

DAFTAR PUSTAKA

- Agbe, H., Raza, N., Dodoo-Arhin, D., Chauhan, A., Vasant Kumar, R., & Vasant Kumar, R. H. (2018). H_2O_2 rejuvenation-mediated synthesis of stable mixed-morphology Ag_3PO_4 photocatalysts. *Heliyon*, 4, 599. <https://doi.org/10.1016/j.heliyon.2018>
- Ahmad, A., Ahmad, I., Ramzan, S., Kiyani, M. Z., Dubal, D., & Mubarak, N. M. (2021). Nanomaterial synthesis protocols. *Nanomedicine Manufacturing and Applications*, 73–85. <https://doi.org/10.1016/B978-0-12-820773-4.00010-X>
- Aji, M. H. G. T., Sulaeman, U., Cahyanto, W. T., Larasati, R., Diastuti, H., Iswanto, P., Isnaeni, I., & Yin, S. (2024). Surface engineering of Ag_3PO_4 using lithium iodide for enhanced photocatalytic activity. *Surfaces and Interfaces*, 46(December 2023), 104097. <https://doi.org/10.1016/j.surfin.2024.104097>
- Al-Buriahi, A. K., Al-Gheethi, A. A., Senthil Kumar, P., Radin Mohamed, R. M. S., Yusof, H., Alshalif, A. F., & Khalifa, N. A. (2022). Elimination of rhodamine B from textile wastewater using nanoparticle photocatalysts: A review for sustainable approaches. *Chemosphere*, 287. <https://doi.org/10.1016/j.chemosphere.2021.132162>
- Alakhras, F., Alhajri, E., Haounati, R., Ouachtak, H., Addi, A. A., & Saleh, T. A. (2020). A comparative study of photocatalytic degradation of rhodamine B using natural-based zeolite composites. *Surfaces and Interfaces*, 20. <https://doi.org/10.1016/j.surfin.2020.100611>
- Ali, A., Chiang, Y. W., & Santos, R. M. (2022). X-Ray Diffraction Techniques for Mineral Characterization: A Review for Engineers of the Fundamentals, Applications, and Research Directions. *Minerals*, 12(2). <https://doi.org/10.3390/min12020205>
- Ali, K., Ahmed, B., Dwivedi, S., Saquib, Q., Al-Khedhairy, A. A., & Musarrat, J. (2015). Microwave accelerated green synthesis of stable silver nanoparticles with *Eucalyptus globulus* leaf extract and their antibacterial and antibiofilm activity on clinical isolates. *PLoS ONE*, 10(7). <https://doi.org/10.1371/journal.pone.0131178>
- Alsbehri, A. A., & Malik, M. A. (2020). Phytomediated photo-induced green synthesis of silver nanoparticles using *Matricaria chamomilla L.* and its catalytic activity against rhodamine B. *Biomolecules*, 10(12), 1–24. <https://doi.org/10.3390/biom10121604>
- Arabi, M., Ostovan, A., Bagheri, A. R., Guo, X., Li, J., Ma, J., & Chen, L. (2020). Hydrophilic molecularly imprinted nanospheres for the extraction of rhodamine B followed by HPLC analysis: A green approach and hazardous waste elimination. *Talanta*, 215(March), 120933. <https://doi.org/10.1016/j.talanta.2020.120933>
- Balouiri, M., Sadiki, M., & Ibnsouda, S. K. (2016). Methods for in vitro evaluating

- antimicrobial activity: A review. *Journal of Pharmaceutical Analysis*, 6(2), 71–79. <https://doi.org/10.1016/j.jpha.2015.11.005>
- Barzegar, H., Zahed, M. A., & Vatanpour, V. (2020). Antibacterial and antifouling properties of Ag₃PO₄/GO nanocomposite blended polyethersulfone membrane applied in dye separation. *Journal of Water Process Engineering*, 38. <https://doi.org/10.1016/j.jwpe.2020.101638>
- Brudzynski, K., & Sjaarda, C. (2015). Honey glycoproteins containing antimicrobial peptides, jelleins of the Major Royal Jelly Protein 1, are responsible for the cell wall lytic and bactericidal activities of honey. *PLoS ONE*, 10(4). <https://doi.org/10.1371/journal.pone.0120238>
- Cantrell, C. L., Abate, L., Fronczek, F. R., Franzblau, S. G., Quijano, L., & Fischer, N. H. (1999). Antimycobacterial eudesmanolides from *Inula helenium* and *Rudbeckia subtomentosa*. *Planta Medica*, 65, 351–355.
