

## DAFTAR PUSTAKA

- Adelodun, B., Odedishemi, F., & Segun, M. (2019). Dosage and settling time course optimization of *Moringa oleifera* in municipal wastewater treatment using response surface methodology. *Desalination and Water Treatment*, 167, 45–56. <https://doi.org/10.5004/dwt.2019.24616>
- Aji, A. A., Karami, A. A., Auvaria, S. W., Nengse, S., & Auliansyah, Y. D. (2025). The Pollutant Index (IP) Method for Determining Water Quality Status in the Tambak Oso River Gunung Anyar. *EnviroUS*, 5(2), 1–7.
- Azizah, I. (2024). *Penurunan Kadar Natural Organic Matter Dalam Air Menggunakan Powdered Activated Carbon*. Universitas Islam Indonesia.
- Balqhis, G. D. (2024). *Penurunan Kadar Natural Organic Matter Menggunakan Granular Activated Carbon Dievaluasi Melalui Metode Spektrofluorometer*. Universitas Islam Indonesia.
- Cahyonugroho, O. H., Hariyanto, S., & Supriyanto, G. (2022). Dissolved organic matter and its correlation with phytoplankton abundance for monitoring surface water quality. *Global Journal of Environmental Science and Management (GJESM)*, 8(1), 59–74. <https://doi.org/10.22034/gjesm.2022.01.05>
- Cui, H., Huang, X., Yu, Z., Chen, P., & Cao, X. (2020). RSC Advancesprogress of enhanced coagulation in water treatment. *RSC Advances*, 10(May), 20231–20244. <https://doi.org/10.1039/D0RA02979C>
- Duygu, D. Y. (2019). Determination Of Growth Kinetics And Biochemical Composition Of *Nitzschia Palea* (Kützinger) W . Smith Isolated From Freshwater Sources In Turkey. *Trakya University Journal Of Natural Sciences*, 20(1), 63–70. <https://doi.org/10.23902/Trkjnat.498426>
- Fadillah, R. N. (2024). *Identifikasi Kandungan Natural Organic Matter (Nom) Di Instalasi Pengolahan Air Unit Padasan Pdam Tirtamarta Kota Yogyakarta D*. Universitas Islam Indonesia.
- Gheraout, D., Elboughdiri, N., Ghareba, S., & Salih, A. (2020). Coagulation Process

- for Removing Algae and Algal Organic Matter — An Overview. *Open Access Library Journal*, 7, 1–21. <https://doi.org/10.4236/oalib.1106272>
- Greenstein, K. E., Zamyadi, A., Glover, C. M., Adams, C., Rosenfeldt, E., & Wert, E. C. (2020). Delayed Release of Intracellular Microcystin Following Partial Oxidation of Cultured and Naturally Occurring Cyanobacteria. *toxins*, 12(335), 1–16. <https://doi.org/10.3390/toxins12050335>
- Hadiyanto, & Azim, M. (2016). *Dasar-Dasar Bioproses*. ES Press Digimedia.
- Henderson, R. K., Parsons, S. A., & Jefferson, B. (2010). The impact of differing cell and algogenic organic matter (AOM) characteristics on the coagulation and flotation of algae. *Water Research*, 44(12), 3617–3624. <https://doi.org/10.1016/j.watres.2010.04.016>
- Hidayah, E. N., Cahyonugroho, O. H., Mirwan, M., Pachwarya, R. B., & Asrori, M. K. (2021). Effect of Oxidation on the Formation of Disinfectant By-products of Low Molecular Weight Organic Matter. *Nature Environment and Pollution Technology*, 20(3), 1309–1313.
- Hidayah, E. N., Chou, Y.-C., & Yeh, H.-H. (2016a). Using HPEC to identify NOM fraction removal and the correlation with disinfection by-product precursors. *Water Science & Technology: Water Supply*, 16(2), 305–313.
- Hidayah, E. N., Chou, Y., & Yeh, H. (2016b). Comparison between HPSEC-OCD and F-EEMs for assessing DBPs formation in water. *Journal of Environmental Science and Health, Part A*, 0(0), 1–12. <https://doi.org/10.1080/10934529.2016.1262607>
- Hidayah, E. N., Claudia, G. A., & Cahyonugroho, O. H. (2019). Characterization and Removal of Dissolved Organic Matter in River Water Through Preoxidation - Coagulation Process. *Jurnal Dampak*, 16(1), 20–25.
- Hidayah, E. N., Rizqa, F., & Cahyonugroho, O. H. (2019). Performance Of Pre-Chlorination, Coagulation And Adsorption For Controlling The Formation Of Carcinogenic Compound In Treated Water. *Rasayan Journal Chem (RJC)*, 12(4), 2111–2115.

