

## DAFTAR PUSTAKA

- A E Ghaly, N S Mahmoud, M M Ibrahim, E A Mostafa, E N Abdelrahman, R H Emam, M. A. K. and M. H., & Hatem. (2021). Greywater Sources, Characteristics, Utilization and Management Guidelines: a review. *Advance in Environmental Waste Management & Recycling*, 4(2). <https://doi.org/10.33140/aewmr.04.02.08>
- Agbewornu, K. C. D., Adyel, T. M., & Zhai, J. (2021). Optimizing nitrogen removal in a hybrid oxidation ditch. *Journal of Environmental Chemical Engineering*, 9(4), 105443. <https://doi.org/10.1016/j.jece.2021.105443>
- Alramthi, S. M., Ali, G. H., Elthagafi, A. M., Eldosari, S. H., Zhu, B. K., & Safaa, H. M. (2022). Oxidation Ditches for Recycling and Reusing Wastewater Are Critical for Long-Term Sustainability—A Case Study. *Sustainability (Switzerland)*, 14(24). <https://doi.org/10.3390/su142416737>
- AlSayed, A., Soliman, M., & ElDyasti, A. (2023). Mechanistic assessment reveals the significance of HRT and MLSS concentration in balancing carbon diversion and removal in the A-stage process. *Journal of Environmental Management*, 334(December 2022), 117527. <https://doi.org/10.1016/j.jenvman.2023.117527>
- Arifin, Z. S., Alisi, S., & Zaeni, A. (2025). Indonesian Journal of Chemical Science Aerobic Degradation of Linear Alkylbenzene Sulfonate in Activated Sludge with the Addition of Glucose, KNO<sub>3</sub>, and KH<sub>2</sub>PO<sub>4</sub>. *J. Chem. Sci*, 14(2). <http://journal.unnes.ac.id/sju/index.php/ijcs>
- Biswas, S., Nayak, A. K., & Pal, A. (2024). Surfactant-influenced biosorption as a sustainable and effective way for the eradication of environmental pollutants: a review. *RSC Sustainability*, 3(1), 112–133. <https://doi.org/10.1039/d4su00574k>
- C Lu, X He, B Zhang, J Wang, J Kidmose, J. J. (2022). *Comparison of Numerical Methods in Simulating*.
- Daibes, R. N., & Alhaddad, G. D. (2026). Analysis of dissolved oxygen distribution

- effects on nitrogen removal efficiency in oxidation ditch systems. *Scientific Reports*, 16(1), 1–10. <https://doi.org/10.1038/s41598-025-31648-0> dos
- Santos, A. J., Shen, H., Lanza, M. R. V., Li, Q., & Garcia-Segura, S. (2024). Electrochemical oxidation of surfactants as an essential step to enable greywater reuse. *Environmental Technology and Innovation*, 34(December 2023), 103563. <https://doi.org/10.1016/j.eti.2024.103563>
- Eko Supriadi, & Ailsya Nadya Rizki. (2024). Influence Decrease in Chemical Oxygen Demand (COD) Against Biogas Quality and Production. *International Journal of Mathematics and Science Education*, 1(4), 09–15. <https://doi.org/10.62951/ijmse.v1i4.94>
- Faradila, R., Huboyo, H. S., & Syakur, A. (2023). Rekayasa Pengolahan Air Limbah Domestik Dengan Metode Kombinasi Filtrasi Untuk Menurunkan Tingkat Polutan Air. *Jurnal Kesehatan Lingkungan Indonesia*, 22(3), 342–350. <https://doi.org/10.14710/jkli.22.3.342-350>
- Ghavipankeh, F., Yavari, M., Beygzadeh, M., & Sheikholeslami, Z. (2022). Facile fabrication of flexible super hydrophilic activated carbon sponge for continuous capillary adsorption. *Journal of Water Process Engineering*, 49(June), 102945. <https://doi.org/10.1016/j.jwpe.2022.102945>
- Gogina, E., & Gulshin, I. (2021). Characteristics of low-oxygen oxidation ditch with improved nitrogen removal. *Water (Switzerland)*, 13(24). <https://doi.org/10.3390/w13243603>
- Hafiza, N., Abdillah, A., Islami, B. B., & Priadi, C. R. (2019). Preliminary Analysis of Blackwater and Greywater Characteristics in the Jakarta Greater Region Area. *IOP Conference Series: Earth and Environmental Science*, 366(1). <https://doi.org/10.1088/1755-1315/366/1/012029>
- Islam, M. S., Baini, R., Tanjong, S. J., Said, M. A. M., & Joy, E. J. (2018). Effects of hydraulic retention time and solid retention time of POME on COD removal efficiency. *International Journal of Automotive and Mechanical Engineering*, 15(2), 5347–5355. <https://doi.org/10.15282/ijame.15.2.2018.14.0411>

