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- Ansari, R., and Mosayebzadeh, Z., 2010, Removal of Basic Dye Methylene Blue from Aqueous Solutions using Sawdust and Sawdust Coated with Polypyrrole, *J. Iran. Chem. Soc.*, 7(2), 339–350.
- Asuha, S., Suyala, B., Siqintana, X., and Zhao, S., 2011, Direct Synthesis of Fe<sub>3</sub>O<sub>4</sub> Nanopowder by Thermal Decomposition of Fe-Urea Complex and its Properties, *J. Alloys Compd.*, 509, 2870-2873.
- Baharuddin, A.A., Ang, B.C., Hussein, N.A.A., Andriyana, A., and Wong, Y.H., 2018, Mechanisms of Highly Stabilized Ex-situ Oleic Acid-modified Iron Oxide Nanoparticles Functionalized with 4-pentynoic Acid, *Mater. Chem. Phys.*, 203, 212-222.
- Belay, K. and Hayelom, A., 2014, Removal of Methyl Orange from Aqueous Solution using Thermally Treated Egg Shell (Locally Available and Low-cost Biosorbent), *Int. J. of Innov. and Sci. Res. (IJISR)*, 8(1), 43-49.
- Bruce, I.J., Taylor, J., Todd, M., Davies, M.J., Borioni, E., Sangregorio, C., and Sen, T., 2004, Synthesis, Characterization, and Application of Silica-Magnetite Nanocomposites, *J. Magn. Magn. Mater.*, 284, 145-160.
- Carlos, L., Einschlag, F.S.G., González, M.C., and Mártire, D.O., 2013, Application of Magnetite Nanoparticles for Heavy Metal Removal from Wastewater, *Waste Water Treatment Technol. Recent Anal. Dev.*, 63-78.
- Chang, Q., Zhu, L., Luo, Z., Lei, M., Zhang, S., Tang, H., 2011, Sono-assisted Preparation of Magnetic Magnesium-Aluminum Layered Double Hydroxides and their Application for Removing Fluoride, *Ultrason. Sonochem.*, 18, 553-561.
- Compean-Jasso, M.E., Ruiz, F., Martinez, J.R., and Herrera-Gomez, A., 2008, Magnetic Properties of Magnetite Nanoparticles Synthesized by Forced Hydrolysis, *Mater. Lett.*, 62, 4248-4250.
- Dalali, N., Khoramnezhad, M., Habibzadeh, M., and Faraji, M., 2011, Magnetic Removal of Acidic Dyes from Waste Water using Surfactant-coated Magnetite Nanoparticles: Optimization of Process by Taguchi Method, *Int. Conf. Environ. Eng.*, 15, 89-93.
- Derakhsan, Z., Baghapour, M.A., Ranjbar, M., and Faramarzian, M., 2013, Adsorption of Methylene Blue Dye from Aqueous Solutions by Modified Pumice Stone: Kinetics and Equilibrium Studies, *Health Scope*, 2(3), 136-144.

- El-Kharrag, R., Amin, A., and Greish, Y.E., 2012, Low Temperature Synthesis of Monolithic Mesoporous Magnetite Nanoparticles, *Ceram. Int.*, 38, 627-634.
- Enamul, H., Jun, J.W., Jhung, S.H., 2011, Adsorptive Removal of Methyl Orange and Methylene Blue from Aqueous Solution with a Metal-organic Framework Material Iron Terephthalate (MOF-235), *J. Hazard. Mater.*, 185, 507-511.
- Faiyas, A.P.A., Vinod, E.M., Joseph, J., Ganesan, R., and Pandey, R.K., 2010, Dependence of pH and Surfactants Effect in the Synthesis of Magnetite (Fe<sub>3</sub>O<sub>4</sub>) Nanoparticles and its Properties, *J. Magn. Magn. Mater.*, 322, 400-404.
- Fajaroh, F., Setyawan, H., Winardi, S., Widyastuti, Raharjo, W., dan Sentosa, E., 2009, Sintesis Nanopartikel Magnetit dengan Metode Elektrokimia Sederhana, *J. Nano Saintek.*, Edisi Khusus, Agustus 2009.
- Ghandoor, H. El., Zidan, H.M., Khalil, M.M.H., and Ismail, M.I.M., 2012, Synthesis and some Physical Properties of Magnetite (Fe<sub>3</sub>O<sub>4</sub>) Nanoparticles, *Int. J. Electrochem. Sci.*, 7, 5734-5745.