- Hidayah, E. N., & Yeh, H. H. (2017). Effect of Permanganate Preoxidation to Natural Organic Matter and Disinfection by-Products Formation Potential Removal Effect of Permanganate Preoxidation to Natural Organic Matter and Disinfection by-Products Formation Potential Removal. *Journal of Physics*, 957, 0–5.
- Hood, K. M., Lewis, N., Trueman, B., Swinamer, R., Anderson, L., & Gagnon, G. (2025). Granular Activated Carbon Filtration as a Lead Control Strategy [Research-article]. *ACS ES&T Water*, 6(12), 385–394. <https://doi.org/10.1021/acsestwater.5c01094>
- Ignatev, A., & Tuhkanen, T. (2019). Environmental Science trains using size-exclusion chromatography to fingerprint and track protein-like and humic/ fulvic-like fractions of dissolved organic matter. *Environmental Science: Water Research & Technology*, 5(July), 1568–1581. <https://doi.org/10.1039/C9EW00340A>
- Kamal, M. F., & Hidayah, E. N. (2019). Penyisihan Kandungan Bahan Organik Alami Pada Air Baku Untuk Produksi Air Minum Dengan Kombinasi Pre-Oksidasi Dan Koagulasi. *Jukung Jurnal Teknik Lingkungan*, 5(1), 1–8.
- Karwowska, B., & Spierczynska, E. (2022). Organic Matter and Heavy Metal Ions Removal from Surface Water in Processes of Oxidation with Ozone, UV Irradiation, Coagulation and Adsorption. *water*, 14(3763), 1–13.
- Kawaroe, M., Prartono, T., Sanuddin, A., Wulansari, D., & Augustine, D. (2019). *Mikroalga Potensi dan Pemanfaatannya Untuk Produksi Bio Bahan Bakar*. IPB Press.
- Lavonen, E. E., Gonsior, M., Tranvik, L. J., Schmitt-kopplin, P., & Ko, S. J. (2013). Selective Chlorination of Natural Organic Matter : Identification of Previously Unknown Disinfection Byproducts. *Environmental Science & Technology*, 47, 2264–2271.
- Leite, L. D. S., Vitorino, D., Filomena, C., Rosa, P., Bond, T., & Daniel, L. A. (2023). Disinfection By-Products Formation from Chlor(am)ination of Algal Organic Matter of *Chlorella sorokiniana*. *toxics*, 11(690), 1–13. <https://doi.org/https://doi.org/10.3390/toxics11080690>

