DAFTAR PUSTAKA

Adawiah, Hanif, M.R., Setiawan, C., Alfatan, A., dan Apriliani R., Pengolahan Limbah Cair Laboratorium Menggunakan Teknik Fotokatalisis Dengan TiO_2, *Jurnal pendidikan dan aplikasi industri*, 8(2), 120-126.

Barakat, M. A., and El-Khodary, A.A., 2011, Adsorption of Phenol from Aqueous Solutions on a Surface of Hydroxyapatite, *J. Hazard Mater.*, 185(2-3), 853-860.

Barakat, M.A., Hayes, G., and Shah, S.I., 2005, Effect of Cobalt Doping on The Phase Transformation of TiO_2 Nanoparticles, *J. Nanosci. Nanotechnol*., 10, 1-7.

Chen, Y.F., Lee, C.Y., Yeng, M.Y., and Chiu, H.T., 2003, The Effect of Calcination Temperature on The Crystallinity of TiO_2 Nanopowders, *J. Cryst. Growth*, 247 (3–4), 363–370.

Chong, M.N., Tneu, Z.Y., Poh, P.E., Jin, B., and Aryal, R., 2015, Synthesis, characterisation and application of TiO2–zeolite nanocomposites for the advanced treatment of industrial dye wastewater, *J. Taiwan Inst. Chem. Eng*., 50, 288–296.

Dabrowski, A., 2001, Adsorption-from Theory to Practice, *Adv. Colloid Interface Sci.*, 93(1-3), 135-224.

Ekasari, V., dan Yudoyono, G., 2013, Fabrikasi DSCC dengan Dye Ekstrak Jahe Merah (Zingiber Officinale Linn Var.Rubrum) Variasi Larutan TiO_2 Nanopartikel berfase Anatase dengan Teknik Pelapisan Spin Coating, *Jurnal Sains dan Seni ITS*, 2(1), 15-20.

Endang, P., 2006, Fotokatalisis dan Fotoelektrokatalisis Menggunakan Film TiO_2, *Skripsi*, 1–32.

Flores, E.M., Lucio, M., Moreira, L., and Piotrowski, M.J., 2020, Structural and Electronic Properties of bulk ZnX (X = O, S, Se, Te), ZnF_2 and ZnO/ZnF_2 : A DFT Investigation within PBE, PBE+U, and hybrid-HSE Functionals, *J. Phys. Chem. A.*, 1–24.

Guo, Y., Zu, B., and Dou, X., 2012, Zeolite-based photocatalyst: a promising strategy for efficient photocatalysis, *J. Thermodyn. Catal*., 4(2).

Guo, Z., Cheng, J.K., Hu, Z., Zhang, M., Xu, Q., Kang, Z., and Zhao, D., 2014, Metal-organic frameworks (MOFs) as precursors towards TiOx/C composites for photodegradation of organic dye, RSC Adv., 4, 34221–34225.

Gupta, N., and Pal, B., 2013, Photocatalytic activity of transition metal ions impregnated TiO_2 nanostructures for Iodide oxidation to Iodine formation, *Mol. Catal.*, 371, 48-55.

Gupta, S.M., and Tripathi, M., 2011, A review of TiO_2 nanoparticles, *Chinese Sci. Bull*., 56, 1639–1657.

Hussain, A., 2010, *A Computational Study of Catalysis by Gold in Application of CO Oxidation*, Technische Universiteit Eindhoven.

Hoffman, M.R., Martin, S.T., Choi, W., and Bahnemann, D.W., 1995, Environemntal Applications Of Semiconductor Photocatalysis, *Chemical Review*, 95(1), 69-96.

Izzaouihda, S., Mahjoubi, K., Makarim, A.L., H., Komiha, N., and Benoit, D.M., 2016, Adsorption of imidazole on Au (111) surface: Dispersion corrected density functional study, *Appl. Surf. Sci.*, 383, 233–239.

Jafari, S., 2016, *Investigation of adsorption of dyes onto modified titanium dioxide*, Dissertation, Mikkeli University Consortium, Mikkeli, Finland.

Khafifudin, B., 2017, Sintesis dan Karakterisasi Fotokatalis Titanium Dioksida (TiO_2) Anatas dengan Metode Sonikasi Variasi Suhu dan Waktu Kalsinasi, *Skripsi*, 7-23.

Linsebigler, A.L., Lu, G., and Yates, J.T., 1995, Photocatalysis on TiO_2 Surfaces: Principles, Mechanisms, and Selected Results, *Chem. Rev.*, 95(3), 735–758.

Liu, G., Zhao, Y., Sun, C., Li, F., Lu, G.Q., and Cheng, H.M., 2016, Enhanced Photocatalytic H_2-Production Activity of C and N Co-Doped TiO_2 Nanocrystals Under Visible Light Irradiation. *J. Am. Chem. Soc*., 138(11), 3986-3992.

Maldonado, F., Villamagua, L., and Rivera, R., 2019, DFT Analysis of the Adsorption of Phenol on the Nonpolar $(10\bar{1}0)$ ZnO Surafce, *J. Phys. Chem*., 123, 12296-12304.

