

## DAFTAR PUSTAKA

- Adachi, Y., Kobayashi, A., & Kobayashi, M. (2012). Structure of colloidal flocs in relation to the dynamic properties of unstable suspension. *International Journal of Polymer Science*, 2012.
- Baruth, E. E. (2005). *Water Treatment Plant Design: American Water Works Association American Society of Civil Engineers*. McGraw-Hill.
- Boukerroui, A., & Ouali, M.-S. (2000). Regeneration of a spent bleaching earth and its reuse in the refining of an edible oil. *Journal of Chemical Technology & Biotechnology*, 75(9), 773–776.
- Bratby, J. (2006). Coagulation and Flocculation in Water and Wastewater Treatment - Second Edition. *Water Intelligence Online*, 5. <https://doi.org/10.2166/9781780402321>
- Clark, J. W., Viessman, W., & Hammer, M. (1977). Water supply and pollution control. *Harper & Row. Publishers Inc., New York, 3 Rd Edition*,(33355), 857.
- Damayanti, C. (2019). Pengaruh Jenis dan Konsentrasi Asam Terhadap Proses Reaktivasi Spent Bleaching Earth (SBE) Hasil Samping Produksi Biosolar. Bachelor. *Bandar Lampung (ID): Universitas Lampung*.
- Davis, M. L., & Cornwell, D. A. (1991). *Introduction to Environmental Engineering McGraw-Hill International Editions*. Singapore.
- Dillon Jr, E. C., Wilton, J. H., Barlow, J. C., & Watson, W. A. (1989). Large surface area activated charcoal and the inhibition of aspirin absorption. *Annals of Emergency Medicine*, 18(5), 547–552.
- Droste, R. L. (1997). *Theory and Practice of Water and Wastewater Treatment*. John Willey & Sons. *New York*.
- Duffield, P. A., Wimbush, J. M., & Demot, P. F. A. (1990). Wool dyeing with environmentally acceptable levels of chromium in effluent. *Proceedings of the 8th International Wool Textile Research Conference. Christchurch, New Zealand*.
- Fewtrell, L., & Bartram, J. (2001). *Water quality: guidelines, standards & health*.

IWA publishing.

- Gabelman, A. (2017). Adsorption basics: part 1. *Chemical Engineering Progress*, 113(7), 48–53.
- Gebbie, P. (2005). A dummy's guide to coagulants. *68th Annual Water Industry Engineers and Operators' Conference*, 75, 75–83.
- Geleel, M. A., Atwa, S. T., Sakr, A. K., & others. (2013). Removal of Cr (III) from aqueous waste using Spent activated clay. *Journal of American Science*, 9(2), 256–262.
- Hendrasarie, N., & Dienullah, R. M. A. (2021). Pengaruh Bentuk Impeller Pada Proses Koagulasi-Flokulasi dalam Mengolah Limbah Industri Batik Organik. *Prosiding ESEC*, 2(1), 93–102.
- Hendrasarie, N., & Silalahi, A. S. (2021). Pemanfaatan Limbah Masker Bedah 3 Ply dan Limbah Plastik Polyetilen sebagai Adsorben untuk Menurunkan Kandungan Deterjen dan Fosfat pada Limbah Industri Laundry. *Prosiding ESEC*, 2(1), 51–59.
- Indrayani, L., & Rahmah, N. (2018). Nilai parameter kadar pencemar sebagai penentu tingkat efektivitas tahapan pengolahan limbah cair industri batik. *Jurnal Rekayasa Proses*, 12(1), 41–50.
- Janani, T., & Nithya, S. (2019). Comparative Analysis of Grey Water Treatment using Vermifilter Through Various Filter Depth Level. *International Journal of Engineering Research and Technology*, 7. <https://api.semanticscholar.org/CorpusID:181621776>
- Khopkar, S. M., & Saptorahardjo, A. (2003). *Konsep dasar kimia analitik*. Penerbit Universitas Indonesia (UI-Press).
- Labied, R., Benturki, O., Eddine Hamitouche, A., & Donnot, A. (2018). Adsorption of hexavalent chromium by activated carbon obtained from a waste lignocellulosic material (*Ziziphus jujuba* cores): Kinetic, equilibrium, and thermodynamic study. *Adsorption Science & Technology*, 36(3–4), 1066–1099.
- Lestari, R. S. D., Sari, D. K., Rosmadiana, A., & Dwiperмата, B. (2016). Pembuatan dan Karakterisasi Karbon Aktif Tempurung Kelapa Dengan

