

DAFTAR PUSTAKA

- Aboudi Mana, S. C., Hanafiah, M. M., & Chowdhury, A. J. K. (2017). Environmental characteristics of clay and clay-based minerals. *Geology, Ecology, and Landscapes*, 1(3), 155–161.
- Abukhadra, M. R., Mohamed, A. S., El-Sherbeeny, A. M., & Soliman, A. T. A. (2020). Enhanced Adsorption of Toxic and Biologically Active Levofloxacin Residuals from Wastewater Using Clay Nanotubes as a Novel Fixed Bed: Column Performance and Optimization. *ACS Omega*, 5(40), 26195–26205.
- Abukhadra, M. R., Mostafa, M., El-Sherbeeny, A. M., Ahmed Soliman, A. T., & Abd Elgawad, A. E. E. (2020). Effective transformation of waste sunflower oil into biodiesel over novel K⁺ trapped clay nanotubes (K⁺/KNTs) as a heterogeneous catalyst; response surface studies. *Microporous and Mesoporous Materials*, 306(July), 110465.
- Abukhadra, M. R., & Sayed, M. A. (2018). K⁺ trapped kaolinite (Kaol/K⁺) as low cost and eco-friendly basic heterogeneous catalyst in the transesterification of commercial waste cooking oil into biodiesel. *Energy Conversion and Management*, 177(September), 468–476.
- Ali, B., Yusup, S., Quitain, A. T., Alnarabiji, M. S., Kamil, R. N. M., & Kida, T. (2018). Synthesis of novel graphene oxide/bentonite bi-functional heterogeneous catalyst for one-pot esterification and transesterification reactions. *Energy Conversion and Management*, 171, 1801–1812.
- Altalhi, A. A., Mohamed, E. A., Morsy, S. M., Abou Kana, M. T. H., & Negm, N. A. (2021). Catalytic manufacture and characteristic valuation of biodiesel-biojet achieved from *Jatropha curcas* and waste cooking oils over chemically modified montmorillonite clay. *Journal of Molecular Liquids*, 340, 117175.
- Amenaghawon, A. N., Obahiagbon, K., Isesele, V., & Usman, F. (2022). Optimized biodiesel production from waste cooking oil using a functionalized bio-based heterogeneous catalyst. *Cleaner Engineering and Technology*, 8(April), 100501.
- Atkins, P., & Overton, T. (2010). Shriver and Atkins' inorganic chemistry. In *Annual Reports on the Progress of Chemistry*. Oxford University Press.
- Azeez, A. M., Fasakin, A. O., & Orege, J. I. (2019). Production, Characterisation and Fatty Acid Composition of *Jatropha curcas* Biodiesel as a Viable Alternative to Conventional Diesel Fuel in Nigeria. *Green and Sustainable Chemistry*, 09(01), 1–10.
- Bargole, S. S., Singh, P. K., George, S., & Saharan, V. K. (2021). Valorisation of low fatty acid content waste cooking oil into biodiesel through transesterification using a basic heterogeneous calcium-based catalyst. *Biomass and Bioenergy*, 146(January), 105984.

