DAFTAR PUSTAKA

Araújo, L. R. G., Cavalcante Jr., C. L., Farias, K. M., Guedes, I., Sasaki, J. M., Freire, P. T. C., Melo, F. E. A., and Mendes-Filho, J., 1999, Synthesis of Cubic Y Zeolite Using a Pulsed Microwave Heating System, *J. Mater. Res.*, *2*(2), 105–109.

Bazrafshan, E., Zarei, A. A., Nadi, H., and Zazouli, M. A., 2014, Adsorptive Removal of Methyl Orange and Reactive Red 198 Dyes by Moringa Peregrina Ash, *Indian J. Chem. Technol.*, *21*, 105–113.

Bhakya, S., Muthukrishman, S., Sukumaran, M., Muthukumar, M., Senthil, K.T., and Rao, M.V., 2015, Catalytic Degradation of Organic Dyes Using Synthesized Silver Nanoparticles: A Green Approach, *J. Bioremed. Biodegr.*, 6, 1-9.

Cardoso, N. F., Pinto, R. B., Lima, E. C., Calvete, T., Amavisca, C. V., Royer, B., Cunha, M. L., Fernandes, T. H. M., and Pinto, I. S., 2011, Removal of Remazol Black B Textile Dye from Aqueous Solution by Adsorption. *Desalination*, *269*(1–3), 92-103.

Cheng, Y., Cao, T., Xiao, Z., Zhu, H., and Yu, M., 2022, Photocatalytic Treatment of Methyl Orange Dye Wastewater by Porous Floating Ceramsite Loaded with Cuprous Oxide, *Coatings*, 12(286), 1-17.

Chieng, Z. H., Mohyaldinn, M. E., Hassan, A. M., and Bruining, H., 2020, Experimental Investigation and Performance Evaluation of Modified Viscoelastic Surfactant (VES) as a New Thickening Fracturing Fluid, *Polumers*, 12(1470), 1-19.

Cruz, K.V., Lam, A., and Wilson, C.M.Z., 2017, Full Mechanism of Zeolite Dealumination in Aqueous Strong Acid Medium: *Ab Initio* Periodic Study on H-Clinoptilolite, *J. Phys. Chem.*, 121(5), 2652–2660.

Ding, H., Wang, Y., Liang, N., and Wang, B., 2011, Activation of Natural Zeolite and Its Adsorption Property, *Adv. Mater. Res.*, *178*, 3–7.

Djaeni, M., Kurniasari, L., and Sasongko, S. B., 2015, Preparation of Natural Zeolite for Air Dehumidification in Food Drying, *Int. J. Eng. Sci.*, *8*(1), 80–83.

Emelda, L., Putri, S. M., dan Ginting, S., 2013, Pemanfaatan Zeolit Alam Teraktivasi untuk Adsorpsi Logam Krom (Cr^{3+}), *J. Rekayasa Kim. Lingkung.*, *9*(4), 166-172.

Fauziyah, N., Sudharto, and Pardoyo, 2015, Adsorption of Indigo Carmine Dye Using Cetyltrimethylammonium Bromide (CTAB) Surfactant Modified Zeolite, *J. Mat. Sains.*, *23*(4), 121–126.

Gezahegn, G. Y., 2021, Electrochemical Degradation of Reactive Dyes in Textile Industrial Wastewater by Modified Electrodes, *Research Square*, 1–20.

Gholami-borujeni, F., and Mahvi, A. H., 2011, Enzymatic Treatment and Detoxification of Acid Orange 7 from Textile Wastewater, *Appl. Biochem. Biotechnol.*, 165, 1274–1284.

Gottardi, G., and Galli, E., 1985, *Natural Zeolites*, Springer-Verlag, Berlin.

Granda, V.M., Perez, C.A.I., and Diaz, G.M.E., 2006, Zeolites and Zeolite-Based Materials in Analytical Chemistry *(TRAC)*, 25(1), 24-30.

Heibati, B., Rodriguez-Couto, S., Amrane, A., Rafatullah, M., Hawari, A., and Al-Ghouti, M. A., 2014, Uptake of Reactive Black 5 by Pumice and Walnut Activated Carbon: Chemistry and Adsorption Mechanisms, *J. Ind. Eng. Chem.*, *20*(5), 2939-2347.

Ho, Y.S., and McKay, G., 1999, Pseudo-Second Order Model for Sorption Processes, *Process Biochemistry*, 34, 451-465.