- Aktivator Asam Fosfat Serta Aplikasinya Pada Pemurnian Minyak Goreng Bekas. *Teknika: Jurnal Sains Dan Teknologi*, 12(2), 419–430.
- Letterman, R. D., Amirtharajah, A., & O'melia, C. R. (1999). Coagulation and flocculation. *Water Quality and Treatment*, 1–6.
- Loh, S. K., Cheong, K. Y., Choo, Y. M., & Salimon, J. (2015). Formulation and optimisation of spent bleaching earth-based bio organic fertiliser. *Journal of Oil Palm Research*, 27(1), 57–66.
- López-Cervantes, J., Sánchez-Machado, D. I., Sánchez-Duarte, R. G., & Correa-Murrieta, M. A. (2018). Study of a fixed-bed column in the adsorption of an azo dye from an aqueous medium using a chitosan--glutaraldehyde biosorbent. *Adsorption Science & Technology*, 36(1–2), 215–232.
- Maiti, R. K., & Bidinger, F. R. (1981). *Growth and Development of the Pearl Millet Plant. Research Bulletin no. 6.*
- Masduqi, A., & Assomadi, A. F. (2016). Operasi dan Proses Pengolahan Air Edisi Kedua. *Surabaya: ITSPress.*
- Mauliddawati, V. T., & Purnomo, A. S. (2014). ? Biodegradasi Metil Orange Oleh Jamur Pelapuk Coklat *Daedalea Dickinsii*. *Biodegradasi Metil Orange Oleh Jamur Pelapuk Coklat Daedalea Dickinsii*, 2(1), 1–4.
- Meziti, C., & Boukerroui, A. (2012). Removal of a basic textile dye from aqueous solution by adsorption on regenerated clay. *Procedia Engineering*, 33, 303–312.
- Moelyaningrum, A. D. (2018). The potential of cacao pod rind waste (*Theobroma cacao*) to adsorb heavy metal (Pb and Cd) in water. In *Sustainable Future for Human Security* (pp. 265–276). Springer.
- Montgomery, J. M. (1985). Water treatment: principles and design. In *Water treatment: Principles and design*. John Wiley & Sons.
- Mu'in, R., Wulandari, S., & Pertiwi, N. P. (2017). Pengaruh kecepatan pengadukan dan massa adsorben terhadap penurunan kadar fosfat pada pengolahan limbah laundry. *Jurnal Teknik Kimia*, 23(1), 67–76.
- Mu, B., & Wang, A. (2019). Regeneration and Recycling of Spent Bleaching Earth. In L. M. T. Martínez, O. V. Kharissova, & B. I. Kharisov (Eds.), *Handbook of*

- Ecomaterials* (pp. 3147–3167). Springer International Publishing.  
[https://doi.org/10.1007/978-3-319-68255-6\\_121](https://doi.org/10.1007/978-3-319-68255-6_121)
- Mühle, K., & Domasch, K. (1991). Stability of particle aggregates in flocculation with polymers: Stabilität von teilchenaggregaten bei der flockung mit polymeren. *Chemical Engineering and Processing: Process Intensification*, 29(1), 1–8.
- Ningsih, O. W. (2016). *Adsorpsi Isopropil Alkohol (IPA) dalam Air Menggunakan Karbon Aktid dan Bentonit Teraktivasi Asam*. Universitas Airlangga.
- Nurhasni, N., Firdiyono, F., & Sya'ban, Q. (2012). Penyerapan Ion Aluminium dan Besi dalam Larutan Sodium Silikat Menggunakan Karbon aktif. *Jurnal Kimia Valensi*, 2(4).
- Parker, D. S., Kaufman, W. J., & Jenkins, D. (1972). Floc breakup in turbulent flocculation processes. *Journal of the Sanitary Engineering Division*, 98(1), 79–99.
- Patel, H. (2019). Fixed-bed column adsorption study: a comprehensive review. *Applied Water Science*, 9(3), 45.
- Prihatinningtyas, E. (2013). Aplikasi koagulan alami dari tepung jagung dalam pengolahan air bersih. *Jurnal Teknosains*, 2(2).
- Purwaningsih, D. Y., Wulandari, I. A., & Aditya, A. W. (2021). Pemanfaatan Cangkang Telur Ayam Sebagai Biosorben untuk Penurunan COD pada Limbah Cair Pabrik Batik. *Prosiding SENASTITAN: Seminar Nasional Teknologi Industri Berkelanjutan*, 1(1), 507–512.
- Reynolds, T. D. (1982). Unit operations and processes in environmental engineering. In *Unit operations and processes in environmental engineering*. PWS Publishers.
- Sabour, M. R., Shahi, M., & Dezvareh, G. A. (2017). *REACTIVE DYE EXTRACTION UTILIZING REGENERATED BLEACHING EARTH (CASE STUDY)*.
- Said, N. I. (2017). *Tekhnologi Pengolahan Air Limbah: Teori Dan Aplikasi*.
- Sanada, R. A. (2014). *Adsorpsi zat warna kationik (methylene blue) menggunakan karbon aktif tempurung kelapa dan batu bara serta efisiensi regenerasinya=*