- Li, L., Gao, N., Deng, Y., Yao, J., & Zhang, K. (2011). Characterization of intracellular & extracellular algae organic matters (AOM) of *Microcystic aeruginosa* and formation of AOM-associated disinfection byproducts and odor & taste compounds. *Water Research*, 46(4), 1233–1240. <https://doi.org/10.1016/j.watres.2011.12.026>
- Liu, C., Liu, H., Hu, C., Chow, A. T., & Karanfil, T. (2024). Molecular Alterations of Algal Organic Matter in Oxidation Processes: Implications to the Formation of Disinfection Products [Research-article]. *ACS ES&T Water*, 4, 5890–5901. <https://doi.org/10.1021/acsestwater.4c00855>
- Matilainen, A., Vepsäläinen, M., & Sillanpää, M. (2010). Natural organic matter removal by coagulation during drinking water treatment : A review. *Advances in Colloid and Interface Science*, 159(2), 189–197. <https://doi.org/10.1016/j.cis.2010.06.007>
- Moona, N., Murphy, K. R., Bondelind, M., Bergstedt, O., & Petterson, T. J. R. (2018). Environmental Science Water Research & Technology biofilters for improved drinking water treatment. *Environmental Science Water Research & Technology*, 4(2), 529–538. <https://doi.org/10.1039/c7ew00413c>
- Moradinejad, S., Glover, C. M., Mailly, J., Seighalani, T. Z., Peldszus, S., Barbeau, B., Dorner, S., & Zamyadi, A. (2019). Using Advanced Spectroscopy and Organic Matter Characterization to Evaluate the Impact of Oxidation on Cyanobacteria. *toxins*, 11(278), 1–14.
- Mulyani, H., & Pamungkas, G. S. (2016). The Influence Of Calcium Hypochlorite Dosage Adjustment On Tapioca Wastewater Pre-Chlorination Toward Efficiency Of Activated Sludge Treatment. *Molekul*, 11(2), 239–247. <https://doi.org/10.20884/1.Jm.2016.11.2.213>
- Naceradska, J., Pivokonsky, M., Pivokonska, L., Baresova, M., Henderson, R. K., Zamyadi, A., & Janda, V. (2017). The impact of pre-oxidation with potassium permanganate on cyanobacterial organic matter removal by coagulation. *Water Research*, 114, 42–49. <https://doi.org/10.1016/j.watres.2017.02.029>

- Nandiyanto, A. B. D. (2026). How to Read and Interpret FTIR Spectra for Materials: A Master Dataset with Step-by-Step Guided Peak- Correlation Analysis, Representative Examples, and a Foundation for Future Artificial Intelligence (AI)-Assisted Analysis. *ASEAN Journal for Science and Engineering in Materials Journal*, 5(2), 323–356.
- Ni'mah, N. L., Siswanto, & Arifin, M. (2024). Study on Pond Culture Water Quality Based On Several Physical and Chemical Parameters in Tambak Oso Village , Sidoarjo Regency. *Engineering and Technology Journal*, 09(09), 4993–4998. <https://doi.org/10.47191/etj/v9i09.02>
- Panahi, A. H., Al-musawi, T. J., Masihpour, M., Fatemeh, S., Fard, T., & Nasseh, N. (2023). Photocatalytic Degradation of Humic Acid Using Investigation of the Characterization of the Photocatalyst , Degradation Pathway , and Modeling by Solver Plugin. *Water*, 15(2931), 1–19.
- Pivokonsky, M., Safarikova, J., Baresova, M., Pivokonska, L., & Kopecka, I. (2013). ScienceDirect A comparison of the character of algal extracellular versus cellular organic matter produced by cyanobacterium , diatom and green alga. *Water Research*, 51, 37–46. <https://doi.org/10.1016/j.watres.2013.12.022>
- Prayitno, J. (2016). Pola Pertumbuhan dan Pemanenan Biomassa dalam Fotobioreaktor Mikroalga untuk Penangkapan Karbon Growth Pattern and Biomass Harvesting in Microalgal Photobioreactor for Carbon Sequestration. *Jurnal Teknologi Lingkungan*, 17(1), 45–52.
- Puspitasari, R. (2017). Pengembangan Nitzschia sp. Sebagai Biota Uji Sedimen. *Oseana*, 42(1), 28–35.
- Rahma, S. A. N. (2018). *Karakterisasi Natural Organic Matter (Nom) Pada Air Post-Filtration Pdam Tirta Binangun Kulon Progo, D.I. Yogyakarta*. Universitas Islam Indonesia.
- Romadhon, N. R. (2024). *Identifikasi Kandungan Bahan Organik Alami Di Embung Uii Menggunakan Metode Fluorescence*. Universitas Islam Indonesia.
- Rouge, V., Gunten, U. von, & Allard, S. (2020). Efficiency of pre-oxidation of natural