- Ji, X., Zhu, M., Li, M., Wang, N., Li, M., Song, L., & Shan, R. (2023). Adsorption and Degradation of Organics in Wastewater on Municipal Sludge. *ACS Omega*, 8(37), 33349–33357. <https://doi.org/10.1021/acsomega.3c02765>
- Kokina, K., Mezule, L., Gruskevica, K., Neilands, R., Golovko, K., & Juhna, T. (2022). Impact of Rapid pH Changes on Activated Sludge Process. *Applied Sciences (Switzerland)*, 12(11). <https://doi.org/10.3390/app12115754>
- Koul, B., Yadav, D., Singh, S., Kumar, M., & Song, M. (2022). Insights into the Domestic Wastewater Treatment (DWWT) Regimes: A Review. *Water (Switzerland)*, 14(21). <https://doi.org/10.3390/w14213542>
- Kruszelnicka, I., Ginter-Kramarczyk, D., Wyrwas, B., & Idkowiak, J. (2019). Evaluation of surfactant removal efficiency in selected domestic wastewater treatment plants in Poland 09 Engineering 0907 Environmental Engineering. *Journal of Environmental Health Science and Engineering*, 17(2), 257–264. <https://doi.org/10.1007/s40201-019-00387-6>
- Li, J., & Xue, E. (2022). The Quest for Sustainable Graduate Education Development: Narrative Inquiry of Early Doctoral Students in China's World-Class Disciplines. *Sustainability (Switzerland)*, 14(18). <https://doi.org/10.3390/su141811564>
- Liao, G., Qing, X., Lai, X., Liang, Z., Jiang, S., Xie, Z., Fang, J., Lan, B., Chen, W., Wang, J., & Li, L. (2024). Efficient treatment of surfactant containing wastewater by photocatalytic ozonation with BiPO<sub>4</sub> nanorods. *Chemosphere*, 346(September 2023), 140594. <https://doi.org/10.1016/j.chemosphere.2023.140594>
- Liu, J., Cui, K., Yan, Z., & Yang, H. (2025). Comprehensive Analysis of Oxidation Ditch and High-Efficiency Multi-Cycle A<sub>2</sub>/O Processes Performance in Urban Wastewater Treatment. *Water (Switzerland)*, 17(5), 1–11. <https://doi.org/10.3390/w17050713>
- Liu, Y., Qiao, S., & Li, D. (2024). Computational fluid dynamics for the influence of cross-sectional configuration on the hydraulic characteristics in an oxidation ditch. *Desalination and Water Treatment*, 319(April), 100498. <https://doi.org/10.1016/j.dwt.2024.100498>

