

DAFTAR PUSTAKA

- Abdullah, M., & Khairurrijal. (2009). Review: Karakterisasi Nanomaterial. *Jurnal Nanosains dan Nanoteknologi*, 2(1), 1-9.
- Agustrina, G. (2011). *Skripsi : Potensi Propolis Lebah Madu Apis Malifera sp. Sebagai Bahan Antibakteri*. Bogor: Departemen Biokimia Fakultas Matematika dan Ilmu Pengetahuan Alam Institut Pertanian Bogor.
- Al-Mohanna, M. T. (2016). *Antibiotics and Chemotherapeutic Agents*. Iraq: University Al-Qadisiyah.
- Anggraeni, N. D. (2008). Analisa SEM (Scanning Electron Microscopy) dalam Pemantauan Proses Oksidasi Magnetite Menjadi Hematite. *Seminar Nasional-VII Rekayasa dan Aplikasi Teknik Mesin di Industri. Rekayasa dan Aplikasi Teknik Mesin di Industri* (pp. 28-29). Yogyakarta: Universitas Gadjah Mada.
- Bi, Y., Hu, H., Ouyang, S., Jiao, Z., Lu, G., & Ye, J. (2012). Selective Growth of Metallic Ag Nanocrystals on Ag₃PO₄ Submicro-Cubes for Photocatalytic Applications. *Chemistry a European Journal*, 22, 14847-14850.
- Brooks, J. T., Peters, P. J., McAllister, S. K., Limbago, B., Lowery, H. K., Fosheim, G., & etc. (2013). Methicillin-Resistant Staphylococcus Aureus Colonization of the Groin and Risk for Clinical Infection among HIV-Infected Adults. *Emerging Infectious Diseases*, 19(4), 623-629.
- Butler, M. A. (1977). Photoelectrolysis And Physical Properties of The Semiconducting Electrode WO₂. *Journal of Applied Physics*, 48(5), 1914-1920.
- Chen, X., Dai, Y., & Wang, X. (2015). Methods and Mechanism for Improvement of Photocatalytic Activity and Stability of Ag₃PO₄: A Review. *Journal of Alloys and Compound*, 649, 910-932.
- Chen, X., Xue, X., & Gong, X. (2020). A Novel Z-Scheme Photocatalyst Porous g-C₃N₄ Nanosheet/Ag₃PO₄ Decorated With N-Doped CDs for High Efficiency Removal of Antibiotic. *Dalton Transactions*, 1-24. doi:<https://10.1039/D0DT00408A>
- Chiu, Y.-H., Chang, T.-F. M., Chen, C.-Y., Sone, M., & Hsu, Y. J. (2019). Mechanistic Insights Into Photodegradation of Organic Dyes Using Heterostructure Photocatalyst. *Catalysts*, 430(9), 1-32.
- Chong, R., Cheng, X., Wang, B., Li, D., Chang, Z., & Zhang, L. (2016). Enhanced Photocatalytic Activity of Ag₃PO₄ For Oxygen Evolution And Methylene Blue Degeneration: Effect of Calcination Temperature. *International Journal of Hydrogen Energy*, 41(4), 531-539.
- Chudobova, D., Cihalova, K., Kopel, P., Melichar, L., & et al. (2015). Complexes of Metal-Based Nanoparticles With Chitosan Suppressing The Risk Of Staphylococcus Aureus And Escherichia Coli Infections. *Nanotechnology*

- In Diagnosis, Treatment And Prophylaxis Of Infectious Diseases*, 217-232.
- Cockayne, A., Modun, B. J., Finch, R., & Williams, P. (1998). The Staphylococcus Aureus and Staphylococcus Epidermis Transferrin-binding Protein Are Expressed In Vivo During Infection. *Microbiology*, *144*(4), 1-10.
- Deonikar, V. G., Reddy, K., Chung, W.-j., & Kim, H. (2018). Facile Synthesis of Ag₃PO₄/g-C₃N₄ composites in Various Solvent Systems With Turned Morphologies and Their Efficient Photocatalytic Activity for Multi-dye Degradation. *Journal of Photochemistry and Photobiology*. doi:<https://doi.org/10.1016/j.jphotochem.2018.09.034>
- Dong, S. J., J, F., M., F., Y, P., L, H., & M, L. (2015). Recent Developments in Heterogeneous Photocatalytic Water Treatment Using Visible-Light-Responsive Photocatalyst: A Review. *RSC Adv*, *5*(19), 1-75.
