

DAFTAR PUSTAKA

- Abdul Salim, N.A., Abdullah, N.H., Khairuddin, M.R., Rudie Arman, M.A.B.Z., Khamidun, M.H., Fulazzaky, M.A., Mohd Yusoff, A.R., Othman, M.H.D., and Puteh, M.H., 2018, Adsorption of phosphate from aqueous solutions using waste mussel shell, *MATEC Web. Conf.*, 1–11.
- Agarwal, S., Anwer, K., Khanna, R., Ali, A., and Sultana, Y., 2010, Humic acid from Shilajit: A physico-chemical and spectroscopic characterization, *J. Serb. Chem. Soc.*, 75, 413–422.
- Ahmad, M.A., Ahmad, N., and Bello, O.S., 2014, Adsorptive removal of malachite green dye using durian seed-based activated carbon, *Water. Air. Soil. Pollut.*, 225, 2057.
- Ahmad, N., Arsyad, F.S., Royani, I., and Lesbani, A., 2022, Selectivity of malachite green on cationic dye mixtures toward adsorption on magnetite humic acid, *J. Environ. Nat. Resour.*, 20, 634–643.
- Ahmad, N., Suryani Arsyad, F., Royani, I., and Lesbani, A., 2022, Adsorption of methylene blue on magnetite humic acid: Kinetic, isotherm, thermodynamic, and regeneration studies, *Results Chem.*, 4, 100629.
- Ahmad, N., Wijaya, A., Arsyad, F.S., Royani, I., and Lesbani, A., 2024, Layered double hydroxide-functionalized humic acid and magnetite by hydrothermal synthesis for optimized adsorption of malachite green, *Kuwait. J. Sci.*, 51, 100206.
- Ahmad, N., Zahara, Z.A., Wijaya, A., Arsyad, F.S., Royani, I., and Lesbani, A., 2023, Fabrication and Characterization Fe₃O₄/Humic Acid for the Efficient Removal of Malachite Green, *Sci. Technol. Indones.*, 8, 616–625.
- Ahmed, H.M., El-khateeb, M.A., Sobhy, N.A., Hefny, M.M., and Abdel-Haleem, F.M., 2023, Green synthesis of magnetite nanoparticles using waste natural materials and its application for wastewater treatment, *Environ. Sci. Proc.*, 25(1), 99.

- Alberti, G., Amendola, V., Pesavento, M., and Biesuz, R., 2012, Beyond the synthesis of novel solid phases: Review on modelling of sorption phenomena, *Coord. Chem. Rev.*, 256, 28–45.
- Al-Ghouti, M.A. and Da'ana, D.A., 2020, Guidelines for the use and interpretation of adsorption isotherm models: A review, *J. Hazard. Mater.*, 393, 1–22.
- Amutenya, E.L.M., Zhou, F., Liu, J., Long, W., Ma, L., Liu, M., and Lv, G., 2022, Preparation of humic acid-bentonite polymer composite: A heavy metal ion adsorbent, *Heliyon*, 8, 9720.
- Atkins, P.W., De Paula, J., and Keeler, J., 2018, *Atkins' Physical Chemistry*, 11th ed., Oxford University Press, Oxford.
- Ayawei, N., Ebelegi, A.N., and Wankasi, D., 2017, Modelling and interpretation of adsorption isotherms, *J. Chem.*, 1–11.
- Bartczak, P., Norman, M., Klapiszewski, Ł., Karwańska, N., Kawalec, M., Baczyńska, M., Wysokowski, M., Zdarta, J., Ciesielczyk, F., and Jesionowski, T., 2018, Removal of nickel(II) and lead(II) ions from aqueous solution using peat as a low-cost adsorbent: A kinetic and equilibrium study, *Arab. J. Chem.*, 11, 1209–1222.
- Basu, H., Saha, S., Pimple, M.V., and Singhal, R.K., 2019, Novel hybrid material humic acid impregnated magnetic chitosan nano particles for decontamination of uranium from aquatic environment, *J. Environ. Chem. Eng.*, 103110.
- Bayat, M., Javanbakht, V., and Esmaili, J., 2018, Synthesis of zeolite/nickel ferrite/sodium alginate bionanocomposite via a co-precipitation technique for efficient removal of water-soluble methylene blue dye, *Int. J. Biol. Macromol.*, 116, 607–619.
- Bijanzadeh, E., Naderi, R., and Egan, T.P., 2019, Exogenous application of humic acid and salicylic acid to alleviate seedling drought stress in two corn (*Zea mays* L.) hybrids, *J. Plant. Nutr.*, 42, 1483–1495.
- Bulut, E., Özacar, M., and Şengil, I.A., 2008, Adsorption of malachite green onto bentonite: Equilibrium and kinetic studies and process design, *Micro. Meso. Mater.*, 115, 234–246.

