DAFTAR PUSTAKA

Abas, S.N.A., Ismail, M.H.S., Kamal, M.L., and Izhar, S., 2013, Adsorption process of heavy metals by low-cost adsorbent: A review, *World Appl. Sci. J.*, 28, 1518–1530.

Ahmad, R., 2009, Studies on adsorption of crystal violet dye from aqueous solution onto coniferous pinus bark powder (CPBP), *J. Hazard. Mater.*, 171, 767–773.

Akdogan, H.A., Topuz, M.C., and Urhan, A.A., 2014, Studies on decolorization of reactive blue 19 textile dye by Coprinus plicatilis, *J. Environ. Heal. Sci. Eng.*, 12, 1–7.

Al-Ghouti, M.A. and Al-Absi, R.S., 2020, Mechanistic understanding of the adsorption and thermodynamic aspects of cationic methylene blue dye onto cellulosic olive stones biomass from wastewater, *Sci. Rep.*, 10, 1–18.

Arvianto, R.I., Mauludi, K., Damayanti, A.K., dan Pradipta, M.F., 2019, Studi Kinetika Adsorpsi Emas Menggunakan Kulit Mangga (Mangifera indica) Termodifikasi Asam Sulfat, *Chim. Nat. Acta*, 7, 1.

Astuti, W., Dwi Handayani, A., dan Wulandari, D.A., 2018, Adsorpsi Methyl Violet oleh Karbon Aktif dari Limbah Tempurung Kelapa dengan Aktivator ZnCl2 Menggunakan Pemanasan Gelombang Mikro, *J. Rekayasa Kim. Lingkung.*, 13, 189–199.

Chakraborty, S., Chowdhury, S., and Das Saha, P., 2011, Adsorption of Crystal Violet from aqueous solution onto NaOH-modified rice husk, *Carbohydr. Polym.*, 86, 1533–1541.

Crini, G., Peindy, H.N., Gimbert, F., and Robert, C., 2007, Removal of C.I. Basic Green 4 (Malachite Green) from aqueous solutions by adsorption using cyclodextrin-based adsorbent: Kinetic and equilibrium studies, *Sep. Purif. Technol.*, 53, 97–110.

Dayo Felix, L., 2018, Kinetic Study of the Discoloration of Crystal Violet Dye in Sodium Hydroxide Medium, *J. Chem. Appl. Chem. Eng.*, 02, 3–6.

Duan, C.T., Zhao, N., Yu, X.L., Zhang, X.Y., and Xu, J., 2013, Chemically Modified Kapok Fiber for Fast Adsorption of Pb^{2+}, Cd^{2+}, Cu^{2+} from Aqueous Solution, *Cellulose*, 849–860.

Elsherif, K.M., El-Dali, A., Alkarewi, A.A., Ewlad-Ahmed, A.M., and Treban, A., 2021, Adsorption of crystal violet dye onto olive leaves powder: Equilibrium and kinetic studies, *Chem. Int.*, 7, 79–89.

Fatma, Hariani, P.L., Riyanti, F., and Sepriani, W., 2018, Desorption and re-adsorption of procion red MX-5B dye on alumina-activated carbon composite, *Indones. J. Chem.*, 18, 222–228.

Futalan, C.M., Choi, A.E.S., Soriano, H.G.O., Cabacungan, M.K.B., and Millare, J.C., 2022, Modification Strategies of Kapok Fiber Composites and Its

Application in the Adsorption of Heavy Metal Ions and Dyes from Aqueous Solutions : A Systematic Review, *Int. J. Environ. Res. Public Heal.*, 19, 2–26.

Gapusan, R.B. and Balela, M.D.L., 2020, Adsorption of anionic methyl orange dye and lead(II) heavy metal ion by polyaniline-kapok fiber nanocomposite, *Mater. Chem. Phys.*, 243, 122682.

Gurgel, L.V.A., Júnior, O.K., Gil, R.P. de F., and Gil, L.F., 2008, Adsorption of Cu(II), Cd(II), and Pb(II) from aqueous single metal solutions by cellulose and mercerized cellulose chemically modified with succinic anhydride, *Bioresour. Technol.*, 99, 3077–3083.

