DAFTAR PUSTAKA

Abdullah, M., dan Khairurrijal, 2009, Review: Karakterisasi Nanomaterial, *Jurnal Nanosains dan Nanoteknologi*, 2(1):1-9.

Alawiyah, T, 2012, Pengembangan TiO_2 pada Abu Dasar Batubara (Bottom Ash) an Uji Aktivitasnya Sebagai Fotokatalis dalam Degradasi Zat Warna Metilen Biru, *Tesis*, UGM : Yogyakarta.

Bianco, A., Cheng, H-M., Enoki, T., Gogotsi, Y., Hurt, R, H., Koratkar, N., Zhang, J, 2013, All in the Graphene Family-A Recommended Nomenclature For Two-Dimensional Carbon Materials. *Carbon*, 65:1-6

Chang, R, 1981, *Physical Chemistry with Aplication to Biological System Second Edition*, Mac Millan Publishing.co, INC, New York.

Chen, G., M. Sun, Q., Wei, Y., Zhang, B Zhu dan B. Du, 2013, Ag_3PO_4/graphene – oxide Composite with Remarkably Enchanced Visible-Light-Driven Photocatalytic Activity Toward Dyes in Water, *Journal of Hazardous Materials*, 244-245, pp. 86-93.

Chen, W., Niu, X., & Wang, J, 2018, A photocatalyst of graphene oxide (GO)/Ag_3PO_4 with excellent photocatalytic activity over decabromodiphenyl ether (BDE-209) under visible light irradiation. *Journal of Photochemistry and Photobiology A: Chemistry*, *356*, 304-311.

Dong, C., Wu, K. L., Li, M. R., Liu, L., Wei, X. W, 2014, Synthesis of Ag_3PO_4–ZnO Nanorod Composites With High Visible-Light Photocatalytic Activity. *Catalysis Communications*, *46*, 32-35.

Deng, M., dan Huang, Y, 2020, The phenomena and mechanism for the enhanced adsorption and photocatalytic decomposition of organic dyes with Ag3PO4/graphene oxide aerogel composites. *Ceramics International*, *46*(2), 2565-2570.

Estiaty, M, L, 2013, Kesetimbangann dan Kinetika Adsorpsi Ion Cu2+ pada Zeolit-H, *RISET Geologi dan Pertambangan*, *22*(2), 115-129.

Fadjri, M. S, 2012, Adsorpsi Zat Warna *Methyl Orange* Menggunakan Pasir Vulkanik Gunung Merapi. *Skripsi* . Yogyakarta : UNY

Farika, A, 2009, Pengaruh Temperatur Kalsinasi Katalis MoO3/TS-1 pada Reaksi Hidroksilasi Fenol, *Tesis*, Institut Teknologi Sepuluh Nopember, Surabaya.

Fessenden, J. & J.S. Fessenden, 1992, *Kimia Organik*. Erlangga. Jakarta.

Fitriani, Asih Elok, 2016, Penurunan Konsentrasi *Methyl Orange* dengan Variasi Dosis Koagulan Ekstrak Nacl Biji Asam Jawa Serta Ph Larutan Dan Konsentrasi *Methyl Orange*, *skripsi*, UII : Malan

Guin, P.S., S. Das dan P.C. Mandal, 2011, Electrochemical Reduction of Quinones in Different Media: A Review, International Journal of Electrochemistry, 816201, pp. 1-22

Geim A.K, Novoselov, 2007, *The Rise of Graphene*. Manchester:University of Manchester.

Ghozali, A. I., Sugiyo, W., & Latifah, L, 2012, Fotodegradasi Zat Warna Remazol Red Menggunakan Katalis α-Fe2o3/Fe3o4 Core Shell Nanostruktur. *Indonesian Journal of Chemical Science*, *1*(1).

