

DAFTAR PUSTAKA

- Ahmad, M., Aziz, A. R. A., Mazari, S. A., Baloch, A. G., & Nizamuddin, S. (2020). Photocatalytic degradation of methyl orange from wastewater using a newly developed Fe-Cu-Zn-ZSM-5 catalyst. *Environ. Sci. Pollut. Res.*, 27(21), 26239–26248.
- Alam, S. N., Sharma, N., Kumar, L., Alam, S. N., Sharma, N., & Kumar, L. (2017). Synthesis of Graphene Oxide (GO) by Modified Hummers Method and Its Thermal Reduction to Obtain Reduced Graphene Oxide (rGO)*. *Graphene*, 6(1), 1–18.
- Ansari, S. A., Khan, M. M., Ansari, M. O., Lee, J., & Cho, M. H. (2013). Biogenic synthesis, photocatalytic, and photoelectrochemical performance of Ag-ZnO nanocomposite. *J. Phys. Chem. A. C*, 117(51), 27023–27030.
- Ashraf, R., Riaz, S., Kayani, Z. N., & Naseem, S. (2015b). Effect of Calcination on Properties of ZnO Nanoparticles. *Materials Today: Proceedings*, 2(10), 5468–5472.
- Azarang, M., Shuhaimi, A., Yousefi, R., Moradi Golsheikh, A., & Sookhajian, M. (2014). Synthesis and characterization of ZnO NPs/reduced graphene oxide nanocomposite prepared in gelatin medium as highly efficient photo-degradation of MB. *Ceram. Int.*, 40(7 PART B), 10217–10221.
- Bagnall, D. M., Chen, Y. F., Zhu, Z., Yao, T., Koyama, S., Shen, M. Y., & Goto, T. (1998). Optically pumped lasing of ZnO at room temperature. *Appl. Phys. Lett.*, 70(17), 2230.
- Baharudin, K. B., Abdullah, N., & Derawi, D. (2018). Effect of calcination temperature on the physicochemical properties of zinc oxide nanoparticles synthesized by coprecipitation. *Mater. Res. Express*, 5(12), 125018.
- Banerjee, P., Chakrabarti, S., Maitra, S., & Dutta, B. K. (2012). Zinc oxide nanoparticles--sonochemical synthesis, characterization and application for photo-remediation of heavy metal. *Ultrason Sonochem*, 19(1), 85–93.
- Barakat, M. A. (2003). The Pyrometallurgical Processing of Galvanizing Zinc Ash and Flue Dust. *JOM*, 55(8), 26–29.
- Bizarro, M., Sánchez-Arzate, A., Garduño-Wilches, I., Alonso, J. C., & Ortiz, A. (2011). Synthesis and characterization of ZnO and ZnO:Al by spray pyrolysis with high photocatalytic properties. *Catal.Today*. 166(1), 129–134. <https://doi.org/10.1016/J.CATTOD.2010.08.005>
- Bonaccorso, F., Colombo, L., Yu, G., Stoller, M., Tozzini, V., Ferrari, A. C., Ruoff, R. S., & Pellegrini, V. (2015). Graphene, related two-dimensional crystals, and hybrid

