, S.G., Li, M., Wang, H.Y., Yu, X.J., Liu, X.Y. and Jiang, J., 2022. Production, Biosynthesis, and Commercial Applications of Fatty Acids From *Oleaginous* Fungi. *Frontiers in Nutrition*, 9.