

DAFTAR PUSTAKA

- Ahmed, M.A., Ali, S.M., El-de, SI., and Galal, A., 2013, Magnetite-Hematite Nanoparticles Prepared by Green Method for Heavy Metal Ions Removal from Water, *J. Mater. Sci.*, 178, 744-751.
- Alguacil, F.J. and Alonso, M., 2003, Chromium(VI) Removal Through Facilitated Transport using CYANEX 923 as a Carrier and Reducing Stripping with Hydrazine Sulfate, *Environ. Sci. Technol.*, 37, 1043-1047.
- Alshameri A., Abood A.R., Yan C., and Muhammad A.M., 2014, Characteristics, Modification and Environmental Application of Yemen's Natural Bentonite, *Arab J. Geosci.*, 7, 841-853.
- Alvarez-Ayuso, E. and Garcia-Sanchez, A. 2003. Removal of Heavy Metals from Waste Waters by Natural and Na-exchanged Bentonites. *Clays Clay Miner.*, 51, 475-480
- Anirudhan T.S. and Ramachandran M., 2007, Surfactant-Modified Bentonite as Adsorbent for the Removal of Humic Acid from Wastewaters. *Appl. Clay Sci.*, 35(3), 276-281.
- Anderson, R.A., 1997, Chromium As an Essential Nutrient for Human, *Reg. Toxicol. Pharmacol.*, 26, 534-541.
- Asmadi., Endro., dan Oktiawan W., 2009, Pengurangan Chrom (Cr) dalam Limbah Cair Industri Kulit pada Proses Tannery Menggunakan Senyawa Alkali Ca(OH)₂, NaOH, dan NaHCO₃ (Studi Kasus PT. Trimulyo Kencana Mas Semarang), *JAI*, 5(1), 41-54.
- Atia, A.A., 2008, Adsorption of Chromate and Molybdate by Cetylpyridinium Bentonite, *Appl. Clay Sci.*, 41, 73-84.
- Bailey, S.E., Olin, T.J., Brica, R.M., and Adrin, D.D., 1999, A Review of The Potential Low Cost Sorbents for Heavy Metals, *Water Res.*, 33, 2469-2479.
- Bakhti A, Derriche Z, Iddou A, and Larid M., 2001, A Study Of The Factor Controlling The Adsorption of Cr(III) on Montmorillonites, *Eur J. Soil Sci.*, 52, 683-692.
- Bhattacharyya K.G. and Gupta S.S., 2008, Adsorption of a Few Heavy Metals on Natural and Modified Kaolinite and Montmorillonite: a Review. *Adv. Coll. Interf. Sci.*, 140(2), 114-131.

- Booker, N.A., Keir, D., Priestley, A., Rithchie, C.D., Sudarmana, D.L., and Woods, M.A., 1991. Sewage Clarification with Magnetite Particles. *Water Sci. Technol.*, 123, 1703–1712.
- Chang J., Ma J., Ma Q., Zhang D., Qiao D, Hu M., and Ma H., 2015, Adsorption of Methylene Blue onto Fe₃O₄/Activated Montmorillonite Nanocomposite, *Appl. Clay Sci.*, 119, 132–140.
- Crini G., 2006, Non-conventional Low-cost Adsorbents for Dye Removal: a Review. *Biores. Technol.*, 97(9), 1061–1085.
- Dellisantia, F and Valdre, G., 2005, Study of Structural Properties of Ion Treated and Mechanically Deformed Commercial Bentonite, *Appl. Clay Sci.*, 28, 233–244.
- Dewi, L., 2005, Termodinamika Adsorpsi Zn(II) dan Cd(III) pada Adsorben Hibrida Amino-Silika Hasil Pengolahan Dari Abu Sekam Padi, *Skripsi*, FMIPA UGM, Yogyakarta.
- Gang, D., Hu, W., Banerji, S.K., and Clevenger, T.E., 2001, Modified poly(4-vinylpyridine) Coated Silica Gel. Fast kinetics of Diffusion-Controlled Sorption of Chromium(VI), *Ind. Eng. Chem. Res.*, 40, 1200–1204.
- Ghafari B. and Khezri S.M., 2012, Evaluation of Hydrophilic Cotton Processing Wastewater Treatment Methods and Giving the Optimum Method for It, *Arab J. Geosci.*, 5, 1–5.
- Guerra D.J.L., Mello I., Freitas L.R., Resende R., and Silva R.A.R., Equilibrium, Thermodynamic, and Kinetic of Cr(VI) Adsorption Using a Modified and Unmodified Bentonite Clay, *J. Mining Sci and Tech Int.*, 24, 525–535.
- Hao X., Liu H., Zhang G., Zou H., Zhang Y., Zhou M., and Gu Y., 2012, Magnetic Field Assisted Adsorption of Methyl Blue onto Organo-Bentonite, *Appl. Clay Sci.*, 55, 177–180.
- Hartanti E., Mahatmanti F.W, dan Susatyo E.B., Sintesis Kitosan-Bentonit serta Aplikasinya sebagai Penurun Kadar Insektisida Jenis Diazinon, *Indo. J. Chem. Sci.*, 1(2), 110-115.
- Ho, Y.S. and McKay., 1999, Pseudo-Second Order Model for Sorption Process, *J. Process Biochem.*, 34, 451-461.
- Jansson, M., 2002, Diffusion of Radionuclides in Bentonite Clay, *Doctoral Thesis*, Department of Chemistry Nuclear Chemistry, Royal Institute of Technology, Stockholm, Sweden.
- Karapinar N. and Donat R., 2009, Adsorption Behaviour of Cu²⁺ and Cd²⁺ onto Natural Bentonite, *Desalination.*, 249, 123–129.