- systems for energy conversion and storage. *Science*, 347(6217).
<https://doi.org/10.1126/SCIENCE.1246501>
- Boroski, M., Rodrigues, A. C., Garcia, J. C., Sampaio, L. C., Nozaki, J., & Hioka, N. (2009). Combined electrocoagulation and TiO₂ photoassisted treatment applied to wastewater effluents from pharmaceutical and cosmetic industries. *J. Hazard. Mater.*, 162(1), 448–454.
- Bourlinos, A. B., Georgakilas, V., Zboril, R., Steriotis, T. A., Stubos, A. K., & Trapalis, C. (2009). Aqueous-phase exfoliation of graphite in the presence of polyvinylpyrrolidone for the production of water-soluble graphenes. *Solid State Commun.*, 149(47–48), 2172–2176.
- Bright, M., & Ellis, S. (2011). Minimizing Zinc Compustion in Hot-Dip Galvanizing Lines. *Corros Sci*, 10(2), 43–46.
- Bundesmann, C., Schmidt-Grund, R., & Schubert, M. (2008). Optical properties of ZnO and related compounds. *Springer Ser. Mater. Sci.*, 104, 79–124.
- Caglar, M., Ilican, S., Caglar, Y., & Yakuphanoglu, F. (2009). Electrical conductivity and optical properties of ZnO nanostructured thin film. *Appl. Surf. Sci.*, 255(8), 4491–4496.
- Carrera, J. A., Bringas, E., Román, M. F. S., & Ortiz, I. (2009). Selective membrane alternative to the recovery of zinc from hot-dip galvanizing effluents. *J. Membr. Sci.*, 326(2), 672–680.
- Cervantes Rincón, N., Hammouda, S. ben, Sillanpää, M., & Escobar Barrios, V. (2018). Enhanced photocatalytic performance of zinc oxide nanostructures via photoirradiation hybridisation with graphene oxide for the degradation of triclosan under visible light: Synthesis, characterisation and mechanistic study. *J. Environ. Chem. Eng.*, 6(5), 6554–6567.
- Chandiran, A. K., Abdi-Jalebi, M., Nazeeruddin, M. K., & Grätzel, M. (2014). Analysis of electron transfer properties of ZnO and TiO₂ photoanodes for dye-sensitized solar cells. *ACS Nano*, 8(3), 2261–2268.
- Chen, Y., Bagnall, D. M., Koh, H. J., Park, K. T., Hiraga, K., Zhu, Z., & Yao, T. (1998). Plasma assisted molecular beam epitaxy of ZnO on c-plane sapphire: Growth and characterization. *J. Appl. Phys.*, 84(7), 3912.
- Chen, Z. W., Kennon, N. F., See, J. B., & Barter, M. A. (1992). Technigalva and other developments in batch hot-dip galvanizing. *JOM*. 1992 44:1, 44(1), 22–26.
<https://doi.org/10.1007/BF03222746>
- Choi, K., Kang, T., & Oh, S. G. (2012). Preparation of disk shaped ZnO particles using surfactant and their PL properties. *Mater. Lett.*, 75, 240–243.

- Chong, M. N., Jin, B., Chow, C. W. K., & Saint, C. (2010). Recent developments in photocatalytic water treatment technology: a review. *Water Res.*, *44*(10), 2997–3027.
- Cinar, F. S. (2001). Chloride removal from zinc ash. *Scand. J. Metal*, *29*, 224–230.
- Deng, Y., Tang, L., Feng, C., Zeng, G., Wang, J., Lu, Y., Liu, Y., Yu, J., Chen, S., & Zhou, Y. (2017b). Construction of Plasmonic Ag and Nitrogen-Doped Graphene Quantum Dots Codecorated Ultrathin Graphitic Carbon Nitride Nanosheet Composites with Enhanced Photocatalytic Activity: Full-Spectrum Response Ability and Mechanism Insight. *ACS Appl. Mater. Interfaces.*, *9*(49), 42816–42828.
- Donia, D. T., Bauer, E. M., Missori, M., Roselli, L., Cecchetti, D., Tagliatesta, P., Gontrani, L., & Carbone, M. (2021). Room temperature syntheses of ZnO and their structures. *Symmetry*, *13*(4), 733.
- Dosmukhamedov, N. K., Kaplan, A., Zholdasbay, E. E., Koishina, G. M., Tazhiev, Y. B., Argyn, A., Kuldeyev, Y. I., & Kaplan, V. (2021). Processing Dross from Hot-Dip Galvanizing by Chlorination Roasting. *Sustainability (Basel, Switzerland)*, *13*(22). <https://doi.org/10.3390/SU132212530>
- Dvořák, P., & Jandová, J. (2005). Hydrometallurgical recovery of zinc from hot dip galvanizing ash. *Hydrometallurgy*, *77*(1–2), 29–33.
- Espitia, P., Soares, N., Coimbra, J., Andrade, N., Cruz, R., & Medeiros, E. (2012). Zinc Oxide Nanoparticles: Synthesis, Antimicrobial Activity and Food Packaging Applications. *Food Bioproc Tech*, *5*.
- Fajriati, I., Mudasir, & Wahyuni, E. T. (2014). Photocatalytic Decolorization Study of Methyl Orange by TiO₂-Chitosan Nanocomposites. *Indones. J. Chem.*, *14*(3), 209–218.
- Fedorenko, V., Viter, R., Mrówczyński, R., Damberga, D., Coy, E., & Iatsunskyi, I. (2020). Synthesis and photoluminescence properties of hybrid 1D core–shell structured nanocomposites based on ZnO/polydopamine. *RSC Advances*, *10*(50), 29751–29758.
- Fryat, J. (2010). Sustainability in galvanizing from in-house applied waste management of general hot dip galvanizing ashes and skimmings and continuous galvanizing line top drosses. *Sustainability*, *70*(4), 223–226
- Gao, W., Zhou, B., Liu, Y., Ma, X., Liu, Y., Wang, Z., & Zhu, Y. (2013). The influence of surface modification on the structure and properties of a zinc oxide-filled poly(ethylene terephthalate). *Polym. Int.*, *62*(3), 432–438. <https://doi.org/10.1002/PI.4328>

