DAFTAR PUSTAKA

Alfarisa, S., Rifai, D.A., Toruan, P.L., 2018. Studi difraksi sinar-x struktur nano seng oksida (ZnO). *Risalah Fisika,* 2*,* pp. 53–57. https://doi.org/10.35895/rf.v2i2.114

Anam, C., Firdausi, K.S. and Sirojudin, S., 2007. Analisis gugus fungsi pada sampel uji, bensin dan spiritus menggunakan metode spektroskopi FTIR. *Berkala Fisika*, *10*(1), pp.79-85.

Arief, S., Stiadi, Y., Rizal, R., 2012. Synthesis of magnetic nanoparticles of TiO_2-$NiFe_2O_4$: characterization and photocatalytic activity on degradation of rhodamine b. *Indo. J. Chem*, 12 (3), pp.229-234.

Atla, S.B., Lin, W.R., Chien, T.C., Tseng, M.J., Shu, J.C., Chen, C.C., Chen, C.Y., 2018. Fabrication of Fe_3O_4/ZnO magnetite core shell and its application in photocatalysis using sunlight. *Mater Chem Phys*, 216, pp. 380–386. https://doi.org/10.1016/j.matchemphys.2018.06.020

Azhagushanmugam, S.J., Suriyanarayanan, N., Jayaprakash, R., 2013. Synthesis and characterization of nanocrystalline $Ni_{(0.6)}Zn_{(0.4)}Fe_2O_4$ spinel ferrite magnetic material in physics procedia. *Elsevier B.V*, pp. 44–48. https://doi.org/10.1016/j.phpro.2013.10.009

Berthomieu, C., Hienerwadel, R., 2009. Fourier Transform Infrared (FTIR) Spectroscopy. *Photosynth Res*, 101, pp. 157–170. https://doi.org/10.1007/s11120-009-9439-x

Byju's., 2020. Band Theory of Metals Example. Byju's Learning Program.

Chandrika, M., Ravindra, A.V., Rajesh, C., Ramarao, S.D. and Ju, S., 2019. Studies on structural and optical properties of nano ZnFe2O4 and ZnFe2O4-TiO2 composite synthesized by co-precipitation route. *Materials Chemistry and Physics*, *230*, pp.107-113.

Chen, D.G., Tang, X.G., Wu, J.B., Zhang, W., Liu, Q.X., Jiang, Y.P. (2011). Effect of grain size on the magnetic properties of superparamagnetic $Ni_{0.5}Zn_{0.5}Fe_2O_4$ nanoparticles by co-precipitation process. *J Magn Magn Mater,* 323, pp. 1717–1721. https://doi.org/10.1016/j.jmmm.2011.02.002

Cheng, B., Liu,X., Hu, J., 2022. Fe_3O_4 thin films epitaxially growth model on TiO_2-terminated $SrTiO_3$(100). *Supperlatice and Microstructures*, 167, pp.107183.

Coey, J.M., 2010. *Magnetism and magnetic materials*. Cambridge university press.

Cullity, B.D., Graham, C.D., 2011. Introduction to magnetic materials. Second. ed. *IEEE Press*, New Jersey.

Dachriyanus., 2004. Analisis struktur senyawa organik secara spektroskopi. First. ed. *Lembaga Pengembangan Teknologi Informasi dan Komunikasi*, Padang.

Dagher, S., Soliman, A., Ziout, A., Tit, N., Hilal-Alnaqbi, A., Khashan, S., Alnaimat, F., Qudeiri, J.A., 2018. Photocatalytic removal of methylene blue using titania- and silica-coated magnetic nanoparticles. *Mater Res Express,* 5, pp. 065518. https://doi.org/10.1088/2053-1591/aacad4

Deraz, N.M., Abd-Elkader, O.H., 2014. Production and characterization of nano-magnetic $Ni_{0.5}Zn_{0.5}Fe_2O_4$ spinel solid solution. *J Anal Appl Pyrolysis*, 106, pp. 171–176. https://doi.org/10.1016/j.jaap.2014.01.017

Diallo, M.S., Fromer, N.A. and Jhon, M.S., 2014. *Nanotechnology for sustainable development: retrospective and outlook* (pp. 1-16). *Springer International Publishing*. https://doi.org/10.1007/978-3-319-05041-6