- Karnland, O., Sandén, T., Johannesson, L-E., Eriksen, T., Jansson, M., Wold, S., Pedersen, K., and Rosborg, B., 2000, *Long Term Test of Buffer Material Final Report on the Pilot Parcels*, SKB TR-00-22, 19.
- Kartal, S.N., 2003, Removal of Copper, Chromium, and Arsenic from CCA-C Treated Wood by EDTA Extraction, *Waste Manage.*, 23, 537–546.
- Kep-51/MENLH/10/1995, Tentang Baku Mutu Limbah Cair bagi Kegiatan Industri.
- Kohno Y., Kinoshita R., Ikoma S., Yoda K., Shibata M., Matsushima R., Tomita Y., Maeda Y., and Kobayashi K., 2009, Stabilization of Natural Anthocyanin by Intercalation Into Montmorillonite, *Appl. Clay Sci.*, 42(3), 519–523.
- Konstantinou, I.K., Albanis, T.A., Petrakis, D.E., and Pomonis, P.J., 2000, Removal of Herbicides from Aqueous Solutions by Adsorption on Al-Pillared Clays. *Water Res.*, 34, 3123–3136.
- Krishna, B.S., Murty, D.S.R., and Jai-Prakash, B.S., 2000, Thermodynamics of Chromium(VI) Anionic Species Sorption onto Surfactant Modified Montmorillonite Clay. *J. Coll. Interf. Sci.*, 229, 230–236.
- Laredj N., Missoum H., Bendani K., and Maliki M., 2012., A Coupled Model for Heating and Hydration in Unsaturated Clays, *Arab J. Geosci.*, 5, 1–8.
- Liisa, C., 2004, Bentonite Mineralogy, Geological Survey of Finland, Olkiluoto.
- Lynam, M.M., Kliduf, J.e., and Weber Jr., W.J., 1995, Adsorption of Nitrofenol from Dilute Aqueous Solution, *J.Chem.Educ.*, 72, 80-84.
- Lou Z., Zhou Z., Zhang W., Zhang X., Hu X., Liu P., and Zhang H., 2015, Magnetized Bentonite by Fe₃O₄ Nanoparticles Treated as Adsorbent for Methylene Blue Removal from Aqueous Solution: Synthesis, Characterization, Mechanism, Kinetics and Regeneration, *Taiwan J. Inst. Chem. Eng.*, 49, 199–205.
- Luckham, P.F. and Rossi, S., 1999, The Colloidal and Rheological Properties of Bentonite Suspensions, *Adv. Coll. Interf. Sci.* 82, 43-92.
- Maicaneanu A., Bedeleian H., Burca S., and Stanca M., 2009, *Heavy Metal Ions Removal from Model Wastewaters using Oraşul Nou (Transilvania, Romania) Bentonite Sample*. *Studia UBB Chemia*, LIV, 127–140.
- Mohamed I.F., 2012, Environmental Geochemistry of El Tamsah Lake Sediments, Suez Canal District, Egypt, *Arab J. Geosci.*, 5, 1–9.