- Cai, X., Li, C., Tang, Q., Zhen, B., Xie, X., Zhu, W., Zhou, C., & Wang, L. (2019). Assembling kaolinite nanotube at water/oil interface for enhancing Pickering emulsion stability. *Applied Clay Science*, 172(January), 115–122.
- Chang, A., Pan, J.-H., Lai, N.-C., Tsai, M.-C., Mochizuki, T., Toba, M., Chen, S.-Y., & Yang, C.-M. (2020). Efficient simultaneous esterification/transesterification of non-edible Jatropha oil for biodiesel fuel production by template-free synthesized nanoporous titanosilicates. *Catalysis Today*, 356(October 2018), 56–63.
- Chen, A. (2020). Dictionary of Geotourism. In A. Chen, Y. Ng, E. Zhang, & M. Tian (Eds.), *Dictionary of Geotourism*. Springer Singapore.
- Chen, L., Zhao, Y., Bai, H., Ai, Z., Chen, P., Hu, Y., Song, S., & Komarneni, S. (2020). Role of Montmorillonite, Kaolinite, or Illite in Pyrite Flotation: Differences in Clay Behavior Based on Their Structures. *Langmuir*, 36(36), 10860–10867.
- Đặng, T.-H., Chen, B., & Lee, D. (2017). Optimization of biodiesel production from transesterification of triolein using zeolite LTA catalysts synthesized from kaolin clay. *Journal of the Taiwan Institute of Chemical Engineers*, 79, 14–22.
- Đặng, T. H., Nguyễn, X. H., Chou, C. L., & Chen, B. H. (2021). Preparation of cancrinite-type zeolite from diatomaceous earth as transesterification catalysts for biodiesel production. *Renewable Energy*, 174, 347–358.
- Devaraj Naik, B., & Udayakumar, M. (2019). Optimization studies on esterification of waste cooking oil using sulfated montmorillonite clay acidic catalyst. *Materials Today: Proceedings*, 46(xxxx), 9855–9861.
- Efri Mardawati, Mahdi Singgih Hidayat, Devi Maulida Rahmah, & SRosalinda. (2019). Produksi Biodiesel Dari Minyak Kelapa Sawit Kasar Off Grade Dengan Variasi Pengaruh Asam Sulfat Pada Proses Esterifikasi Terhadap Mutu Biodiesel Yang Dihasilkan. *Jurnal Industri Pertanian* – , 01, 46–60.
- Eze, C. N., Onukwuli, D. O., Ude, C. N., & Gbasouzor, A. I. (2022). Biodiesel synthesis from waste canarium schweinfurtii oil (WCSO) catalyzed by thermal reinforced clay and its kinetics evaluation. *Cleaner Materials*, 6(January), 100145.
- Ghosh, N., & Halder, G. (2022). Current progress and perspective of heterogeneous nanocatalytic transesterification towards biodiesel production from edible and inedible feedstock: A review. *Energy Conversion and Management*, 270(July), 116292.
- Hadrah, H., Kasman, M., & Sari, F. M. (2018). Analisis Minyak Jelantah Sebagai Bahan Bakar Biodiesel dengan Proses Transesterifikasi. *Jurnal Daur Lingkungan*, 1(1), 16.
- Housecroft, C. E., & Sharpe, A. G. (2012). *Inorganic chemistry* (4th ed.). Pearson.

- Intarapong, P., Jindavat, C., Luengnaruemitchai, A., & Jai-In, S. (2014). The transesterification of palm oil using KOH supported on bentonite in a continuous reactor. *International Journal of Green Energy*, 11(9), 987–1001.
- Jlassi, K., Krupa, I., & Chehimi, M. M. (2017). Overview: Clay Preparation, Properties, Modification. In *Clay-Polymer Nanocomposites* (pp. 1–28). Elsevier.
- Kabeyi, M. J. B., & Olanrewaju, O. A. (2022). Biogas Production and Applications in the Sustainable Energy Transition. *Journal of Energy*, 2022, 1–43.
- Khan, I. W., Naeem, A., Farooq, M., Mahmood, T., Ahmad, B., Hamayun, M., Ahmad, Z., & Saeed, T. (2020). Catalytic conversion of spent frying oil into biodiesel over raw and 12-tungsto-phosphoric acid modified clay. *Renewable Energy*, 155, 181–188.
- Khan, N., Maseet, M., & Basir, S. F. (2020). Synthesis and characterization of biodiesel from waste cooking oil by lipase immobilized on genipin cross-linked chitosan beads: A green approach. *International Journal of Green Energy*, 17(1), 84–93.
- Krivoshein, P. K., Volkov, D. S., Rogova, O. B., & Proskurnin, M. A. (2022). FTIR Photoacoustic and ATR Spectroscopies of Soils with Aggregate Size Fractionation by Dry Sieving. *ACS Omega*, 7(2), 2177–2197.
- Kumar, S., & Deswal, V. (2022). Optimization at low temperature transesterification biodiesel production from soybean oil methanolysis via response surface methodology. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 44(1), 2284–2293.
- Kumari, N., & Mohan, C. (2021). Basics of Clay Minerals and Their Characteristic Properties. In *Clay and Clay Minerals*. IntechOpen.
- Li, Y., Hou, D., Ding, X., Kang, X., & Liu, Q. (2023). Influence of coal-measure kaolinite with different types on the preparation of kaolinite nanotube. *Applied Clay Science*, 246(November), 107179.
- Li, Y., Liu, Q., Li, J., Hou, D., Zhang, J., & Li, J. (2022). The preparation of high-yield uniform nanotubes from coal-measure kaolinite. *Applied Clay Science*, 229(August), 106668.
- Mohadesi, M., Aghel, B., Gouran, A., & Razmehgir, M. H. (2022). Transesterification of waste cooking oil using Clay/CaO as a solid base catalyst. *Energy*, 242, 122536.
- Mohd Johari, S. A., Ahmad Farid, M. A., Ayoub, M., Rashidi, N. A., & Andou, Y. (2024). Optimization and kinetic studies for biodiesel production from dairy waste scum oil via microwave assisted transesterification. *Environmental Technology & Innovation*, 34, 103580.

