

DAFTAR PUSTAKA

- Abdelrahman, E. A., Hegazey, R. M., & El-Azabawy, R. E. (2019). Efficient removal of methylene blue dye from aqueous media using Fe/Si, Cr/Si, Ni/Si, and Zn/Si amorphous novel adsorbents. *Journal of Materials Research and Technology*, 8(6), 5301–5313. <https://doi.org/10.1016/j.jmrt.2019.08.051>
- Anshori, J. A. (2009). Siklisasi Intramolekuler Sitronelal Dikatalisis Zeolit Dan Bahan Mesoporus. *Karya Tulis Ilmiah*.
- Ardyanto, D. (2005). Deteksi Pencemaran Timah Hitam (Pb) Dalam Darah Masyarakat Yang Terpajan Timbal (Plumbum). *Jurnal Kesehatan Lingkungan Unair*, 2(1), 3950.
- Asip, F., Mardhiah, R., & Husna. (2008). Uji Efektifitas Cangkang Telur dalam Mengadsorpsi Ion Fe dengan Proses Batch. *Jurnal Teknik Kimia*, 15(2), 22–26.
- Basset, J., Denney R, C, J., Effrey, G. H., & Menthem, J. (1994). *Buku Ajar Vogel Kimia Analisis Kuantitatif Anorganik*. buku Kedokteran EGC.
- Bird, T. (1993). *Kimia fisik untuk universitas*. Gramedia.
- Brunauer, S., Emmet, P. H., & Teller, E. (1938). Impact of coal matrix strains on the evolution of permeability. *CONTRIBUTION FROM THE BUREAU OF CHEMISTRY AND Sons AND GEORGE WASHINGTON UNIVERSITY*, 189(1), 270–283. <https://doi.org/10.1016/j.fuel.2016.10.086>
- Bunaciu, A. A., Udriștioiu, E. gabriela, & Aboul-Enein, H. Y. (2015). X-Ray Diffraction: Instrumentation and Applications. *Critical Reviews in Analytical Chemistry*, 45(4), 289–299. <https://doi.org/10.1080/10408347.2014.949616>
- Cheng, S., Zhang, L., Ma, A., Xia, H., Peng, J., Li, C., & Shu, J. (2017). Comparison of activated carbon and iron/cerium modified activated carbon to remove methylene blue from wastewater. *Journal of Environmental Sciences*, 65, 92–102. <https://doi.org/10.1016/j.jes.2016.12.027>
- Darmono. (2001). *Lingkungan hidup dan pencemaran : hubungannya dengan toksikologi senyawa logam*. UI-Press.
- Dianto, F., Efendi, D., & Wachjar, A. (2017). Pengelolaan Panen Kelapa Sawit (*Elaeis guineensis* Jacq.) Pelantaran Agro Estate, Kota Waringin Timur,

Kalimantan Tengah. *Buletin Agrohorti*, 5(3), 410–417.
<https://doi.org/10.29244/agrob.v5i3.19574>

El Oufir, Z., Ramézani, H., Mathieu, N., Bhatia, S. K., & Delpoux, S. (2020). Impact of high adsorbent conductivity on adsorption of polar molecules: simulation of phenol adsorption on graphene sheets. *Adsorption*, 26(4), 537–552. <https://doi.org/10.1007/s10450-020-00227-2>

Elhussien, H. M., Hussein, R. M., Nimir, S. A., & Elsaïm, M. H. (2017). Preparation and Characterization of Activated Carbon from Palm Tree Leaves Impregnated with Zinc Chloride for the Removal of Lead (II) from Aqueous Solutions. *American Journal of Physical Chemistry*, 6(4), 59. <https://doi.org/10.11648/j.ajpc.20170604.12>

Fuadi, A. M., & Pranoto, H. (2016). Pemanfaatan limbah Tandan kosong kelapa Sawit Sebagai Bahan Baku Pembuatan Glukosa. *CHEMICA: Jurnal Teknik Kimia*, 3(1), 1. <https://doi.org/10.26555/chemica.v3i1.4274>

Hassler, J. W. (1974). *Purification with Activated Carbon: Industrial Commercial, Environmental*. New York. Chemical Publishing Co. Inc.