Eltabey, M.M., Agami, W.R., Mohsen, H.T., 2014. Improvement of the magnetic properties for Mn-Ni-Zn ferrites by rare earth Nd^{3+} ion substitution. *J Adv Res,* 5, pp. 601–605. https://doi.org/10.1016/j.jare.2013.08.005

Galal, A., Sadek, O., Soliman, M., Ebrahim, S., Anas, M., 2021. Synthesis of nanosized nickel zinc ferrite using electric arc furnace dust and ferrous pickle liquor. *Sci Rep*, 11, 20170 . https://doi.org/10.1038/s41598-021-99697-9

García, M., Forbe, T., Gonzalez, E., 2010. Potential applications of nanotechnology in the agro-food sector. *Ciência e Tecnologia de Alimentos*, 30, pp. 573–581. https://doi.org/10.1590/S0101-20612010000300002

Ghasemi, A., Ekhlasi, S., Mousavinia, M., 2014. Effect of Cr and Al substitution cations on the structural and magnetic properties of $Ni_{0.6}Zn_{0.4}Fe_2$-xCr $_x$/2Al$_x$/2O$_4$ nanoparticles synthesized using the sol-gel auto-combustion method. *J Magn Magn Mater*, 354, pp. 136–145. https://doi.org/10.1016/j.jmmm.2013.10.022

Gilbert, A.S., 2017. IR Spectral Group Frequencies of Organic Compounds. *Encyclopedia of Spectroscopy and Spectrometry*, pp. 408–418. https://doi.org/10.1016/B978-0-12-803224-4.00337-X

Gill, A.F., Benavides, O., Vargas, S.M., May, L.D.L.C., Carachure, C.P., 2020. Synthesis and characterization of cobalt ferrite $Co_xFe_{3-x}O_4$ Nanoparticles by Raman Spectroscopy and X-Ray Diffraction. *International Journal of Metallurgy and Metal Physics*, 5:047. https://doi.org/10.35840/2631-5076/9247

Griffith, David.J., 1999. Introduction to Electrodinamic, 3rd ed. *Pretince Hall, Inc*., New Jersey.

Gubin, S.P., 2009. Magnetic Nanoparticles, First. ed. *Wiley-VCH Verlag GmbH & Co,* Moscow.

Gubin, S.P., Koksharov, Y.A., Khomutov, G.B., Yurkov, G.Y., 2005. Magnetic nanoparticles: Preparation, structure and properties. *Usp Khim*, 74, pp. 539–574. https://doi.org/10.1070/rc2005v074n06abeh000897

Gupta, S.M., Tripathi, M., 2011. A review of TiO_2 nanoparticles. Chinese Science Bulletin. https://doi.org/10.1007/s11434-011-4476-1

Ha, Y., Ko, S., Kim, I., Huang, Y., Mohanty, K., Huh, C., Maynard, J.A., 2018. Recent Advances Incorporating Superparamagnetic Nanoparticles into Immunoassays. *ACS Appl Nano Mater*, 1, pp. 512–521. https://doi.org/10.1021/acsanm.7b00025

Halliday, D., Resnick, R., Walker, J., 2011. Fundamental of Physics, 9th ed. *John Wiley & Sons, Inc*, New York.

Harris, L.A., 2002. Polymer Stabilized Magnetite Nanoparticles and Poly(propylene oxide) Modified Styrene-Dimethacrylate Networks (Dissertation). *Virginia Polytechnic Institute and State University*, Blacksburg.

Hedayati, K., 2015. Synthesis and characterization of nickel zinc ferrite nanoparticles. *Journal of Nanostructures*, *5*(1), pp.13-16.

Januar Widakdo., 2017. Kajian Struktur Kristal dan Sifat Kemagnetan pada Nanopartikel Zinc Nickel Ferrite ($Zn_{0,5}Ni_{0,5}Fe_2O_4$) yang Dienkapsulasi dengan Polyethylene Glycol (PEG-4000) dan Silica (SiO_2). Tesis. *Universitas Gadjah Mada*, Yogyakarta.

Juber, N., Khairurrijal, K., 2008. Review: Sintesis Nanomaterial Optical Sensing Performance of Multimode Polymer Optical Fiber (POF) Coated with ZnO towards Methanol Vapour. *Jurnal Nanosains & Nanoteknologi*, 1, pp. 33–57.