- Chang, Y. Y., Huang, H. L., Lai, C. H., Hsu, J. T., Shieh, T. M., Wu, A. Y. J., & Chen, C. L. (2013). Analyses of Antibacterial Activity and Cell Compatibility of Titanium Coated with a Zr-C-N Film. *PLoS ONE*, 8(2). <https://doi.org/10.1371/journal.pone.0056771>
- Chen, C. J., & Huang, Y. C. (2014). New epidemiology of *Staphylococcus aureus* infection in Asia. In *Clinical Microbiology and Infection* (Vol. 20, Issue 7, pp. 605–623). Blackwell Publishing Ltd. <https://doi.org/10.1111/1469-0691.12705>
- Coorevits, L., Boelens, J., & Claeys, G. (2015). Direct susceptibility testing by disk diffusion on clinical samples: a rapid and accurate tool for antibiotic stewardship. *European Journal of Clinical Microbiology and Infectious Diseases*, 34(6), 1207–1212. <https://doi.org/10.1007/s10096-015-2349-2>
- Dânoun, K., Tabit, R., Laghzizil, A., & Zahouily, M. (2021). A novel approach for the synthesis of nanostructured Ag₃PO₄ from phosphate rock: high catalytic and antibacterial activities. *BMC Chemistry*, 15(1), 1–12. <https://doi.org/10.1186/s13065-021-00767-w>
- Delnavazi, M. R., Tavakoli, S., Rustaie, A., Batooli, H., & Yassa, N. (2014). Antioxidant and antibacterial activities of the essential oils and extracts of *Dorema ammoniacum* roots and aerial parts. *Research Journal of Pharmacognosy (RJP)*, 1(4), 11–18. <http://rjpharmacognosy.ir>
- Dong, C., Wang, J., Wu, K.-L., Ling, M., Xia, S.-H., Hu, Y., Li, X., Ye, Y., & Wei, X.-W. (2015). Rhombic dodecahedral Ag₃PO₄ architectures: controllable synthesis, formation mechanism and photocatalytic activity. *J. Mater. Chem. C*, 3, 10715–10722. <https://doi.org/10.1039/b000000x>
- Du, C., Song, J., Tan, S., Yang, L., Yu, G., Chen, H., Zhou, L., Zhang, Z., Zhang, Y., Su, Y., Wen, X., & Wang, S. (2021). Facile synthesis of Z-scheme ZnO/Ag/Ag₃PO₄ composite photocatalysts with enhanced performance for

- the degradation of ciprofloxacin. *Materials Chemistry and Physics*, 260. <https://doi.org/10.1016/j.matchemphys.2020.124136>
- Duan, Y., Deng, L., Shi, Z., Zhu, L., & Li, G. (2019). Assembly of graphene on Ag₃PO₄/AgI for effective degradation of carbamazepine under Visible-light irradiation: Mechanism and degradation pathways. *Chemical Engineering Journal*, 359, 1379–1390. <https://doi.org/10.1016/j.cej.2018.11.040>
- Febiyanto, F., & Amal, M. S. (2021). Effect of H₂O₂ Addition on the Photocatalyst Properties of Ag₃PO₄ for Methylene Blue Photodegradation. *Walisongo Journal of Chemistry*, 4(2), 97–106. <https://doi.org/10.21580/wjc.v4i2.7996>
- Febiyanto, & Sulaeman, U. (2020). The Starting Material Concentration Dependence of Ag₃PO₄ Synthesis for Rhodamine B Photodegradation under Visible Light Irradiation. *Jurnal Kimia Valensi*, 6(1), 1–8. <https://doi.org/10.15408/jkv.v6i1.14837>
- Fransina, E. G., Tanasale, M. F. J. D. P., Latupeirissa, J., Malle, D., & Tahapary, R. (2019). Phytochemical screening of water extract of gayam (*Inocarpus edulis*) Bark and its amylase inhibitor activity assay. *IOP Conference Series: Materials Science and Engineering*, 509(1), 0–7. <https://doi.org/10.1088/1757-899X/509/1/012074>
