

## DAFTAR PUSTAKA

- Arifin, S. N. H., Radin Mohamed, R. M. S., Ismail, N. R., Al-Gheethi, A., & Bakar, S. A. (2020). Effects of direct discharge of domestic greywater to nearby water body. *Materials Today: Proceedings*, 31(2020), A126–A136. <https://doi.org/10.1016/j.matpr.2021.01.038>
- Asa P.(2020). Evaluasi Efektivitas Kinerja Bioreaktor Skala Rumah Tangga dengan Aerasi Menggunakan *Microbubble Generator* untuk Penguraian Bahan Organik dalam *Grey Water*. Tesis. Departemen Teknik Kimia. Universitas Gadjah Mada
- Bengtson, H. H. (2019). *Biological Wastewater Treatment Processes I: Activated Sludge Credit: 2 PDH*. 877. <http://www.bcuu.org/index.asp?SEC=B72FCC01-8879-4FC8-BA9C->
- Bugge, T. v., Jørgensen, M. K., Christensen, M. L., & Keiding, K. (2012). Modeling *cake* buildup under TMP-step filtration in a membrane bioreactor: *Cake* compressibility is significant. *Water Research*, 46(14), 4330–4338. <https://doi.org/10.1016/j.watres.2012.06.015>
- Burako, M. V. (2018). Proyeksi Kebutuhan Air Bersih Pada Tahun 2021 di Kota Pulang Pisau Menggunakan Metode Aritmatik. *Media Ilmiah Teknik Sipil*, 6(2), 79–84. <https://doi.org/10.33084/mits.v6i2.254>
- Capodaglio, A. G., Callegari, A., Cecconet, D., & Molognoni, D. (2017). Sustainability of decentralized wastewater treatment technologies. *Water Practice and Technology*, 12(2), 463–477. <https://doi.org/10.2166/wpt.2017.055>
- Chang, I. S., & Kim, S. N. (2005). Wastewater treatment using membrane filtration - Effect of biosolids concentration on *cake* resistance. *Process Biochemistry*, 40(3–4), 1307–1314. <https://doi.org/10.1016/j.procbio.2004.06.019>
- Cheng, H., Zhu, Q., & Xing, Z. (2019). Adsorption of ammonia nitrogen in low temperature domestic wastewater by modification bentonite. *Journal of Cleaner Production*, 233, 720–730. <https://doi.org/10.1016/j.jclepro.2019.06.079>
- Chimuca, J. F. J., de Sousa, J. T., Lopes, W. S., Leite, V. D., & do Canto, C. S. A. (2020). Decentralized treatment of domestic sewage in dynamic membrane bioreactor. *Desalination and Water Treatment*, 197, 76–89. <https://doi.org/10.5004/dwt.2020.25981>
- Chu, L., & Li, S. (2006). Filtration capability and operational characteristics of dynamic membrane bioreactor for municipal wastewater treatment. *Separation and Purification Technology*, 51(2), 173–179. <https://doi.org/10.1016/j.seppur.2006.01.009>
- Deowan, S. A., Bouhadjar, S. I., & Hoinkis, J. (2015). Membrane bioreactors for water treatment. Dalam *Advances in Membrane Technologies for Water Treatment: Materials, Processes and Applications*. Elsevier Ltd. <https://doi.org/10.1016/B978-1-78242-121-4.00005-8>
- Ding, A., Liang, H., Li, G., Szivak, I., Traber, J., & Pronk, W. (2017). A low energy gravity-driven membrane bioreactor system for grey water treatment: Permeability and removal performance of organics. *Journal of Membrane Science*, 542, 408–417. <https://doi.org/10.1016/j.memsci.2017.08.037>