- Chen, Q., Yin, D., Zhu, S., and Hu, X., 2012, Adsorption of cadmium(II) on humic acid coated titanium dioxide, *J. Colloid. Interface. Sci.*, 367, 241–248.
- Chianese, S., Fenti, A., Iovino, P., Musmarra, D., and Salvestrini, S., 2020, Sorption of organic pollutants by humic acids: A review, *Molecules*, 25(4), 918.
- Chowdhury, S. and Saha, P., 2010, Sea shell powder as a new adsorbent to remove basic green 4 (malachite green) from aqueous solutions: Equilibrium, kinetic and thermodynamic studies, *J. Chem. Eng.*, 164, 168–177.
- Cotton, F.A. and Wilkinson, G., 1976, *Basic Inorganic Chemistry*, John Wiley and Sons Inc., New York.
- Dubinin, M.M., 1960, The potential theory of adsorption of gases and vapors for adsorbents with energetically nonuniform surfaces, *Chem. Rev.*, 60(1960), 235-141.
- Elgarahy, A.M., Elwakeel, K.Z., Mohammad, S.H., and Elshoubaky, G.A., 2021, A critical review of biosorption of dyes, heavy metals and metalloids from wastewater as an efficient and green process, *Clean. Eng. Technol.*, 4, 100209.
- Ergüt, M., Uzunoğlu, D., and Özer, A., 2019, Efficient decolourization of malachite green with biosynthesized iron oxide nanoparticles loaded carbonated hydroxyapatite as a reusable heterogeneous Fenton-like catalyst, *J. Environ. Sci. Health A Tox Hazard. Subst. Environ. Eng.*, 54, 786–800.
- Gamage, A., Jayasinghe, N., Thiviya, P., Wasana, M.L.D., Merah, O., Madhujith, T., and Koduru, J.R., 2023, Recent Application Prospects of Chitosan Based Composites for the Metal Contaminated Wastewater Treatment, *Polymers*, 15(6), 1453.
- Ghanbarpour, E., Rezaei, M., and Lawson, S., 2019, Reduction of Cracking in Pomegranate Fruit After Foliar Application of Humic Acid, Calcium-boron and Kaolin During Water Stress, *Erwerbs-Obstbau*, 61, 29–37.
- Ghosh, K., Bar, N., Roymahapatra, G., Biswas, A.B., and Das, S.K., 2022, Adsorptive removal of toxic malachite green from its aqueous solution by Bambusa vulgaris leaves and its acid-treated form: DFT, MPR and GA modeling, *J. Mol. Liq.*, 363, 119841.

