

DAFTAR PUSTAKA

- Abhilash, M., 2010, Potential Applications of Nanoparticles, *International Journal of Pharma and Bio Science*, vol.1, pp.1.
- Ali, I., 2012, New Generation Adsorbents for Water Treatment. *Chemical Review*, vol 112, PP. 5073–5091.
- Andal, V. dan Buvaneswari, G., 2014, Removal of Lead Ions by NiFe₂O₄ Nanoparticles, *International Journal of Research in Engineering and Technology (IJRET)* eISSN : 2319-1163 | pISSN : 2321-7308.
- Andreas, D.P. dan Ali, M., 2004, Penurunan Kadar Besi oleh Media Zeolit Alam Ponorogo secara Kontinyu, *Jurnal Purifikasi*, Vol.5 No.4: 169-174.
- Askeland, D. R., dan Pule, P. P., 2001, *The Science and Engineering of materials*, PWS Publishers, USA.
- Antao, S.M., Ishmael, H., John, B.P., 2005, Cation Ordering in Magnesioferrite, MgFe₂O₄, to 982°C Using in Situ Synchrotron X-Ray Powder Diffraction, *American Mineralogist*, Volume 90, pages 219-228.
- Bangale, Sachin V., Patil, D. R., dan Bamane, S. R., 2011, Preparation and electrical properties of nanocrystalline MgFe₂O₄ oxide by combustion route, *Journal Scholars research library: Archives of Applied Science Research*, Vol.3 No.5: 506-513.
- Callister Jr. W. D., 2007, *Fundamentals of Materials Science and Engineering, Fifth Edition*, New York : John Wiley & Son Inc.,
- Carabante, I., 2012, Arsenic (V) adsorption on Iron Oxide: Implication for soil remediation and water purification, *Doctoral thesis*, Universitet stryckreriet, Lulea, Sweden.
- Coey, J. M. D., 2009, *Magnetism and Magnetic Materials*, Cambridge : Cambridge University Press, United States of America.
- Cornell, R.M. dan Schwertmann, 2003, *The Iron Oxides*, Wiley-VCH GmbH & Co.KgaA.
- Datta, A., 2007, Characterization of Polyethylene Glycol Hydrogels for Biomedical Application, *Thesis*, University of Pune.
- Day, R.A.Jr. dan Underwood, A.L., 2001, *Analisis Kimia Kuantitatif* (ditejemahkan oleh Iis Sopyan), Edisi 6, Penerbit Erlangga, Jakarta.
- Dhermendra, K. dan Tiwari., 2008, Application of Nanoparticles in Waste Water Treatment, *World Applied Source Journal*, vol. 3, pp. 417-433.
- Eby, G.N., 2004, *Principles of Environment Geochemistry*, Brooks/ Cole – Thomson Learning, pp. 212-214.
- Erdem, E., Karapinar, N., Donat, R., 2004, The Removal of Heavy Metal Cations By Natural Zeolites, *Journal of Colloid and Interface Science*, Vol. 280, pp. 309-314.
- Ge, Fei., Li, M. M., Hui Ye, Zhao, B. X., 2012, Effective Removal of Heavy Metal Ions Cd²⁺, Zn²⁺, Pb²⁺, Cu²⁺ From Aqueous Solution by Polymer Modified Magnetic Nanoparticles, *Journal of Hazardous Materials* 211-212 : 366-372.