İnce, M., and İnce, O. K., 2017, An Overview of Adsorption Technique for Heavy Metal Removal from Water/Wastewater: A Critical Review, *Int. j. pure appl. biosci.*, *3*(2), 10–19.

Indriawati, A., Wana, W., Rafsanjani, R.A., dan Afriani, F., 2019, Pengaruh Variasi pH Terhadap Karakteristik Oksida-Besi Berbasis Limbah Besi Terkorosi, *Prosiding, Seminar Nasional Penelitian dan Pengabdian pada Masyarakat (SNPPM)*, 3-4 September, Pangkalpinang.

Ip, A. W. M., Barford, J. P., and McKay, G., 2009, Reactive Black Dye Adsorption/Desorption onto Different Adsorbents: Effect of Salt, Surface Chemistry, Pore Size and Surface Area, *J. Colloid Interface Sci.*, *337*(1), 32-38.

Iwuozor, K. O., Ighalo, J. O., Chizitere, E., Adewale, L., and Adaobi, C., 2021, Current Research in Green and Sustainable Chemistry Adsorption of Methyl Orange : A Review on Adsorbent Performance, *Current Research in Green and Sustainable Chemistry*, *4*, 1-16.

Kajjumba, G.W., Emik, S., Ongen, A., Ozcan, H.K., and Aydin, S., 2018, *Advanced Sorption Process Applications*, IntechOpen, Rijeka.

Kartina, B., Ashar, T., dan Hasan, W., 2012, Karakteristik Pedagang, Sanitasi Pengolahan dan Analisa Kandungan Rhodamin B pada Bumbu Cabai Giling di Pasar Tradisional Kecamatan Medan Baru Tahun 2012, *Lingkungan Dan Keselamatan Kerja*, *1*(2), 1-7.

Kuen, W., and Tayade, R. J., 2014, Recent Developments in Photocatalytic Dye Degradation upon Irradiation with Energy-Efficient Light Emitting Diodes, *Chinese J. Catal.*, *35*(11), 1781–1792.

Lemic, J., Milosevic, S., Vukasinovic, M., Mihajlovic, A.R., and Kovacevic, D.,

2006, Surface Modification of a Zeolite and The Influence of pH and Ionic Strength on The Desorption of an Amine, *J. Serb. Chem. Soc. (JSCS)*, 71(11), 1161-1172.

Lemine, O. M., Omri, K., Zhang, B., El Mir, L., Sajieddine, M., Alyamani, A., and Bououdina, M., 2012, Sol-Gel Synthesis of 8 nm Magnetite (Fe_3O_4) Nanoparticles and Their Magnetic Properties, *Superlattices Microstruct.*, *52*(4), 793–799.

Li, Z., and Bowman, R.S., 1998, Sorption of Chromate and PCE by Surfactant Modified Clay Minerals, *Environ. Eng. Sci.*, 15, 237-245.

Lianos, P., 2011, Production of Electricity and Hydrogen by Photocatalytic Degradation of Organic Wastes in a Photoelectrochemical Cell The Concept of The Photofuelcell : A Review of A Re-Emerging Research Field, *J. Hazard. Mater.*, *185*(2–3), 575–590.

Lukic, B., Panico, A., Huguenot, D., and Fabbricino, M., 2016, Evaluation of PAH Removal Efficiency in An Artificial Soil Amended With Different Types of Organic Wastes, *Euro-Mediterr. J. for Environ. Integr.*, 1(1), 1-11.

Mahvi, A. H., Ghanbarian, M., Nasseri, S., and Khairi, A., 2009, Mineralization and Discoloration of Textile Wastewater by TiO_2 Nanoparticles, *Desalination*, *239*(1–3), 309–316.

Maylani, A. S., Sulistyaningsih, T., dan Kusumastuti, E., 2016, Preparasi Nanopartikel Fe_3O_4 (Magnetit) Serta Aplikasinya Sebagai Adsorben Ion Logam Kadmium, *Indones. J. Chem. Sci.*, *5*(2), 130–135.

Mazloomi, F., and Jalali, M., 2015, Ammonium Removal from Aqueous Solitions by Natural Iranian Zeolite in the Presence of Organic Acids, Cations, and Anions, *J. Environ. Chem. Eng*., 4, 240-249.

McLaren, J., and Williams, I. D., 2015, Science of the Total Environment The Impact of Communicating Information About Air Pollution Events on Public Health, *Sci. Total Environ.*, *538*, 478–491.