Kalam, A., Al-Sehemi, A.G., Assiri, M., Du, G., Ahmad, T., Ahmad, I., Pannipara, M., 2018. Modified solvothermal synthesis of cobalt ferrite ($CoFe_2O_4$) magnetic nanoparticles photocatalysts for degradation of methylene blue with H2O2/visible light. *Results Phys*, 8, pp. 1046–1053. https://doi.org/10.1016/j.rinp.2018.01.045

Kandregula, G., Ganapathi Rao, K., Ashok, C., Venkateswara Rao, K., Shilpa Chakra, C., Tambur, P., 2015. Green Synthesis of TiO_2 Nanoparticles Using Aloe Vera Extract Green Synthesis of TiO_2 Nanoparticles Using Aloe Vera Extract. *International Journal of Advanced Research in Physical Science* (IJARPS), 2, pp. 28–34.

Karmakar, S., Routray, K.L., Panda, B., Sahoo, B. and Behera, D., 2018. Construction of core@ shell nanostructured NiFe2O4@ TiO2 ferrite NAND logic gate using fluorescence quenching mechanism for TiO2 sensing. *Journal of Alloys and Compounds*, *765*, pp.527-537. https://doi.org/10.1016/j.jallcom.2018.06.100

Kefeni, K.K., Msagati, T.A. and Mamba, B.B., 2017. Ferrite nanoparticles: synthesis, characterisation and applications in electronic device. *Materials Science and Engineering: B*, *215*, pp.37-55. https://doi.org/10.1016/j.mseb.2016.11.002

Kentyastuti, L., Suharyadi, E., 2015. Karakterisasi dan Analisis Gugus Fungsi pada Nanopartikel Magnetik Magnesium Ferrit ($MgFe_2O_4$) yang Dilapisi dengan Silika (SiO_2) (Skripsi). *Universitas Gadjah Mada*, Yogyakarta.

Khan, I., Saeed, K. and Khan, I., 2019. Nanoparticles: Properties, applications and toxicities. *Arabian journal of chemistry*, *12*(7), pp.908-931. https://doi.org/10.1016/j.arabjc.2017.05.011

Knyazev, A. v., Zakharchuk, I., Lähderanta, E., Baidakov, K. v., Knyazeva, S.S., Ladenkov, I. v., 2017. Structural and magnetic properties of Ni-Zn and Ni-Zn-Co ferrites. *J Magn Magn Mater*, 435, pp. 9–14. https://doi.org/10.1016/j.jmmm.2017.03.074

Kotnala, R.K., Shah, J., 2015. Ferrite Materials: Nano to Spintronics Regime, in: Handbook of Magnetic Materials. *Elsevier B.V*, pp. 291–379. https://doi.org/10.1016/B978-0-444-63528-0.00004-8

Kumar, S., Kumar, P., Singh, V., Kumar Mandal, U., Kumar Kotnala, R., 2015. Synthesis, characterization, and magnetic properties of monodisperse Ni, Zn-ferrite nanocrystals. *J Magn Magn Mater*, 379, pp. 50–57. https://doi.org/10.1016/j.jmmm.2014.12.006

Laurent, S., Saei, A.A., Behzadi, S., Panahifar, A. and Mahmoudi, M., 2014. Superparamagnetic iron oxide nanoparticles for delivery of therapeutic agents: opportunities and challenges. *Expert opinion on drug delivery*, *11*(9), pp.1449-1470. https://doi.org/10.1517/17425247.2014.924501

Lee, S., Lee, D., Kim, K., Park, M., 2016. Cation Distribution in Ni-Mn-O Spinel System for the Application of IR Sensors, in: Procedia Engineering. *Elsevier Ltd*, pp. 1279–1282. https://doi.org/10.1016/j.proeng.2016.11.447

Leng, Y., 2013. Materials Characterization Introduction to Microscopic and Spectroscopic Methods, 2nd ed. *Wiley-VCH Verlag GmbH & Co*, Weinhem.

