

## DAFTAR PUSTAKA

- (1) Khan, S.; Ajmal, S.; Hussain, T.; Rahman, M. U. Clay-Based Materials for Enhanced Water Treatment: Adsorption Mechanisms, Challenges, and Future Directions. *J. Umm Al-Qura Univ. Appl. Sci.* **2023**, No. 0123456789. <https://doi.org/10.1007/s43994-023-00083-0>.
- (2) Prabowo, R. Kadar Nitrit Pada Sumber Air Sumur Di Kelurahan Meteseh, Kec. Tembalang, Kota Semarang. *Cendikia Eksakta* **2016**, 55 (1), 55–61.
- (3) Suhartawan, B.; Iriyanto, S. M.; Suyatno, S.; Daawia, D. Analisis Indeks Kualitas Air Sumur Di Kampung Yamta Distrik Arso Kabupaten Keerom Provinsi Papua. *Syntax Lit. J. Ilm. Indones.* **2022**, 7 (12), 20025–20037.
- (4) Qi, J.; Yu, J.; Shah, K. J.; Shah, D. D.; You, Z. Applicability of Clay/Organic Clay to Environmental Pollutants: Green Way—An Overview. *Appl. Sci.* **2023**, 13 (16). <https://doi.org/10.3390/app13169395>.
- (5) Bijang, C. M.; Sekewael, S. J.; Koritelu, J. A. Base Activated Clay And Its Application As Cation Exchanger To Reduce The  $Mg^{2+}$  and  $Ca^{2+}$  Ions Concentration In The Well. *Indones. J. Chem. Res.* **2014**, 1 (2), 93–98.
- (6) Laili, R.; Nurhayati, N.; Muhdarina, M. Karakterisasi Lempung Cengar Aktivasi Koh Kalsinasi Pada 300 OC. Riau University 2014.
- (7) Ningsih, L.; Deska, A.; Arief, S.; Septiani, U.; Eka Putri, Y.; Efdi, M. Enrichment of Sawahlunto Clay with Cation  $Ca^{2+}$  and  $Cu^{2+}$  and Preliminary Test of Its Catalytic Activity in CPO Transesterification Reaction. *Aceh Int. J. Sci. Technol* **2020**, 9 (3), 187–196. <https://doi.org/10.13170/17944>.
- (8) Mukarrom, F.; Sidiq, H.; Purnomo, H.; Fakultas, D.; Mineral, T.; Teknologi, I.; Yogyakarta, N. Pelepasan ion cu<sup>ii</sup> dan mn<sup>ii</sup> pada air asam tambang menggunakan lempung bontang. *J. Inov. Pertan.* 25 (1), 59.
- (9) Amaliah Azis, H.; Mustam, M.; Ramdani, N.; Amin, I. I.; Sari, N.; Gregorius, G. Penggunaan Adsorben Bentonit Pada Proses Pencucian Kering Dalam Pemurnian Biodiesel Minyak Jelantah. *J. Tek. Kim. USU* **2023**, 12 (2), 108–115. <https://doi.org/10.32734/jtk.v12i2.11644>.
- (10) Oktavia, S. Analisis Kualitas Badan Air Dan Kualitas Air Sumur Di Sekitar Pabrik Gula Rejo Agung Baru Kota Madiun. *J. Kesehat. Lingkung.* **2018**, 10 (1), 1–12.