McMullan, G., Meehan, C., Conneely, A., Kirby, N., Robinson, T., Nigam, P., Banat, I. M., Marchant, R., and Smyth, W. F., 2001, Microbial Decolourisation and Degradation of Textile Dyes, *Appl. Microbiol. Biotechnol.*, *56*(1–2), 81-87.

Moshoeshoe, M., Nadiye-tabbiruka, M. S., and Obuseng, V., 2017, A Review of the Chemistry , Structure , Properties and Applications of Zeolites, *Am. J. Mater. Sci.*, *7*(5), 196–221.

Mubarak, N. S. A., Chuan, T. W., Khor, H. P., Jawad, A. H., Wilson, L. D., and Sabar, S., 2021, Immobilized Fe-Loaded Chitosan Film for Methyl Orange Dye Removal: Competitive Ions, Reusability, and Mechanism, *J. Polym. Environ.*, *29*(4), 1050–1062.

Natarajan, S., Bajaj, H. C., and Tayade, R. J., 2017, Recent Advances Based on The Synergetic Effect of Adsorption for Removal of Dyes from Waste Water Using Photocatalytic Process, *Res. J. Environ. Sci.*, 1–22.

Ngapa, Y. D., 2017, Study of The Acid-Base Effect on Zeolite Activation and Its Characterization as Adsorbent of Methylene Blue Dye, *Jurnal Kimia Dan Pendidikan Kimia*, *2*(2), 90-96.

Ngapa, Y. D., dan Gago, J., 2019, Adsorpsi Ion Pb(II) Oleh Zeolit Alam Ende Teraktivasi Asam : Studi Pengembangan Mineral Alternatif Penjerap, *Indones. J. Chem.*, *7*(2), 84–91.

Ngapa, Y. D., and Gago, J., 2021, Optimizing of Competitive Adsorption Methylene Blue and Methyl Orange using Natural Zeolite from Ende-Flores, *Jurnal Kimia Dan Pendidikan Kimia*, *6*(1), 39-48.

Noh, J., Osman, O. I., Aziz, S. G., Winget, P., and Brédas, J. L., 2014, A Density Functional Theory Investigation of The Electronic Structure and Spin Moments of Magnetite, *Sci. Technol. Adv.*, *15*(4), 1-8.

Noviarty, Anggraini, D., and Nugroho, A., 2009, Cs Ion Exchange Capacity of Zeolite Bayah, Lampung, and Tasikmalaya, *Jurnal Zeolit Indonesia*, *8*(1), 39–43.

Octarya, Z., Refelita, F., and Rahim, N., 2019, Making Charcoal Water Electrodes, *Indones. J. Sci. Technol.*, *2*(1), 66–70.

Pandey, P. K., Sharma, S. K., and Sambi, S. S., 2015, Removal of Lead(II) from Waste Water on Zeolite-NaX, *Int. J. Environ. Sci. Tech.*, 7, 395-397.

Panneerselvam, P., Bala, V. S. S., Thiruvengadaravi, K. V., Nandagopal, J., Palanichamy, M., and Sivanesan, S., 2009, The Removal of Copper Ions from Aqueous Solution Using Phosphoric Acid Modified B- Zeolites, *Indian. J. Sci. Technol.*, *2*(2), 63-66.

Park, Y., 2014, A New Paradigm Shift for The Green Synthesis of Antibacterial Silver Nanoparticles Utilizing Plant Extracts, *Toxicol. Res.*, 30(3), 169-178.

Patel, H., and Vashi, R. T., 2012, Removal of Congo Red dye from Its Aqueous Solution Using Natural Coagulants, *J. Saudi Chem. Soc.*, *16*(2), 131–136.

Pearce, C. I., Lloyd, J. R., and Guthrie, J. T., 2003, The Removal of Colour from Textile Wastewater Using Whole Bacterial Cells: A Review, *Dyes and Pigments*, 58(3), 179-196.

Prasetyowati, R., Widiawati, D., Swastika, P. E., Ariswan, A., dan Warsono, W, 2021, Sintesis dan Karakterisasi Nanopartikel Magnetit (Fe_3O_4) Berbasis Pasir Besi Pantai Glagah Kulon Progo dengan Metode Kopresipitasi pada Berbagai Variasi Konsentrasi NH_4OH, *J. Sains Dasar*, *10*(2), 57–61.

Pohan, M. S. A., Sutarno, dan Suyanta, 2016, Studi Adsorpsi-Desorpsi Anion Fosfat pada Zeolit Termodifi-kasi CTAB, *Jurnal Penelitian Sains*, *18*(3), 1-

13.