*Adsorption of cationic dye methylene blue using coconut shell and coal based activated carbon and its regeneration efficien.*

- Sandi, K., Syahputra, R. A., & Zubir, M. (2020). Review Journal Thermodynamics Carbon Active Adsorption Empty Fruit bunch of Heavy Metal from Liquid Waste. *Indonesian Journal of Chemical Science and Technology (IJCST)*, 3(2), 64–66.
- Saputra, A. B., Yusnimar, S., & Ida, Z. (2013). *Recovery minyak dari spent bleaching earth (SBE)*.
- Siregar, S. A. (2005). *Instalasi pengolahan air limbah*. Kanisius.
- Somerville, R. (2007). *Low-cost adsorption materials for removal of metals from contaminated water*.
- Suprianofa, C. (2016). *Pembuatan Karbon Aktif Dari Kulit Durian Sebagai Adsorben Zat Warna Dari Limbah Cair Tenun Songket Dengan Aktivator KOH*. Politeknik Negeri Sriwijaya.
- Syauqiah, I., Amalia, M., & Kartini, H. A. (2011). Analisis variasi waktu dan kecepatan pengaduk pada proses adsorpsi limbah logam berat dengan arang aktif. *Info-Teknik*, 12(1), 11–20.
- Tambo, N., François, R. J., Amirtharajah, A., Clark, M., & Trussell, R. (1991). Mixing, breakup and floc characteristics. *Mixing in Coagulation and Flocculation. Denver (CO): American Water Works Association*, 256–281.
- Tandy, E., Hasibuan, I. F., & Harahap, H. (2012). Kemampuan adsorben limbah lateks karet alam terhadap minyak pelumas dalam air. *Jurnal Teknik Kimia USU*, 1(2), 34–38.
- Tangahu, B. V., & Ningsih, D. A. (2016). Uji Penurunan Kandungan COD, BOD pada Limbah Cair Pewarnaan Batik Menggunakan Scirpus Grossus dan Iris Pseudacorus dengan Sistem Pemaparan Intermittent. *Jurnal Sains \& Teknologi Lingkungan*, 8(2), 121–130.
- Tsai, W. T., Chen, H. P., Hsieh, M. F., Sun, H. F., & Chien, S. F. (2002). Regeneration of spent bleaching earth by pyrolysis in a rotary furnace. *Journal of Analytical and Applied Pyrolysis*, 63(1), 157–170.  
[https://doi.org/https://doi.org/10.1016/S0165-2370\(01\)00150-4](https://doi.org/https://doi.org/10.1016/S0165-2370(01)00150-4)

- Wahyu, W., Astiana, S., & Raymond, J. (2008). Efek toksik logam pencegahan dan penanggulangan pencemaran. *Penerbit Andi*.
- Wibowo, S. T. (2010). *Evaluasi pengolahan air minum pada instalasi pengolahan air (IPA) Jurug Perusahaan Daerah Air Minum (PDAM) kota Surakarta tahun 2009*. UNS (Sebelas Maret University).
- Wu, J., Li, B., Wang, W., Yang, S., Liu, P., Zhang, B., Yang, C., & Ding, Y. (2019). Green refining of waste lubricating oil: a china perspective. *Trends in Renewable Energy*, 5(2), 165–180.
- Yulikasari, A., Nurhayati, E., Utama, W., & Warmadewanthi, I. (2022). Characterization of spent bleaching earth as an adsorbent material for dye removal. *Journal of Ecological Engineering*, 23(4).