- Gupta, N., Kushwaha, A.K., Chattopadhyaya, M.C., 2011, Kinetics and Thermodynamics of Malachite Green Adsorption of Banana Pseudo Stem Fibers, *Env. Chem. Res. Lab.*, 3(1), 284-296.
- Gurses, A., Hassani, A., Kiransan, M., Acish, O., and Karaka, S., 2014, Removal of Methylene Blue from Aqueous Solution using Untreated Lignite as Potential Low-cost Adsorbent: Kinetic, Thermodynamic and Equilibrium Approach, *J. Jwpe.*, 2, 10-21.
- Hasono, T., Takahashi, H., Fujita, A., Joseyphus, R.J., Tohji, K., and Jayadevan, B., 2009, Synthesis of Magnetite Nanoparticles for AC Magnetite Heating, *J. Magn. Magn. Mater.*, 321, 3019-3023.
- Hernandez, J.S.T., Muriel, A.A., Tabares, J.A., Alcázar, G.A.P., and Bolaños, A., 2015, Preparation of Fe<sub>3</sub>O<sub>4</sub> Nanoparticles and Removal of Methylene Blue through Adsorption, *J. Phys.: Conf. Ser.*, 614, 012007.
- Ho, Y.S., 2006, Review of Second-order Models for Adsorption System, *J. Hazard. Mater.*, 36, 681-689.
- Ho, Y.S. and McKay, G., 1999, Pseudo-second Order Model for Sorption Process, *Process Biochem.*, 34, 451-465.
- Illés, E. and Tombácz, E., 2006, The Effect of Humic Acid Adsorption on pH-dependent Surface Charging and Agregation of Magnetite Nanoparticles, *J. Colloid Interf. Sci.*, 295, 115-123.

- Inbaraj, S.B. and Chen, B.H., 2011, Dye Adsorption Characteristic of Magnetite Nanoparticles Coated with a Biopolymer Poly( $\gamma$ -glutamic acid), *J. Bioresource Tech.*, 102, 8868-8876.
- Iwasaki, T., Kosaka, K., Yabuuchi, T., Watano, S., Yanagida, T., and Kawai, T., 2009, Novel Mechanochemical Process for Synthesis of Magnetite Nanoparticles using Co-precipitation Method, *Adv. Power. Technol.*, 20, 521-528.
- Iwasaki, T., Mizutani, N., Watano, S., Yanagida, T., and Kawai, T., 2010, Size Control of Magnetite Nanoparticles by Organic Solvent-free Chemical Co-precipitation at Room Temperature, *J. Exp. Nanosci.*, 5(3), 251-262.
- Jalil, A.A., Triwahyono, S., Adam, S.H., Rahim, N.D., Aziz, M.A.A., Hairom, N.H.H., Razali, N.A.M., Abidin, M.A.Z., Mohamdiah, M.K.A., 2010, Adsorption of Methyl Orange from Aqueous Solution onto Calcined Lapindo Volcanic Mud, *J. Hazard. Mater.*, 181, 755-762.
- Jiang, F., M. Dinh, D., Hsieh, Y-L., 2017, Adsorption and Desorption of Cationic Malachite Green Dye on Cellulose Nanofibril Aerogels, *Carbohydr. Polym.*, 173, 286-294.
- Jiang, W., Yang, S.Y., Hong, H.E., Hung, J.C., Chen, Y.C., and Hong, Chin-Yih., 2004, Preparation and Properties of Supermagnetic Nanoparticles with Narrow Size Distribution and Biocompatible, *J. Magn. Magn. Mater.*, 238, 210-214.
- Jin, X., Bailey, Y.S., and Lynch, A.T., 1996, Kinetics of Single and Multiple Metal Ion Sorption Process on Humic Acid Substances, *Soil Sci.*, 8, 161-509.
- Kathiresan, S., Vinoth, M., Lim, Y.H., Xavier, R., and Sreeramanan, S., 2010, Removal of Methyl Orange from Solution using Yam Leaf Fiber, *Int. J. Chem. Technol. Res.*, 2(4), 1892-1900.
- Koumanova, B., Peeva-Antova, P., and Yaneva, Z., 2005, Introduction Adsorption of 4-chlorophenol from Aqueous Solution on Activated Carbon: Kinetic Study, *J. Chem. Technol. Metall.*, 40, 3, 213-218.
- Kumar, K.V., 2008, Langmuir-Hinshelwood Kinetics, A Theoretical Study, *Catal. Commun.*, 9, 82-84.