Ma, X., Li, L., Chen, R., Wang, C., Zhou, K., and Li, H., 2018, Porous Carbon Materials based on Biomass for Acetone Adsorption: Effect of Surface Chemistry and Porous Structure, *Appl. Surf. Sci.*, 459, 657-664.

Naraya, M.R., 2011, Dye Sensitized Solar Cells Based on Natural Photosensitizers, *Renewable and Sustainable Energy Reviews***,** 16(1), 208-215.

Pambudi, A.B., Kurniawati, R., Iryani, A., and Hartanto, D., 2018, Effect of Calcination Temperature in The Synthesis of Carbon Doped TiO_2 Without External Carbon Source, *AIP Conf. Proc*., 2049, 020074.

Parr, R.G., and Yang, W., 1989, *Density Functional Theory of Atoms and Molecules*, Oxford Univ. Press, New York, USA.

Pitriana, S., Hidayat, R., and Subekti, R., 2018, Optimization of Kinetic Energy Cutoff for Plane-Wave Basis Set in Density Functional Theory Calculations, *J. Comput.*, 39(6), 357-365.

Qiujing, Y., Chao, X., Zili, X., Zhongmin, G., and Yaoguo, D., 2005, Synthesis of Highly Active Sulfate-Promoted Rutile Titania Nanoparticles with a Response to Visible Light, *J. Phys. Chem. B.*, 109, 5554–5560.

Rahman, T., Fadhlulloh, M.A., Nandiyanto, A.B.D., and Mudzakir, A., 2014, Review : Synthesis of Titanium Dioxide Nanoparticles, *J. Integr. Proses*, 5(1), 15–29.

Reyad, A.S., Omar, A.K., and Bisharat, G.I., 2010, Photocatalytic degradation of phenol using Fe- TiO_2 by different illumination sources, *Int. J. Chem.*, 2(2), 10.

Slamet, R., Arbianti, dan Daryanto, 2005, Pengolahan Limbah Organik (Fenol) dan Logam Berat (Cr6+ Atau Pt4+) Secara Simultan dengan Fotokatalis TiO_2, ZnO- TiO_2, dan Cds- TiO_2, *Makara Teknologi*, 9(2), 66-71.

Somorjai, G.A., 1994, *Introduction to Surface Chemistry and Catalysis*, John Wiley and Sons, Inc., New York.

Timuda, G.E., Maddu A., Akhiruddin, dan Irmansyah, 2010, Application of Nanocrystalline TiO_2 Particles Synthesized by Sonochemical Methods as Dye Sensitized Solar Cell (Dssc), *Jurnal Fisika Himpunan Fisika Indonesia,* 1(10), 45-54.

Valentin, C. and Pacchioni, G., 2013, Trends in non-metal doping of anatase TiO_2: B, C, N and F, *Catal. Today.*, 206, 12–18.

Wang, J., Li, S., Yan, W., Tse, S.D., and Yao, Q., 2011, Synthesis of TiO_2 Nanoparticles by Premixed Stagnation Swirl Flames, *Proc. Combust. Inst.*, 33(2), 1925-1932.

Wang, X., Ren-Gui, Li., Qian, Xu., Hong-Xian, HAN, and Can Li., 2013, Roles of (001) and (101) Facets of Anatase TiO_2 in Photocatalytic Reactions, *Acta Phys-Chim. Sin.*, 29(7), 1566-1571.

Wang, Z., Li, J., and Chen, X., 2014, Doping in Semiconductors: Theory and Applications, *J. Appl. Phys.*, 115(1).

Wu, H., Lin, S., and Wu, J., 2012, Effects of nitrogen concentration on N-doped anatase TiO_2: Density functional theory and Hubbard U analysis, *J. Alloys Compd.*, 522, 46–50.

Yalç, Y., Murat, K., and Zekiye, Ç., 2010, The Role of Non-Metal Doping in TiO_2 Photocatalysis, *J. Adv. Oxid. Technol.*, 13, 281–296.

Yu, D., Zhou, W., Liu, Y., Zhou, B., and Wu, P., 2015, Density Functional Theory Study of the Structure, Electronic, and Optical Properties of C-Doped Anatase TiO_2 (101) Surface, *Phys. Lett.*, 379, 1666-1670.

Zhang, Q., and Li, C., 2020, High Temperature Stable Anatase Phase Titanium Dioxide Films Synthesized by Mist Chemical Vapor Deposition, *Nanomaterials*, 10(5), 911.

Zhang, Y., Yu, F., Cheng, W., Wang, J., and Ma, J., 2017, Adsorption Equilibrium and Kinetics of the Removal of Ammoniacal Nitrogen by Zeolite X/Activated Carbon Composite Synthesized from Elutrilithe., *J. Chem*., Hindawi Limited.

Zhao, Y., Truhlar, D.G., and Parr, R.G., 2018, Density Functional Theory: A Theoretical Overview, *Chem. Phys. Chem*., 19(1), 40-66.