- Eraknumen, & Agbontalor, A. (2007). Phytoremediation : an environmentally sound technology for pollution prevention, control and remediation in developing countries. *Educational Research and Review*, 2(July), 151–156.
- Ersahin, M. E., Ozgun, H., Dereli, R. K., Ozturk, I., Roest, K., & van Lier, J. B. (2012a). A review on dynamic membrane filtration: Materials, applications and future perspectives. *Bioresource Technology*, 122, 196–206. <https://doi.org/10.1016/j.biortech.2012.03.086>
- Ersahin, M. E., Ozgun, H., Dereli, R. K., Ozturk, I., Roest, K., & van Lier, J. B. (2012b). A review on dynamic membrane filtration: Materials, applications and future perspectives. *Bioresource Technology*, 122, 196–206. <https://doi.org/10.1016/j.biortech.2012.03.086>
- Fan, B., & Huang, X. (2002). Characteristics of a self-forming dynamic membrane coupled with a bioreactor for municipal wastewater treatment. *Environmental Science and Technology*, 36(23), 5245–5251. <https://doi.org/10.1021/es025789n>
- Fuchs, W., Resch, C., Kernstock, M., Mayer, M., Schoeberl, P., & Braun, R. (2005a). Influence of operational conditions on the performance of a mesh filter activated sludge process. *Water Research*, 39(5), 803–810. <https://doi.org/10.1016/j.watres.2004.12.001>
- Fuchs, W., Resch, C., Kernstock, M., Mayer, M., Schoeberl, P., & Braun, R. (2005b). Influence of operational conditions on the performance of a mesh filter activated sludge process. *Water Research*, 39(5), 803–810. <https://doi.org/10.1016/j.watres.2004.12.001>
- Ghaffour, N., & Qamar, A. (2020). Membrane fouling quantification by specific *cake* resistance and flux enhancement using helical cleaners. *Separation and Purification Technology*, 239. <https://doi.org/10.1016/j.seppur.2020.116587>
- Hu, Y., Wang, X. C., Tian, W., Ngo, H. H., & Chen, R. (2016). Towards stable operation of a dynamic membrane bioreactor (DMBR): Operational process, behavior and retention effect of dynamic membrane. *Journal of Membrane Science*, 498, 20–29. <https://doi.org/10.1016/j.memsci.2015.10.009>
- Isik, O., Batyrow, M., Abdelrahman, A. M., Orman, I., Ozgun, H., Ersahin, M. E., Pasaoglu, M. E., Demir, I., & Koyuncu, I. (2021). Dynamic membrane bioreactor performance for treatment of municipal wastewaters at different sludge concentrations. *Environmental Technology and Innovation*, 22, 101452. <https://doi.org/10.1016/j.eti.2021.101452>
- Khan, S. J., Visvanathan, C., & Jegatheesan, V. (2009). Prediction of membrane fouling in MBR systems using empirically estimated specific *cake* resistance. *Bioresource Technology*, 100(23), 6133–6136. <https://doi.org/10.1016/j.biortech.2009.06.037>
- Khouni, I., Louhichi, G., & Ghrabi, A. (2020). Assessing the performances of an aerobic membrane bioreactor for textile wastewater treatment: Influence of dye mass loading rate and biomass concentration. *Process Safety and Environmental Protection*, 135, 364–382. <https://doi.org/10.1016/j.psep.2020.01.011>
- Lee, S., & Kim, M. H. (2013). Fouling characteristics in pure oxygen MBR process according to MLSS concentrations and COD loadings. *Journal of Membrane Science*, 428, 323–330. <https://doi.org/10.1016/j.memsci.2012.11.011>
- Li, F., Wichmann, K., & Otterpohl, R. (2009). Review of the technological approaches for grey water treatment and reuses. Dalam *Science of the Total Environment* (Vol. 407, Nomor 11,

- hlm. 3439–3449). <https://doi.org/10.1016/j.scitotenv.2009.02.004>
- Li, W. W., Sheng, G. P., Wang, Y. K., Liu, X. W., Xu, J., & Yu, H. Q. (2011). Filtration behaviors and biocake formation mechanism of mesh filters used in membrane bioreactors. *Separation and Purification Technology*, 81(3), 472–479. <https://doi.org/10.1016/j.seppur.2011.08.026>
- Listiarini, K., Sun, D. D., & Leckie, J. O. (2009). Organic fouling of nanofiltration membranes: Evaluating the effects of humic acid, calcium, alum coagulant and their combinations on the specific cake resistance. *Journal of Membrane Science*, 332(1–2), 56–62. <https://doi.org/10.1016/j.memsci.2009.01.037>
- Liu, S., Gunawan, C., Barraud, N., Rice, S. A., Harry, E. J., & Amal, R. (2016). Understanding, monitoring, and controlling biofilm growth in drinking water distribution systems. Dalam *Environmental Science and Technology* (Vol. 50, Nomor 17, hlm. 8954–8976). American Chemical Society. <https://doi.org/10.1021/acs.est.6b00835>
- Marbelia, L. (2017). *Micro- and ultrafiltration membranes for wastewater treatment and microalgae filtration: influence of membrane properties and operational conditions on membrane fouling*. March 2017.
- Marbelia, L., Bilad, M. R., Bertels, N., Laine, C., & Vankelecom, I. F. J. (2016). Ribbed PVC-silica mixed matrix membranes for membrane bioreactors. *Journal of Membrane Science*, 498, 315–323. <https://doi.org/10.1016/j.memsci.2015.10.017>
- Metcalf & Eddy 2003. (t.t.). *Wastewater Engineering Treatment and Resource Recovery*.
- Mohan, S. M., & Nagalakshmi, S. (2020). A review on aerobic self-forming dynamic membrane bioreactor: Formation, performance, fouling and cleaning. *Journal of Water Process Engineering*, 37(May), 101541. <https://doi.org/10.1016/j.jwpe.2020.101541>
- Ollos, P. J., Huck, P. M., & Slawson, R. M. (2003). Factors affecting biofilm accumulation in model distribution systems. *Journal / American Water Works Association*, 95(1), 87–97. <https://doi.org/10.1002/j.1551-8833.2003.tb10272.x>
- Pollice, A., & Vergine, P. (2020). Self-forming dynamic membrane bioreactors (SFD MBR) for wastewater treatment: Principles and applications. Dalam *Current Developments in Biotechnology and Bioengineering: Advanced Membrane Separation Processes for Sustainable Water and Wastewater Management - Case Studies and Sustainability Analysis*. Elsevier B.V. <https://doi.org/10.1016/B978-0-12-819854-4.00010-1>
- Poostchi, A. A., Mehrnia, M. R., Rezvani, F., & Sarrafzadeh, M. H. (2012). Low-cost monofilament mesh filter used in membrane bioreactor process: Filtration characteristics and resistance analysis. *Desalination*, 286, 429–435. <https://doi.org/10.1016/j.desal.2011.12.002>
- Putri, R. F. (2017). *Penyiapan Pencucian Dan Aplikasi Membran Bioreaktor Pada Pengolahan Air Limbah Domestik*. 111. <http://repository.its.ac.id/2030/>
- Rezvani, F., Mehrnia, M. R., & Poostchi, A. A. (2014). Optimal operating strategies of SFDM formation for MBR application. *Separation and Purification Technology*, 124, 124–133. <https://doi.org/10.1016/j.seppur.2014.01.028>
- Said, N. I. (2006). Domestic Wastewater Treatment in DKI Jakarta (in Bahasa Indonesia). *Jai*, 2(2), 169–177. <https://www.neliti.com/id/>
- Schuler Kargi. (t.t.). *Michael L. Shuler, Fikret Kargi - Bioprocess Engineering\_ Basic Concepts*