Liu, J., Detrembleur, C., de Pauw-Gillet, M.-C., Mornet, S., Elst, L. vander, Laurent, S., Jérôme, C., Duguet, E., St´, S., Vander, L., Erômeerˆerôme, C.J.,

2014. Heat-triggered drug release systems based on mesoporous silica nanoparticles filled with a maghemite core and phase-change molecules as gatekeepers. *Journal of Materials Chemistry B: Materials for Biology and Medicine,* 2, pp. 59–70. https://doi.org/10.1039/c3tb21229gï

Lok, M., 2009. Coprecipitation, Synthesis of Solid Catalysts. *Wiley-VCH Verlag GmbH & Co,* New York.

Mannu, A., di Pietro, M.E., Mele, A., 2020. Band-gap energies of choline chloride and triphenylmethylphosphoniumbromide-based systems. *Molecules*, 25. https://doi.org/10.3390/molecules25071495

Marolt, M., 2014. Superparamagnetic materials. (Seminars). *University of Ljubljana*.

Mateus, G.A.P., Paludo, M.P., dos Santos, T.R.T., Silva, M.F., Nishi, L., Fagundes-Klen, M.R., Gomes, R.G., Bergamasco, R., 2018. Obtaining drinking water using a magnetic coagulant composed of magnetite nanoparticles functionalized with Moringa oleifera seed extract. *J Environ Chem Eng*, 6, pp. 4084–4092. https://doi.org/10.1016/j.jece.2018.05.050

Mathew, D.S., Juang, R.S., 2007. An overview of the structure and magnetism of spinel ferrite nanoparticles and their synthesis in microemulsions. *Chemical Engineering Journal*. https://doi.org/10.1016/j.cej.2006.11.001

Mcmahon, G., 2007. Analytical Instrumentation A Guide to Laboratory, Portable and Miniaturized Instruments First Edition, First. ed. *John Wiley & Sons, Ltd*, Dublin.

Mohamad, M., Haq, B.U., Ahmed, R., Shaari, A., Ali, N., Hussain, R., 2015. A density functional study of structural, electronic and optical properties of titanium dioxide: Characterization of rutile, anatase and brookite polymorphs. *Mater Sci Semicond Process*, 31, pp. 405–414. https://doi.org/10.1016/j.mssp.2014.12.027

Mohamed, M.A., Jaafar, J., Ismail, A.F., Othman, M.H.D., Rahman, M.A., 2017. Fourier Transform Infrared (FTIR) Spectroscopy, in: Membrane Characterization. *Elsevier Inc*., pp. 3–29. https://doi.org/10.1016/B978-0-444-63776-5.00001-2

Mosiori, C.O., Oeba, D.A., Shikambe, R., 2017. Determination of Planck's Constant using Light Emitting Diodes. *Path of Science,* 3, pp. 2007–2012. https://doi.org/10.22178/pos.27-2

Murty, B.S., Shankar, P., Raj, B., Rath, B.B., Murday, J., 2013. Textbook of Nanoscience and Nanotechnology, Textbook of Nanoscience and

Nanotechnology. *Springer Berlin Heidelberg*. https://doi.org/10.1007/978-3-642-28030-6

Nabi, G., Raza, W. dan Tahir, M.B., 2020. Green Synthesis of TiO_2 Nanoparticle Using Cinnamon Powder Extract and the Study of Optical Properties. *Journal of Inorganic and Organometallic Polymers and Materials*, 30(4), pp. 1425–1429.

Natelson, D., 2015. *Nanostructures and nanotechnology*. Cambridge University Press.

Nikmanesh, H., Kameli, P., Asgarian, S.M., Karimi, S., Moradi, M., Kargar, Z., Ventura, J., Bordalo, B., Salamati, H., 2017. Positron Annihilation Lifetime, Cation Distribution and Magnetic Features of $Ni_{1-x}Zn_xFe_{2-x}Co_xO_4$ Ferrite Nanoparticles. *RSC Adv* 7, pp. 22320–22328. https://doi.org/10.1039/c7ra01975k

Nova Alviati., 2015. Simulasi Distribusi Konsentrasi Elektron Kristal Semikonduktor Gas pada Peristiwa Deformation Potential Scattering berbasis Metode Elemen Hingga (Skripsi). *Universitas Jember*, Jember.

Olariu, R., 2015. Treatment of Cooling Tower Blowdown Water. The effect of Biodispersant on The Ultrafiltration Membrane. Delft.