- Futihah, I., Riapanitra, A., Yin, S., & Sulaeman, U. (2020). The pH dependence of Ag₃PO₄ synthesis on visible light photocatalytic activities. *Journal of Physics: Conference Series*, 1494(1). <https://doi.org/10.1088/1742-6596/1494/1/012027>
- Gao, H., Zheng, C., Yang, H., Niu, X., & Wang, S. (2019). Construction of a CQDs/Ag₃PO₄/BiPO₄ heterostructure photocatalyst with enhanced photocatalytic degradation of rhodamine b under simulated solar irradiation. *Micromachines*, 10(9). <https://doi.org/10.3390/mi10090557>
- Gomes, T. A. T., Elias, W. P., Scaletsky, I. C. A., Guth, B. E. C., Rodrigues, J. F., Piazza, R. M. F., Ferreira, L. C. S., & Martinez, M. B. (2016). Diarrheagenic *Escherichia coli*. In *Brazilian Journal of Microbiology* (Vol. 47, pp. 3–30). Elsevier Editora Ltda. <https://doi.org/10.1016/j.bjm.2016.10.015>
- Guo, S., Ge, Y., & Na Jom, K. (2017). A review of phytochemistry, metabolite changes, and medicinal uses of the common sunflower seed and sprouts (*Helianthus annuus L.*). In *Chemistry Central Journal* (Vol. 11, Issue 1). BioMed Central Ltd. <https://doi.org/10.1186/s13065-017-0328-7>
- Jang, J., Hur, H. G., Sadowsky, M. J., Byappanahalli, M. N., Yan, T., & Ishii, S. (2017). Environmental *Escherichia coli*: ecology and public health implications—a review. In *Journal of Applied Microbiology* (Vol. 123, Issue 3, pp. 570–581). <https://doi.org/10.1111/jam.13468>
- Jaya, R. P. (2020). Porous concrete pavement containing nanosilica from black rice husk ash. In *New Materials in Civil Engineering* (pp. 493–527). Elsevier.

<https://doi.org/10.1016/B978-0-12-818961-0.00014-4>

- Liang, Y., Shang, R., Lu, J., Liu, L., Hu, J., & Cui, W. (2018). Ag₃PO₄@UMOFNs Core-Shell Structure: Two-Dimensional MOFs Promoted Photoinduced Charge Separation and Photocatalysis. *ACS Applied Materials and Interfaces*, 10(10), 8758–8769. <https://doi.org/10.1021/acsmi.8b00198>
- Liu, W., Wang, M., Xu, C., Chen, S., & Fu, X. (2013). Ag₃PO₄/ZnO: An efficient visible-light-sensitized composite with its application in photocatalytic degradation of Rhodamine B. *Materials Research Bulletin*, 48(1), 106–113. <https://doi.org/10.1016/j.materresbull.2012.10.015>
- Liu, X. Q., Chen, W. J., & Jiang, H. (2017). Facile synthesis of Ag/Ag₃PO₄/AMB composite with improved photocatalytic performance. *Chemical Engineering Journal*, 308, 889–896. <https://doi.org/10.1016/j.cej.2016.09.125>
- Liu, Y., Fang, L., Lu, H., Liu, L., Wang, H., & Hu, C. (2012). Highly efficient and stable Ag/Ag₃PO₄ plasmonic photocatalyst in visible light. *Catalysis Communications*, 17, 200–204. <https://doi.org/10.1016/j.catcom.2011.11.001>
- Luo, L., Li, Y., Hou, J., & Yang, Y. (2014). Visible photocatalysis and photostability of Ag₃PO₄ photocatalyst. *Applied Surface Science*, 319(1), 332–338. <https://doi.org/10.1016/j.apsusc.2014.04.154>
- Lv, Y., Huang, K., Zhang, W., Yang, B., Chi, F., Ran, S., & Liu, X. (2014). One step synthesis of Ag/Ag₃PO₄/BiPO₄ double-heterostructured nanocomposites with enhanced visible-light photocatalytic activity and stability. *Ceramics International*, 40(6), 8087–8092. <https://doi.org/10.1016/j.ceramint.2013.12.162>