- (11) Yu, K.; Shang, X.; Fu, L.; Zuo, X.; Yang, H. Clay Minerals Regulating the Performance of Tribo-Composites: A Review. *Green Smart Min. Eng.* **2024**, *1* (2), 220–240. <https://doi.org/10.1016/j.gsme.2024.06.002>.
- (12) Louati, S.; Baklouti, S.; Samet, B. Geopolymers Based on Phosphoric Acid and Illito-Kaolinitic Clay. *Adv. Mater. Sci. Eng.* **2016**, *2016*. <https://doi.org/10.1155/2016/2359759>.
- (13) Liu, X.; Yang, S.; Gu, P.; Liu, S.; Yang, G. Adsorption and Removal of Metal Ions by Smectites Nanoparticles: Mechanistic Aspects, and Impacts of Charge Location and Edge Structure. *Appl. Clay Sci.* **2021**, *201*. <https://doi.org/10.1016/j.clay.2020.105957>.
- (14) Rat, E.; Martínez-Martínez, S.; Sánchez-Garrido, J. A.; Pérez-Villarejo, L.; Garzón, E.; Sánchez-Soto, P. J. Characterization, Thermal and Ceramic Properties of Clays from Alhabia (Almería, Spain). *Ceram. Int.* **2023**, *49* (9), 14814–14825. <https://doi.org/10.1016/j.ceramint.2022.05.328>.
- (15) Gu, S.; Kang, X.; Wang, L.; Lichtfouse, E.; Wang, C. Clay Mineral Adsorbents for Heavy Metal Removal from Wastewater: A Review. *Environ. Chem. Lett.* **2019**, *17* (2), 629–654. <https://doi.org/10.1007/s10311-018-0813-9>.
- (16) Hanein, T.; Franco, K. T.; Marsh, A. T. M.; Maier, M.; Wang, B.; Canut, M.; Juenger, M. C. G.; Ben, M.; Franc, H.; Karen, A.; Susan, L. S.; Alujas-diaz, M. A.; Rossetti, A.; Taghit-hamou, A.; Castel, A.; White, C.; Kanavaris, F.; Zunino, F.; Geng, G.; Ez-zaki, H.; Beltagui, H.; Ivan, J. Clay Calcination Technology : State-of-the-Art Review by the RILEM TC 282-CCL. **2023**, *6* (2022). <https://doi.org/10.1617/s11527-021-01807-6>.
- (17) Supriyadi, S.; Arief Rahman, F.; Yuhardi, E.; Umam Universitas Trunojoyo Madura, C.; Raya Telang, J. Serapan N, P, Dan K Pada Jagung Madura-3 Di Tanah Lempung Liat Berpasir Diameliorasi Biochar Dan Bentonit-Teraktivasi Asam N, P, And K Uptake of Madura-3 Maize in a Sandy Clay Loam Soil Amended with Biochar and Acid Activated-Bentonite. *J. Tanah dan Sumberd. Lahan* **2023**, *10*, 185–190. <https://doi.org/10.21776/ub.jtsl.2023.010.2.01>.
- (18) Irawan, A.; Rahmayetty, R.; Sari, N. K.; Utami, S. Pengaruh Aktivator Kimia Pada Performasi Bioadsorben Dari Karbon Tempurung Kelapa Sebagai Penjernih Air Sumur. *Tek. J. Sains dan Teknol.* **2016**, *12* (1), 103. <https://doi.org/10.36055/tjst.v12i1.6620>.

- (19) Bhattacharyya, K. G.; Gupta, S. Sen. Adsorption of Fe(III) from Water by Natural and Acid Activated Clays: Studies on Equilibrium Isotherm, Kinetics and Thermodynamics of Interactions. *Adsorption* **2006**, *12* (3), 185–204. <https://doi.org/10.1007/s10450-006-0145-0>.
- (20) Taylor, P.; Bunaci, A. A.; Aboul-enein, H. Y. Critical Reviews in Analytical Chemistry X-Ray Diffraction: Instrumentation and Applications X-Ray Diffraction: Instrumentation and Applications. No. May 2015, 37–41. <https://doi.org/10.1080/10408347.2014.949616>.
- (21) Raval, N.; Maheshwari, R.; Kalyane, D.; Youngren-ortiz, S. R.; Chougule, M. B.; Tekade, R. K. *Importance of Physicochemical Characterization of Nanoparticles in Pharmaceutical Product Development*; Elsevier Inc., 2019. <https://doi.org/10.1016/B978-0-12-817909-3.00010-8>.
- (22) Pinto, A. H. Portable X-Ray Fluorescence Spectrometry: Principles and Applications for Analysis of Mineralogical and Environmental Materials. **2018**, *1*, 1–6.
- (23) Potts, P. J.; Webb, P. C. X-Ray Fluorescence Spectrometry. **1992**, *44*, 251–296.
- (24) Gong, Y.; Chen, X.; Wu, W. Application of Fourier Transform Infrared (FTIR) Spectroscopy in Sample Preparation: Material Characterization and Mechanism Investigation. *Adv. Sample Prep.* **2024**, *11* (June), 100122. <https://doi.org/10.1016/j.sampr.2024.100122>.
- (25) Tiquia-Arashiro, S.; Li, X.; Pokhrel, K.; Kassem, A.; Abbas, L.; Coutinho, O.; Kasperek, D.; Najaf, H.; Opara, S. Applications of Fourier Transform-Infrared Spectroscopy in Microbial Cell Biology and Environmental Microbiology: Advances, Challenges, and Future Perspectives. *Front. Microbiol.* **2023**, *14* (November). <https://doi.org/10.3389/fmicb.2023.1304081>.
- (26) Pratiwi, R. A.; Nandiyanto, A. B. D. How to Read and Interpret UV-VIS Spectrophotometric Results in Determining the Structure of Chemical Compounds. *Indones. J. Educ. Res. Technol.* **2022**, *2* (1), 1–20. <https://doi.org/10.17509/ijert.v2i1.35171>.
- (27) Atole, D. M.; Rajput, H. H. Ultraviolet Spectroscopy And Its Pharmaceutical Applications- A Brief Review. **2018**, *11* (2).