Osaci, M., Cacciola, M., 2015. An Adapted Coffey Model for Studying Susceptibility Losses in Interacting Magnetic Nanoparticles. *Beilstein Journal of Nanotechnology*, 6, pp. 2173–2182. https://doi.org/10.3762/bjnano.6.223

Pandey, A., Dalal, S., Dutta, S., Dixit, A., 2021. Structural characterization of polycrystalline thin films by X-ray diffraction techniques. *Journal of Materials Science: Materials in Electronics,* 32, pp. 1341–1368. https://doi.org/10.1007/s10854-020-04998-w

Pankhurst, Q.A., Thanh, N.K.T., Jones, S.K., Dobson, J., 2009. Progress in applications of magnetic nanoparticles in biomedicine. *J Phys D Appl Phys,* 42. https://doi.org/10.1088/0022-3727/42/22/224001

Pavia, D.L., Lampman, G.M., Kriz, G.S., Vyvyan, J.R., 2013. Introduction To Spectroscopy, Fifth. ed. *Cengage Learning*, Stanford.

Prasankumar, R.P., Taylor, A.J., 2012. Materials Characterization, First. ed. *CRC Press,* New York.

Puri, R.K., Babbar, V.K., 1997. Solid State Physics, 3rd ed. S. *Chand & Company Ltd*., New Delhi.

Quintanilla-Carvajal, M.X., Camacho-Díaz, B.H., Meraz-Torres, L.S., Chanona-Pérez, J.J., Alamilla-Beltrán, L., Jimenéz-Aparicio, A., Gutiérrez-López, G.F.,

2010. Nanoencapsulation: A new trend in food engineering processing. *Food Engineering Reviews,* 2, pp. 39–50. https://doi.org/10.1007/s12393-009-9012-6

Raeisi Shahraki, R., Ebrahimi, M., Seyyed Ebrahimi, S.A., Masoudpanah, S.M., 2012. Structural characterization and magnetic properties of superparamagnetic zinc ferrite nanoparticles synthesized by the coprecipitation method. *J Magn Magn Mater*, 324, pp. 3762–3765. https://doi.org/10.1016/j.jmmm.2012.06.020

Roynizar., 2013. Pembuatan Dan Karakterisasi Field Effect (Skripsi). *Institut Pertanian Bogor,* Bogor.

Sanchez-Lievanos, K.R., Stair, J.L., Knowles, K.E., 2021. Cation Distribution in Spinel Ferrite Nanocrystals: Characterization, Impact on their Physical Properties, and Opportunities for Synthetic Control. *Inorg Chem*, 60, pp. 4291–4305. https://doi.org/10.1021/acs.inorgchem.1c00040

Sari, R., Abraha, K., 2012. Simulasi Pengaruh Ketebalan Lapisan Nanopartikel Magnetik (Fe_3O_4) terhadap Respon Biosensor Berbasis Surface Plasmon Resonance (SPR) untuk Deteksi DNA, in: *Pertemuan Ilmiah XXVI HFI Jateng & DIY*, Purworejo. Purworejo.

Sattler, K.D., 2010. Handbook of Nanophysics. *CRC Press.*

Settle, F.A., 1997. Handbook of Instrumental Techniques for Analytical Chemistry. *Prentice Hall, Inc.,* New Jersey.

Shabani, A., Nabiyouni, G., Saffari, J., Ghanbari, D., 2016. Photo-catalyst Fe_3O_4/TiO_2 nanocomposites: green synthesis and investigation of magnetic nanoparticles coated on cotton. *Journal of Materials Science: Materials in Electronics*, 27, pp. 8661–8669. https://doi.org/10.1007/s10854-016-4887-5

Shahane, G.S., Kumar, A., Arora, M., Pant, R.P., Lal, K., 2010. Synthesis and characterization of Ni-Zn ferrite nanoparticles. *J Magn Magn Mater*, 322, pp. 1015–1019. https://doi.org/10.1016/j.jmmm.2009.12.006

Sharifianjazi, F., Moradi, M., Parvin, N., Nemati, A., Jafari Rad, A., Sheysi, N., Abouchenari, A., Mohammadi, A., Karbasi, S., Ahmadi, Z., Esmaeilkhanian, A., Irani, M., Pakseresht, A., Sahmani, S., Shahedi Asl, M., 2020. Magnetic CoFe2O4 nanoparticles doped with metal ions: A review. *Ceram Int*. https://doi.org/10.1016/j.ceramint.2020.04.202