- Maliga, I., Asdak, C., & Winata, E. Y. (2021). Air Limbah Domestik Greywater Menggunakan Teknologi Lahan Basah Buatan Sustainability Analysis of Greywater Domestic Waste Water Pollution. *Jurnal Sumber Daya Air*, 17(1), 13–24.
- Marek, K., Pawęska, K., Bawiec, A., & Baran, J. (2021). Sewage Flow Conditions in a Hydroponic Lagoon in Terms of Quality of Treated Wastewater. *Water, Air, and Soil Pollution*, 232(7), 1–9. <https://doi.org/10.1007/s11270-021-05235-8>
- Metcalf \_ Eddy - Wastewater Engineering - Treatment and Reuse (4th edition) (2004).pdf.crdownload. (n.d.).
- Miao, R., Cui, H., Shi, Y., Guo, B., Chen, Y., Yang, Z., Chang, C., & Xu, W. (2025). Numerical simulation of the two-phase flow and pollutant concentration changes in an oxidation ditch: A computational fluid dynamics and activated sludge model 3 approach. *Desalination and Water Treatment*, 322(February). <https://doi.org/10.1016/j.dwt.2025.101106>
- Mitru, D., Nechifor, G., Gheorghe, S., Banciu, A. R., Ionescu, L., Stoica, C., Ionica, D. L., & Lucaciu, I. E. (2022). Removal and Effects of Surfactants in Activated Sludge System. 1, 100–107.
- Muhaimin, M., Prayoga, R. A., & Eniati, E. (2022). Determination of Chemical Oxygen Demand (COD) Concentration in Domestic Wastewater Using UV- Vis Spectrophotometry Method Based On The Effect Of Reflux Time And Preservation Time. *Stannum : Jurnal Sains Dan Terapan Kimia*, 4(1), 13–18. <https://doi.org/10.33019/jstk.v4i1.2866>
- Muloiwa, M., Zvinowanda, C., & Sibiya, I. V. (2024). The effect of microbes and dissolved oxygen concentration on inorganic and organic substances elimination in a climate changing environment: The aerobic bioreactor. *Environmental Challenges*, 17(July), 101021. <https://doi.org/10.1016/j.envc.2024.101021>
- Nasrullah, Z., & Rahmayanti, A. (2024). Eksploitasi Efektivitas Pengolahan Air Limbah Domestik: Pendekatan Teknologi Ramah Lingkungan. *Kptl*, 1(1) 36–45. <https://journal.unusida.ac.id/index.php/kptl/>

- Nurhidayanti, N., Ardiatma, D., & Tarnita, T. (2021). Studi Pengolahan Limbah Greywater Domestik menggunakan Sistem Hidroponik dengan Filter Ampas Kopi. *Jurnal Tekno Insentif*, 15(1), 15–29. <https://doi.org/10.36787/jti.v15i1.394>
- Rusdianto, Susanti, Tri Kusmita, Liyana Aryanto, Talitha, M. (2023). Analisis Uji Chemical Oxygen Demand (COD) pada Air Limbah. *Jurnal Riset Fisika Indonesia*, 3(2), 26–31. <https://journal.ubb.ac.id/jrfi/article/view/3553>
- Wang, S. P., Yu, J. J., & Ma, H. J. (2021). Parameters to characterize the internal recirculation of an oxidation ditch. *Water SA*, 47(2), 272–275. <https://doi.org/10.17159/wsa/2021.v47.i2.10923>
- Wati, S. S., & RachmantAnis, N., Mohd, A., Saidon, N. Z., & Nabila, N. N. (2025). *Comprehensive Study of Effective Microorganisms in Wastewater Treatment*. 6(4), 99–103.
- Chen, K. L., Hou, C. W., Liu, C. W., & Wang, H. Y. (2025). Improving the operational performance of a wastewater treatment plant by using GPS - X simulations : a case study in northern Taiwan. *Sustainable Environment Research*, 1, 1–12. <https://doi.org/10.1186/s42834-025-00245-1>
- Ma, S., Ding, L., Huang, H., Geng, J., Xu, K., & Zhang, Y. (2016). *Effects of DO levels on surface force , cell membrane properties and microbial community dynamics of activated sludge*. <https://doi.org/10.1016/j.biortech.2016.04.132>
- Tabraiz, S., Hassan, S., Abbas, A., & Nasreen, S. (2018). Effect of effluent and sludge recirculation ratios on integrated fixed films A2O system nutrients removal efficiency treating sewage. *Desalination and Water Treatment*, 114, 120–127. <https://doi.org/10.5004/dwt.2018.22356>
- Yadav, T. C., Khardenavis, A. A., & Kapley, A. (2014). Bioresource Technology Shifts in microbial community in response to dissolved oxygen levels in activated sludge. *Bioresource Technology*, 165, 257–264. <https://doi.org/10.1016/j.biortech.2014.03.007>
- Anis, N., Mohd, A., Saidon, N. Z., & Nabila, N. N. (2025). *Comprehensive Study of Effective Microorganisms in Wastewater Treatment*. 6(4), 99–103.
- Chen, K. L., Hou, C. W., Liu, C. W., & Wang, H. Y. (2025). Improving the

