

DAFTAR PUSTAKA

- Ali, E. N., Muyibi, S. A., Salleh, H. M., Alam, M. Z., & Salleh, M. R. M. (2018). Production of Natural Coagulant from Moringa Oleifera Seed for Application in Treatment of Low Turbidity Water. *Journal of Water Resource and Protection*, 02(03), 259–266. <https://doi.org/10.4236/jwarp.2010.23030>
- Anifah, E. M., Sholikah, U., Khairunnissa Ariani, I., Yorika, R., & Raharti, H. W. (2024). *Coagulation-Flocculation of Tofu Wastewater using Natural Coagulant of Chempedak (Artocarpus integer) Seed Koagulasi-Flokulasi Limbah Cair Tahu dengan Koagulan Alami Biji Cempedak (Artocarpus integer)*. 25(2), 281.
- Annisa & Syamsyudin, A. (2024). Optimasi Larutan NaCl Pada Pembuatan Biokoagulan Dari Biji Pepaya (. *Politeknik Negeri Ujung Pandang Makassar*, 73.
- Ardiyanto, P., & Yuantari, M. G. C. (2020). 1. Analisis Limbah Laundry Informal Dengan Tingkat Pencemaran Lingkungan Di Kelurahan Muktiharjo Kidul Kecamatan Pedurungan Semarang. *Jukung (Jurnal Teknik Lingkungan)*, 2(1), 1–12. <https://doi.org/10.20527/jukung.v2i1.1055>
- Askari, H. (2016). Perkembangan Pengolahan Air Limbah. *Carbon (TOC)*, 200(135), 1–10. https://www.researchgate.net/profile/Haris-Askari-2/publication/287791837_Perkembangan_Pengolahan_Air_Limbah/links/56794bc208ae6041cb49f352/Perkembangan-Pengolahan-Air-Limbah.pdf
- Bija, S., Yulma, Imra, Aldian, Maulana, A., & Rozi, A. (2020). Biochoagulant Synthesis Based on Chitosan from Bandeng Fishing Waste and Its Application of Reduction of BOD and COD Value of Tofu Waste In Tarakan City. *Jurnal Pengolahan Hasil Perikanan Indonesia*, 23(1), 86–92. <https://doi.org/10.17844/jphpi.v23i1.30888>
- Daud, N. M., Sheikh Abdullah, S. R., & Abu Hasan, H. (2018). Response surface methodological analysis for the optimization of acid-catalyzed

- transesterification biodiesel wastewater pre-treatment using coagulation–flocculation process. *Process Safety and Environmental Protection*, 113, 184–192. <https://doi.org/10.1016/j.psep.2017.10.006>
- Davis, W. (2000). *Journal of the American chemical society*. 71(2), 2955–2957.
- Ekoputri, S. F., Rahmatunnissa, A., Nulfaidah, F., Ratnasari, Y., Djaeni, M., & Sari, D. A. (2023). Pengolahan Air Limbah dengan Metode Koagulasi Flokulasi pada Industri Kimia. *Jurnal Serambi Engineering*, 9(1), 7781–7787. <https://doi.org/10.32672/jse>. *Jurnal Serambi Engineering*, 9(1), 7781–7787.
- Fan, Y., Ma, X., Dong, X., Feng, Z., & Dong, Y. (2020). Characterisation of floc size, effective density and sedimentation under various flocculation mechanisms. *Water Science and Technology*, 82(7), 1261–1271. <https://doi.org/10.2166/wst.2020.385>
- Fitri, I. T., Samudro, G., & Sumiyati, S. (2020). *Studi Penurunan Parameter TSS DAN Turbiduty Dalam Air Limbah Domestik Artifisial Menggunakan Kombinasi Vertical Roughing *) Program Studi Teknik Lingkungan FT UNDIP Jl . Prof . H . Sudarto , SH Tembalang*. 1–7.
- Gao, B. Y., Yue, Q. Y., & Wang, Y. (2007). Coagulation performance of polyaluminum silicate chloride (PASiC) for water and wastewater treatment. *Separation and Purification Technology*, 56(2), 225–230. <https://doi.org/10.1016/j.seppur.2007.02.003>
- Hakim Abdul Rahman, Norhayati, R. H. (2024). *Effectiveness Of Date Dry Seed as a Natural Coagulant in Wastewater Treatment Process*.
- Harif, T., Khai, M., & Adin, A. (2016). Electrocoagulation versus chemical coagulation: Coagulation/flocculation mechanisms and resulting floc characteristics. *Water Research*, 46(10), 3177–3188. <https://doi.org/10.1016/j.watres.2012.03.034>