Shokrollahi, H., Avazpour, L., 2016. Influence of intrinsic parameters on the particle size of magnetic spinel nanoparticles synthesized by wet chemical methods. *Particuology.* https://doi.org/10.1016/j.partic.2015.10.004

Sonya Retno, B., Retno Mangesti, S., Suharyadi, E., 2016. Sintesis Dan Analisis Gugus Fungsi pada Nanopartikel Magnetik Magnesium Nikel Ferit ($Mg_{0,5}Ni_{0,5}Fe_2O_4$) yang Dienkapsulasi dengan Polietilen Glikol (PEG)-4000 (Skripsi). *Universitas Gadjah Mada*, Yogyakarta.

Spaldin, N.A., Nicola A., 2003. Magnetic materials : fundamentals and device applications. *Cambridge University Press*.

Speakman, S.A., 2012. Basics of X-Ray Powder Diffraction. Massachusetts.

Srinivas, C., Tirupanyam, B. v., Meena, S.S., Yusuf, S.M., Babu, C.S., Ramakrishna, K.S., Potukuchi, D.M., Sastry, D.L., 2016. Structural and magnetic characterization of co-precipitated $Ni_xZn_{1-x}Fe_2O_4$ ferrite nanoparticles. *J Magn Magn Mater,* 407, pp. 135–141. https://doi.org/10.1016/j.jmmm.2016.01.060

Srinivas, C., Tirupanyam, B. v., Satish, A., Seshubai, V., Sastry, D.L., Caltun, O.F., 2015. Effect of Ni^{2+} substitution on structural and magnetic properties of Ni-Zn ferrite nanoparticles. *J Magn Magn Mater*, 382, pp. 15–19. https://doi.org/10.1016/j.jmmm.2015.01.008

Srivastava, M., Layek, S., Singh, J., Das, A.K., Verma, H.C., Ojha, A.K., Kim, N.H., Lee, J.H., 2014. Synthesis, magnetic and Mössbauer spectroscopic studies of Cr doped lithium ferrite nanoparticles. *J Alloys Compd,* 591, pp. 174–180. https://doi.org/10.1016/j.jallcom.2013.12.180

Suharyadi, E., Setiadi, E.A., Riyanto, A., Kato, T., Iwata, S., Abraha, K., 2014. Magnetic Nanostructures : Fabrication And Applications From Memory Devices To Biosensor (Review). *Sains Materi Indonesia*, 15, pp. 123–128.

Tatarchuk, T., Bououdina, M., Judith Vijaya, J., John Kennedy, L., 2017. Spinel ferrite nanoparticles: Synthesis, crystal structure, properties, and perspective applications, in: Springer Proceedings in Physics. *Springer Science and Business Media, LLC*, pp. 305–325. https://doi.org/10.1007/978-3-319-56422-7_22

Tayade, R.J., Surolia, P.K., Kulkarni, R.G., Jasra, R. v., 2007. Photocatalytic degradation of dyes and organic contaminants in water using nanocrystalline anatase and rutile TiO_2. *Sci Technol Adv Mater*, 8, pp. 455–462. https://doi.org/10.1016/j.stam.2007.05.006

Tedsree, K., Temnuch, N., Sriplai, N., Pinitsoontorn, S., 2017. Ag modified Fe_3O_4@TiO_2 magnetic core-shell nanocomposites for photocatalytic degradation of methylene blue. *Materials Today : Proceedings*, 4 (5), pp. 6576-6584.

Thahir, S., 2010. Penentuan Kualitas Pembawa Muatan Bahan Semikonduktor Dengan Metode Efek Hall (Skripsi). Skripsi. *UIN Alauddin Makassar*, Makassar.

Toriq, A., 2011. Karakteristik Kelistrikan Lapisan Tipis Klorofil Hasil Deposisi Spin Coating (Skripsi). Skripsi. *Universitas Sebelas Maret*, Surakarta.

Tumbelaka, R.M., Istiqomah, N.I., Kato, T., Oshima, D. and Suharyadi, E., 2022. High reusability of green-synthesized Fe3O4/TiO2 photocatalyst nanoparticles for efficient degradation of methylene blue dye. *Materials Today Communications*, *33*, pp.104450. https://doi.org/10.1016/j.mtcomm.2022.104450.