- Kumar, S.S.C., 2009, Nanotechnology Tools in Pharmaceutical, *R.&D. Mater. Today*, 12, 24-20.
- Lu, W., Shen, Y., Xie, A., and Zhang, W., 2010, Green Synthesis and Characterization of Superparamagnetic Fe<sub>3</sub>O<sub>4</sub> Nanoparticles, *J. Magn. Magn. Mater.*, 322, 1828-1833.

- Maity, D. and Agrawal, D.C., 2007, Synthesis of Iron Oxide Nanoparticles under Oxidizing Environment and their Stabilization in Aqueous and Non-aqueous Media, *J. Magn. Magn. Mater.*, 308, 46-55.
- Malek, A.H.A. and Yasin, Y., 2012, Use of Layered Double Hydroxides to Remove Sunset Yellow FCF Dye from Aqueous Solution, *Chem. Sci. Trans.*, 1(1), 194-200.
- Mohammadi, N., Khani, H., Kumar, V., Amereh, E., and Agarwal, S., 2011, Adsorption Process of Methyl Orange Dye onto Mesoporous Carbon Material: Kinetics and Thermodynamics Studies, *J. Colloid. Interface Sci.*, 362, 457-462.
- Petcharoen, K. and Sirivat, A., 2012, Synthesis and Characterization of Magnetite Nanoparticles via the Chemical Co-precipitation Method, *Mater. Sci. Eng.*, B 177, 421-427.
- Peternele, W.S., Fuentes, V.M., Fascineli, M.L., Rodrigues, J., Silva, R.C., Lucci, C.M., and Azevedo, R.B., 2014, Experimental Investigations of the Co-precipitation Method: An Approach to Obtain Magnetite and Maghemite Nanoparticles with Improved Properties, *J. Nanomater.*, 1-11.
- Qu, J., Li, G., Wang, Y., and Hong, R., 2010, Preparation of Fe<sub>3</sub>O<sub>4</sub>-Chitosan Nanoparticles used for Hyperthermia, *Adv. Powder Technology*, 21, 461-467.
- Ramajo, L.A., Cristóbal, A.A., Botta, P.M., Porto-López, J.M., Reboredo, M.M., and Castro, M.S., 2009, Dielectric and Magnetic Response of Fe<sub>3</sub>O<sub>4</sub>/Epoxy Composites, *Composites*, Part A, 40, 388-393.
- Santosa, S.J. dan Muzakky, 2002, *Kinetika Adsorpsi Logam Berat (Krom, Tembaga, dan Uranium) oleh Asam Humat dalam Tanah Gambut*, Laporan Penelitian Dasar Tahun Anggaran 2002, Yogyakarta.
- Sasaki, T. and Tanaka, S., 2011, Adsorption Behavior of some Aromatic Compounds on Hydrophobic Magnetite for Magnetic Separation, *J. Hazard. Mater.*, 196, 327-334.
- Sawant, S.A., Nene, A., Somani, S.P., Omanwar, S.K., and Somani, P.R., 2013, Simultaneous Waste Purification via Photocatalysis and Seed Germination, *Green Sustain. Chem.*, 3, 129-133.
- Sharma, M., Kaushik, A., and Kaushik, C.P., 2011, Waste Biomass of *Nostoc linckia* as Adsorbent of Crystal Violet Dye: Optimization Based on Statistical Model, *Int. Biodeterior. Biodegradation*, 65, 513-521.

- Singh, M., Ulbrich, P., Prokopec, V., Svoboda, P., Šantavá, E., and Štěváneček, F., 2013, Effect of Hydrophobic Coating on the Magnetic Anisotropy and Radiofrequency Heating of  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub> Nanoparticles, *J. Magn. Magn. Mater.*, 339, 1036-113.
- Soares, P.I.P., Laia, C.A.T., Carvalho, A., Pereira, L.C.J., Coutinho, J.T., Ferreira, I.M.M., Novo, C.M.M., and Borges, J.P., 2016, Iron Oxide Nanoparticles Stabilized with a Bilayer of Oleic Acid for Magnetic Hyperthermia and MRI Applications, *Appl. Surf. Sci.*, 383, 240-247.
- Soni, M., Sharma, A.K., and Srivastava, J.K., 2012, Adsorptive Removal of Methylene Blue Dye from an Aqueous Solution using Water Hyacinth Root Powder as a Low-cost Adsorbent, *Int. J. Chem. Sci. Ap.*, 3, 338-345.
- Tadmor, T., Rosenweig, R.E., Joseph Frey, J., and Klein, J., 2000, Resolving the Puzzle of Ferrofluid Dispersants, *Langmuir*, 16, 9117-9120.