- organic matter for the mitigation of disinfection byproducts: Electron Donating Capacity and UV absorbance as surrogate parameters. *Water Research*, 1–40. <https://doi.org/10.1016/j.watres.2020.116418>
- Sadewi, L. S., Nugraha, M. A., & Akhrianti, I. (2022). Konsentrasi Dan Distribusi Karbon Organik Total (Toc), Total Nitrogen (Tn) Dan Rasio C/N Pada Sedimen Di Perairan Kawasan Pelabuhan Pangkal Balam, Bangka. *Journal Of Tropical Marine Science*, 5(September), 121–130.
- Sanniyasi, E., Prakash, A., Patrick, R., Rajagopalan, K., Gopal, R. K., & Damodharan, R. (2022). Characterization and in vitro anticancer potential of exopolysaccharide extracted from a freshwater diatom *Nitzschia palea*. *Scientific Reports*, 12(22114), 1–18. <https://doi.org/10.1038/s41598-022-24662-z>
- Şenel, B. A., Ateş, N., Şule, Ş., & Bekaroğlu, K. (2024). Evaluation of characterization and adsorption kinetics of natural organic matter onto nitric acid modified activated carbon. *Environmental Research & Technology*, 7(2), 201–211.
- Seo, J., Kong, D., Ahn, S., & Kim, H. (2006). Control Of Diatom By Preoxidation And Coagulation in Water Treatment. *Environmental Engineering Research*, 11(1), 45–53.
- Song, Y., Dong, B., Gao, N., & Ma, X. (2015). Powder Activated Carbon Pretreatment of a Microfiltration Membrane for the Treatment of Surface Water. *International Journal of Environmental Research and Public Health*, 12, 11269–11277. <https://doi.org/10.3390/ijerph120911269>
- Sukron, A. D. (2018). *Pengaruh Salinitas Yang Berbeda Terhadap Pertumbuhan, Produksi Biomassa, Klorofil-A Dan Kadar Protein Nitzschia Sp.* Universitas Brawijaya.
- Suqut, J., Pla-Godo, L., Valenti, M., Verdaguer, M., Martin, M. J., Poch, M., & Monclus, H. (2020). Development of an Environmental Decision Support System for Enhanced Coagulation in Drinking Water Production. *Water*, 12(2115), 1–17.
- Sururi, M. R., & Hardika. (2024). Penyisihan Kekeruhan Dan Natural Organic Matter ( Nom ) Pada Unit Koagulasi-Flokulasi Instalasi Pengolahan Air Minum Di Asia

- Tenggara : Studi. *Jurnal Reka Lingkungan*, 12(1), 63–79.
- Tafvizi, H., Chowdhury, S., & Husain, T. (2021). Low Cost Activated Carbon for Removal of NOM and DBPs: Optimization and Comparison. *Water*, 13(2244), 1–23.
- Tahraoui, H., Toumi, S., Boudoukhani, M., Touzout, N., Nour, A., Houda, E., Amrane, A., Belhadj, A., Hadjadj, M., Laichi, Y., & Aboumustapha, M. (2024). Evaluating the Effectiveness of Coagulation – Flocculation Treatment Using Aluminum Sulfate on a Polluted Surface Water Source : A Year-Long Study. *Water*, 16(400), 1–39.
- Tang, X., Zheng, H., Zhao, C., Zhai, J., & Liu, B. (2016). Removal of dissolved organic matter from algae-polluted surface water by coagulation. *Desalination and Water Treatment*, 57, 25337–25344. <https://doi.org/10.1080/19443994.2016.1152510>
- Tazkiaturrizki, Adityosulindro, S., Hartono, D. M., & Moersidik, S. S. (2024). Analysis of Natural Organic Matter as Precursors of Trihalomethanes and Its Removal in Water Treatment Plant Analysis of Natural Organic Matter as Precursors of Trihalomethanes and Its Removal in Water Treatment Plant. *Environment Asia*, 17(1), 103–111. <https://doi.org/10.14456/ea.2024.9>
- Tian, L., Zhang, Z., Wang, Z., Zhang, P., Xiong, C., Kuang, Y., Peng, X., Yu, M., & Qian, Y. (2023). Compositional variations in algal organic matter during distinct growth phases in karst water. *Environmental Science*, 1–9. <https://doi.org/10.3389/fenvs.2023.1112522>
- Vrancken, N., Li, J., Sergeant, S., Vereecke, G., Doumen, G., Holsteys, F., Chen, C., Terryn, H., Gendt, S. De, & Xu, X. (2018). In-situ ATR-FTIR for dynamic analysis of superhydrophobic breakdown on nanostructured silicon surfaces. *Scientific Reports*, 8(11637), 1–12. <https://doi.org/10.1038/s41598-018-30057-w>
- Wang, X., Liu, B., Lu, M., Li, Y., Jiang, Y., Zhao, M., Huang, Z., Pan, Y., Miao, H., & Ruan, W. (2021). Characterization of algal organic matter as precursors for carbonaceous and nitrogenous disinfection byproducts formation : Comparison with natural organic matter. *Journal of Environmental Management*, 282, 1–9.