Guin, P.S., S. Das dan P.C. Mandal, 2011, Electrochemical Reduction of Quinones in Different Media: A Review, *International Journal of Electrochemistry*, 816201, pp. 1-22

Hafiyah, ST, 2013, Kinetika Adsorpsi Zat Warna Rhodamin B Menggunakan Karbon Aktif Sekam Padi (Oriza sativa L.), *Skripsi*, Makassar: Fakultas Sains dan Teknologi UIN Alauddin.

Hamdaoui, O., & Chiha, M, 2007, Removal of Methylene Blue from Aqueous Solutions by Wheat Bran. *Acta Chimica Slovenica*, *54*(2).

Hariani, P.L., M. Faizal, Ridwan, Marsi dan D. Setiabudidaya, 2013, Synthesis and Properties of Fe_3O_4 Nanoparticles by Co-precipitation Method to Removal Procion Dye, *International Journal of Environmental Science and Development*, 4(3), pp. 336-340.

Hastuti, E, 2011. Analisa Difraksi Sinar X TiO2 dalam Penyiapan Bahan Sel Surya Terensitasi Pewarna, Jurnal Neutrino, 4(1):93-100

Havancsak, K, 2016, High-Retolution Scanning Electron Microscopy *http://www.technoorg.hu/news-andhigh resolutionscanningelectron microscopy-1/* diunduh pada tanggal 15 oktober 2019.

Jia, T., Kolpin, A., Ma, C., Chan, R. C. T., Kwok, W. M., & Tsang, S. E, 2014, A Graphene Dispersed Cds–Mos 2 Nanocrystal Ensemble For Cooperative Photocatalytic Hydrogen Production From Water. *Chemical communications*, *50*(10):1185-1188.

J.Xia, A., Wan, X., Liu, Z., Su, 2011, Preparation And Characterization Of Bifunctional, Fe3O4/ZnO Nanocomposites And Their Use As Photocatalysts, *Applied Surface Science*, Vol. 257, pp.9724-9732.

Karmanto & R. Sulistya, 2014, Elektrodekolorisasi Zat Warna Remazol Violet 5R Menggunakan Elektroda Grafit. Jurnal Kaunia. vol. 10 hal. 11-19.

Khan A., M. Qamart, & M. Muneer, 2012, Synthesis of Highly Active Visible-Light-Driven Colloidal Silver Orthophosphat. *Chemistry Physic Letter* hal. 54-58.

Komala, P, A., Effendi, A, J., Wenten dan Wisjnuprapto, 2008, Pengaruh Variasi Waktu Retensi Hidrolisis Reactor Anoksik Terhadap Biodegradasi Zat Warna Azo Reaktif Menggunakan Bioreactor Membrane Aerob-Anoksik. *Jurnal Penelitian ITB*, 4:4

Kunarti, E.S., E.T. Wahyuni, dan F.E. Hermawan, 2009, Pengujian Aktivitas Komposit Fe2O3-SiO3 Sebagai Fotokatalis Pada Fotodegradasi 4Klorofenol, Jurnal Manusia dan Lingkungan, 16(2), pp. 54-64.

Koppenol, W, H., Stanbury, D. M., & Bounds, P. L, 2010, Electrode potentials of partially reduced oxygen species, from dioxygen to water. *Free Radical Biology and Medicine*, *49*(3), 317-322.

Kuo W.S and P.H. Ho, 2001, Solar Photocatalytic Decolorization of Metilen blue in Water, *Chemosphere*, 45:77-83

[a]Liu, J.K., C.X. Luo, J.D. Wang, X.H. Yang dan X.H. Zhong, 2012, *Controlled Synthesis of Silver Phosphate Crystals with High Photocatalytic Activity and Bacteriostatic Activity*, *CrystEngComm*, 14:8714-8721

Liu, Y.P.; Fang, L.; Lu, H.D.; Li, Y.W.; Hu, C.Z.; Yu, H.G, 2012, One-pot pyridine-assisted synthesis of visible-light-driven photocatalyst Ag/Ag3PO4. *Applied Catalysis B: Environmental*, 115, 245–252