- Gogoi, H., Leiviskä, T., Rämö, J., and Tanskanen, J., 2021, Acid mine drainage treatment with novel high-capacity bio-based anion exchanger, *Chemosphere*, 264, 128443.
- Goli, E., Hiemstra, T., and Rahnemaie, R., 2019, Interaction of boron with humic acid and natural organic matter: Experiments and modeling, *Chem. Geol.*, 515, 1–8.
- González, J.A., Villanueva, M.E., Piehl, L.L., and Copello, G.J., 2015, Development of a chitin/graphene oxide hybrid composite for the removal of pollutant dyes: Adsorption and desorption study, *J. Chem. Eng.*, 280, 41–48.
- Hamdaoui, O., 2006, Batch study of liquid-phase adsorption of methylene blue using cedar sawdust and crushed brick, *J. Hazard. Mater.*, 135, 264–273.
- Han, R., Wang, Y., Sun, Q., Wang, L., Song, J., He, X., and Dou, C., 2010, Malachite green adsorption onto natural zeolite and reuse by microwave irradiation, *J. Hazard. Mater.*, 175, 1056–1061.
- Ho, Y.S. and McKay, G., 1999, Pseudo-second order model for sorption processes, *Process Biochem*, 34, 451–465.
- Hu, Q. and Zhang, Z., 2019, Application of Dubinin–Radushkevich isotherm model at the solid/solution interface: A theoretical analysis, *J. Mol. Liq.*, 277, 646–648.
- Ighalo, J.O., Omoarukhe, F.O., Ojukwu, V.E., Iwuozor, K.O., and Igwegbe, C.A., 2022, Cost of adsorbent preparation and usage in wastewater treatment: A review, *Clean. Chem. Eng.*, 3, 100042.
- Illés, E. and Tombácz, E., 2006, The effect of humic acid adsorption on pH-dependent surface charging and aggregation of magnetite nanoparticles, *J. Colloid. Interface. Sci.*, 295, 115–123.
- Islam, M.A., Ali, I., Karim, S.M.A., Hossain Firoz, M.S., Chowdhury, A.N., Morton, D.W., and Angove, M.J., 2019, Removal of dye from polluted water using novel nano manganese oxide-based materials, *J. Water Process. Eng.*, 32, 100911.

- Ismillali, N. and Hermanto, D., 2020, Isolasi Asam Humat dari Bendungan Batujai Lombok Tengah-NTB dan Potensinya sebagai Reduktif-Biosorben Au(III) pada Sistem Batch, *J. Ilmu Dasar*, 21(1), 43-48.
- Jiang, W., Cai, Q., Xu, W., Yang, M., Cai, Y., Dionysiou, D.D., and O'Shea, K.E., 2014, Cr(VI) adsorption and reduction by humic acid coated on magnetite, *J. Environ. Sci. Technol.*, 48, 8078–8085.
- Khataee, A.R., Zarei, M., Dehghan, G., Ebadi, E., and Pourhassan, M., 2011, Biotreatment of a triphenylmethane dye solution using a Xanthophyta alga: Modeling of key factors by neural network, *J. Taiwan. Inst. Chem. Eng.*, 42, 380–386.
- Khoshmanesh, M., Sanati, A.M., Shahcheragh, S., Farjadfard, S., Bonyadi, Z., and Ramavandi, B., 2024, Recent advances in dyes uptake by microplastics in aquatic environments: Influencing factors and ecotoxicological behaviors, *Arab. J. Chem.*, 17, 105737.
- Knidri, E.H., Belaabed, R., Addaou, A., Laajeb, A., and Lahsini, A., 2018, Extraction, chemical modification and characterization of chitin and chitosan, *Int. J. Biol. Macromol.*, 120, 1181–1189.
- Knidri, E.H., Belaabed, R., Khalfaouy, E.R., Laajeb, A., Addaou, A., and Lahsini, A., 2017, Physicochemical Characterization of Chitin and Chitosan Produced from *Parapenaeus Longirostris* Shrimp Shell Wastes, *J. Mater. Environ. Sci.*, 8, 3648–3653.
- Koesnarpadi, S., Fitriani, D., Widodo, N.T., Wirawan, T., and Marlina, E., 2022, Preparation of fulvic acids-functionalized magnetite for lead (II) adsorption in aqueous solutions, *AIP Conference Proceedings*, 1-6.
- Koesnarpadi, S., Santosa, S.J., Siswanta, D., and Rusdiarso, B., 2017, Humic acid coated Fe₃O₄ nanoparticle for phenol sorption, *Indones. J. Chem.*, 17, 274–283.
- Koesnarpadi, S., Santosa, S.J., Siswanta, D., and Rusdiarso, B., 2015, Synthesis and Characterization of Magnetite Nanoparticle Coated Humic Acid (Fe₃O₄/HA), *Procedia. Environ. Sci.*, 30, 103–108.