- Georgekutty, R., Seery, M. K., & Pillai, S. C. (2008). A Highly Efficient Ag-ZnO Photocatalyst: Synthesis, Properties, and Mechanism. *J. Phys. Chem. C*, *112*(35), 13563–13570.
- Golmohammadi, M., Honarmand, M., & Ghanbari, S. (2020). A green approach to synthesis of ZnO nanoparticles using jujube fruit extract and their application in photocatalytic degradation of organic dyes. *Spectrochim. Acta A Mol. Biomol. Spectrosc.*, *229*.
- Gordon, T., Perlstein, B., Houbara, O., Felner, E., Banin, & Margel, S. (2011). Synthesis and characterization of zinc/iron oxide composite nanoparticles and their antibacterial properties. *Colloids Surf. A: Physicochem. Eng. Asp.s*, *374*, 1–8.
- Gupta, A., & Srivastava, R. (2018). Zinc oxide nanoleaves: A scalable disperser-assisted sonochemical approach for synthesis and an antibacterial application. *Ultrason Sonochem*, *41*, 47–58.
- Handbook of hot-dip galvanization / edited by Peter Maass and Peter Peissker ; [translation, Christine Ahner]. | OPAC Perpustakaan Nasional RI.* (n.d.). Retrieved June 18, 2022, from <https://opac.perpusnas.go.id/DetailOpac.aspx?id=853991>
- Haque, M. M., Haque, M. A., Mosharaf, M. K., & Marcus, P. K. (2021). Decolorization, degradation and detoxification of carcinogenic sulfonated azo dye methyl orange by newly developed biofilm consortia. *Saudi J. Biol. Sci.*, *28*(1), 793–804.
- Hardiansyah, A., Budiman, W. J., Yudasari, N., Isnaeni, Kida, T., & Wibowo, A. (2021). Facile and Green Fabrication of Microwave-Assisted Reduced Graphene Oxide/Titanium Dioxide Nanocomposites as Photocatalysts for Rhodamine 6G Degradation. *ACS Omega*, *6*(47), 32166–32177.
- Hoffmann, M. R., Martin, S. T., Choi, W., & Bahnemann, D. W. (1995). Environmental Applications of Semiconductor Photocatalysis. *Chem. Rev*, *95*(1), 69–96.
- Huang, N., Shu, J., Wang, Z., Chen, M., Ren, C., & Zhang, W. (2015). One-step pyrolytic synthesis of ZnO nanorods with enhanced photocatalytic activity and high photostability under visible light and UV light irradiation. *J. Alloys Compd*, *648*, 919–929.
- Husain, S., Afreen, S., Hemlata, Yasin, D., Afzal, B., & Fatma, T. (2019). Cyanobacteria as a bioreactor for synthesis of silver nanoparticles-an effect of different reaction conditions on the size of nanoparticles and their dye decolorization ability. *J. Microbiol. Methods*, *162*, 77–82. <https://doi.org/10.1016/J.MIMET.2019.05.011>