- Hendrawati, H., Syamsumarsih, D., & Nurhasni, N. (2018). Penggunaan Biji Asam Jawa (*Tamarindus indica* L.) dan Biji Kecipir (*Psophocarpus tetragonolobus* L.) Sebagai Koagulan Alami Dalam Perbaikan Kualitas Air Tanah. *Jurnal Kimia VALENSI*, 3(1), 23–34. <https://doi.org/10.15408/jkv.v3i1.326>
- Hendriarianti, E., & Suhastri, H. (2019). Penentuan Dosis Optimum Koagulan Biji Asam Jawa (*Tamarindia Indica* L.) Dalam Penurunan TDD Dan COD Limbah Cair Industri Penyamakan Kulit Di Kota Malang. *Spectra*, IX, 12–22.
- Husaini, H., Cahyono, S. S., Suganal, S., & Hidayat, K. N. (2018). Perbandingan Koagulan Hasil Percobaan Dengan Koagulan Komersial Menggunakan Metode Jar Test. *Jurnal Teknologi Mineral Dan Batubara*, 14(1), 31. <https://doi.org/10.30556/jtmb.vol14.no1.2018.387>
- Iwuozor, K. O. (2019). Prospects and Challenges of Using Coagulation-Flocculation Method in the Treatment of Effluents. *Advanced Journal of Chemistry, Section A*, 2(2), 105–127. <https://doi.org/10.29088/SAMI/AJCA.2019.2.105127>
- Jahanshahi, M., & Babaei, Z. (2018). Protein nanoparticle: A unique system as drug delivery vehicles. *African Journal of Biotechnology*, 7(25), 4926–4934. <https://doi.org/10.4314/ajb.v7i25.59701>
- Kesuma, D. D., & Widyastuti, M. (2018). Pengaruh limbah industri tahu terhadap kualitas air sungai di Kabupaten Klaten. *Jurnal Bumi Indonesia*, 2(1), 1–10.
- Kristianto, H., Prasetyo, S., & Sugih, A. K. (2019). Pemanfaatan Ekstrak Protein dari Kacang-kacangan sebagai Koagulan Alami: Review. *Jurnal Rekayasa Proses*, 13(2), 65. <https://doi.org/10.22146/jrekpros.46292>
- Mackenzie L.Davis, D. A. C. (1991). Introduction to Environmental Engineering. In *CLEAN – Soil, Air, Water* (Vol. 41, Issue 3). <https://doi.org/10.1002/clen.201390009>
- Malvern Instruments Ltd. (2013). Zetasizer Nano Series User Manual Zetasizer Nano Series User Manual M A N 0 3 1 7 I s s u e 1. 0 J u n e 2 0 0 3. *Zetasizer*

Nano Series User Manual, 1, 13.1-15.5.