- Mao, K., Zhu, Y., Zhang, X., Rong, J., Qiu, F., Chen, H., Xu, J., Yang, D., & Zhang, T. (2020). Effective loading of well-doped ZnO/Ag₃PO₄ nanohybrids on magnetic core via one step for promoting its photocatalytic antibacterial activity. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 603. <https://doi.org/10.1016/j.colsurfa.2020.125187>
- Marcorius, A. (2020). *Pengaruh Penambahan Ekstrak Kulit Manggis Sebagai Sensitizer Terhadap Aktivitas Fotokatalitik Ag₃PO₄* [Universitas Jenderal Soedirman]. <http://repository.unsoed.ac.id/id/eprint/7032>
- Mirpoor, S. F., Giosafatto, C. V. L., & Porta, R. (2021). Biorefining of seed oil cakes as industrial co-streams for production of innovative bioplastics. A review. In *Trends in Food Science and Technology* (Vol. 109, pp. 259–270). Elsevier Ltd. <https://doi.org/10.1016/j.tifs.2021.01.014>
- Myers, J. A., Curtis, B. S., & Curtis, W. R. (2013). Improving accuracy of cell and chromophore concentration measurements using optical density Improving accuracy of cell and chromophore concentration measurements using optical density. *BMC biophysics*, 6, 1-16
- Newton, S. M., Lau, C., Gurcha, S. S., Besra, G. S., & Wright, C. W. (2002). The

evaluation of forty-three plant species for in vitro antimycobacterial activities; isolation of active constituents from *Psoralea corylifolia* and *Sanguinaria canadensis*. In *Journal of Ethnopharmacology* (Vol. 79). www.elsevier.com/locate/jethpharm

- Nyankson, E., Nyankson, E., Amedalor, R., Chandrabose, G., Coto, M., Krishnamurthy, S., & Kumar, R. V. (2020). Microwave- And Formaldehyde-Assisted Synthesis of Ag-Ag₃PO₄with Enhanced Photocatalytic Activity for the Degradation of Rhodamine B Dye and Crude Oil Fractions. *ACS Omega*, 5(23), 13641–13655. <https://doi.org/10.1021/acsomega.0c00670>
- Orasugh, J. T., Ghosh, S. K., & Chattopadhyay, D. (2020). Nanofiber-reinforced biocomposites. In *Fiber-Reinforced Nanocomposites: Fundamentals and Applications* (pp. 199–233). Elsevier. <https://doi.org/10.1016/B978-0-12-819904-6.00010-4>
- Otto, M. (2014). *Staphylococcus aureus* toxins. In *Current Opinion in Microbiology* (Vol. 17, Issue 1, pp. 32–37). <https://doi.org/10.1016/j.mib.2013.11.004>
- Oyekanmi, A. A., Ahmad, A., Hossain, K., & Rafatullah, M. (2019). Adsorption of Rhodamine B dye from aqueous solution onto acid treated banana peel: Response surface methodology, kinetics and isotherm studies. *PLoS ONE*, 14(5). <https://doi.org/10.1371/journal.pone.0216878>
- Park, J. S., Ahn, E. Y., & Park, Y. (2017). Asymmetric dumbbell-shaped silver nanoparticles and spherical gold nanoparticles green-synthesized by mangosteen (*Garcinia mangostana*) pericarp waste extracts. *International Journal of Nanomedicine*, 12, 6895–6908. <https://doi.org/10.2147/IJN.S140190>
- Petraru, A., Ursachi, F., & Amariei, S. (2021). Nutritional characteristics assessment of sunflower seeds, oil and cake. Perspective of using sunflower oilcakes as a functional ingredient. *Plants*, 10(11). <https://doi.org/10.3390/plants10112487>