Liu, W., M. Wang, C. Xu, S. Chen, dan X. Fu, 2013, Ag3PO4/ZnO: An Efficient Visible-Light-Sensitized Composite with Its Applicationa in Photocatalytic Degradation of Rhodamine B, Materials Research Bulletin, 48, pp. 106113

Laksono, E. W, 2007, *Studi Mekanisme Adsorpsi Menggunakan XPS*, Jurdik Kimia, FMIPA UNY

Malldotti,A., Andrenalli,L., Mollinari, A., Varani, G., Cerichelli,G., Chiarini, M, 2000, Photocatalytic Properties Ofiron-Phorpyrin Revisited In Aqueous Micellar Environ-Ment, *Green Chemistry*, 3, 42-46

Manurung, R., Hasibuan, R dan Irvan, 2004, Adsorpsi Zat Warna *Methyl Orange* Menggunakan Pasir Vulkanik Gunung Merapi, *jurnal penelitian*, Sumatera: Universitas Sumatera Utara.

Maylani, A, S, 2015, Preparasi Nanopartikel Fe_3O_4 (Magnetit) Serta Aplikasinya Sebagai Adsorben IonLogam Kadmium, *Skripsi*, Fakultas Matematika dan Ilmu Pendidikan Alam, Universitas Negeri Semarang

Neumann-Spallart, M, G. Waldner, A., Bruger, N.S. Gaikwad, 2007, WO3 Thin Films For Photoelectrochemical Purification Of Water. *Chemosphere*. 67. 779–784.

Nofianti, R, D., Mashuri dan Darminto, 2008, Sintesis Nanopartikel Ni1-xZnxFe2O4 dengan Metode Kopresipitasi, *Jurnal Sains Materi Indonesia*, pp. 225-227.

Oakes, John dan Gratton, Peter, 1998, Kinetic Investigation Of The Oxidation Of Methyl Orange And Substituted Arylazonaphthol Dyes By Paracids In Aqueous Solution, *J.Chem.soc.Perkin Trans*, Vol 2.

Ossila, 2013, Graphene Oxide Powder and Solutions. *https://www.ossila.com/products/graphene-oxide*-powders diunduh pada tanggal 12 Maret 2017.

Pemberton, RC., Mash, CJ, 1978, "Thermodynamic properties of aqueous non-electrolyte mixtures II. Vapour pressures and excess Gibbs energies for water + ethanol at 303.15 to 363.15 K determined by an accurate static method". *J Chem Thermodyn*. 10 (9): 867–88.

Pravita, A dan D, Dahlan, 2013, Sintesis Lapisan TiO2 Menggunakan Prekursor TiCl4 untuk Aplikasi Kaca Self Cleaning dan Anti Foging, Jurnal Fisika Unand, 2:2.

Prawithasari R, E., I. Fadilah, Mudjijono, T.E. Saraswatia, dan D.H. Darwanto, 2015, Aktivitas Fotokatalitik NaNO TiO_2 Terdukung pada Membran Selulosa Asetat/Nata De Coco (CA/NDC) dalam Reaksi Fotodegradasi Metilen Biru. *ALCHEMY Jurnal Pendidikan Kim* vol. 11 (1) hal. 90-101.

Purwadi, A., Isyuniarto, I., & Usada, W, 2008, Pengaruh Ozon (O3) Hasil Lucutan Plasma dan Fotokatalis Titanium Dioksida (Tio2) Tipe Anatas Terhadap Degradasi Fenol. *Ganendra*, *11*(1), 1-10.

Qamar, M., R.B. Elsayed, K.R. Alhooshani, M.I. Ahmed, dan D.W. Bahnemann, 2015, Chemoselective and Efficient Conversion of Aromatic Alcohols Into 8 Aldehydes Photo-Catalyzed by Ag_3PO_4 in Aqueous Suspension Under Simulated Sunlight, Catalysis Communications, 58: 34-39.