- Kumar, B. and Kumar, U., 2015, Adsorption of malachite green in aqueous solution onto sodium carbonate treated rice husk, *Korean J. Chem. Eng.*, 32, 1655–1666.
- Kumar, K.V., Porkodi, K., and Rocha, F., 2008, Langmuir-Hinshelwood kinetics - A theoretical study, *Catal. Commun.*, 9, 82–84.
- Kumirska, J., Czerwicka, M., Kaczyński, Z., Bychowska, A., Brzozowski, K., Thöming, J., and Stepnowski, P., 2010, Application of spectroscopic methods for structural analysis of chitin and chitosan, *Mar. Drugs.*, 8, 1567–1636.
- 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 (Fe₃O₄) nanoparticles and their magnetic properties, *Superlattices. Microstruct.*, 52, 793–799.
- Liang, L., Xi, F., Tan, W., Meng, X., Hu, B., and Wang, X., 2021, Review of organic and inorganic pollutants removal by biochar and biochar-based composites, *Biochar*, 3, 255–281.
- Lim, C., Kim, N., Lee, J., and Yoon, Y., 2022, Potential of adsorption of diverse environmental contaminants onto microplastics, *Water*, 14(24), 4086.
- Lin, Y.R., Hu, Y.F., Huang, C.Y., Huang, H.T., Liao, Z.H., Lee, A.T., Wu, Y.S., and Nan, F.H., 2022, Removing malachite green and leucomalachite green from freshwater and seawater with four water treatment agents, *Front. Environ. Sci.*, 10, 906886.
- Luo, H., He, D., Zhu, W., Wu, Y., Chen, Z., and Yang, E.H., 2019, Humic acid-induced formation of tobermorite upon hydrothermal treatment with municipal solid waste incineration bottom ash and its application for efficient removal of Cu(II) ions, *Waste Management*, 84, 83–90.
- Machiani, A.M., Rezaei-Chiyaneh, E., Javanmard, A., Maggi, F., and Morshedloo, M.R., 2019, Evaluation of common bean (*Phaseolus vulgaris* L.) seed yield and quali-quantitative production of the essential oils from fennel (*Foeniculum vulgare* Mill.) and dragonhead (*Dracocephalum moldavica* L.) in intercropping system under humic acid application, *J. Clean. Prod.*, 235, 112–122.

- Marchegiani, G., Imperatori, P., Mari, A., Pilloni, L., Chiolerio, A., Allia, P., Tiberto, P., and Suber, L., 2012, Sonochemical synthesis of versatile hydrophilic magnetite nanoparticles, *Ultrason. Sonochem.*, 19, 877–882.
- Mashkoo, F. and Nasar, A., 2020, Magsorbents: Potential candidates in wastewater treatment technology – A review on the removal of methylene blue dye, *J. Magn. Magn. Mater.*, 500, 166408.
- Meerbergen, K., Crauwels, S., Willems, K.A., Dewil, R., Van Impe, J., Appels, L., and Lievens, B., 2017, Decolorization of reactive azo dyes using a sequential chemical and activated sludge treatment, *J. Biosci. Bioeng.*, 124, 668–673.
- Melhi, S., 2023, Amine-terminated modified succinic acid-magnetite nanoparticles for effective removal of malachite green dye from aqueous environment, *Crystals*, 13, 1301.
- Meng, F., Yuan, G., Larson, S.L., Ballard, J.H., White, J.R., Arslan, Z., and Han, F.X., 2019, Kinetics and thermodynamics of uranium (VI) adsorption onto humic acid derived from leonardite, *Int. J. Environ. Res. Public. Health.*, 16(9), 1552.
- Mohadi, R., Hidayati, N., Santosa, S.J., and Narsito, 2008, Karakterisasi Asam Humat dari Gambut Indralaya, Ogan Ilir Sumatera Selatan, *J. Penelitian Sains*, 11, 411–420.
- Nakamura, A., Sugawara, K., Nakajima, S., and Murakami, K., 2017, Adsorption of Cs ions using a temperature-responsive polymer/magnetite/zeolite composite adsorbent and separation of the adsorbent from water using high-gradient magnetic separation, *Colloids. Surf. Physicochem. Eng. Asp.*, 527, 63–69.
- Ngatijo, Marlinda, L., Malikhah, W., Ishartono, B., and Basuki, R., 2023, Magnetically Separable Humic Acid-Chitin Based Adsorbent as Pb(II) Uptake in Synthetic Wastewater, *Indones. J. Chem. Std.*, 2, 13–21.
- Niculescu, A.G., Chircov, C., and Grumezescu, A.M., 2022, Magnetite nanoparticles: Synthesis methods – A comparative review, *Methods*, 199, 16–27.