- Piccirillo, C., Pinto, R. A., Tobaldi, D. M., Pullar, R. C., Labrincha, J. A., Pintado, M. M. E., & Castro, P. M. L. (2015). Light induced antibacterial activity and photocatalytic properties of Ag/3PO₄ -based material of marine origin. *Journal of Photochemistry and Photobiology A: Chemistry*, 296, 40–47. <https://doi.org/10.1016/j.jphotochem.2014.09.012>
- Qu, D., Sun, W., Chen, Y., Zhou, J., & Liu, C. (2014). Synthesis and in vitro antineoplastic evaluation of silver nanoparticles mediated by *Agrimoniae herba* extract. *International Journal of Nanomedicine*, 9(1), 1871–1882. <https://doi.org/10.2147/IJN.S58732>
- Radiul, S. M., Chowdhury, J., Goswami, A., & Hazarika, S. (2022). Fluorescence spectroscopy based characterisation method for aggregation behaviour of rhodamine B (RhB) in water, ethanol, and propanol. *Laser Physics*, 32(7), 75602. <https://doi.org/10.1088/1555-6611/ac6e46>

- Shaikh, W. A., Chakraborty, S., & Islam, R. U. (2020). Photocatalytic degradation of rhodamine B under UV irradiation using *Shorea robusta* leaf extract-mediated bio-synthesized silver nanoparticles. *International Journal of Environmental Science and Technology*, 17(4), 2059–2072. <https://doi.org/10.1007/s13762-019-02473-6>
- Shankland, K. (2016). *An Overview of Powder X-ray Diffraction and Its Relevance to Pharmaceutical Crystal Structures* (pp. 293–314). https://doi.org/10.1007/978-1-4939-4029-5_8
- Shi, H., Yang, S., Han, C., Niu, Z., Li, H., Huang, X., & Ma, J. (2019). Fabrication of Ag/Ag₃PO₄/WO₃ ternary nanoparticles as superior photocatalyst for phenol degradation under visible light irradiation. *Solid State Sciences*, 96(July), 105967. <https://doi.org/10.1016/j.solidstatesciences.2019.105967>
- Song, L., Li, Y., & Zhang, S. (2018). Sonocatalytic degradation of rhodamine B in presence of CdS. *Environmental Science and Pollution Research*, 25(11), 10714–10719. <https://doi.org/10.1007/s11356-018-1369-8>
- Striova, J., Fovo, A. D., & Fontana, R. (2020). Reflectance imaging spectroscopy in heritage science. In *Rivista del Nuovo Cimento* (Vol. 43, Issue 10, pp. 515–566). Springer Science and Business Media Deutschland GmbH. <https://doi.org/10.1007/s40766-020-00011-6>
- Sulaeman, U., Hermawan, D., Andreas, R., Abdullah, A. Z., & Yin, S. (2018). Native defects in silver orthophosphate and their effects on photocatalytic activity under visible light irradiation. *Applied Surface Science*, 428, 1029–1035. <https://doi.org/10.1016/j.apsusc.2017.09.188>
- Sulaeman, U., Larasati, R., Putri, D. A. R. W., Hermawan, D., Asnani, A., Isnaeni, I., & Yin, S. (2024). Design of defective silver phosphate photocatalyst using *Nigella sativa* seed aqueous extract for enhanced photocatalytic activity. *Inorganic Chemistry Communications*, 163(November 2023), 112368. <https://doi.org/10.1016/j.inoche.2024.112368>
- Sulaeman, U., Permadi, R. D., Marcorius, A., Diastuti, H., Riapanitra, A., & Yin, S. (2021). The surface modification of Ag₃PO₄ using tetrachloroaurate(III) and metallic Au for enhanced photocatalytic activity. *Bulletin of Chemical Reaction Engineering and Catalysis*, 16(4), 707–715. <https://doi.org/10.9767/bcrec.16.4.10863.707-715>