Habibi, Y., 2014, Key advances in the chemical modification of nanocelluloses, *Chem. Soc. Rev.*, 43, 1519–1542.

He, Y., Huang, M., Tang, W., and Ma, C., 2023, Improving enzymatic hydrolysis of sunflower straw pretreated by deep eutectic solvent with different carboxylic acids as hydrogen bond donors, *Ind. Crops Prod.*, 193, 116157.

Hokkanen, S., Repo, E., and Sillanpää, M., 2013, Removal of heavy metals from aqueous solutions by succinic anhydride modified mercerized nanocellulose, *Chem. Eng. J.*, 223, 40–47.

Irawati, H., Aprilita, N.H., dan Sugiharto, E., 2018, Adsorpsi Zat Warna Kristal Violet Menggunakan Limbah Kulit Singkong (Manihot esculenta), *Bimipa*, 25, 17–31.

Jain, C.K., 2001, Adsorption du zinc par les sédiments du lit du Gange: Modèles et cinétiques d'adsorption, *Hydrol. Sci. J.*, 46, 419–434.

Kang, P.H., Jeun, J.P., Chung, B.Y., Kim, J.S., and Nho, Y.C., 2007, Preparation and characterization of glycidyl methacrylate (GMA) grafted Kapok fiber by using radiation induced-grafting technique, *J. Ind. Eng. Chem.*, 13, 956–958.

Kirupa Sankar, M., Muthu Kumar, K., and Ranganathan, B. V., 2015, Adsorption of anionic azo dye from aqueous solution using Strychnos potatorum Linn seeds: isotherm and kinetic studies, *Int. J. Environ. Sci. Technol.*, 12, 2957–2964.

Klidi, N., Clematis, D., Carpanese, M.P., Gadri, A., Ammar, S., and Panizza, M., 2019, Electrochemical oxidation of crystal violet using a BDD anode with a solid polymer electrolyte, *Sep. Purif. Technol.*, 208, 178–183.

Lairini, S., El Mahtal, K., Miyah, Y., Tanji, K., Guissi, S., Boumchita, S., and Zerrouq, F., 2017, The adsorption of Crystal violet from aqueous solution by using potato peels (Solanum tuberosum): Equilibrium and kinetic studies, *J. Mater. Environ. Sci.*, 8, 3252–3261.

Laskar, N. and Kumar, U., 2018, Adsorption of Crystal Violet from Wastewater by Modified Bambusa Tulda, *KSCE J. Civ. Eng.*, 22, 2755–2763.

Lataye, D.H. and Gupta, T.B., 2019, Removal of Kristal violet and Methylene Blue Dyes Using Acacia Nilotica Sawdust Activated Carbon, *Indian J. Chem.*

Technol., 26, 52–68.

Lataye, D.H. and Hiradram, D., 2019, Removal of crystal violet and methylene blue dyes using Acacia nilotica sawdust activated carbon, *Indian J. Chem. Technol.*, 26, 52–68.

Leszczyńska, A., Radzik, P., Szefer, E., Mičušík, M., Omastová, M., and Pielichowski, K., 2019, Surface modification of cellulose nanocrystals with succinic anhydride, *Polymers (Basel).*, 11, 2–24.

Li, W.Y., Jin, A.X., Liu, C.F., Sun, R.C., Zhang, A.P., and Kennedy, J.F., 2009, Homogeneous modification of cellulose with succinic anhydride in ionic liquid using 4-dimethylaminopyridine as a catalyst, *Carbohydr. Polym.*, 78, 389–395.

Lim, L.B.L., Priyantha, N., Kamaludin, I.F., Mohamad Zaidi, N.A.H., and Samaraweera, A.P.G.M.V., 2021, Adsorption of crystal violet dye with cellulose derived from bitter gourd waste, *Desalin. Water Treat.*, 217, 431–441.