- Iwuozor, K. O., Ighalo, J. O., Emenike, E. C., Ogunfowora, L. A., & Igwegbe, C. A. (2021). Adsorption of methyl orange: A review on adsorbent performance. *CRGSC*, 4, 100179.
- Jha, M. K., Kumar, V., & Singh, R. J. (2001). Review of hydrometallurgical recovery of zinc from industrial wastes. *Resour Conserv Recycl*, 33(1), 1–22.
- Kania, H., Mendala, J., Kozuba, J., & Saternus, M. (2020). Development of Bath Chemical Composition for Batch Hot-Dip Galvanizing—A Review. *Materials* 2020, Vol. 13, Page 4168, 13(18), 4168.
- Kania, H., Saternus, M., Kudláček, J., & Svoboda, J. (2020). Microstructure Characterization and Corrosion Resistance of Zinc Coating Obtained in a Zn-AlNiBi Galvanizing Bath. *Coatings*, 10(8), 758.
- Kartick, B., Srivastava, S. K., & Srivastava, I. (2013). Green synthesis of graphene. *J. Nanosci.Nanotechnol.*, 13(6), 4320–4324.
- Katiforis, N., & Papadimitriou, G. (1996). Influence of copper, cadmium and tin additions in the galvanizing bath on the structure, thickness and cracking behaviour of the galvanized coatings. *Surf. Coat. Technol.*, 78(1–3), 185–195.
- Katiforis, N., & Papadimitriou, G. (1996). Surface treatment. *Surf. Coat Tech*, 78, 185.
- Kishor, R., Purchase, D., Saratale, G. D., Romanholo Ferreira, L. F., Hussain, C. M., Mulla, S. I., & Bharagava, R. N. (2021). Degradation mechanism and toxicity reduction of methyl orange dye by a newly isolated bacterium *Pseudomonas aeruginosa* MZ520730. *J. Water Process. Eng.*, 43, 102300.
- Kishor, R., Purchase, D., Saratale, G. D., Saratale, R. G., Ferreira, L. F. R., Bilal, M., Chandra, R., & Bharagava, R. N. (2021). Ecotoxicological and health concerns of persistent coloring pollutants of textile industry wastewater and treatment approaches for environmental safety. *J. Environ. Chem. Eng.*, 9(2), 105012.
- Koenig, E., Jacobs, A., & Lisensky, G. (2017). Properties of Semiconductors: Synthesis of Oriented ZnO for Photoelectrochemistry and Photoremediation. *J. Chem. Educ.*, 94(6), 738–742.
- Koenig, E., Jacobs, A., & Lisensky, G. (2017). Properties of Semiconductors: Synthesis of Oriented ZnO for Photoelectrochemistry and Photoremediation. *J. Chem. Educ.*, 94(6), 738–742.
- Kołodziejczak-Radzimska, A.E. M.-J., 2012. Structural characterisation of ZnO particles obtained by the emulsion precipitation method. *Dl.Acm.Org*,
- Krzywicki: *Skimmings and dross, Process Des - Google Scholar*. (n.d.). Retrieved June 28, 2021, from

https://scholar.google.com/scholar_lookup?title=Skimmings%20and%20dross&publication_year=2001&author=J.%20Krzywicki&author=T.%20Langill

- Lee, J., Choi, K. H., Min, J., Kim, H. J., Jee, J. P., & Park, B. J. (2017). Functionalized ZnO Nanoparticles with Gallic Acid for Antioxidant and Antibacterial Activity against Methicillin-Resistant *S. aureus*. *Nanomaterials*, 7(11). <https://doi.org/10.3390/NANO7110365>
- Lin, Y., Hong, R., Chen, H., Zhang, D., & Xu, J. (2020). Green Synthesis of ZnO-GO Composites for the Photocatalytic Degradation of Methylene Blue. *Journal of Nanomaterials*, 2020, 4147357.
- Lu, K. Q., Yuan, L., Xin, X., & Xu, Y. J. (2018). Hybridization of graphene oxide with commercial graphene for constructing 3D metal-free aerogel with enhanced photocatalysis. *Appl. Catal.*, 226, 16–22.
- Marcano, D. C., Kosynkin, D. v., Berlin, J. M., Sinitskii, A., Sun, Z., Slesarev, A., Alemany, L. B., Lu, W., & Tour, J. M. (2010). Improved synthesis of graphene oxide. *ACS Nano*, 4(8), 4806–4814.
- Maruthanayagam, A., Mani, P., Kaliappan, K., & Chinnappan, S. (2020). In vitro In silico Studies on the Removal of Methyl Orange from Aqueous Solution Using *Oedogonium subplagiostomum* AP1. *Wat. Air and Soil Poll.*, 231(5), 232.
- Maučec, D., Šuligoj, A., Ristić, A., Dražić, G., Pintar, A., & Tušar, N. N. (2018). Titania versus zinc oxide nanoparticles on mesoporous silica supports as photocatalysts for removal of dyes from wastewater at neutral pH. *Catal*, 310, 32–41.
- Mohammad (Ph.D.), V., Umar, A., & Hahn, Y.-B. (2010). ZnO Nanoparticles: Growth, Properties, and Applications. In *Metal Oxide Nanostructures and Their Applications*, ACS Publication, America, (5), 1-36
- Negrea, A., Lupa, L., Ciopec, M., Dragomir, I., & Negrea, P. (2017). Use of Zinc Ash from Galvanization as a Source of Zinc Oxide. *Environ Eng Manag J*, 16(11), 2461–2468.
- Nguyen, V. N., Tran, D. T., Nguyen, M. T., Le, T. T. T., Ha, M. N., Nguyen, M. V., & Pham, T. D. (2018). Enhanced photocatalytic degradation of methyl orange using ZnO/graphene oxide nanocomposites. *Res. Chem. Intermed.*, 44(5), 3081–3095.
- Nicol, M., Akilan, C., Tjandrawan, V., & Gonzalez, J. A. (2017). The effects of halides in the electrowinning of zinc. I. Oxidation of chloride on lead-silver anodes. *Hydrometallurgy*, 173, 125–133.
- Nirdosh, I., Kalia, R. K., & Muthuswami, S. v. (1988). Bench scale investigations on the electrolytic recovery of zinc powder from Galvanizer's ash. *Hydrometallurgy*, 20(2), 203–217.