- Elvidge, S. (2015). Antibody-antibiotic Conjugates Fight S.aureus Infection. *The Pharmaceutical Journal*, *1*, 1-10.
- Foster, H. A., Ditta, I. B., Varghese, S., & Steele, A. (2011). Photocatalytic Disinfection Using Titanium Dioxide: Spectrum and Mechanism of Antimicrobial Activity. *Applied Microbiology and Biotechnology*, *90*(6), 1847-1868.
- Foster, T. J. (2017). Antibiotic Resistance in Staphylococcus aureus. Current Status and Future Prospects. *FEMS microbiology Review*, *41*(3), 430-449.
- Fujishima, A., & Honda, K. (1972). Electrochemical Photolysis of Water At A Semiconductor Electrode. *Nature*(238), 37-38.
- Ganguly, P., Byrne, C., Breen, A., & Pillai, S. C. (2017). Antimicrobial Activity of Photocatalysts: Fundamentals, Mechanisms, Kinetics and Recent Advances. *Applied Catalysis B: Environmental*, *225*, 51-75.
- Glossman-Mitnik, D. (2013). Computational Study of the Chemical Reactivity Properties of the Rhodamine B Molecule. *Procedia Computer Science*, *18*, 816-825.
- Gomes, D. S., Santos, A. M., Neves, G. A., & Menezes, R. R. (2019). A Brief Review on Hydroxyapatite Production and Use In Biomedicine. *Ceramica*, *65*, 282-302.
- Hamblin, M. R., & Abrahamse, H. (2019). Tetracyclines: Light-activated Antibiotics? *Future Medicinal Chemistry*, *11*(8), 2427-2444.
- Hammond, J. L., N, B., P, E., & S.D Rafiee. (2014). Localized Surface Plasmon Resonance as a Biosensing Platform for Developing Countries. *Biosensors*, *4*(2), 172-188.
- Hariani, P. L., Faizal, M., Ridwan, Marsi, & Setiabudidaya, D. (2013). Synthesis and Properties of Fe₃O₄ Nanoparticles by Co-precipitation Method to Removal Procion Dye. *International Journal of Environmental Science and Development*, *4*(3), 336-340.
- Hastuti, E. (2015). Analisa Difraksi Sinar X TiO₂ Dalam Penyiapan Bahan Sel Surya Tersensitisasi Pewarna. *Jurnal Neutrino*, *2010*, 93-100.

- Huang, C., Li, Y., Wang, P., Yao, W., Wu, Q., & Xu, Q. (2015). Synthesis and Photocatalytic Activity of Ultrafine Ag₃PO₄ Nanoparticles On Oxygen Vacated TiO₂. *Applied Catalysis B: Environmental*, 205, 489-497.
- Iacopi, F., Hove, M. V., Charles, M., & Endo, K. (2015). Power Electronics With Wide Bandgap Materials. *MRS Bulletin*, 40(5), 390-395.
- Ingram, D. B., & Linic, S. (2011). Water Splitting on Composite Plasmonic-Metal/Semiconductor Photoelectrodes: Evidence for Selective Plasmon-Induced Formation of Charge Carriers Near The Semiconductor Surface. *Journal of The American Chemical Society*, 133, 5202-5205.
- Joubani, M. N., Zanjanchi, M. A., & Sohrabnezhad, S. (2019). A Novel Ag/Ag₃PO₄-IRMOF-1 Nanocomposite For Antibacterial Application In The Dark And Under Visible Light Irradiation. *Applied Organometallic Chemistry*, 10, 55-75.
- Karmanto, & Sulistya, R. (2014). Elektrodekolorisasi Zat Warna Remazol Violet 5R Menggunakan Elektroda Grafit. *Jurnal Kaunia*, 10, 11-19.
- Khan, A., Qamart, M., & Muneer, M. (2012). Synthesis of Highly Active Visible-Light-Driven Colloidal Silver Orthophosphate. *Chemistry Physics Letter*, 10, 11-19.
- Khan, M. N., & Kimani, M. D. (2016). Environmental Concern to Attitude Toward Green Products: Evidences from India. *Serbian Journal of Management*, 11(2), 159-179.
