

DAFTAR PUSTAKA

- Al-Tohamy, R., Ali, S.S., Li, F., Okasha, K.M., Mahmoud, Y.A.G., Elsamahy, T., Jiao, H., Fu, Y., Sun, J., 2022, A critical review on the treatment of dye-containing wastewater: Ecotoxicological and health concerns of textile dyes and possible remediation approaches for environmental safety, *Ecotoxicology and Environmental Safety*, Vol. 231, Hal. 113160, DOI: 10.1016/j.ecoenv.2021.113160.
- Alshgari, R.A., Ujjan, Z.A., Shah, A.A., Bhatti, M.A., Tahira, A., Shaikh, N.M., Kumar, S., Ibupoto, M.H., Elhawary, A., Nafady, A., Vigolo, B., Ibupoto, Z.H., 2022, ZnO Nanostructures Doped with Various Chloride Ion Concentrations for Efficient Photocatalytic Degradation of Methylene Blue in Alkaline and Acidic Media, *Molecules*, Vol. 27, Hal. 0–29, DOI: 10.3390/molecules27248726.
- Asmat-Campos, D., Delfín-Narciso, D., Juárez-Cortijo, L., 2021, Textiles functionalized with zno nanoparticles obtained by chemical and green synthesis protocols: Evaluation of the type of textile and resistance to uv radiation, *Fibers*, Vol. 9, Hal. 1–14, DOI: 10.3390/fib9020010.
- Berthomieu, C., Hienerwadel, R., 2009, Fourier transform infrared (FTIR) spectroscopy, *Photosynthesis Research*, Vol. 101, Hal. 157–170, DOI: 10.1007/s11120-009-9439-x.
- Bosch Ojeda, C., Sanchez Rojas, F., 2013, Recent applications in derivative ultraviolet/visible absorption spectrophotometry: 2009–2011. A review, *Microchemical Journal*, Vol. 106, Hal. 1–16, DOI: 10.1016/j.microc.2012.05.012.
- BPS, 2022, Ekonomi Indonesia Triwulan II-2022 Tumbuh 5,44 Persen (y-on-y), *Bps.Go.Id*, Vol. 19, Hal. 1–8.
- Chijioke-Okere, M.O., Okorocha, N.J., Anukam, B.N., Oguzie, E.E., 2019, Photocatalytic Degradation of a Basic Dye Using Zinc Oxide Nanocatalyst, *International Letters of Chemistry, Physics and Astronomy*, Vol. 81, Hal. 18–26, DOI: 10.18052/www.scipress.com/ilcpa.81.18.
- Dong, M., Zhang, J., Yu, J., 2015, Effect of effective mass and spontaneous polarization on photocatalytic activity of wurtzite and zinc-blende ZnS, *APL Materials*, Vol. 3, DOI: 10.1063/1.4922860.