Umut, E., 2013. Surface modification of nanoparticles used in biomedical applications. *Modern surface engineering treatments*, *20*, pp.185-208. https://doi.org/10.5772/55746

Valenzuela, R., 2012. Review Article : Novel applications of ferrites. *Physics Research International,* 2012. https://doi.org/10.1155/2012/591839

Velmurugan, K., Sangli, V., Venkatachalapathy, K., Sendhilnathan, S., 2010. Synthesis of Nickel Zinc Iron Nanoparticles by Coprecipitation Technique. *Materials Research*, 13, pp. 299–303. https://doi.org/10.1590/S1516-14392010000300005

Wahajuddin, N. and Arora, S., 2012. Superparamagnetic iron oxide nanoparticles: magnetic nanoplatforms as drug carriers. *International journal of nanomedicine*, pp.3445-3471. https://doi.org/10.2147/IJN.S30320

Wang, Z.L., 2004. Nanostructures of Zinc Oxide. *Journal Of Physics: Condensed Matter*, pp. 829–858. https://doi.org/https://doi.org/10.1016/S1369-7021(04)00286-X

Widayati, R., 2018. Struktur Kristal Dan Morfologi Permukaan Bahan Semikonduktor Cd($S_{0,5}Te_{0,5}$) Hasil Preparasi Dengan Metode Bridgman Pada Berbagai Variasi Alur Pemanasan (Skripsi). Skripsi. *Universitas Negeri Yogyakarta*, Yogyakarta.

Williams, H.M., 2017. The application of magnetic nanoparticles in the treatment and monitoring of cancer and infectious diseases. *Bioscience Horizons: The International Journal of Student Research*, 10. https://doi.org/10.1093/biohorizons/hzx009

Wilson, A., Mishra, S.R., Gupta, R., Ghosh, K., 2012. Preparation and photocatalytic properties of hybrid core-shell reusable $CoFe_2O_4$-ZnO nanospheres. *J Magn Magn Mater*, 324, pp. 2597–2601. https://doi.org/10.1016/j.jmmm.2012.02.009

Wu, W., He, Q., Jiang, C., 2008. Magnetic iron oxide nanoparticles: Synthesis and surface functionalization strategies. *Nanoscale Res Lett*, 3, pp. 397–415. https://doi.org/10.1007/s11671-008-9174-9

Yadav, N., Kumar, A., Rana, P.S., Rana, D.S., Arora, M., Pant, R.P., 2015. Finite size effect on Sm^{3+} doped $Mn_{0.5}Zn_{0.5}Sm_xFe_{2-x}O_4$ ($0 \leq x \leq 0.5$) ferrite nanoparticles. *Ceram Int*, 41, pp. 8623–8629. https://doi.org/10.1016/j.ceramint.2015.03.072

Yu, H., Bai, X., Qian, G., Wei, H., Gong, X., Jin, J., Li, Z., 2019. Impact of ultraviolet radiation on the aging properties of SBS-modified asphalt binders. *Polymers (Basel)*, 11. https://doi.org/10.3390/polym11071111

Yu, Z., Chuang, S.S.C., 2008. The effect of Pt on the photocatalytic degradation pathway of methylene blue over TiO_2 under ambient conditions. *Appl Catal B*, 83, pp. 277–285. https://doi.org/10.1016/j.apcatb.2008.01.040

Z. Chen dan T.F. Jaramilo., 2017. The use of UV-Visible spectroscopy to measure the band gap of semiconductor. Department of Chemical Engineering, *Stanford University*, California.

Zaier, A., Meftah, A., Jaber, A.Y., Abdelaziz, A.A., Aida, M.S., 2015. Annealing effects on the structural, electrical and optical properties of ZnO thin films prepared by thermal evaporation technique. *J King Saud Univ Sci*, 27, pp. 356–360. https://doi.org/10.1016/j.jksus.2015.04.007

Zhang, J., Zhou, P., Liu, J. and Yu, J., 2014. New understanding of the difference of photocatalytic activity among anatase, rutile and brookite TiO2. *Physical Chemistry Chemical Physics*, *16*(38), pp.20382-20386.