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Evaluasi Mesh Filter Bioreactor (MFBR) Berbasis Gravitasi untuk Pengolahan Low-Strength  
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RIZKI DASA MARTINA U, Lisendra Marbelia, S.T., M.Sc., Ph.D dan Wiratni, S.T., M.T., Ph.D., IPM  
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Prentice Hall (2001).

- Shaikh, I. N., & Ahammed, M. M. (2020). Quantity and quality characteristics of greywater: A review. Dalam *Journal of Environmental Management* (Vol. 261). Academic Press. <https://doi.org/10.1016/j.jenvman.2020.110266>
- Tusiime, A., Solihu, H., Sekasi, J., & Mutanda, H. E. (2022). Performance of lab-scale filtration system for grey water treatment and reuse. *Environmental Challenges*, 9. <https://doi.org/10.1016/j.envc.2022.100641>
- van der KOOIJ, D., VISSER, A., & HIJNEN, W. A. M. (1982). DETERMINING THE CONCENTRATION OF EASILY ASSIMILABLE ORGANICCARBON IN DRINKING WATER. *J AM WATER WORKS ASSOC*, V 74(N 10), 540–545. <https://doi.org/10.1002/j.1551-8833.1982.tb05000.x>
- van Veen, H. W. (1997). Phosphate transport in prokaryotes: molecules, mediators and mechanisms. Dalam *Antonie van Leeuwenhoek* (Vol. 72). Kluwer Academic Publishers.
- Wang, J., Wu, Y., Yang, Z., Guo, H., Cao, B., & Tang, C. Y. (2017). A novel gravity-driven nanofibrous membrane for point-of-use water disinfection: Polydopamine-induced in situ silver incorporation. *Scientific Reports*, 7(1), 3–10. <https://doi.org/10.1038/s41598-017-02452-2>
- Wang, Y. K., Sheng, G. P., Li, W. W., & Yu, H. Q. (2012a). A pilot investigation into membrane bioreactor using mesh filter for treating low-strength municipal wastewater. *Bioresource Technology*, 122, 17–21. <https://doi.org/10.1016/j.biortech.2012.04.020>
- Wang, Y. K., Sheng, G. P., Li, W. W., & Yu, H. Q. (2012b). A pilot investigation into membrane bioreactor using mesh filter for treating low-strength municipal wastewater. *Bioresource Technology*, 122, 17–21. <https://doi.org/10.1016/j.biortech.2012.04.020>
- Wu, B. (2019). Membrane-based technology in greywater reclamation: A review. Dalam *Science of the Total Environment* (Vol. 656, hlm. 184–200). Elsevier B.V. <https://doi.org/10.1016/j.scitotenv.2018.11.347>
- Yurtsever, A., Basaran, E., & Ucar, D. (2020). Process optimization and filtration performance of an anaerobic dynamic membrane bioreactor treating textile wastewaters. *Journal of Environmental Management*, 273(February), 111114. <https://doi.org/10.1016/j.jenvman.2020.111114>
- Zoghbor, K., & Knutsson, J. (t.t.). *Biofilm formation and microbial quality monitoring in a decentralized greywater collection and treatment system*.