- Olusegun, S.J., Souza, T.G.F., Souza, G. de O., Osial, M., Mohallem, N.D.S., Ciminelli, V.S.T., and Krysinski, P., 2023, Iron-based materials for the adsorption and photocatalytic degradation of pharmaceutical drugs: A comprehensive review of the mechanism pathway, *J. Water Process. Eng.*, 51, 103457.
- Oscik, J., 1982, *Adsorption*, Ellis Harwood Limited, England.
- Petcharoen, K. and Sirivat, A., 2012, Synthesis and characterization of magnetite nanoparticles via the chemical co-precipitation method, *Mater. Sci. Eng.*, 177, 421–427.
- Peternele, W.S., Monge Fuentes, V., Fascineli, M.L., Rodrigues Da Silva, J., Silva, R.C., Lucci, C.M., and Bentes De Azevedo, R., 2014, Experimental investigation of the coprecipitation method: An approach to obtain magnetite and maghemite nanoparticles with improved properties, *J. Nanomater.*, 14-20.
- Rahmawati, R., Taufiq, A., Sunaryono, S., Fuad, A., Yulianto, B., Suyatman, S., and Kurniadi, D., 2018, Synthesis of magnetite (Fe₃O₄) nanoparticles from iron sands by coprecipitation-ultrasonic irradiation methods, *J. Mater. Environ. Sci.*, 9, 155–160.
- Rápó, E. and Tonk, S., 2021, Factors affecting synthetic dye adsorption; desorption studies: A review of results from the last five years (2017–2021), *Molecules*, 26(17), 5419.
- Raval, N.P., Shah, P.U., and Shah, N.K., 2016, Nanoparticles loaded biopolymer as effective adsorbent for adsorptive removal of malachite green from aqueous solution, *Water Conserv. Sci. Eng.*, 1, 69–81.
- Reddy, S.Y., Rotte, N.K., Sudhakar, B.K., Ramakrishna Chand, N., Naik, R.J., Mandal, S., and M, R.C., 2024, Biomass-derived sustainable mesoporous activated carbon as an efficient and recyclable adsorbent for the adsorption of hazardous dyes, *Hybrid. Advances.*, 6, 100218.
- Rusdianto, B. and Basuki, R., 2020, Stability improvement of humic acid as sorbent through magnetite and chitin modification, *J. Kim. Sains Apl.*, 23, 152–159.
- Sahoo, T.R. and Prelot, B., 2020, *Adsorption processes for the removal of contaminants from wastewater: The perspective role of nanomaterials and*

nanotechnology, in: Nanomaterials for the detection and removal of wastewater pollutants, Elsevier, Canada.