He, Y., Wu, P., Xiao, W., Li, G., Yi, J., He, Y., Chen, C., Ding, P., & Duan, Y. (2019). Efficient removal of Pb(II) from aqueous solution by a novel ion imprinted magnetic biosorbent: Adsorption kinetics and mechanisms. *PLoS ONE*, 14(3), 1–17. <https://doi.org/10.1371/journal.pone.0213377>

Heidarinejad, Z., Dehghani, M. H., Heidari, M., Javedan, G., Ali, I., & Sillanpää, M. (2020). Methods for preparation and activation of activated carbon: a review. *Environmental Chemistry Letters*, 18(2), 393–415. <https://doi.org/10.1007/s10311-019-00955-0>

Hwang, N., & Barron, A. R. (2011). BET Surface Area Analysis of Nanoparticles. *Connex. Proj*, 1–11.

Jain, C. K., Singhal, D. C., & Sharma, M. K. (2004). Adsorption of zinc on bed sediment of River Hindon: Adsorption models and kinetics. *Journal of Hazardous Materials*, 114(1–3), 231–239. <https://doi.org/10.1016/j.jhazmat.2004.09.001>

Kresnawaty, I., Putra, S. M., Budiani, A., & Darmono, T. (2018). Konversi Tandan Kosong Kelapa Sawit (Tkks) Menjadi Arang Hayati Dan Asap Cair. *Jurnal Penelitian Pascapanen Pertanian*, 14(3), 171. <https://doi.org/10.21082/jpasca.v14n3.2017.171-179>

Kristianto, H. (2017). REVIEW: SINTESIS KARBON AKTIF DENGAN

MENGGUNAKAN AKTIVASI KIMIA ZnCl₂. *Jurnal Integrasi Proses*, 6(3), 104–111. <https://doi.org/10.36055/jip.v6i3.1031>

Kurniawan, T. winny, Panjaitan, S. D., & Sitorus, B. (2016). Pemodelan Kinetika Dan Isotherm Adsorpsi Ion Logam Merkuri Menggunakan Karbon Aktif Dari Tandan Kosong Kelapa Sawit Kinetics and Adsorption Isotherm Modelling of Mercury Ion Using Activated Carbon From Palm Empty Fruit Bunches. *Orbital*, 1(2), 59–79. <http://jurnal.untan.ac.id/index.php/jp>

Lynd, L. R., Weimer, P. J., Zyl, W. H. Van, & Isak, S. (2002). Microbial Cellulose Utilization: Fundamentals and Biotechnology Microbial Cellulose Utilization: Fundamentals and Biotechnology Downloaded from <http://mmbr.asm.org/> on February 6 , 2013 by INDIAN INSTITUTE OF TECHNOLOGY MADRAS. *Microbiology and Molecular Biology Reviews*, 66(3), 506–577. <https://doi.org/10.1128/MMBR.66.3.506>

Marina Olivia Esterlita, & Netti Herlina. (2015). PENGARUH PENAMBAHAN AKTIVATOR ZnCl₂, KOH, DAN H₃PO₄ DALAM PEMBUATAN KARBON AKTIF DARI PELEPAH AREN (Arenga Pinnata). *Jurnal Teknik Kimia USU*, 4(1), 47–52. <https://doi.org/10.32734/jtk.v4i1.1460>

Marshall, W. E., & Johns, M. M. (1996). Agricultural by-products as metal adsorbents: Sorption properties and resistance to mechanical abrasion. *Journal of Chemical Technology and Biotechnology*, 66(2), 192–198. [https://doi.org/10.1002/\(SICI\)1097-4660\(199606\)66:2<192::AID-JCTB489>3.0.CO;2-C](https://doi.org/10.1002/(SICI)1097-4660(199606)66:2<192::AID-JCTB489>3.0.CO;2-C)

Maslahat, M., Hutagaol, R. P., & Lestari, S. (2017). Potensi Biosorben Tandan Kosong Kelapa Sawit (Tkks) Dalam Recovery Limbah Fenol. *Jurnal Sains Natural*, 2(2), 155. <https://doi.org/10.31938/jsn.v2i2.45>

Mosier, N., Wyman, C., Dale, B., Elander, R., Lee, Y. Y., Holtzapple, M., & Ladisch, M. (2005). Features of promising technologies for pretreatment of lignocellulosic biomass. *Bioresource Technology*, 96(6), 673–686. <https://doi.org/10.1016/j.biortech.2004.06.025>

Mukono. (2008). *Pencemaran Udara dan Pengaruhnya terhadap Gangguan Pernapasan*. university press.

Of, [USDA] United States Department. (2017). *Oilseeds: World Markets and Trade*. USDA.

Perwira, G., Desita, R., Rizky, I. P., Fajrudin, A., & Pujiastuti, A. (2004). Analisis Luas Permukaan Arang Aktif dengan Menggunakan Metode BET (SAA).

In Universitas Negeri Semarang (hal. 1–9).