- Nuryetti, H., Hermansyah, & Nasikin, M. (2012). Bionanokomposit: Peluang Polimer Alami Sebagai Material Baru Semikonduktor. *Jurnal Riset Industri Online*, 6.
- Pasupuleti, S., Alapati, S., Ganapathy, S., Anumolu, G., Pully, N. R., & Prakhya, B. M. (2012). Toxicity of zinc oxide nanoparticles through oral route. *Toxicology and Industrial Health*, 28(8), 675–686. <https://doi.org/10.1177/0748233711420473>
- Paul, R., Gayen, R. N., Biswas, S., Bhat, S. V., & Bhunia, R. (2016). Enhanced UV detection by transparent graphene oxide/ZnO composite thin films. *RSC Advances*, 6(66), 61661–61672.
- Ramachandran, P., ... V. N.-J. of C., & 2004, undefined. (2004). Electrolytic recovery of zinc from zinc ash using a catalytic anode. *Wiley Online Library*, 79(6), 578–583.
- Rao, S., Yang, T., Zhang, D., Liu, W. F., Chen, L., Hao, Z., Xiao, Q., & Wen, J. F. (2015). Leaching of low grade zinc oxide ores in NH₄Cl-NH₃ solutions with nitrilotriacetic acid as complexing agents. *Hydrometallurgy*, 158, 101–106.
- Raza, A., Kumar, U., Hassan, J., Ikram, M., Ul-Hamid, A., Haider, J., Imran, M., & Ali, S. (2020). A comparative study of dirac 2D materials, TMDCs and 2D insulators with regard to their structures and photocatalytic/sonophotocatalytic behavior. *Applied Nanoscience 2020 10:10*, 10(10), 3875–3899.
- RUDNIK, E. (2020). Hydrometallurgical recovery of zinc from industrial hot dipping top ash. *T NONFERR METAL SOC*, 30(8), 2239–2255.
- Rudnik, E., Włoch, G., & Szatan, L. (2018). Hydrometallurgical treatment of zinc ash from hot-dip galvanizing process. *Miner.Process.Extr.Metall.Rev.*, 35, 69-76.
- Rudnik, E., Włoch, G., Processing, L. S.-M. & M., & 2018, undefined. (2018). Hydrometallurgical treatment of zinc ash from hot-dip galvanizing process. *Springer*, 35(2), 69–76.
- Şahin, F. Ç., Derin, B., & Yücel, O. (2000). Chloride removal from zinc ash. *Scand J Metall*, 29(5), 224–230.
- Sanchez, E., & Lopez, T. (1995). Effect of the preparation method on the band gap of titania and platinum-titania sol-gel materials. *Materials Letters*, 25(5–6), 271–275.
- Saramak, D., Krawczykowski, D., & Gawenda, T. (2018). Investigations of zinc recovery from metallurgical waste. *IOP Conference Series: Materials Science and Engineering*, 427(1), 012017.
- Sayilgan, E., Kukrer, T., Yigit, N. O., Civelekoglu, G., & Kitis, M. (2010). Acidic leaching and precipitation of zinc and manganese from spent battery powders using various reductants. *J. Hazard. Mater.*, 173(1–3), 137–143.