- Munir, M., Ahmad, M., Rehan, M., Saeed, M., Lam, S. S., Nizami, A. S., Waseem, A., Sultana, S., & Zafar, M. (2021). Production of high quality biodiesel from novel non-edible *Raphanus raphanistrum* L. seed oil using copper modified montmorillonite clay catalyst. *Environmental Research*, 193(April 2020), 110398.
- Munir, Mamoona, Ahmad, M., Mubashir, M., Asif, S., Waseem, A., Mukhtar, A., Saqib, S., Siti Halimatul Munawaroh, H., Lam, M. K., Shiong Khoo, K., Bokhari, A., & Loke Show, P. (2021). A practical approach for synthesis of biodiesel via non-edible seeds oils using trimetallic based montmorillonite nano-catalyst. *Bioresource Technology*, 328(November 2020), 124859.
- Negm, N. A., Rabie, A. M., & Mohammed, E. A. (2018). Molecular interaction of heterogeneous catalyst in catalytic cracking process of vegetable oils: chromatographic and biofuel performance investigation. *Applied Catalysis B: Environmental*, 239, 36–45.
- Ningsih, L., Deska, A., Arief, S., Septiani, U., Putri, Y. E., Efdi, M., & Syukri, . (2020). Enrichment of Sawahlunto Clay with Cation Ca^{2+} and Cu^{2+} and Preliminary Test of its Catalytic Activity in CPO Transesterification Reaction. *Aceh International Journal of Science and Technology*, 9(3), 187–196.
- Padi, D. S. (2015). *Sintesis Dan Karakterisasi Natrium Silikat (Na_2SiO_3)*. 7, 90–97.
- Permana, E., & Naswir, M. (2020). Kualitas Biodiesel Dari Minyak Jelantah Berdasarkan Proses Saponifikasi Dan Tanpa Saponifikasi. *JTT (Jurnal Teknologi Terapan)*, 6(1), 26.
- Purbasari, A., & Samadhi, T. W. (2021). Kajian Dehidroksilasi Termal Kaolin menjadi Metakaolin menggunakan Analisis Termogravimetri. *ALCHEMY Jurnal Penelitian Kimia*, 17(1), 105.
- Rahmani Vahid, B., Haghghi, M., Alaei, S., & Toghiani, J. (2017). Reusability enhancement of combustion synthesized $\text{MgO/MgAl}_2\text{O}_4$ nanocatalyst in biodiesel production by glow discharge plasma treatment. *Energy Conversion and Management*, 143, 23–32.
- Riyanto, A., Sutiarno, S., Indriyani, N. A., Warohmah, W., Wardani, S. I. K., Syafriadi, S., Karo, P. K., & Suciati, S. W. (2023). Efek Perbedaan Komposisi Komposit $\text{Na}_2\text{FeSiO}_4/\text{C}$ Berbasis Silika Sekam Padi Terhadap Fasa dan Sifat Listriknya. *ALCHEMY Jurnal Penelitian Kimia*, 19(2), 140.
- Salmasi, M. Z., Kazemeini, M., & Sadjadi, S. (2020). Transesterification of sunflower oil to biodiesel fuel utilizing a novel $\text{K}_2\text{CO}_3/\text{Talc}$ catalyst: Process optimizations and kinetics investigations. *Industrial Crops and Products*, 156(August), 112846.
- Schoonheydt, R. A., Johnston, C. T., & Bergaya, F. (2018). Clay minerals and their