- Rahmasita, M. E., Farid, M., & Ardhyanta, H. (2017). *Analisa Morfologi Serat Tandan Kosong Kelapa Sawit Sebagai Bahan Penguat Komposit Absorpsi Suara*. 6(2).
- Reynolds. (1982). *Unit Operation and Processes in Environmental Engineering.pdf*. Texas A&M University, Brook/Cole Engineering Division.
- Saniah, Purnawan, S., & Karina, S. (2014). Karakteristik dan kandungan mineral pasir pantai Lhok Mee , Beureunut dan Leungah , Kabupaten Aceh Besar The characteristics and mineral content of coastal sand from Lhok Mee , Beureunut and Leungah , Aceh Besar District. *Depik*, 3(3), 263–270.
- Sawyer, N., C., Carty, P. M., & Parkin, G. (1994). *Chemistry for Environmental Engineering*. McGraw Hill.
- Seki, H., & Suzuki, A. (1998). *Biosorption of Heavy Metal Ions to Brown Algae , Macrocystis pyrifera , Kjellmaniella crassifolia , and Undaria pinnatifida*. 301, 297–301.
- Shinoj, S., Visvanathan, R., Panigrahi, S., & Kochubabu, M. (2011). Oil palm fiber (OPF) and its composites: A review. In *Industrial Crops and Products*. <https://doi.org/10.1016/j.indcrop.2010.09.009>
- Sopiah, N., Prasetyo, D., & Aviantara, D. B. (2017). Pengaruh aktivasi karbon aktif dari tandan kosong sawit terhadap adsorpsi kadmium terlarut. In *Jurnal Riset Teknologi Pencegahan Pencemaran Industri* (Vol. 8, Nomor 2, hal. 55–66). <http://www.jrtppi.id/index.php/jrtppi/article/view/50>
- Sunardi. (2007). *Penuntun Praktikum Analisa Instrumen* (hal. 22–23). UI-Press.
- Thoha, A. A., & Sudradjat, . (2017). Pengelolaan Panen Kelapa Sawit (*Elaeis guineensis* Jacq.) di Kebun Adolina, Sumatera Utara. *Buletin Agrohorti*, 5(2), 157–166. <https://doi.org/10.29244/agrob.v5i2.16793>
- Wang, F. Y., Wang, H., & Ma, J. W. (2010). Adsorption of cadmium (II) ions from aqueous solution by a new low-cost adsorbent-Bamboo charcoal. *Journal of Hazardous Materials*, 177(1–3), 300–306. <https://doi.org/10.1016/j.jhazmat.2009.12.032>
- Wardani, A. P. K., & Widiawati, D. (2014). Pemanfaatan Tandan Kosong Kelapa Sawit Sebagai Material Tekstil dengan Pewarna Alam untuk Produk Kriya. *Jurnal Tingkat Sarjana bidang Senirupa dan Desain*, 3(1), 1–10.

<https://www.neliti.com/publications/243069/pemanfaatan-tandan-kosong-kelapa-sawit-sebagai-material-tekstil-dengan-pewarna-a#cite>

- Widayatno, T., Yuliawati, T., Susilo, A. A., Studi, P., Kimia, T., Teknik, F., & Muhammadiyah, U. (2017). Adsorpsi Logam Berat (Pb) dari Limbah Cair dengan Adsorben Arang Bambu Aktif. *Jurnal Teknologi Bahan Alam*, 1(1), 17–23.
- Xu, B., Wu, F., Zhao, X., & Liao, H. (2010). Benzotriazole removal from water by Zn-Al-O binary metal oxide adsorbent: Behavior, kinetics and mechanism. *Journal of Hazardous Materials*, 184(1–3), 147–155. <https://doi.org/10.1016/j.jhazmat.2010.08.017>
- Yusoff, S. N. M., Kamari, A., Putra, W. P., Ishak, C. F., Mohamed, A., Hashim, N., & Isa, I. M. (2014). Removal of Cu(II), Pb(II) and Zn(II) Ions from Aqueous Solutions Using Selected Agricultural Wastes: Adsorption and Characterisation Studies. *Journal of Environmental Protection*, 05(04), 289–300. <https://doi.org/10.4236/jep.2014.54032>
- Zubir, M., Muchtar, Z., Syahputra, R. A., Sudarma, T. F., Nasution, H. I., Lubis, R. A. F., Fadillah, L., & Sandi, K. (2021). Characterization of Modified Fe-Cu Nanoparticle Activated Carbon Derived of Oil Palm Empty Bunches. *Journal of Physics: Conference Series*, 1819(1). <https://doi.org/10.1088/1742-6596/1819/1/012020>

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