Pujiastuti, C., Erwan, A.S., Setyorini, N., dan Prabowo, D.T., 2008, Adsorpsi Logam Timbal Dalam Limbah Elektroplating dengan Sekam Padi, *Prosiding, Makalah Seminar Nasional Soebardjo Brotohardjono,* 18 Juni, Surabaya.

Pujilestari, T., 2016, Review: Sumber dan Pemanfaatan Zat Warna Alam untuk Keperluan Industri, *Dinamika Kerajinan Dan Batik: Majalah Ilmiah*, *32*(2), 93-106.

Purwanto, A., Kwartiningsih, dan Mastuti, E. E., 2012, Pembuatan Zat Warna Alami dalam Bentuk Serbuk untuk Mendukung Industri Batik di Indonesia, *Jurnal Rekayasa Proses,* 6(1), 26-29.

Rafatullah, M., Sulaiman, O., Hashim, R., and Ahmad, A., 2010, Adsorption of Methylene Blue on Low-Cost Adsorbents: A Review, *J. Hazard. Mater.*, 177(1–3), 70-80.

Rahmayanti, M., 2020, Sintesis dan Karakterisasi Magnetit (Fe_3O_4): Studi Komparasi Metode Konvensional dan Metode Sonokimia, *Al Ulum Sains Dan Teknologi*, *6*(1), 26–31.

Rendo, D., 2021, Adsorption of Methylene Blue Dye using Fe_3O_4 Magnetized Natural H, *J. Kim. Sains. Apl.*, *24*, 51–57.

Rosyidah, A. K., dan Suyanta, 2021, Sintesis dan Karakterisasi Komposit Zeolit Magnetit dan Aplikasinya Sebagai Adsorben Ni(II), *Jurnal Sains Dan Terapan Kimia*, *15*(1), 37-47.

Sakir, M. and Onses, M. S., 2019, Results in Physics Solid Substrates Decorated with Ag Nanostructures for The Catalytic Degradation of Methyl Orange, *Results in Physics*, *12*, 1133–1141.

Sari, F. I. P., 2017, Sintesis, Karakterisasi Nanopartikel Magnetit, Mg/Al NO_3–Hidrotalsit dan Komposit Magnetit-Hidrotalsit. *Jurnal Kimia VALENSI*, *3*(1), 44–49.

Scarpati, C., 2000, Genesis of zeolites in the Neapolitan Yellow Tuff: Geological , Volcanological and Mineralogical Evidence, *Contrib Mineral Petrol*., 139, 17–35.

Schramm, L.L., Stasiuk, E.N., and Marangoni, D.G., 2003, Surfactants and Their Applications, *Annu. Rep. Prog. Chem., Sect. C: Phys. Chem.*, 99, 3-48.

Sekewael, R.K., 2016, Extraction and Characterization of Chitosan from Windu Shrimp Shell (*Penaeus monodon*) and Depolymerization Chitosan Process With Hydrogen Peroxide Based on Heating Temperature Variations, *Ind. J. Chem. Res.*, 3(2), 314-315.

Siregar, N., Indrayana, I. P. T., Suharyadi, E., Kato, T., and Iwata, S., 2017, Effect of Synthesis Temperature and NaOH Concentration on Microstructural and Magnetic Effect of Synthesis Temperature and NaOH Concentration on

Microstructural and Magnetic Properties of $Mn_{0.5}Zn_{0.5}Fe_2O_4$ Nanoparticles, *IOP Conf. Series: Materials Science and Engineering*, 202, 1-9.

Smical, I., 2011, Properties of Natural Zeolites in Benefit of Nutrition and Health, *Aquac. Aquar. Conserv. Legis*., *3*(2), 51–57.

Solomon, D., Kiflie, Z., and Hulle, S. Van., 2020, Integration of Sequencing Batch Reactor and Homo-Catalytic Advanced Oxidation Processes for The Treatment of Textile Wastewater, *Nanotechnol. Environ. Eng.*, *6*, 1–13.

Somsesta, N., Sricharoenchaikul, V., and Aht-Ong, D., 2020, Adsorption Removal of Methylene Blue onto Activated Carbon/Cellulose Biocomposite Films: Equilibrium and Kinetic Studies, *Mater. Chem. Phys.*, *240*, 1-14.

Suhartana, S. and Pardoyo, P., 2020, Activation of Natural Zeolite and Its Application for Adsorbents in Domestic Wastewater Treatment in Tembalang District, Semarang City, *J. Kim. Sains. Apl.*, *23*(1), 28–33.