- Gubin, S.P., Koksharov, Yu.A., Khomutov, G.B., Yurko, G.Yu., 2005, Magnetic nanoparticles: preparation, structure, and properties, *Russian Academy of Science and Turpion Ltd*, Vol 74, no. 6, pp. 489-520.
- Guimaraes, P.A., 2009, *Principles of Nanomagnetism*, Berlin-Germany, Springer.
- Hermawan, A., 2015, Fabrikasi Nanopartikel Magnesium Ferrite (MgFe₂O₄) Dengan Metode Kopersipitasi dan Karakterisasi Struktur Kristal dan Sifat Kemagnetannya, *Tesis*, FMIPA, Universitas Gadjah Mada, Yogyakarta.
- Hui, C., Shen, C., Yang, T., Bao, L., Tian, J., Ding, H., Li, C., dan Gao, H.J., 2008, Large Scale Fe₃O₄ Nanoparticles Soluble in Water Synthesized by a Facile Method, *J. Phys. Chem.*, vol. 112, pp. 11336-11339.
- Hu, J., Lo, Irene M.C. dan Chen, G, 2007, Comparative Study of Various Magnetic Nanoparticles for Cr(VI) Removal, *Journal Separation and Purification Technology*, vol. 56, pp. 249-256.
- Ilhan, S., Svetlana G.I., Andrei A.K., 2014, Synthesis and Characterization of MgFe₂O₄ Nanoparticles by Hydrothermal Decomposition of Co-Precipitated Magnesium and Iron Hydroxides, *Thesis*, Istanbul University, Turkey.
- Jha, M.K., Kumar, V., Maharaj, L. dan Singh, R., 2004, Studies on Leaching and Recycling of Zinc from Rayon Waste Sludge, *J. Ind. Eng. Chem.*, Res. 43, 1284-1285.
- John, S., Kuruvilla, M. dan Joseph, A., 2013, Surface Morphological and Impedance Spectroscopic Studies on The Interaction of Polyethylene Glycol (PEG) and Polyvinyl Pyrrolidone (PVP) with Mild Steel in Acid Solutions, *Springer*, vol. 39, pp. 1169-1182.
- Joy, P. A. dan Bhame, S. D., 2007, Enhanced Magnetostrictive Properties of CoFe₂O₄ Synthesized by an Auto Combustion Method, *Sensors and Actuators A: Physical*, Vol.137, pp.256-261.
- Kang, D., Yu, X., Ge, M. dan Song, W., 2015, One-Step Fabrication and Characterization of Hierarchical MgFe₂O₄ Microsphere and Their Application for Lead Removal, *Journal Microporous and Mesoporous Materials*, Vol. 207, pp. 170-178.
- Kittel, C., 1996, *Introduction To Solid State Physics*, 7th edition, John Wiley & Sons, Inc, New York.
- Khophar, S.M., 2003, *Konsep Dasar Kimia Analitik*, Diterjemahkan oleh Saptorahardjo, UI-Press, Jakarta.
- Kotnala, R. K., dan Shah, J., 2014, Ferrite Materials: Nano to Spintronics Regime, *Handbook of Magnetism Materials*, Vol. 23, pp. 293-370.
- Li, J., Hu, J., Sheng, G., Zhao, G., dan Huang, Q., 2009, Effect of pH, Ionic Strength, Foreign Ions and Temperature On The Adsorption of Cu(II) From Aqueous Solution to GMZ Bentonite, *Colloids and Surface A: Physicochemical And Engineering Aspects*, vol. 349, pp.195-201.
- Lu, A.H., Salabas, E. L.dan Schuth, F., 2007, Magnetic Nanoparticles: Syntesis, Protection, Functionalization,and Application, *Angenwadte Chemistry of Sciences*, vol. 46, pp. 12-14.

- Moreno, J. C., Gomez, G. R. dan Giraldo L., 2010, Removal of Mn, Fe, Ni, and Cu Ions from Wastewater using Cow Bone Charcoal, *Journal Materials*, vol. 3, pp. 452-466.
- Nurdila, F. A., 2015, Studi Adsorpsi Logam Tembaga (Cu), Besi (Fe) Dan Nikel (Ni) Pada Limbah Cair Buatan Menggunakan Adsorben Nanopartikel Magnetik Cobalt Ferrite (CoFe₂O₄), *Tesis*, FMIPA, Universitas Gadjah Mada, Yogyakarta.
- Omer, M.I.M., A.A., Elbadawi, O.A, Yassin., 2013, Synthesis and Structural Properties of MgFe₂O₄ Ferrite Nano-particles, *Journal of Applied and Industrial Sciences*, 1 (4): 20-23.
- Oscik, J., 1982, *Adsorption*, John Willey and Sons, Newyork.
- Pankhurst, Q.A., Connolly, J., Jones, S.K., dan Dobson, J., 2003, Application of Magnetic Nanoparticle in Biomedicine, *Journal of Physics D: Applied Physics*, vol. 36, pp. 167-181.
- Phadatar, M.R., V.M, Khot., A.B, Salunkhe., N.D, Thorat., S.H, Pawar., 2012, Studies on polyethylene glycol coating on NiFe₂O₄ nanoparticles for biomedical applications, *Journal of Magnetism and Magnetic Materials*, 324, 770-772.
- Perdana, F.A., Malik, A.B., Mashuri, Triwikantoro, Darminto, 2011, Sintesis nanopartikel Fe₃O₄ dengan *template* PEG-1000 dan karakterisasi sifat magnetiknya, *Jurnal Material dan Energi Indonesia*, Vol. 01, No. 01, 1-6.
- Perkin-Elmer, 1996, *Analytical Methods for Atomic Absorption Spectroscopy*, USA : The Perkin-Elmer Corporation.
- Puspitarum, D. L., 2015, Kajian Sifat Kemagnetan Pada Nanopartikel *Magnesium Ferrite* (MgFe₂O₄) Yang Dienkapsulasi Dengan *Polyethylene Glykol* (PEG-4000) dan Silika, *Tesis*, FMIPA, Universitas Gadjah Mada, Yogyakarta.
- Putra, D. E., Fitri P. A., dan Edi S., 2014, Studi Penurunan Kadar Logam Besi (Fe) pada Limbah Batik dengan Sistem Purifikasi Menggunakan Absorben Nanopartikel Magnetik, *Prosiding Pertemuan Ilmiah XXVIII HFI Jateng dan DIY*, Yogyakarta, ISSN : 0853-0823.
- Riyanto, A., 2012, Sintesis dan Analisis Potensi Nanopartikel Fe₃O₄ (Magnetit) sebagai Material Aktif pada Permukaan Sensing Biosensor Berbasis Surface Plasmon Resonance (SPR), *Tesis*, Jurusan Fisika FMIPA UGM, Yogyakarta.
- Robertson, B., 2006, Why Does a Color Change Indicate a Chemical Change?, *Book & Resources NSTA WebNews Digest, Science and Children* : Science 101.
- Shen, T., 1994, Superparamagnetic Contrast Agents for Magnetic Resonance Imaging, *Doctoral Thesis*, Massachusetts Institute of Technology, USA.
- Shen, Y.F., Tang, J., Nie, Z.H., Wang, Y.D., Ren, Y. dan Zuo, L., 2009, Tailoring Size and Structural Distortion of Fe₃O₄ Nanoparticles for the Purification of Contaminated Water, *Bioresource Technology*, vol. 100, pp. 4139-4146.