- Segets, D., Hartig, M. A. J., Gradl, J., & Peukert, W. (2012). A population balance model of quantum dot formation: Oriented growth and ripening of ZnO. *Chem. Eng. Sci.* 70, 4–13.
- Shionoya, S., & Yen, W. H. (1997). *Phosphor Handbook By Phosphor Research Society*. CRC Press.
- Srivastava, K., & Secco, E. A. (1967). Studies on metal hydroxy compounds. 11. Infrared spectra of zinc derivatives E-Z~(OH), 0-ZnOHCl, ZnOHF, Zn₅(OH)₂C₁₂, and Zn₆(OH)₂C₁₂-H₂O. *Can. J. Chem.*, 45, 585.
- Sun, M., & Packer, J. A. (2017). Hot-dip galvanizing of cold-formed steel hollow sections: a state-of-the-art review. *Front. Struct. Civ. Eng.* 2017 13:1, 13(1), 49–65.
- Takáčová, Z., Hluchánová, B., Metall, J. T.-, & 2010, undefined. (n.d.). Leaching of zinc from zinc ash originating from hot-dip galvanizing. *Researchgate.Net*. Retrieved February 14, 2022, from https://www.researchgate.net/profile/Zita-Takacova2/publication/287009706_Leaching_of_zinc_from_zinc_ash_originating_from_hot-dip_galvanizing/links/56fa69be08ae38d710a3a317/Leaching-of-zinc-from-zinc-ash-originating-from-hot-dip-galvanizing.pdf
- Takada, T., Kiyama, M., Torii, H., Asai, T., Takano, M., & Nakanishi, N. (1978). Effect of pH values on the formation and solubility of zinc compounds. *Repository.Kulib.Kyoto-u.Ac.Jp*, 56(5).
- Talebian, N., Amininezhad, S. M., & Doudi, M. (2013). Controllable synthesis of ZnO nanoparticles and their morphology-dependent antibacterial and optical properties. *J. Photochem. Photobiol. B: Biol.*, 120, 66–73.
- Tang, C., Jiang, C., Lu, W., & Song, J. (2013). Nonlinear length dependent electrical resistance of a single crystal zinc oxide micro/nanobelt. *Phys. Chem. Chem. Phys.*, 15(21), 8222–8227.
- Tararan, A., Zobelli, A., Benito, A. M., Maser, W. K., & Stéphan, O. (2016). Revisiting Graphene Oxide Chemistry via Spatially-Resolved Electron Energy Loss Spectroscopy. *Chem. Mater.*, 28(11), 3741–3748.
- The characterisation data of selected ZnO and TiO₂ particles*. (n.d.). Retrieved June 18, 2022, from <https://researchdata.edu.au/the-characterisation-selected-tio2-particles/1957286>
- Trpčevská, J., Hořková, B., Briančin, J., Korálová, K., & Pirošková, J. (2015b). The pyrometallurgical recovery of zinc from the coarse-grained fraction of zinc ash by centrifugal force. *Int. J. Miner. Process.*, 143, 25–33.
- Trpcevska, J., Rudnik, E., Holkova, B., & Laubertova, M. (2018). Leaching of Zinc Ash with Hydrochloric Acid Solutions. *Pol. J. Environ. Stud.*, 27(4), 1765–1771.

- Vourlias, G., Pistofidis, N., Pavlidou, E. L., Stergioudis, G., & Polychroniadis, E. K. (2007). Study of the structure of hot-dip galvanizing byproducts. *J. Optoelectron. Adv. Mater.*, 9(9), 2937–2942.
- Wang, C. H., Wong, A. S. W., & Ho, G. W. (2007). Facile solution route to vertically aligned, selective growth of ZnO nanostructure arrays. *Langmuir*, 23(24), 11960–11963.
- Wang, K. H., Tsai, H. H., & Hsieh, Y. H. (1998). A study of photocatalytic degradation of trichloroethylene in vapor phase on TiO₂ photocatalyst. *Chemosphere*, 36(13), 2763–2773.
- Wang, Z. L. (2004). Zinc oxide nanostructures: growth, properties and applications. *J. Condens. Matter Phys.* 16(25), R829.
- Widi, A., Agus, H., Istihanah, N. E., Fajar, N., Aulia, P. T. Y., Joni, S., Isnaeni, Farida, & Dwi, W. L. (2020). Zinc oxide recovery from solid waste of electric arc furnace dust (Eafd) using hydrometallurgical method. *Key Eng. Mater.*, 849, 108–112.
- Wu, J., & Gong, M. (2021). ZnO/graphene heterostructure nanohybrids for optoelektronics and sensors. *J. Appl. Phys*, 130(7), 070905.
- Yoshida, T., Nakamura, T., & Maeda, M. (2003a). Treatment of Secondary Fry Ash by Melting and Reduction Process. *Resour. Policy*, 50(2), 57–62.
- Yu, P. Y., & Cardona, M. (2010). *Introduction. Fundamentals of Semiconductor*. Springer Berlin. Heidelberg. 1–15.