- Sakti, S.C.W., Laily, R.N., Aliyah, S., Indrasari, N., Fahmi, M.Z., Lee, H.V., Akemoto, Y., and Tanaka, S., 2020, Re-collectable and recyclable epichlorohydrin-crosslinked humic acid with spinel cobalt ferrite core for simple magnetic removal of cationic triarylmethane dyes in polluted water, *J. Environ. Chem. Eng.*, 8(4), 104004.
- Santosa, S.J. and Muzakky, 2002, Kinetika Adsorpsi Logam Berat (Krom, Tembaga, dan Uranium) oleh Asam Humat dalam Tanah Gambut, *Laporan Penelitian Dasar Lembaga Penelitian UGM*, FMIPA UGM, Yogyakarta.
- Santosa, S.J., Siswanta, D., Kurniawan, A., and Rahmanto, W.H., 2007, Hybrid of chitin and humic acid as high performance sorbent for Ni(II), *Surf. Sci.*, 601, 5155–5161.
- Santosa, S.J., Siswanta, D., Sudiono, S., and Sehol, M., 2007, Synthesis and utilization of chitin-humic acid hybrid as sorbent for Cr(III), *Surf. Sci.*, 601, 5148–5154.
- Santosa, S.J., Siswanta, D., Sudiono, S., and Utarianingrum, R., 2008, Chitin-humic acid hybrid as adsorbent for Cr(III) in effluent of tannery wastewater treatment, *Appl. Surf. Sci.*, 254, 7846–7850.
- Santoso, U.T., Santosa, S.J., Siswanta, D., Rusdiarso, B., and Shimazu, S., 2010, Characterization Of Sorbent Produced Through Immobilization Of Humic Acid On Chitosan Using Glutaraldehyde As Cross-Linking Agent And Pb(II) Ion As Active Site Protector, *Indones. J. Chem.*, 10(3), 301-309.
- Sehol, M., Santosa, J., and Siswanta, D., 2018, The immobilization of humic acid on chitin and its application as adsorbent of Cr(III), *J. Chem. Res.*, 5(2), 63-68.
- Sharma, V.K., Ma, X., Guo, B., and Zhang, K., 2021, Environmental factors-mediated behavior of microplastics and nanoplastics in water: A review, *Chemosphere*, 271, 129597.

- Silva, J.M.M., Feuser, P.E., Cercená, R., Peterson, M., and Dal-Bó, A.G., 2023, Obtention of magnetite nanoparticles via the hydrothermal method and effect of synthesis parameters, *J. Magn. Magn. Mater.*, 580, 170925.
- Silva, M.G. da, Santiago, L.E.P., Fernandes, R. da S., Padilha, C.E. de A., and Souza, D.F. de S., 2024, Analysis of thermal decomposition of magnetic nanoparticles synthesized by reverse coprecipitation and partial oxidation of ferrous ions, *Brazil. J. Chem. Eng.*, 41, 347–357.
- Silvia, R., Nasra, E., Oktavia, B., and Etika, S.B., 2020, Penyerapan Zat Warna Malachite Green Menggunakan Kulit Pisang Kepok (*Musa Balbisiana Colla*) Sebagai Biosorben Dengan Metode Batch, *Periodic*, 9, 71–75.
- Sriparya, 2012, Pengembangan Komposit Magnet Bentonit Merangin Jambi sebagai Adsorben Kation Cd^{2+} , *Tesis*, FMIPA UI, Jakarta.
- Sriram, G., Kigga, M., Uthappa, U.T., Rego, R.M., Thendral, V., Kumeria, T., Jung, H.Y., and Kurkuri, M.D., 2020, Naturally available diatomite and their surface modification for the removal of hazardous dye and metal ions: A review, *Adv. Colloid. Interface. Sci.*, 282, 102198.
- Sriuttha, M. and Wittayanarakul, K., 2015, Comparison of thermodynamics and kinetics of malachite green adsorption onto chitin and chitosan, *Asian J. Chem.*, 27, 4213–4215.
- Stevenson, F.J., 1994, *Humus Chemistry: Genesis, Composition, and Reactions*, John Willey & Sons Inc, Canada.
- Sudiono, S., Yuniarti, M., Siswanta, D., Kunarti, E.S., Triyono, and Santosa, S.J., 2017, The role of carboxyl and hydroxyl groups of humic acid in removing AuCl_4^- from aqueous solution, *Indones. J. Chem.*, 17, 95–104.
- Sulistyaningsih, T., Ariyani, S., and Astuti, W., 2021, Preparation of magnetite coated humic acid ($\text{Fe}_3\text{O}_4\text{-HA}$) as malachite green dye adsorbent, *J. Phys. Conference Series*, 1-6.
- Sureshkumar, M.K., Das, D., Mary, G., and Nuwad, J., 2013, Adsorption of Pb(II) ions using humic acid coated chitosan-tripolyphosphate (HA-CTPP) beads, *Sep. Sci. Technol.*, 48, 1132–1139.