- Singamaneni, S., Bliznyuk, V. N., Binek, C., Tsymbal, E. Y., 2011, Magnetic Nanoparticles: Recent Advances in Synthesis, Self-Assembly and Applications, *Journal Material Chemistry*, 21, p. 1681
- Sepahvand, R. dan Mohamadzade, R., 2011, Synthesis and Characterization of Carbon Nanotubes Decorated With Magnesium Ferrite (MgFe₂O₄) Nanoparticles by Citrate-Gel Method, *Journal of Science, Islamic Republik of Iran*, vol. 22(2), pp. 177-182 ISSN 1016-1104.
- Smallman, R.E., dan Bishop, R. J., 1999, *Modern Physics Metallurgy and Materials Engineering*, Bath Press, Great Britain.
- Srivastava, V., Sharma, Y. C., Sillanpaa, M., 2015, Application Of Nano-Magnesso Ferrite (N-Mgfe₂O₄) For The Removal Co²⁺ Ions From Synthetic Wastewater: Kinetic, Equilibrium And Thermodynamic Studies, *Accepted Manuscript Journal of Applied Surface Science*, PII: S0169-4332(15)00376-1, DOI: <http://dx.doi.org/doi:10.1016/j.apsusc.2015.02.072>.
- Syarifuddin, N., 1994, *Ikatan Kimia*, Gadjah Mada University Press, Yogyakarta.
- Tang, W., Su, Y., Li, Q., Gao, S., Shang, J., 2013, Superparamagnetic Magnesium Ferrite Nanoadsorbent for Effective Arsenic (III, V) Removal and Easy Magnetic Separation, *Water Research Journal*, vol. 47, pp. 3624-3634.
- Viltusnik, Branka., Aljosa, K., dan Yuriy, L. Z., 2013, Removal of Pb(II) ions From Aqueous Systems Using Thiol-Functionalized Cobalt Ferrite Magnetic Nanoparticles, *Journal Sol-Gel Science Technology* 68: 365-373.
- Voda, R., Adina, N., Lavinia, L., Mihaela, C., Petru, N., Corneliu, M. D. dan Monica, B., 2015, Nanocrystalline Ferrites Used As Adsorbent in the Treatment Process of Waste Waters Resulted From Ink Jet Cartridges Manufacturing, *De Gruyter Open, Open Chem*, vol. 13, pp. 743-747.
- Wang, Z., Lazor, P., Saxena, S. K. dan Hugh St. C.O., 2002, High Pressure Raman Spectroscopy of Ferrite MgFe₂O₄. *Material Research Bulletin*, vol. 37, pp. 1589-1602.
- Wu, W., He, Q. dan Jiang, C., 2008, Magnetic Iron Oxide Nanoparticles: Synthesis and Surface Functionalization Strategies, *Journal of nanoscalereslett*, vol. 3, pp. 397 – 415.
- Xu, C., 2009, Modification of Superparamagnetic Nanoparticles for Biomedical Applications, *Dissertation*, Brown University , Providence, Rhode Island.
- Yean, S. dan Cong, L. 2005. Effect of Magnetite Particle Size on Adsorption and Desorption of Arsenite and Arsenate, *Journal of Material Research Society*, vol.20.
- Zhang, F., Su, Z., Wen F., and Li, F., 2008, Shynthesis and Characterization ofPolystyrene-graft magnetic nanoparticles, *Colloid Polym*, vol.286, pp. 837-841.
- Zhao, L., Li, X., Zhao, Q., Qu, Z., Yuan, D., Liu, S., Hu, X., dan Chen, G., 2010, Synthesis, Characterization and Adsorptive Performance of MgFe₂O₄ Nanosphere for SO₂ Removal, *Journal of Hazardous Materials* 184, pp. 704-709.
- Zhaohui, Z., 2004, Formation and Properties of Ferrite-Based Nanoparticles and Nanocomposite, *Doctoral Thesis*, National University of Singapore.

_____. 2014. Chapter 8: Ionic and Covalent Solids-Structures. *Introduction to Inorganic Chemistry*. en.wikibooks.org/wiki/Introduction_to_Inorganic_Chemistry/Ionic_and_Covalent_Solids_-_Structures, diakses tanggal 17 februari 2015.