- Khopkar, S. M. (2002). *Konsep Dasar Kimia Analitik*. Jakarta: UI Press.
- Kobayashi, S., Malachowa, N., & DeLeo, F. R. (2015). Pathogenesis of Staphylococcus Aureus Abscesses. *The American Journal Of Pathology*, 185(6), 1518-1527.
- Kourmouli, A., Valenti, M., Kalantzi, O., Schmidt-ott, A., & Biskos, G. (2018). Can Disc Diffusion Susceptibility Tests Assess The Antimicrobial Activity of Engineered Nanoparticles? *Journal of nanoparticles Research*, 2-7.
- Kulla, P. K. (2016). *Uji Aktivitas Antibakteri dari Ekstrak Bawang Lanang (Allium sativum L) Terhadap Pertumbuhan Bakteri Staphylococcus aureus dan Escherichia Coli: Skripsi*. Yogyakarta: Program Studi Pendidikan Biologi Fakultas Keguruan dan Ilmu Pendidikan Universitas Sanata Dharma.
- Lamonier, C., Lamonier, J. F., Aellach, B., Ezzamarty, A., & Leglise, J. (2011). Specific Tuning of Acid/Base Sites In Apatite Materials to Enhance Their Methanol Thiolation Catalytic Performance. *Journal Catalysis Today*, 164(1), 124-130.
- Li, B., & Webster, T. J. (2017). Bacteria Antibiotic Resistance: New Challenges and Opportunities for Implant-Associated Orthopaedic Infections. *Journal of Orthopaedic Research*, 36(1), 22-32.
- Li, W. R., Xie, X.-B., Shi, Q.-S., Duan, S.-S., Ouyang, Y.-S., & Chen, Y.-B. (2010). Antibacterial Effect of Silver Nanoparticles on Staphylococcus aureus. *Biometals*, 24, 135-141.
- Li, Y., Zhou, H., Zhua, G., Shao, C., Pana, H., Xua, X., & Tanga, R. (2015). High efficient Multifunctional Ag₃PO₄ Loaded Hydroxyapatite

- Nanowires For Water Treatment. *Journal of Hazardous Materials*, 299, 379-387.
- Lin, Y. H., Weng, C. H., Tzeng, J. H., & Lin, Y. T. (2016). Adsorption and Photocatalytic Kinetics of Visible-Light Response N-Doped TiO₂ Nanocatalyst for Indoor Acetaldehyde Removal Under Dark and Light Conditions. *International Journal of Photoenergy*, 2016, 1-9.
- Listari, Y. (2009). *Efektifitas Penggunaan Metode Pengujian Antibiotik Isolat Streptomyces Dari Rizofer Familia Poaceae Terhadap Escherichia coli*. Skripsi. Surakarta: Fakultas Keguruan dan Ilmu Pendidikan Universitas Muhammadiyah.
- Liu, L., Qi, Y., Lu, J., Lin, S., An, W., Liang, Y., & Cui, W. (2016). A Stable Ag₃PO₄@g-C₃N₄ hybrid core@shell CComposite With Enhanced Visible Light Photocatalytic Degradation. *Applied Catalysis B: Environmental*, 183, 133-141.
- Ma, X., Lu, B., Li, D., Shi, R., Pan, C., & Zhu, Y. (2011). Origin Activation of Silver Orthophosphate From First-principles. *Journal of Physical Chemistry C*, 4680-4687. doi:<https://doi.org/10.1021/jp111167u>
- Maradona, D. (2013). *Uji Aktivitas Antibakteri Ekstrak Etanol Daun Durian (Durio Zhibetinus L), Daun Lengkek (Dimocarpus Logan Lour), dan Daun Rambutan (Nephelium Lappacium L) Terhadap Bakteri Staphylococcus aureus ATCC 25925 dan Escherichia coli ATCC 25922*. Skripsi. Jakarta: Fakultas Kedokteran dan Ilmu Kesehatan Program Studi Farmasi.
- Matsunaga, T., Tomoda, R., Nakajima, T., & Wake, H. (1985). Photo-electrochemical sterilization of microbial cells by semiconductor powders. *Applied Environmental Microbiology*, 29(1-2), 211-214.
- Mei, J., Zhang, D., Li, N., Zhang, M., & et al. (2018). The Synthesis of Ag₃PO₄/g-C₃N₄ Nanocomposites And The Application In The Photocatalytic Degradation of Bisphenol A Under Visible Light Irradiation. *Journal of Alloys And Compounds*, 9(2), 1-10.