- Tan, K.H., 1986, *Degradation of Soil Minerals by Organic*, Soil Science Society of America, Madison.
- Tolesa, L.D., Gupta, B.S., and Lee, M.J., 2019, Chitin and chitosan production from shrimp shells using ammonium-based ionic liquids, *Int. J. Biol. Macromol.*, 130, 818–826.
- Tongpoothorn, W., Somsimee, O., Somboon, T., and Sriuttha, M., 2019, An alternative and cost-effective biosorbent derived from napier grass stem for malachite green removal, *J. Mater. Environ. Sci*, 10(8), 685-695.
- Valli Nachiyar, C., Rakshi, A.D., Sandhya, S., Britlin Deva Jebasta, N., and Nellore, J., 2023, Developments in treatment technologies of dye-containing effluent: A review, *Chem. Environ. Eng.*, 7, 100339.
- Vezentsev, A.I., Thuy, D.M., Goldovskaya-Peristaya, L.F., and Glukhareva, N.A., 2018, Adsorption of methylene blue on the composite sorbent based on bentonite-like clay and hydroxyapatite, *Indones. J. Chem.*, 18, 733–741.
- Wang, J. and Guo, X., 2020, Adsorption kinetic models: Physical meanings, applications, and solving methods, *J. Hazard. Mater.*, 390, 122156.
- Wang, N., Zhu, L., Wang, D., Wang, M., Lin, Z., and Tang, H., 2010, Sono-assisted preparation of highly-efficient peroxidase-like Fe_3O_4 magnetic nanoparticles for catalytic removal of organic pollutants with H_2O_2 , *Ultrason. Sonochem*, 17, 526–533.
- Wu, S., Sun, A., Zhai, F., Wang, J., Xu, W., Zhang, Q., and Volinsky, A.A., 2011, Fe_3O_4 magnetic nanoparticles synthesis from tailings by ultrasonic chemical co-precipitation, *Mater. Lett.*, 65, 1882–1884.
- Xu, G., Li, L., Shen, Z., Tao, Z., Zhang, Y., Tian, H., Wei, X., Shen, G., and Han, G., 2015, Magnetite Fe_3O_4 nanoparticles and hematite $\alpha\text{-Fe}_2\text{O}_3$ uniform oblique hexagonal microdisks, drum-like particles and spindles and their magnetic properties, *J. Alloys. Compd.*, 629, 36–42.
- Yang, S., Zong, P., Ren, X., Wang, Q., and Wang, X., 2012, Rapid and highly efficient preconcentration of Eu(III) by core-shell structured Fe_3O_4 @Humic acid magnetic nanoparticles, *ACS. Appl. Mater. Interfaces.*, 4, 6891–6900.

- Yunusa, U., and Ibrahim, M.B., 2019, Reclamation of Malachite Green-Bearing Wastewater Using Desert Date Seed Shell: Adsorption Isotherms, Desorption and Reusability Studies, *J. Environ. Chem. Sci.*, 10(2), 112-122.
- Yusoff, S.M., Ngah, W.S.W., Mehamod, F.S., and Suah, F.B.M., 2019, Adsorption of malachite green onto modified chitosan– sulfuric acid beads: A preliminary study, *Malays. J. Anal. Sci.*, 23, 625–636.
- Zhang, F., Wei, Z., Zhang, W., and Cui, H., 2017, Effective adsorption of malachite green using magnetic barium phosphate composite from aqueous solution, *Spectrochim. Acta. A Mol Biomol. Spectrosc.*, 182, 116–122.
- Zhang, X., Zhang, P., Wu, Z., Zhang, L., Zeng, G., and Zhou, C., 2013, Adsorption of methylene blue onto humic acid-coated Fe₃O₄ nanoparticles, *Colloids. Surf. Physicochem. Eng. Asp.*, 435, 85–90.
- Zhou, L., Monreal, C.M., Xu, S., McLaughlin, N.B., Zhang, H., Hao, G., and Liu, J., 2019, Effect of bentonite-humic acid application on the improvement of soil structure and maize yield in a sandy soil of a semi-arid region, *Geoderma*, 338, 269–280.
- Zhou, Y., Lu, J., Zhou, Yi, and Liu, Y., 2019, Recent advances for dyes removal using novel adsorbents: A review, *Environ. Pollut.*, 252, 352–365.