Lim, L.B.L., Usman, A., Hassan, M.H., and Mohamad Zaidi, N.A.H., 2020, Tropical wild fern (Diplazium esculentum) as a new and effective low-cost adsorbent for removal of toxic crystal violet dye, *J. Taibah Univ. Sci.*, 14, 621–627.

Liu, C.F., Sun, R.C., Zhang, A.P., Ren, J.L., Wang, X.A., Qin, M.H., Chao, Z.N., and Luo, W., 2007, Homogeneous modification of sugarcane bagasse cellulose with succinic anhydride using a ionic liquid as reaction medium, *Carbohydr. Res.*, 342, 919–926.

Liu, H., Zhang, J., Lu, M., Liang, L., Zhang, H., and Wei, J., 2020, Biosynthesis based membrane filtration coupled with iron nanoparticles reduction process in removal of dyes, *Chem. Eng. J.*, 387, 124202.

Liu, X., Li, Y., Wang, M., Liu, J., Han, L., and Qin, Q., 2023, Adsorption/Desorption Behavior of Ionic Dyes on Sintered Bone Char, *Mater. Chem. Phys.*, 297, 1–17.

Liu, Y., Wang, J., Zheng, Y., and Wang, A., 2012, Adsorption of methylene blue by kapok fiber treated by sodium chlorite optimized with response surface methodology, *Chem. Eng. J.*, 184, 248–255.

Ma, C.M., Hong, G.B., and Wang, Y.K., 2020, Performance evaluation and optimization of dyes removal using rice bran-based magnetic composite adsorbent, *Materials (Basel).*, 13, 1–18.

Martins, L.R., Rodrigues, J.A.V., Adarme, O.F.H., Melo, T.M.S., Gurgel, L.V.A., and Gil, L.F., 2017, Optimization of cellulose and sugarcane bagasse oxidation: Application for adsorptive removal of crystal violet and auramine-O from aqueous solution, *J. Colloid Interface Sci.*, 494, 223–241.

Maslukah, L., Zainuri, M., Wirasatriya, A., dan Widiaratih, R., 2020, Studi Kinetika Adsorpsi Dan Desorpsi Ion Fosfat (Po_4^{2-}) Di Sedimen Perairan Semarang Dan

Jepara, *J. Ilmu dan Teknol. Kelaut. Trop.*, 12, 385–396.

Mbacké, M.K., Kane, C., Diallo, N.O., Diop, C.M., Chauvet, F., Comtat, M., and Tzedakis, T., 2016, Electrocoagulation process applied on pollutants treatment- experimental optimization and fundamental investigation of the crystal violet dye removal, *J. Environ. Chem. Eng.*, 4, 4001–4011.

Mondal, N.K. and Kar, S., 2018, Potentiality of banana peel for removal of Congo red dye from aqueous solution: isotherm, kinetics and thermodynamics studies, *Appl. Water Sci.*, 8, 3–12.

Naharudin, A.U., Shaarani, S.H.N., Rou, L.M., Hamidi, N.H., Ahmad, N., and Rasid, R., 2020, Kapok As an Adsorbent for Industrial Wastewater, *J. Chem. Eng. Ind. Biotechnol.*, 5, 48–54.

Nandiyanto, A.B.D., Girsang, G.C.S., Maryanti, R., Ragadhita, R., Anggraeni, S., Fauzi, F.M., Sakinah, P., Astuti, A.P., Usdiyana, D., Fiandini, M., Dewi, M.W., and Al-Obaidi, A.S.M., 2020, Isotherm adsorption characteristics of carbon microparticles prepared from pineapple peel waste, *Commun. Sci. Technol.*, 5, 31–39.

Niso, D.L., 2021, Sintesis biosorben untuk menyerap ion logam nikel,7, 622–628.

Parshetti, G.K., Parshetti, S.G., Telke, A.A., Kalyani, D.C., Doong, R.A., and Govindwar, S.P., 2011, Biodegradation of Crystal Violet by Agrobacterium radiobacter, *J. Environ. Sci.*, 23, 1384–1393.