- operational performance of a wastewater treatment plant by using GPS - X simulations : a case study in northern Taiwan. *Sustainable Environment Research*, 1, 1–12. <https://doi.org/10.1186/s42834-025-00245-1>
- Ma, S., Ding, L., Huang, H., Geng, J., Xu, K., & Zhang, Y. (2016). *Effects of DO levels on surface force , cell membrane properties and microbial community dynamics of activated sludge*. <https://doi.org/10.1016/j.biortech.2016.04.132>
- Tabraiz, S., Hassan, S., Abbas, A., & Nasreen, S. (2018). Effect of effluent and sludge recirculation ratios on integrated fixed films A2O system nutrients removal efficiency treating sewage. *Desalination and Water Treatment*, 114, 120–127. <https://doi.org/10.5004/dwt.2018.22356>
- Yadav, T. C., Khardenavis, A. A., & Kapley, A. (2014). Bioresource Technology Shifts in microbial community in response to dissolved oxygen levels in activated sludge. *Bioresource Technology*, 165, 257–264. <https://doi.org/10.1016/j.biortech.2014.03.007>
- Anis, N., Mohd, A., Saidon, N. Z., & Nabila, N. N. (2025). *Comprehensive Study of Effective Microorganisms in Wastewater Treatment*. 6(4), 99–103.
- Chen, K. L., Hou, C. W., Liu, C. W., & Wang, H. Y. (2025). Improving the operational performance of a wastewater treatment plant by using GPS - X simulations : a case study in northern Taiwan. *Sustainable Environment Research*, 1, 1–12. <https://doi.org/10.1186/s42834-025-00245-1>
- Ma, S., Ding, L., Huang, H., Geng, J., Xu, K., & Zhang, Y. (2016). *Effects of DO levels on surface force , cell membrane properties and microbial community dynamics of activated sludge*. <https://doi.org/10.1016/j.biortech.2016.04.132>
- Tabraiz, S., Hassan, S., Abbas, A., & Nasreen, S. (2018). Effect of effluent and sludge recirculation ratios on integrated fixed films A2O system nutrients removal efficiency treating sewage. *Desalination and Water Treatment*, 114, 120–127. <https://doi.org/10.5004/dwt.2018.22356>
- Yadav, T. C., Khardenavis, A. A., & Kapley, A. (2014). Bioresource Technology Shifts in microbial community in response to dissolved oxygen levels in activated sludge. *Bioresource Technology*, 165, 257–264. <https://doi.org/10.1016/j.biortech.2014.03.007>

- o, T. A. (2025). Pemantauan Parameter Fisik dan Aktivitas Mikroorganisme Aerob di Unit Oxidation Ditch Instalasi Pengolahan Lumpur Tinja. *Jurnal Serambi Engineering*, *X*(3), 14249–14258.
- Wei, T., Ban, Z., Ke, X., Chen, A., Guan, X., Gan, H., Pan, J., Li, Z., Wei, C., Qiu, G., Wu, H., & Wei, C. (2023). A combined process model for wastewater treatment based on hydraulic retention time and toxicity inhibition. *Chemosphere*, *329*(December 2022), 138660. <https://doi.org/10.1016/j.chemosphere.2023.138660>
- Wu, S., Tao, S., Ye, X., Wang, A., Liu, Z., Ran, C., Liang, H., Li, H., Yang, Y., Zhang, W., & Liu, J. T. (2023). Characteristics of Sedimentary Organic Matter in Tidal Estuaries: A Case Study from the Minjiang River Estuary. *Water (Switzerland)*, *15*(9), 1–23. <https://doi.org/10.3390/w15091682>
- Yang, Y., Xu, H., Wang, X., Zhang, M., Liu, W., Zhu, Y., & Liu, Z. (2022). Experimental Study on Anti-Scour Property and Erosion Resistance of 3D Mat Materials for Slope Protection in Waterway Engineering. *Water (Switzerland)*, *14*(9). <https://doi.org/10.3390/w14091392>
- Yao, D., Osaka, T., Minami, Y., Honda, M., & Hanamoto, S. (2025). Removal and fate of quaternary ammonium compounds in sewage treatment plants with conventional activated sludge and oxidation ditch processes. *Journal of Environmental Chemical Engineering*, *13*(4), 117259.