- Dutta, A., 2017, *Chapter 4 - Fourier Transform Infrared Spectroscopy, Spectroscopic Methods for Nanomaterials Characterization*, Elsevier Inc.
- Farhan, A., Lauren, C.C., Fuzain, N.A., 2023, Analisis Faktor Pencemaran Air dan Dampak Pola Konsumsi Masyarakat di Indonesia, *Jurnal Hukum dan HAM Wara Sains*, Vol. 2, Hal. 1095–1103, DOI: 10.58812/jhhws.v2i12.803.
- Fatimah, S., Ragadhita, R., Al Husaeni, D.F., Nandiyanto, A.B.D., 2022, How to Calculate Crystallite Size from X-Ray Diffraction (XRD) using Scherrer Method, *ASEAN Journal of Science and Engineering*, Vol. 2, Hal. 65–76, DOI: 10.17509/ajse.v2i1.37647.
- Hernández Battez, A., González, R., Viesca, J.L., Fernández, J.E., Díaz Fernández, J.M., Machado, A., Chou, R., Riba, J., 2008, CuO, ZrO₂ and ZnO nanoparticles as antiwear additive in oil lubricants, *Wear*, Vol. 265, Hal. 422–428, DOI: 10.1016/j.wear.2007.11.013.
- Hong, R.Y., Li, J.H., Chen, L.L., Liu, D.Q., Li, H.Z., Zheng, Y., Ding, J., 2009, Synthesis, surface modification and photocatalytic property of ZnO nanoparticles, *Powder Technology*, Vol. 189, Hal. 426–432, DOI: 10.1016/j.powtec.2008.07.004.
- Huang, R., Zhang, S., Zhang, W., Yang, X., 2021, Progress of zinc oxide-based nanocomposites in the textile industry, *IET Collaborative Intelligent Manufacturing*, Vol. 3, Hal. 281–289, DOI: 10.1049/cim2.12029.
- Jadoun, S., Arif, R., Jangid, N.K., Meena, R.K., 2021, Green synthesis of nanoparticles using plant extracts: a review, *Environmental Chemistry Letters*, Vol. 19, Hal. 355–374, DOI: 10.1007/s10311-020-01074-x.
- Khan, Ibrahim, Saeed, K., Khan, Idrees, 2019, Nanoparticles: Properties, applications and toxicities, *Arabian Journal of Chemistry*, Vol. 12, Hal. 908–931, DOI: 10.1016/j.arabjc.2017.05.011.
- Kouhail, M., Elberouhi, K., Elahmadi, Z., Benayada, A., Gmouh, S., 2020, A Comparative study between TiO₂ and ZnO photocatalysis: Photocatalytic degradation of textile dye, *IOP Conference Series: Materials Science and Engineering*, Vol. 827, DOI: 10.1088/1757-899X/827/1/012009.
- Lai, C.W., Bee Abd Hamid, S., Tan, T.L., Lee, W.H., 2015, Rapid Formation of 1D Titanate Nanotubes Using Alkaline Hydrothermal Treatment and Its Photocatalytic Performance, *Journal of Nanomaterials*, Vol. 2015, Hal. 1–7, DOI: 10.1155/2015/145360.

- Lei, J.F., Li, L.B., Du, K., Ni, J., Zhang, S.F., Zhao, L.Z., 2014, Thermo-catalytic decomposition of formaldehyde: A novel approach to produce mesoporous ZnO for enhanced photocatalytic activities, *Nanotechnology*, Vol. 25, DOI: 10.1088/0957-4484/25/25/255701.
- Li, T., Cai, H., Li, C., Liu, X., Huang, F., 2020, Rocksalt-Zincblende–Wurtzite Mixed-Phase ZnO Crystals With High Activity as Photocatalysts for Visible-Light-Driven Water Splitting, *Frontiers in Chemistry*, Vol. 8, Hal. 1–7, DOI: 10.3389/fchem.2020.00351.
- MENLHK, P.P.L.K.N., 2020, 2020-11-30_Limbah Tekstil.
- Mohamed, K.M., Benitto, J.J., Vijaya, J.J., Bououdina, M., 2023, Recent Advances in ZnO-Based Nanostructures for the Photocatalytic Degradation of Hazardous, Non-Biodegradable Medicines, *Crystals*, Vol. 13, DOI: 10.3390/crust13020329.
- Mohan, S., Vellakkat, M., Aravind, A., Reka, U., 2020, Hydrothermal synthesis and characterization of Zinc Oxide nanoparticles of various shapes under different reaction conditions, *Nano Express*, Vol. 1, DOI: 10.1088/2632-959X/abc813.
- Nurdiansah, H., Firlyana, R.E., Susanti, D., Purwaningsih, H., 2020, Synthesis of ZnO/rGO/TiO₂ Composite and Its Photocatalytic Activity for Rhodamine B Degradation, *IOP Conference Series: Materials Science and Engineering*, Vol. 833, DOI: 10.1088/1757-899X/833/1/012028.
- Pearton, S.J., Norton, D.P., Ip, K., Heo, Y.W., Steiner, T., 2005, Recent progress in processing and properties of ZnO, *Progress in Materials Science*, Vol. 50, Hal. 293–340, DOI: 10.1016/j.pmatsci.2004.04.001.
- Picollo, M., Aceto, M., Vitorino, T., 2019, UV-Vis spectroscopy, *Physical Sciences Reviews*, Vol. 4, Hal. 1–14, DOI: 10.1515/psr-2018-0008.
- Quynh Hoa, T.T., Vu, L. Van, Canh, T.D., Long, N.N., 2009, Preparation of ZnS nanoparticles by hydrothermal method, *Journal of Physics: Conference Series*, Vol. 187, DOI: 10.1088/1742-6596/187/1/012081.
- Ramaiah, G.B., Ramesh, K.P., 2017, Structural Analysis Of Merino Wool, Pashmina And Angora Fibers Using Analytical Instruments Like Scanning Electron Microscope And Infra-Red Spectroscopy Application and Evaluation of Properties of Ethylene Acrylic Acid Co-Polymer on Cotton Fabrics using E, *International Journal of Engineering Technology Science and Research*, Vol. 4, Hal. 112–125.