Pernyeszi, T., Farkas, R., and Kovács, J., 2019, Methylene blue adsorption study on microcline particles in the function of particle size range and temperature, *Minerals*, 9, 1–14.

Pividal, P., and Rocha, A.M., 2020, Thermal Behavior of Bi-Layered Needle-Punched Nonwovens Produced from 100% Raw Kapok Fibers, *J. Text. Inst.*, 112, 928–935.

Rahayu, L.H. dan Purnavita, S., 2014, Pengaruh suhu dan waktu adsorpsi terhadap sifat kimia-fisika minyak goreng bekas hasil pemurnian menggunakan adsorben ampas pati aren dan bentonit, *Momentum*, 10, 35–41.

Rahmat, M., Rehman, A., Rahmat, S., Bhatti, H.N., Iqbal, M., Khan, W.S., Bajwa, S.Z., Rahmat, R., and Nazir, A., 2019, Highly efficient removal of crystal violet dye from water by MnO2 based nanofibrous mesh/photocatalytic process, *J. Mater. Res. Technol.*, 8, 5149–5159.

Rani, S. and Chaudhary, S., 2022, Adsorption of methylene blue and crystal violet dye from waste water using Citrus limetta peel as an adsorbent, *Mater. Today Proc.*, 60, 336–344.

Rápó, E., Szép, R., Keresztesi, Á., Suciu, M., and Tonk, S., 2018, Adsorptive removal of cationic and anionic dyes from aqueous solutions by using eggshell household waste as biosorbent, *Acta Chim. Slov.*, 65, 709–717.

Reddy, G.V., Naidu, S.V., and Rani, T.S., 2009, A Study on Hardness and Flexural

Properties of Kapok/Sisal Composites, *J. Reinf Plast Comp*, 28, 2035–2044.

Reddy, G.V., Naidu, S.V., and Rani, T.S., 2008, Impact Properties of Kapok Based Unsaturated Polyester Hybrid Composites, *J. Reinf Plast Comp*, 27, 1789–1804.

Reynold, T.D., 1982, Unit Operation and Process in Environmental Engineering, Woods Worths Inc, Texas.

Riqotul Fuadah, S., dan Rahmayanti, M., 2019, Adsorpsi-Desorpsi Zat Warna Naftol Blue Black Menggunakan Adsorben Humin Hasil Isolasi Tanah Gambut Riau, Sumatera, *Anal. Anal. Environ. Chem.*, 4, 59–67.

Roy, D.C., Biswas, S.K., Saha, A.K., Sikdar, B., Rahman, M., Roy, A.K., Prodhan, Z.H., and Tang, S.S., 2018, Biodegradation of Crystal Violet dye by bacteria isolated from textile industry effluents, *PeerJ*, 2018, 1–28.

Saha, P. Das, Chakraborty, S., and Chowdhury, S., 2012, Batch and continuous (fixed-bed column) biosorption of crystal violet by Artocarpus heterophyllus (jackfruit) leaf powder, *Colloids Surfaces B Biointerfaces*, 92, 262–270.

Sangalang, R.H., 2021, Kapok Fiber- Structure, Characteristics and Applications: A Review, *Orient. J. Chem.*, 37, 513–523.

Sawyer, Clair, N., McCarty, Perry, L., Parkin, and Gene, F., 1994, *Chemistry for Environmental Engineering*, 4th Edition., McGraw-Hill, New York.

Şentürk, İ. and Alzein, M., 2020, Adsorption of Acid Violet 17 onto acid-activated pistachio shell: Isotherm, kinetic and thermodynamic studies, *Acta Chim. Slov.*, 67, 55–69.

Seow, T.W., and Lim, C.K., 2016, Removal of Dye by Adsorption: A Review, *Int. J. Appl. Eng. Res*, 11, 2675–2679.

Tabassum, A., Bhatti, H.N., Nouren, S., and Zahid, M., 2015, Catalytic potential of gourd peel peroxidase for biodegradation of synthetic recalcitrant dyes fuchsin acid and crystal violet, *J. Anim. Plant Sci.*, 25, 777–783.