surfaces. In *Developments in Clay Science* (Vol. 9, pp. 1–21).

- Sharma, P., & Bhavani, A. G. (2021). Green, cost effective barium loaded montmorillonite catalyst for biodiesel synthesis from waste cooking oil. *Materials Today: Proceedings*, 45, 4544–4549.
- Sisca, V., Deska, A., Syukri, S., Zilfa, Z., & Jamarun, N. (2021). Synthesis and Characterization of CaO Limestone from Lintau Buo Supported by TiO₂ as a Heterogeneous Catalyst in the Production of Biodiesel. *Indonesian Journal of Chemistry*, 21(4), 979.
- Syukri, S., Ferdian, F., Rilda, Y., Putri, Y. E., Efdi, M., & Septiani, U. (2021). Synthesis of Graphene Oxide Enriched Natural Kaolinite Clay and Its Application For Biodiesel Production. *International Journal of Renewable Energy Development*, 10(2), 307–315.
- Syukri, S., Septioga, K., Arief, S., Putri, Y. E., Efdi, M., & Septiani, U. (2020). Natural Clay of Pasaman Barat Enriched by CaO of Chicken Eggshells as Catalyst for Biodiesel Production. *Bulletin of Chemical Reaction Engineering & Catalysis*, 15(3), 662–673.
- Topare, N. S., & Patil, K. D. (2020). Biodiesel from waste cooking soybean oil under ultrasonication as an alternative fuel for diesel engine. *Materials Today: Proceedings*, 43, 510–513.
- Trisunaryanti, W. (2018). *Material Katalis dan Karakternya*. UGM PRESS.
- Ulakpa, W. C., Ulakpa, R. O. E., Eyankware, E. O., & Egwunyenga, M. C. (2022). Statistical optimization of biodiesel synthesis from waste cooking oil using NaOH/ bentonite impregnated catalyst. *Cleaner Waste Systems*, 3(July), 100049.
- Wagner, J.-F. (2013). Mechanical Properties of Clays and Clay Minerals. In *Developments in Clay Science* (2nd ed., Vol. 5, pp. 347–381). Elsevier Ltd.
- Wimpenny, J. (2018). Clay Minerals. In *Nature* (Vol. 224, Issue 5217, pp. 265–275).
- Xu, H., Fan, E., Liu, J., Sun, S., Shao, G., Wang, H., Lu, H., & Liu, Q. (2019). Thermal stability and E. coli adsorption of kaolinite nanotubes. *Applied Clay Science*, 181(100), 105241.
- Xu, H., Jin, X., Chen, P., Shao, G., Wang, H., Chen, D., Lu, H., & Zhang, R. (2015). Preparation of kaolinite nanotubes by a solvothermal method. *Ceramics International*, 41(5), 6463–6469.
- Yusuff, A. S., Gbadamosi, A. O., & Popoola, L. T. (2021). Biodiesel production from transesterified waste cooking oil by zinc-modified anthill catalyst: Parametric optimization and biodiesel properties improvement. *Journal of Environmental Chemical Engineering*, 9(2), 104955.

Zhao, J., & Liu, X. (2023). Electron microscopic methods (TEM, SEM and energy dispersal spectroscopy). In *Encyclopedia of Soils in the Environment* (pp. 575–588). Elsevier.