- Meng, F., Xu, Y., & Zhao, G. (2020). Environmental Regulations, Green Innovation and Intelligent Upgrading of Manufacturing Enterprises: Evidence from China. *Nature Research*, 10, 1-23.
- Miao, X., Yue, X., Ji, Z., Shen, X., Zhou, H., Zhu, J., & et al. (2018). Nitrogen-doped Carbon Dots Decorated On g-C₃N₄/Ag₃PO₄ Photocatalyst With Improved Visible Light Photocatalytic Activity And Mechanism Insight. *Applied Catalysis B: Environmental*, 1(9), 459-469.
- Ningsih, D. R., Zufahair, & Kartika, D. (2016). Identifikasi Senyawa Metabolit Sekunder Serta Uji Aktivitas Ekstrak Daun Sirsak Sebagai Antibakteri. *Molekul*, 11, 1-10.
- Nurmasari, R., Astuti, M. D., Umaningrum, D., & Khusnaria, D. A. (2014). Kajian Adsorpsi Rhodamin B pada Humin. *Prosiding Seminar Nasional Kimia* (pp. ISBN: 978-602-0951-00-3). Surabaya: Jurusan Kimia FMIPA Universitas Negeri Surabaya.
- Pratiwi, S. T. (2008). *Mikrobiologi Farmasi*. Jakarta: Erlangga.

- Prawithasari, R., Fadhilah, E. I., Mudjijono, Saraswatia, T. E., & Darwanto, D. H. (2015). Aktivitas Fotokatalitik $\text{NaNO}_3/\text{TiO}_2$ Terdukung pada Membran Selulosa Asetat/Nata de Coco (CA/NDC) dalam Reaksi Fotodegradasi Metilen Biru. *ALCHEMY Jurnal Pendidikan Kimia*, 10(9), 90-101.
- Rahmadani, F. (2015). *Uji Aktivitas Antibakteri Dari Ekstrak Etanol 96% Kulit Batang Kayu Jawa (Lannea Coromandelica) Terhadap Bakteri Staphylococcus aureus, Escherichia coli, Helicobacter pylori, Pseudomonas aeruginosa : Skripsi*. Jakarta: Program Studi Farmasi Fakultas Kedokteran dan Ilmu Kesehatan UIN Syarif Hidayatullah.
- Rohaeti, E. (2009). Karakterisasi Biodegradasi Polimer. *Prosiding Seminar Nasional Penelitian, Pendidikan dan Penerapan* (pp. 248-257). Bandung: Universitas Padjajaran.
- Santhi, T., Prasad, A. L., & Manonmani, S. (2014). A Comparative Study of Microwave and Chemically Treated Acacia nilotica Leafs as An Eco Friendly Absorbent for The Removal of Rhodamine B Dye from Aqueous Solution. *Arabian Journal of Chemistry*, 7(4), 494-503.
- Sastrohamidjojo, H. (2007). *Spektroskopi*. Yogyakarta: Liberty.
- Seo, Y., Yeo, B. E., Cho, Y. S., Park, H., Kwon, C., & Huh, Y. D. (2017). Photo-enhanced Antibacterial Activity of Ag_3PO_4 . *Materials Letters*, 197, 10-16.
- Setiabudi, A., Hardian, R., & Muzakir, A. (2012). *Karakterisasi Material; Prinsip dan Aplikasinya Dalam Penelitian Kimia (cetakan pertama)*. Bandung: UPI Press.
- Sharma, K. D. (2017). Antibacterial Activity of Biogenic Platinum Nanoparticles : An Invitro Study. *International Journal of Current Microbiology*, 6(2), 801-808.
- Sies, H. (1993). Strategies of Antioxidant Defense. *Journal Material*, 219, 213-219.
- Sulaeman, U., Permadi, R. D., Ningsih, D. R., Diastuti, H., Riapanitra, A., & Yin, S. (2019). The Surface Modification of Ag_3PO_4 Using Anionic Platinum Complexes For Enhanced Visible-light Photocatalytic Activity. *Material Letters*. doi:<https://doi.org/10.1016/j.matlet.2019.126848>
- 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*, 1-10.