<https://doi.org/10.1016/j.jenvman.2021.111951>

- Weishaar, J. L., Fram, M. S., Fujii, R., & Mopper, K. (2003). Evaluation of Specific Ultraviolet Absorbance as an Indicator of the Chemical Composition and Reactivity of Dissolved Organic Carbon. *Environmental Science & Technology*, 37(20), 4702–4708.
- Wulandari, W. A., & Soedjono, E. S. (2017). Penurunan COD dan Deterjen pada Saluran Kalidami Kota Surabaya dengan Oksidator H<sub>2</sub>O<sub>2</sub> dan KMnO<sub>4</sub>. *Jurnal Teknik ITS*, 6(2), 2–7.
- Xia, L., Li, Y., Huang, R., & Song, S. (2017). Effective harvesting of microalgae by coagulation – flotation. *Royal Society*, 1–12.
- Xia, S., Zhang, X., Zhao, Y., Tan, F. J., & Li, P. (2021). Effect of Pre-Oxidation on Coagulation/Ceramic Membrane Treatment of Yangtze River Water. *Membranes*, 11(369), 1–14.
- Xie, P., Chen, Y., Ma, J., Zhang, X., Zou, J., & Wang, Z. (2016). Chemosphere A mini review of preoxidation to improve coagulation. *Chemosphere*, 155, 550–563. <https://doi.org/10.1016/j.chemosphere.2016.04.003>
- Yamine, P., Sari-chmayssem, N., El-nakat, H., Chahine, D., Baroudi, M., Jaber, F., & Chmayssem, A. (2026). Correlation Between Theoretical Permanganate Index Method and Electrochemical Responses of Cyclic Voltammetry for the Detection of Organic Matter. *chemistry*, 8(41), 1–23.
- Yilmaz, E., Altiparmak, E., Dadaser-celik, F., & Ates, N. (2023). Impact of Natural Organic Matter Competition on the Adsorptive Removal of Acetochlor and Metolachlor from Low-Specific UV Absorbance Surface Waters. *ACS Omega*, 8, 31758–31771. <https://doi.org/10.1021/acsomega.3c02588>
- Zhao, Z., He, Q., Fan, J., & Sun, W. (2023). Effect of granular activated carbon adsorption on mitigating micro fi ltration membrane fouling by algal organic matter. *AQUA: Water Infrasturcture, Ecosysystems and Society*, 72(10), 1881–1893. <https://doi.org/10.2166/aqua.2023.127>
- Zhu, X., Li, M., Yan, P., Shen, J., Kang, J., & Chen, Z. (2022). Correlation Analysis of

the Carboxyl and Carbonyl Groups of Natural Organic Matter and the Formation Potential of Trihalomethanes and Chloral Hydrate. *molecules*, 22(7454), 1–12.

Zubiarrain-laserna, A., Angizi, S., Akbar, A., & Divigalpitiya, R. (2022). RSC Advances Detection of free chlorine in water using graphene- like carbon based chemiresistive sensors. *RSC Advances*, 12(January), 2485–2496. <https://doi.org/10.1039/D1RA08264G>