- Murray, H.H., 2000, Tradial and New Applications for Kaolin, Smectite and Alygorskite: a General Overview, *Appl. Clay Sci.*, 17, 207–221.
- Narin, I., Surme, Y., Soylak, M., and Dogan M., 2006, Speciation of Cr(III) and Cr(VI) in Environmental Samples by Solid Phase Extraction on Ambersorb 563 Resin, *J. Hazard. Mater B.*, 136, 579-584.
- Oliveiraa L.C.A., Rios R.V.R.A., Fabris J.D., Sapag K., Garg V.K., and Lago R.M., Clay–Iron Oxide Magnetic Composites for the Adsorption of Contaminants in Water, *Appl. Clay Sci.*, 22,169–177.
- Olu-Owolabi B.I. and Unuabonah E.I., 2011, Adsorption of Zn^{2+} and Cu^{2+} onto Sulphate and Phosphate-Modified Bentonite, *Appl. Clay Sci.*, 51, 170–173.
- Orolínová, Z. and Mockovčiaková A., 2009, Structural Study of Bentonite/Iron Oxide Composites, *J. Mater Chem and Phys.*, 114, 956–961.
- Oscik, J., 1982, *Adsorption*, John Willey and Sons, Inc., New York.
- Purwaningsih, D., 2009, Adsorpsi Multi Logam Ag(I), Pb(II), Cr(III), Cu(II) dan Ni(II) pada Hidrida Etilendiamino-Silika dari Abu Sekam Padi, *J. Penelitian Saintek.*, 14(1), 59-76.
- Riyanto, A. 1992, *Bahan Galian Industri Bentonit*, PPTM, Bandung.
- Salavati, M.N., Mahmoudi, T., and Amiri, O., 2012, Easy Synthesis of Magnetite Nanocrystals via Coprecipitation Method, *J. Clusst. Sci.*, 23, 597-602.
- Santosa, S.J. dan Muzakky, 2002, *Kinetika Adsorpsi Logam Berat (Krom, Tembaga, dan Uranium) oleh Asam Humat dalam Tanah Gambut*, Laporan Penelitian Penelitian Dasar Tahun Anggaran 2002, Yogyakarta.
- Schwertmann, U., and Cornell, R.M., 2000, *Iron Oxide in the Laboratory Preparation and Characterzation 2nd Edition*, Wiley-VCH, Wenheim.
- Sengupta, A. K. and Clifford, D., 1986, Chromate Ion Exchange Mechanism for Cooling Water, *Ind. Eng. Chem Fundam.*, 25, 249- 258.
- Su J., Huang H.G., Jin X.Y., Lu X.Q., and Chen Z.L., 2011, Synthesis, Characterization and Kinetic of a Surfactant-modified Bentonite used to Remove As(III) and As(V) from Aqueous Solution, *J. Hazard. Mater.*, 185(1), 63–70.
- Suminten N.K., Sudiarta I.W., dan Simpen I.N., 2014, Adsorpsi Ion Logam Cr(III) pada Silika Gel dari Abu Sekam Padi Termodifikasi Ligan Difenilkarbazon (Si-DPZon), *J. Kimia.*, 8(2), 231-236.

- Sun, S., and Zeng, H., 2002, Size-Controlled Synthesis of Magnetite Nanoparticles, *J. Am. Chem. Soc.*, 124, 8204-8205.
- Supeno, M. 2007, Bentonit Alam Terpilar sebagai Material Katalis/Co-Katalis Pembuatan Gas Hidrogen dan Oksigen dari Air, *Disertasi*, Universitas Sumatra Utara.
- Sriyanti., Azmiyawati C., dan Taslimah, 2005, Adsorpsi Kadmium (II) pada Bahan Hibrida Tiol-Silika dari Abu Sekam Padi, *JSKA*, 8(2),1-12.
- Szabó, T., Bakandritsos, A., Tzitzios, V., Papp, S., Körösi, L., Galbács, G., Musabekov, K., Bolatova, D., Petridis, D., and Dèkány, I., 2007, Magnetic Iron Oxide/Clay Composite: Effect of The Layer Silicate Support on The Microstruktur and Phase Formation of Magnetic Nanoparticles, *Nanotechnol.*, 18, 285-602.
- Tanjaya A., Sudono., Indraswati N., Ismadji S., 2006, Aktivasi Bentonit Alam Pacitan sebagai Bahan Penjerap pada Proses Pemurnian Minyak Sawit, *Indo J. Tek Kim.*, 5 (2), 429-434.
- Wahyuni, S., dan Widiastuti, N., 2010, Adsorpsi Ion Logam Zn(II) pada Zeolit A yang Disintesis dari Abu Dasar Batu Bara PT IPMOMI Paiton dengan Metode Batch, *Prosiding Tugas Akhir Semerter Ganjil*, FMIPA ITS, Surabaya.
- Wang Q., Changa, X., Li D., Hua, Z., Li R., and He Q., 2011, Adsorption of Chromium(III), Mercury(II) and Lead(II) Ions Onto 4-aminoantipyrine Immobilized Bentonite, *J. Hazard. Mater.*, 186, 1076–1081.
- Wu, W., He, Q., and Jiang, C., 2008, Magnetic Iron Oxide Nanoparticles: Synthesis and Surface Functionalization Strategies, *Nanoscale Res. Lett.*, 3, 397-415.
- Wulandari, W., 2007, Sintesis Hibrida Merkapto Silika dari Abu Sekam Padi untuk Adsorpsi Logam Cr(III), *Skripsi*, FMIPA UGM, Yogyakarta.
- Xin X., Si W., Yao Z., Feng R., Dua B., Yan L., and Wei Q., 2011, Adsorption of Benzoic Acid from Aqueous Solution by Three Kinds of Modified Bentonites, *J. Coll. Interf. Sci.*, 359, 499–504.
- Yalcin, S. and Apak, R., 2004, Chromium(III, VI) Speciation Analysis with Preconcentration on a Maleic Acid-Functionalized XAD Sorbent, *Anal. Chim. Acta.*, 505, 25–35.
- Zakaria, A., 2011, Adsorpsi Cu(II) Menggunakan Zeolit Sintesis dari Abu Terbang Batu Bara, *Tesis*, FMIPA IPB, Bogor.