- 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, Diastuti, H., Riapanitra, A., & Yin, S. (2018). Design of Ag_3PO_4 for Highly Enhances Photocatalyst Using Hidroksiapatite. *Solid State Science*, 34-44.
- Tauc, J., Grigorovici, R., & Vancu, A. (1966). Optical Properties and Electronic Structure of Amorphous Germanium. *Physica Status Solidi*, 15(2), 1-10.

- Thiyagarajan, S., Singh, S., & Bahadur, D. (2016). Reusable Sunlight Activated Photocatalyst Ag₃PO₄ And Its Significant Antibacterial Activity. *Material Chemistry And Physics*, 1-10.
- Triyati, E. (1985). Spektrofotometer Ultra Violet dan Sinar Tampak Serta Aplikasinya Dalam Oseanologi. *Oseana*, 10(1), 39-47.
- Vogel. (1990). *Buku Teks Analisis Anorganik Kualitatif Makro dan Semimikro*. Jakarta: PT. Kalman Media Pustaka.
- Wan, J., Liu, E., Fan, J., & Hu, X. (2015). In-situ Synthesis of Plasmonic Ag/Ag₃PO₄ Tetrahedron With Exposed {1 1 1} Facets for High Visible-Light Photocatalytic Activity and Stability. *Ceramic International*, 41(5), 6933-6940.
- Wang, B., Wang, L., Hao, Z., & Luo, Y. (2015). Study on Improving Visible Light Photocatalytic Activity of Ag₃PO₄ Through Morphology Control. *Catalysis Communications*, 58, 117-121.
- Wang, J. D., Liu, J. K., Lu, Y., Hong, D. J., & Yang, X. H. (2014). Catalytic Performance Of Gold Nanoparticles Using Different Crystallinity HAp as Carrier Materials. *Materias Research Bulletin*, 55, 190-195.
- Wang, L., Hu, C., & Shao, L. (2017). The Antimicrobial Activity of Nanoparticles: Present Situation and Prospects fro the Future. *International Journal of Nanomedicine*, 12, 1227-1249.
- WHO. (2014, April). *Antimicrobial Resistance: Global Report On Surveillance 2014*. Retrieved from World Health Organization: <https://www.who.int/drugresistance/documents/surveillancereport/en/>
- Widyandari, H., & Budiman, M. (2004). Pengaruh Laju Aliran Gas N₂ Terhadap Sifat Optik Film Tipis Gas N yang Ditumbuhkan Dengan Teknik Pulses Laser Deposition (PLD). *Jurnal Material*, 7(1), 28-34.
- Wu, A., Tian, C., Chang, W., Hong, Y., Zhang, Q., Qu, Y., & Fu, H. (2013). Morphology-controlled Synthesis of Ag₃PO₄ nano/microcrystals and Their Antibacterial Properties. *Materials Reseach Bulletin*, 48(9), 3043-3048.
- Yan, T., Zhang, H., Liu, Y., Guan, W., Long, J., Li, W., & You, J. (2014). Fabrication of Robust M/Ag₃PO₄ (M=Pt, Pd, Au) Schottky-type Heterostructure for Improved Visible-light Photocatalyst. *RSC Advances*, 4(7), 37220-37230.
- Yan, X., Gao, Q., Qin, J., Yang X, Li, Y., & Tang, H. (2013). Morphology-CONTROLLED Synthesis of Ag₃PO₄ Microcubes with Enhanced Visible-Ligh-Driven Photocatalytic Activity. *Ceramic International*, 39(8), 9715-9720.
- Yi, Z. J., Ye, N., Kikugawa, T., Kako, S., Ouyang, H. S., William, H., & Liu. (2010). An Orthophosphate Semiconductor With Photooxidation Properties Under Visible-light Irradiation. *Nature Materials*, 9, 559-564.
- Yulius, O., & Kurniawan. (2010). *Kompas IT Kreatif SPSS 18*. Yogyakarta: Panser Pustaka.
- Zhang, X., Chen, Y. L., Liu, R. S., & Tsai, D. P. (2013). Plasmonic Photocatalysis. *Report on Progress in Physics*, 76(4).

Zhu , J., Xiao, P., Li, H., & Carabinerio, S. A. (2014). Graphitic Carbon Nitride: Synthesis, Properties and Application in Catalysis. *ACS Applied Materials and Interfaces*, 6(19), 16449-16465.