- Nugraha, F. A., Kirmi, H., Haryanto, B., & Afiffa, M. (2020). *SPECTA Journal of Technology*. 4(2), 35–44.
- Okuda, T., Baes, A. U., Nishijima, W., & Okada, M. (2015). Coagulation mechanism of salt solution-extracted active component in *Moringa oleifera* seeds. *Water Research*, 35(3), 830–834. [https://doi.org/10.1016/S0043-1354\(00\)00296-7](https://doi.org/10.1016/S0043-1354(00)00296-7)
- Rahimah, Z., Heldawati, H., & Syauqiah, I. (2018). Pengolahan Limbah Deterjen Dengan Metode Koagulasi-Flokulasi Menggunakan Koagulan Kapur Dan Pac. *Konversi*, 5(2), 13. <https://doi.org/10.20527/k.v5i2.4767>
- Ramadhani, G., Ramadhani, G. I., & Moesriati, A. (2015). Pemanfaatan Biji Asam Jawa (*Tamarindus Indica*) sebagai Koagulan Alternatif dalam Proses Menurunkan Kadar COD dan BOD dengan Studi Kasus pada Limbah Cair Industri Tempe. *Jurnal Teknik ITS*, 2(1), D22–D26. <http://ejurnal.its.ac.id/index.php/teknik/article/view/3210%0Ahttps://ejurnal.its.ac.id>
- Rouf, N. A., Arseto, D., & Bagastyo, Y. (2020). Kajian Pemanfaatan Koagulan Recovery Aluminium Dan Besi Dari Abu Terbang Study of Coagulant Recovery Utilization of Aluminum and Iron From Fly Ash. *Jurnal Purifikasi*, 20(1), 28–39.
- Sabli, T. E., & Zahrah, S. (2020). Reduksi Kandungan Fosfat Dalam Air Limbah Deterjen Menggunakan Sistem Rawa Bambu. *Jurnal Dinamika Pertanian*, 30(2), 101–108.
- Sholeh, M., Putra, Y. S., & Adriat, R. (2023). Kajian Parameter Fisis Kualitas Air Berdasarkan Nilai Total Suspended Solid (TSS) di Sungai Belidak Kecamatan Sungai Kakap. *Prisma Fisika*, 10(3), 296. <https://doi.org/10.26418/pf.v10i3.58101>
- Sillanpää, M., Ncibi, M. C., Matilainen, A., & Vepsäläinen, M. (2018). Removal of

- natural organic matter in drinking water treatment by coagulation: A comprehensive review. *Chemosphere*, 190, 54–71. <https://doi.org/10.1016/j.chemosphere.2017.09.113>
- Smith, M. B., & March, J. (2006). March's Advanced Organic Chemistry. In *March's Advanced Organic Chemistry*. <https://doi.org/10.1002/0470084960>
- Vahedi, A., & Gorczyca, B. (2019). Application of fractal dimensions to study the structure of flocs formed in lime softening process. *Water Research*, 45(2), 545–556. <https://doi.org/10.1016/j.watres.2010.09.014>
- Vasiljević, S., Vujić, M., Agbaba, J., Federici, S., Ducoli, S., Tomić, R., & Tubić, A. (2023). Efficiency of Coagulation/Flocculation for the Removal of Complex Mixture of Textile Fibers from Water. *Processes*, 11(3). <https://doi.org/10.3390/pr11030820>
- Xu, B., Chi, Y., Chi, Y., Zhao, J., Fu, C., Wang, X., Tian, S., & Ding, Y. (2023). Response Surface Optimization and Floc Structure Analysis of Magnetic Flocculation Technology for Anaerobic Digestion Reject Water. *Water (Switzerland)*, 15(4). <https://doi.org/10.3390/w15040707>
- Yu, W. zheng, Gregory, J., Campos, L., & Li, G. (2018). The role of mixing conditions on floc growth, breakage and re-growth. *Chemical Engineering Journal*, 171(2), 425–430. <https://doi.org/10.1016/j.cej.2011.03.098>
- Zainol, N. A., & Nasuha Mohd Fadli, N. (2020). Surface Water Treatment Using Tamarind Seed as Coagulants via Coagulation Process. *IOP Conference Series: Materials Science and Engineering*, 864(1). <https://doi.org/10.1088/1757-899X/864/1/012172>
- Zheng, H., Zhu, G., Jiang, S., Tshukudu, T., Xiang, X., Zhang, P., & He, Q. (2011). Investigations of coagulation-flocculation process by performance optimization, model prediction and fractal structure of flocs. *Desalination*, 269(1–3), 148–156. <https://doi.org/10.1016/j.desal.2010.10.054>