- Rasalingam, S., Peng, R., Koodali, R.T., 2014, Removal of hazardous pollutants from wastewaters: Applications of TiO₂-SiO₂ mixed oxide materials, *Journal of Nanomaterials*, Vol. 2014, DOI: 10.1155/2014/617405.
- Rizaty, M.A., 2022, “Industri Tekstil Kembali Melesat 13,74% pada Kuartal II/2022”, *DataIndonesia*. <https://dataindonesia.id/sektor-riil/detail/industri-tekstil-kembali-melesat-1374-pada-kuartal-ii2022> (diakses 2-Desember-2022).
- Shafina, G., 2023, Mayoritas Sungai di Indonesia Tercemar ringan pada 2022, Hal. 1.
- Shahat, M.A., Ghitas, A., El-Hossary, F.M., El-Rahman, A.M.A., 2022, ZnO Nanoparticles for Photocatalytic Methyl Orange Degradation: Hydrothermal Synthesis, Characterization, and Optimization, *IOP Conference Series: Materials Science and Engineering*, Vol. 1269, Hal. 012010, DOI: 10.1088/1757-899x/1269/1/012010.
- Shu, X., 2023, Research on Photoelectric Properties of ZnO-based Semiconductor Material, *Journal of Physics: Conference Series*, Vol. 2541, DOI: 10.1088/1742-6596/2541/1/012060.
- Sivasankar, B., 2008, pdf-engineering-chemistry-sivashankar_compress.pdf.
- Sorrel, 1977, Suggested Chemistry of Zinc Oxychloride Cements, *Journal of the American Ceramic Society*, Vol. 60, Hal. 217–220, DOI: 10.1111/j.1151-2916.1977.tb14109.x.
- Su, X., Zhao, X., Cui, C., Xi, N., Zhang, X.L., Liu, H., Yu, X., Sang, Y., 2022, Influence of Wurtzite ZnO Morphology on Piezophototronic Effect in Photocatalysis, *Catalysts*, Vol. 12, DOI: 10.3390/catal12090946.
- Toledo, M., 2015, UV / VIS Spectrophotometry, *Mettler-Toledo International*, Hal. 56.
- Ulenikov, O.N., Gromova, O. V., Bekhtereva, E.S., Berezkin, K.B., Sklyarova, E.A., Maul, C., Gericke, K.H., Bauerecker, S., 2015, Study of the high resolution FTIR spectrum of CH₂ = CD₂ in the region of 1300-1450 cm⁻¹: The v12(A1) and 2v10(A1) bands, *Journal of Quantitative Spectroscopy and Radiative Transfer*, Vol. 161, Hal. 180–196, DOI: 10.1016/j.jqsrt.2015.04.008.

Zhang, X., Qin, J., Xue, Y., Yu, P., Zhang, B., Wang, L., Liu, R., 2014, Effect of aspect ratio and surface defects on the photocatalytic activity of ZnO nanorods, *Scientific Reports*, Vol. 4, Hal. 4–11, DOI: 10.1038/srep04596.

Zhang, Y., Ram, M.K., Stefanakos, E.K., Goswami, D.Y., 2012, Synthesis, characterization, and applications of ZnO nanowires, *Journal of Nanomaterials*, Vol. 2012, DOI: 10.1155/2012/624520.

Zhou, W., Apkarian, R., Wang, Z.L., Joy, D., 2007, Fundamentals of scanning electron microscopy (SEM), *Scanning Microscopy for Nanotechnology: Techniques and Applications*, Hal. 1–40, DOI: 10.1007/978-0-387-39620-0_1.