- Teja, A.S. and Koh, P.Y., 2009, Synthesis, Properties and Applications of Magnetic Iron Oxide Nanoparticles, *Prog. Cryst. Growth Charact. Mater.*, 55, 22-45.
- Tuny, M.T., 2013, Adsorpsi-Desorpsi Metilen Biru pada Membran Polielektrolit Kompleks (PEC) Kitosan-Pektin, *Tesis*, Program Studi Ilmu Kimia, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Gadjah Mada, Yogyakarta.
- Umaningrum, D., Santoso, U.T., Nurmasari, R., and Yunus, R., 2010, Adsorption Kinetics of Pb(II), Cd(II), and Cr(III) on Adsorbent Produced by Protected Crosslinking of Humic Acid-Chitosan, *Indones. J. Chem.*, 10, 80-87.
- Unal, B., Durmus, Z., Kavas, H., Baykal, A., and Toprak, M.S., 2010, Synthesis, Conductivity, and Dielectric Characterization of Salicylic Acid-Fe<sub>3</sub>O<sub>4</sub> Nanocomposite, *Mater. Chem. Phys.*, 123, 184-190.
- Wang, J., Zhou, J., Li, Z., Liu, Q., and Yang, P., 2010, Design of Magnetic and Fluorescent Mg-Al Layered Double Hydroxides by Introducing Fe<sub>3</sub>O<sub>4</sub> Nanoparticles and Eu<sup>3+</sup> Ions for Intercalation of Glycine, *Mater. Res. Bull.*, 45, 640-645.
- Wang, Y., Cheng, R., Wen, Z., and Zhao, L., 2012, Facile Preparation of Fe<sub>3</sub>O<sub>4</sub> Nanoparticles with Cetyltrimethylammonium Bromida (CTAB) Assistant and a Study of its Adsorption Capacity, *Chem. Eng. J.*, 181-182, 823-827.
- Wei, Y., Han, B., Hu, X., Lin, Y., Wang, X., and Deng, X., 2012, Synthesis of Fe<sub>3</sub>O<sub>4</sub> Nanoparticles and their Magnetic Properties, *Procedia Eng.*, 27, 632-637.

- Widjayanti, E., 2009, Kajian Penggunaan Adsorben sebagai Alternatif Pengolahan Limbah Zat Warna Tekstil, *Prosiding Seminar Nasional Kimia Peningkatan Kualitas Pendidikan dan Penelitian Kimia Menyongsong UNY sebagai World Class University*, 96-100.
- Widjayanti, E., Regina Tutik, P., and Utomo, M.P., 2011, Pola Adsorpsi Zeolit terhadap Pewarna Azo Metil Merah dan Metil Jingga, *Prosiding Seminar Nasional Penelitian, Pendidikan, dan Penerapan MIPA*, K115-K122.
- Wu, W., He, Q., and Jiang, C., 2008, Magnetic Iron Oxide Nanoparticles: Synthesis and Surface Functionalization Strategies, *Nanoscale Res. Lett.*, 3, 397-415.
- Wu, W., Wu, Z., Yu, T., and Kim, W.S., 2015, Recent Progress on Magnetic Iron Oxide Nanoparticles: Synthesis, Surface Functional Strategies, and Biomedical Applications, *Sci. Technol. Adv. Mater.*, 16, 023501.
- Yan, H., Zhang, J., You, C., Song, Z., Yu, B., and Shen, Y., 2009, Influences of Different Synthesis Conditions on Properties of Fe<sub>3</sub>O<sub>4</sub> Nanoparticles, *J. Mater. Chem.*, 113, 46-52.
- Yang, K., Peng, H., Wen, Y., and Li, N., 2010, Re-examination of Characteristic FTIR Spectrum of Secondary Layer in Bilayer Oleic Acid-coated Fe<sub>3</sub>O<sub>4</sub> Nanoparticles, *Appl. Surf. Sci.*, 256, 3093-3097.
- Zhang, L., He, R., and Gu, H.C., 2006, Oleic Acid Coating on the Monodisperse Magnetite Nanoparticles, *Appl. Surf. Sci.*, 253, 2611-2617.
- Zhao, X., Shi, Y., Cai, Y., and Mou, S., 2008, Cetyltrimethylammonium Coated Magnetic Nanoparticles for the Preconcentration of Phenolic Compounds from Environmental Water Samples, *Environ. Sci. Technol.*, 42, 1201-1206.