- Sulaeman, U., Ramadhanti, S. F., Diastuti, H., Iswanto, P., Isnaeni, I., & Yin, S. (2023). The enhanced photo-stability of defective Ag₃PO₄ tetrahedron prepared using tripolyphosphate. *Arabian Journal of Chemistry*, 16(1), 104409. <https://doi.org/10.1016/j.arabjc.2022.104409>
- Sulaeman, U., Wu, X., Liu, B., Yin, S., & Sato, T. (2015). Synthesis of Ag₃PO₄-polyvinyl alcohol hybrid microcrystal with enhanced visible light photocatalytic activity. *Applied Surface Science*, 356, 226–231. <https://doi.org/10.1016/j.apsusc.2015.08.067>

- Taddesse, A. M., Alemu, M., & Kebede, T. (2020). Enhanced photocatalytic activity of p-n-n heterojunctions ternary composite Cu₂O/ZnO/Ag₃PO₄ under visible light irradiation. *Journal of Environmental Chemical Engineering*, 8(5). <https://doi.org/10.1016/j.jece.2020.104356>
- Tarhini, M., Badri, W., Greige-Gerges, H., Fessi, H., & Elaissari, A. (2020). Nanoparticles/nanoplatform to carry and deliver the drug molecules to the target site. In *Drug Delivery Devices and Therapeutic Systems* (pp. 249–266). Elsevier. <https://doi.org/10.1016/B978-0-12-819838-4.00009-2>
- Teulon, J. M., Godon, C., Chantalat, L., Moriscot, C., Cambedouzou, J., Odorico, M., Ravaux, J., Podor, R., Gerdil, A., Habert, A., Herlin-Boime, N., Chen, S. W. W., & Pellequer, J. L. (2019). On the operational aspects of measuring nanoparticle sizes. *Nanomaterials*, 9(1). <https://doi.org/10.3390/nano9010018>
- Thiyagarajan, S., Singh, S., & Bahadur, D. (2016). Reusable sunlight activated photocatalyst Ag₃PO₄ and its significant antibacterial activity. *Materials Chemistry and Physics*, 173, 385–394. <https://doi.org/10.1016/j.matchemphys.2016.02.027>
- Wang, X., Jian, J., Yuan, Z., Zeng, J., Zhang, L., Wang, T., & Zhou, H. (2020). In situ loading of polyurethane/negative ion powder composite film with visible-light-responsive Ag₃PO₄@AgBr particles for photocatalytic and antibacterial applications. *European Polymer Journal*, 125. <https://doi.org/10.1016/j.eurpolymj.2020.109515>
- Yang, L. (2014). X-Ray Diffraction (XRD) : Applications in Archaeology. In *Encyclopedia of Global Archaeology*. Springer New York. <https://doi.org/10.1007/978-1-4419-0465-2>
- Yin, I. X., Zhang, J., Zhao, I. S., Mei, M. L., Li, Q., & Chu, C. H. (2020). The antibacterial mechanism of silver nanoparticles and its application in dentistry. *International Journal of Nanomedicine*, 15, 2555–2562. <https://doi.org/10.2147/IJN.S246764>
- Zhang, J., Bi, H., He, G., Zhou, Y., & Chen, H. (2014). Fabrication of Ag₃PO₄-PANI-GO composites with high visible light photocatalytic performance and stability. *Journal of Environmental Chemical Engineering*, 2(2), 952–957. <https://doi.org/10.1016/j.jece.2014.03.011>
- Zhang, M., Du, H., Ji, J., Li, F., Lin, Y. C., Qin, C., Zhang, Z., & Shen, Y. (2021). Highly efficient Ag₃PO₄/g-C₃N₄ Z-scheme photocatalyst for its enhanced photocatalytic performance in degradation of rhodamine B and phenol. *Molecules*, 26(7). <https://doi.org/10.3390/molecules26072062>
- Zuhrotun, A., Oktaviani, D. J., & Hasanah, A. N. (2023). Biosynthesis of Gold and Silver Nanoparticles Using Phytochemical Compounds. *Molecules*, 28(7). <https://doi.org/10.3390/molecules28073240>