- (28) SUhartati, T. *Dasar-Dasar Spektrofotometri Uv-Vis Dan Spektrometri Massa Untuk Penentuan Struktur Senyawa Organik*, 2017th ed.; CV. Anugrah Utama Raharja Anggota IKAPI No.003/LPU/2013: Lampung, 2017.  
[https://doi.org/10.1007/978-3-319-92955-2\\_12](https://doi.org/10.1007/978-3-319-92955-2_12).
- (29) Platt, P. Atomic Absorption Spectroscopy. *Sel. Annu. Rev. Anal. Sci.* **1971**, 1 (January), 177–234. <https://doi.org/10.1039/AS9710100177>.
- (30) Syukri; Fifi, F.; Rahmayeni; Mai, E.; Eka, P. Y.; Upita, S. Effect of Thermal Treatment and Nickel-Salt Modification on the Catalytic Performance of the Illite-Kaolinite Clay from Bukittinggi of West Sumatra in Palm Oil Transesterification. *Herald of the Bauman Moscow State Technical University, Series Natural Sciences*. 2022, pp 125–136. <https://doi.org/10.18698/1812-3368-2022-2-125-136>.
- (31) Gámiz, E.; Melgosa, M.; Sánchez-Marañón, M.; Martín-García, J. M.; Delgado, R. Relationships between Chemico-Mineralogical Composition and Color Properties in Selected Natural and Calcined Spanish Kaolins. *Appl. Clay Sci.* **2005**, 28 (1-4 SPEC. ISS.), 269–282. <https://doi.org/10.1016/j.clay.2004.02.004>.
- (32) Zheng, D.; Liang, X.; Cui, H.; Tang, W.; Liu, W.; Zhou, D. Study of Performances and Microstructures of Mortar with Calcined Low-Grade Clay. *Constr. Build. Mater.* **2022**, 327 (February), 126963. <https://doi.org/10.1016/j.conbuildmat.2022.126963>.
- (33) Nugroho, W. S. K.; Suseno, A.; Priyono, P. Pengaruh Temperatur Kalsinasi Pada Modifikasi Lempung Dengan Oksida Aluminium Sebagai Pemilar. *J. Kim. Sains dan Apl.* **2014**, 17 (2), 43–47. <https://doi.org/10.14710/jksa.17.2.43-47>.
- (34) Ptáček, P.; Frajkorová, F.; Šoukal, F.; Opravil, T. Kinetics and Mechanism of Three Stages of Thermal Transformation of Kaolinite to Metakaolinite. *Powder Technol.* **2014**, 264, 439–445. <https://doi.org/10.1016/j.powtec.2014.05.047>.
- (35) Rezende, J. C. T.; Ramos, V. H. S.; Oliveira, H. A.; Oliveira, R. M. P. B.; Jesus, E. Removal of Cr(VI) from Aqueous Solutions Using Clay from Calumbi Geological Formation, N. Sra. Socorro, SE State, Brazil. *Mater. Sci. Forum* **2018**, 912 MSF (June), 1–6. <https://doi.org/10.4028/www.scientific.net/MSF.912.1>.
- (36) Uyguner, C. S.; Bekbolet, M. Evaluation of Humic Acid Photocatalytic Degradation by UV-Vis and Fluorescence Spectroscopy. *Catal. Today* **2005**, 101

(3-4 SPEC. ISS.), 267–274. <https://doi.org/10.1016/j.cattod.2005.03.011>.

- (37) Primandini, P.; Nur Hasanah, A.; A, W. A.; Budianto, E.; Sudirman, dan. Pengaruh Suhu Kalsinasi Terhadap Kemampuan Adsorpsi Toksin Pada Kaolin Untuk Penyakit Diare. *J. Sains Mater. Indones. Indones. J. Mater. Sci.* **2012**, 13 (3), 230–235.
- (38) KEMENKES. Peraturan Menteri Kesehatan Republik Indonesia Nomor 2 Tahun 2023 Tentang Peraturan Pelaksanaan Peraturan Pemerintah Nomor 66 Tahun 2014 Tentang Kesehatan Lingkungan. **2023**, No. 55.