Sulastri, S., Nuryono, Kartini, I., dan Kunarti, E. S., 2014, Kinetika dan Keseimbangan Adsorpsi Ion Kromium(III) dalam Larutan pada Senyawa Silika dan Modifikasi Silika Hasil Sintesis dari Abu Sekam Padi, *Jurnal Penelitian Saintek*, *19*(2), 33-44.

Sumari, Sholihah, N., Aisiyah, M. M., Oktaviani, I., Khilmi, N., and Prakasa, Y.F., 2018, Effectiveness of Modified Natural Zeolite through Acid Activation as A Catalyst on Cellulose Conversion into Glucose from Cotton Assisted by Ultrasonic, *J. Phys. Conf. Ser.*, *1093*(1), 1-9.

Sumarni, Hindryawati, dan Noor, A., 2018, Aktivasi dan Karakterisasi Zeolit Alam Menggunakan NaOH, *Jurnal Atomik*, *3*(2), 106–110.

Sun, H., Chen, B., Jiao, X., Jiang, Z., Qin, Z., and Chen, D., 2012, Solvothermal Synthesis of Tunable Electroactive Magnetite Nanorods by Controlling The Side Reaction, *J. Phys. Chem. C* ., *116*(9), 5476–5481.

Swaminathan, K., Sandhya, S., Carmalin A., Sophia, K., Pachhade, Y.V., and Subrahmanyam, 2003, Decolorization and Degradation of H-acid and Other Dyes Using Ferrous-Hydrogen Peroxide System, *Chemosphere*, 50, 619–625.

Taib, S., dan Suharyadi, E., 2015, Sintesis Nanopartikel Magnetite (Fe_3O_4) dengan Template Silika (SiO_2) dan Karakterisasi Sifat Kemagnetannya, *Indones. J. Appl. Phys.*, *5*(1), 23-30.

Tan, I. A. W., Ahmad, A. L., and Hameed, B. H., 2008, Adsorption Of Basic Dye Using Activated Carbon Prepared From Oil Palm Shell: Batch And Fixed Bed Studies, *Desalination*, *225*(1–3), 13–28.

Tran, H.N., You, S.J., Bandegharaei, A.H., and Chao, H.P., 2017, Mistakes and Inconsistencies Regarding Adsorption of Contaminants from Aqueous Solutions: A Critical Review, *Water. Res.*, 120, 88-116.

Vu, M. T., Noori, M. T., and Min, B., 2020, Conductive Magnetite Nanoparticles

Trigger Syntrophic Methane Production in Single Chamber Microbial Electrochemical Systems, *Bioresour. Technol.*, 296, 122265.

Wahyuni, E. T., Rendo, D., and Suherman, S, 2021, Removal of Methylene Blue Dye in Water by Using Recoverable Natural Zeolite/Fe_3O_4 Adsorbent, *Glob. Nest J.*, *23*(1), 119–126.

Wang, J., and Guo, X., 2020, Adosprtion Kinetic Models: Physical Meanings, Applications, and Solving Methods, *J. Hazard. Mater.*, 390, 1-18.

Yu, X., Lü, H., Zhou, G., Zhou, L., and Zhang, Y., 2012, Adsorption of Methyl Orange by Modified Fly Zeolites, *Adv. Mater. Res.*, *476–478*, 1365–1369.

Yulianis, Y., Muhammad, S., Pontas, K., Mariana, M., and Mahidin, M., 2018, Characterization and Activation of Indonesian Natural Zeolite from Southwest Aceh District-Aceh Province, *IOP Conference Series: Materials Science and Engineering*, *358*(1), 1-7.

Zhang, L., Liu, J., Zhang, J., and Wang, D., 2018, Preparation of Magnetite Nanoparticles by Co-Precipitation Using Ammonium Hydroxide and Sodium Hydroxide as Precipitants: A Comparative Study, *J. Nanopart. Res.*, 20(5), 1-13.

Zhang, Y., Shaad, K., and Vollmer, D., 2021, Treatment of Textile Wastewater Using Advanced Oxidation Processes - A Critical Review, *Water*, 13(3515), 1–22.

Zheng, L., Su, W., Qi, Z., Xu, Y., Zhou, M., and Xie, Y., 2011, First-Order Metal–Insulator Transition and Infrared Identification of Shape-Controlled Magnetite Nanocrystals, *Nanotechnology*, 22(48), 71-76.