Tejada-Tovar, C., Villabona-Ortíz, Á., and Gonzalez-Delgado, Á.D., 2021, Adsorption of azo-anionic dyes in a solution using modified coconut (Cocos nucifera) mesocarp: Kinetic and equilibrium study, *Water (Switzerland)*, 13, 1–20.

Umaningrum, D., Mujiyanti, D.R., dan Nurmasari, R., 2014, Adsorpsi Pb(II) oleh Asam Humat Terimobilisasi pada Hibrida Merkapto Silika dari Abu Sekam Padi, *Sains dan Terap. Kim.*, 1, 20–26.

Verma, V.K. and Mishra, A.K., 2010, Kinetic and isotherm modeling of adsorption of dyes onto rice husk carbon, *Glob. Nest J.*, 12, 190–196.

Wang, B., Sun, Y., and Du, L., 2022, Electrolytic treatment of crystal violet by TiO2–Fe–C electrodes, *J. Water Clim. Chang.*, 00, 1–17.

Wang, R., Shin, C.H., Kim, D., Ryu, M., and Park, J.S., 2016, Adsorption of heavy metals and organic contaminants from aqueous stream with chemically

enhanced kapok fibers, *Environ. Earth Sci.*, 75, 1–6.

Wang, S. and Li, H., 2007, Kinetic modelling and mechanism of dye adsorption on unburned carbon, *Dye. Pigment.*, 72, 308–314.

Wathukarage, A., Herath, I., Iqbal, M.C.M., and Vithanage, M., 2019, Mechanistic understanding of crystal violet dye sorption by woody biochar: implications for wastewater treatment, *Environ. Geochem. Health*, 41, 1647–1661.

Wolok, E., Lahay, I.H., Machmoed, B.R., and Pakaya, F., 2019, Modification and Characterization of Ceiba Pentandra (L.) Gaertn. (Kapok) Fiber: Physical Properties, *Int. J. Res. -GRANTHAALAYAH*, 7, 381–390.

Xiang, H.F., Wang, D., Liua, H.C., Zhao, N., and Xu, J., 2013, Investigation on sound absorption properties of kapok fibers, *Chinese J. Polym. Sci. (English Ed.*, 31, 521–529.

Xin, P.P., Huang, Y.B., Hse, C.Y., Cheng, H.N., Huang, C., and Pan, H., 2017, Modification of cellulose with succinic anhydride in TBAA/DMSO mixed solvent under catalyst-free conditions, *Materials (Basel).*, 10, 1–14.

Yang, N., Shin, C.H., Kim, D., Park, J.S., Rao, P., and Wang, R., 2020, Synthesis, characterization, and mercury removal application of surface modified kapok fibers with dopamine (DA): investigation of bidentate adsorption, *Environ. Earth Sci.*, 79, 1–8.

Yeo, K.F.H., Li, C., Dong, Y., Yang, Y., Wu, K., Zhang, H., Chen, Z., Gao, Y., and Wang, W., 2022, Adsorption performance of Fe(III) modified kapok fiber for As(V) removal from water, *Sep. Purif. Technol.*, 287, 120494.

Yu, W., Xu, J., Li, Jinpeng, Zhu, S., Xie, J., Zhou, Z., Wang, B., Li, Jun, and Chen, K., 2022, Hollow Structured Kapok Fiber-Based Hierarchical Porous Biocarbons for Ultrahigh Adsorption of Organic Dyes, *Ind. Eng. Chem. Res.*, 61, 4114–4124.

Yunusa, U. and Bashir, M., 2021, Cationic dyes removal from wastewater by adsorptive method : A systematic in-depth review, Algerian Journal of Chemical Engineering, 02, 6–40.

Zheng, Y., Wang, J., and Wang, A., 2021, Recent advances in the potential applications of hollow kapok fiber-based functional materials, *Cellulose*, 28, 5269–5292.

Zheng, Y., Wang, J., Zhu, Y., and Wang, A., 2015, Research and application of kapok fiber as an absorbing material: A mini review, *J. Environ. Sci. (China)*, 27, 21–32.