Ranjit, K. T., Willner, I., Bossmann, S., dan Braun, A, 1998, Iron (III) Phthalocyanine-Modified Titanium Dioxide: A Novel Photocatalyst For The Enhanced Photodegradation Of Organic Pollutants. *The Journal of Physical Chemistry B*, *102*(47), 9397-9403.

Sari, A. P, 2011, Penurunan Kadar Fenol Secara Fotokatalitik Menggunakan $SrTiO_3$ dalam Limbah Industri Tekstil di Sungai Jenggot Kota Pekalongan. *Tugas Akhir*. Semarang: Universitas Negeri Semarang

Saptaaji, R, 2007, Studi Pendahuluan Mengenai Degradasi Zat Warna Azo (Metil Orange) dalam Pelarut Air Menggunakan Mesin Berkas Elektron 350 keV/10 mA. In *Jurnal Forum Nuklir*, 1(1):1-44.

Sastrohamidjojo, H, 2013, *Dasar-dasar Spektroskopi*. Yogyakarta. UGM Press

Scaife, D. E, 2005, Oxide Semiconductor in Photoelectrochemical Conversion of Solar Energy, *Solar Energy*, (25), 41-54.

Sharma, V, 2015, *Graphene Synthesis via Exfoliation of Graphite by Ultrasonication*, Ambala: IJETI

Siegbahn, K., Edvarson, K. I. Al, 1956, "β-Ray spectroscopy in the precision range of 1 : 10^5". Nuclear Physics. ***1*** *(8): 137–159*

Sudha, D., & Sivakumar, P, 2015, Review on the photocatalytic activity of various composite catalysts. *Chemical Engineering and Processing: Process Intensification*, *97*, 112-133.

Sukardjo, 2002, *Kimia Fisika*, Rineka Cipta, Jakarta.

Slamet, R. Arbianti & E. Marliana, 2007, Pengolahan Limbah Cr(VI) dan Fenol dengan Fotokatalis Serbuk TiO2 dan CuO/TiO2. *Reaktor*, 11(2): 78-85.

Slamet., Bismo S., Arbianti R., dan Sari Z, 2006, Penyisihan Fenol dengan Kombinasi Proses Adsorpsi dan Fotokatalisis Menggunakan Karbon Aktif Dan TiO_2, *Jurnal Teknologi*, 4:303-311.

Standar Nasional Indonesia, 2004, Air dan Air Limbah – Bagian 21: Cara Uji Kadar Fenol secara Spektrofotometri, Badan Standarisasi Nasional, SNI 06-6989.212004.

Stevens, M, P, 2001, *Polymer Chemistry: An Introduction*. Oxford University Press.

Sulaeman, U., Nisa, I. R., Riapanitra, A., Iswanto, P., Yin, S., & Sato, T, 2014, The Highly Active Photocatalyst of Silver Orthophosphate under Visible Light Irradiation for Phenol Oxidation. *Advanced Materials Research*, 896, 141–144.

Sulaeman, U., Suhendar, S., Diastuti, H., Riapanitra, A., & Yin, S, 2018, Design of Ag_3PO_4 for highly enhanced photocatalyst using hydroxyapatite as a source of phosphate ion. *Solid State Sciences*, *86*, 1-5.

Sulaeman, U., Permadi, R. D., Ningsih, D. R., Diastuti, H., Riapanitra, A., & Yin, S. 2019. The surface modification of Ag3PO4 using anionic platinum complexes for enhanced visible-light photocatalytic activity. *Materials Letters*, 126848.

Suryanarayana C., Norton M.G, 1998, *X-ray Diffraction*, Plenum Press: New York.

Syam, B., dan H. Widyandari, 2014, Sintesis Film Tungsten Oksida (WO3) dengan Penambahan Metal CO-Katalis Besi (Fe) dan Aplikasinya Pada Peningkatan Aktivitas Fotokatalitik Degradasi Zat Warna Methylene Blue Menggunakan Cahaya Matahari, Youngster Physic Journal, 2(1), pp.15-24.

Thangavelu, K., Rajendran A., Durairajan A, 2013, Preparation and Characterization of Nanosized TiO2 Powder by Sol-Gel Precipitation Route: a article, International Journal of Emerging Technology and Advanced Engineering, 3(1):636-638.

Vogel, 1990, *Buku Teks Analisis Anorganik Kualitatif Makro dan Semimikro*, PT. Kalman Media Pustaka, Jakarta. Indonesia.

Wang, Z., B. Huang, Y., Dai, X., Qin, X., Zhang, P.Wang, H. Liu dan J. Yu, 2009, Highly Photocatalytic ZnO/In2O3 Heterostructures Synthesized by a Coprecipitation Method, J.Phys. Chem. C., 113, pp. 4612-4617.

Wang, B., L. Wang, Z. Hao dan Y. Luo, 2015, Study on Improving Visible Light Photocatalytic Activity of Ag3PO4 Through Morphology Control, *Catalysis Communications*, 58:117-121.

Wang, D., Guo, Z., Peng, Y., & Yuan, W, 2015, Visible light induced photocatalytic overall water splitting over micro-SiC driven by the Z-scheme system. *Catalysis Communications*, 61:53-56.

Widjajanti, E., Tutik, R., dan Utomo, M. P, 2011, Pola Adsorpsi Zeolit terhadap Pewarna Azometil Merah dan Metil Jingga, Pendidikan dan Penerapan MIPA: Yogyakarta

Widyandari, H., dan M. Budiman, 2004, Pengaruh Laju Aliran Gas N2 Terhadap Sifat Optik Film Tipis GaN yang Ditumbuhkan dengan Teknik Pulsed Laser Deposition (PLD), Berkala Fisika, 7(1):28-34.

Windholz, Martha,1976, The Merck index: an encyclopedia of chemicals and drugs (edisi ke-9th), *Rahway, N.J.*, U.S.A: Merck. ISBN 0-911910-26-3.

Wu, W., S. Liu, S. Liang, Y. Chen, L. Shen, H. Zheng, R. Yuan, Y. Hou dan L. Wu, 2012, Efficient Visible-Light-Induced Photocatalytic Reduction of 4nitroaniline to p-phenylenediamine Over Nanocrystalline PbBi2Nb2O9, Journal of Catalysis, 290, pp. 13-17.

Xiang, Q., Yu, J., & Jaroniec, M, 2012, Graphene-based semiconductor photocatalysts. *Chemical Society Reviews*, *41*(2):782-796.

Yan X., Q. Gao, J. Qin, X. Yang, Y. Li., dan H. Tang, 2013, Morphology-Controlled Synthesis of Ag_3PO_4 Microcubes with Enhanced Visible-Light-Driven Photocatalytic Activity. *Ceramic International* vol. 39 (8) hal. 9715-9720.

Yan, Y., H. Guan, S. Liu dan R. Jiang, 2014, Ag_3PO_4/Fe_2O_3 Composite Photocatalysts with An n-n Heterojuntion Semiconductor Structure Under Visible Light Irradiation, Cermaic International, 40, pp. 9095-9100.

Yao, K., Liu, Y., Yang, H., Yuan, J., dan Shan, S, 2020, Polyaniline-modified 3D-spongy SnS composites for the enhanced visible-light photocatalytic degradation of methyl orange, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 125240.

Yi, Z., J. Ye, N. Kikugawa, T. Kako, S. Ouyang, H.S. Williams, H. Yang, J. Cao, W. Luo,Z. Li,Y. Liu, dan R.L. Withers, 2010, An Orthophosphate Semiconductor with Photooxidation Properties Under Visible-Light Irradiation, *Nature Materials*, 9:559-564.

Yulius, O, 2010, *Kompas IT Kreatif SPSS 18*, Yogyakarta: Panser Pustaka