

## DAFTAR PUSTAKA

- Adebayo-Tayo, B. C., Briggs-Kamara, A. I., & Salaam, A. M. (2021). Phytochemical Composition, Antioxidant, Antimicrobial Potential and GC-MS Analysis of Crude and Partitioned Fractions of *Nigella sativa* Seed Extract. *Acta Microbiologica Bulgarica*, 37(1), 34–45.
- Alkadri, S. L. F., Ilmiawan, M. I., & Handini, M. (2019). Efek Protektif Kombinasi Minyak Jintan Hitam dan Madu terhadap Hepatotoksitas pada Tikus Akibat Sisplatin. *EJournal Kedokteran Indonesia*, 7(2), 101–108. <https://doi.org/10.23886/ejki.7.10740>.
- Alkhathlan, A. H., Al-Abdulkarim, H. A., Khan, M., Khan, M., Aldobiy, A., Alkholief, M., Alshamsan, A., Alkhathlan, H. Z., & Siddiqui, M. R. H. (2020). Ecofriendly Synthesis of Silver Nanoparticles Using Aqueous Extracts of *Zingiber officinale* (Ginger) and *Nigella sativa L.* seeds (black cumin) and Comparison of Their Antibacterial Potential. *Sustainability (Switzerland)*, 12(24), 1–15. <https://doi.org/10.3390/su122410523>.
- Ashraf, M. A., Peng, W., Zare, Y., & Rhee, K. Y. (2018). Effects of Size and Aggregation/ Agglomeration of Nanoparticles on the Interfacial/ Interphase Properties and Tensile Strength of Polymer Nanocomposites. *Nanoscale Research Letters*, 13, 1–7.
- Asworo, R. Y., & Widwiastuti, H. (2023). Pengaruh Ukuran Serbuk Simplicia dan Waktu Maserasi terhadap Aktivitas Antioksidan Ekstrak Kulit Sirsak. *Indonesian Journal of Pharmaceutical Education*, 3(2), 256–263. <https://doi.org/10.37311/ijpe.v3i2.19906>.
- Badger-Emeka, L. I., Emeka, P. M., & Ibrahim, H. I. M. (2021). A Molecular Insight Into the Synergistic Mechanism of *Nigella sativa* (Black Cumin) with  $\beta$ -Lactam Antibiotics against Clinical Isolates of Methicillin-Resistant *Staphylococcus aureus*. *Applied Sciences (Switzerland)*, 11(7). <https://doi.org/10.3390/app11073206>.
- Baral, B., Hemalata, K., & Parida, K. M. (2019). Construction of M-BiVO<sub>4</sub>/ T-BiVO<sub>4</sub> Isotype Heterojunction for Enhanced Photocatalytic Degradation of Norfloxacin and Oxygen Evolution Reaction. *Journal of Colloid and Interface Science*, 554, 278–2295.
- Baral, Basudev, Reddy, K. H., & Parida, K. M. (2019). Journal of Colloid and Interface Science Photocatalytic Degradation of Norfloxacin and Oxygen Evolution Reaction. *Journal of Colloid And Interface Science*, 554, 278–295. <https://doi.org/10.1016/j.jcis.2019.07.007>.
- Bittaqwa, P. (2018). Penetapan Kadar Formaldehida pada Ikan Kembung Banjar yang dijual di Pasar Ciputat dengan Pereaksi Nash Menggunakan Metode Analisis Spektrofotometri Ultraviolet-visible. *Tesis*. Universitas Islam Negeri Syarif Hidayatullah.
- Chairunnissa, S., Wartini, N. M., & Suhendra, L. (2019). Pengaruh Suhu dan Waktu Maserasi terhadap Karakteristik Ekstrak Daun Bidara (*Ziziphus mauritiana L.*) sebagai Sumber Saponin. *Jurnal Rekayasa Dan*

- Manajemen Agroindustri*, 7(4), 551–560.
- Clinical and Laboratory Standards Institute. (2021). *Performance Standards for Antimicrobial Disk Susceptibility Tests*, M022, 13<sup>th</sup> ed. Wayne.
- Dewi, I. S., Septawati, T., & Rachman, F. A. (2021). Skrining Fitokimia Ekstrak Etanol Kulit dan Biji Terong Belanda (*Selonus bataceum Cav.*). *Prosiding Seminar Nasional UNIMUS*, 1210–1218.
- Dharmayanti, I. G. A. M. P., & Sukrama, D. M. (2019). Karakteristik Bakteri *Pseudomonas aeruginosa* dan Pola Kepakaannya terhadap Antibiotik di Intensive Care Unit (ICU) RSUP Sanglah pada Bulan November 2014 - Januari 2015. *Jurnal Medika*, 8(4).
- Dhayalan, M., Immanuel, M., Denison, J., Ayyar, M., Gandhi, N. N., & Krishnan, K. (2018). Biogenic Synthesis, characterization of Gold and Silver Nanoparticles from Coleus forskohlii and their Clinical Importance. *Journal of Photochemistry & Photobiology*, 183, 251–257. <https://doi.org/10.1016/j.jphotobiol.2018.04.042>
- Donmez, A. A., Aydin, Z. U., & Donmez, O. (2021). Taxonomic Monograph of the tribe *Nigelleae* (*Ranunculaceae*): a Group Including Ancient Medicinal Plants. *Tourkish Journal of Botany*. 45, 468–502. <https://doi.org/10.3906/bot-2105-39>.
- Ekthammathat, N., Phruuangrat, A., Thongtem, S., & Thongtem, T. (2018). Synthesis, Characterization and Antibacterial Activity of BiVO<sub>4</sub> Microstructure. *Russian Journal of Physical Chemistry A*, 92(5), 1036–1040. <https://doi.org/10.1134/S0036024418050114>.
- Eliyana, A., & Winata, T. (2017). Karakterisasi FTIR pada Studi Awal Penumbuhan CNT dengan Prekursor Nanokatalis Ag dengan Metode HWC-VHF-PECVD. *Jurnal Fisika dan Aplikasinya*, 13(2), 39–43.
- Famia, A. M., & Muldarisnur. (2019). Pengaruh Temperatur Sintesis Hidrotermal terhadap Diameter Nanopartikel Seng Oksida. *Jurnal Fisika Unand*, 8(2), 127–132.
- Faridah, Jayuska, A., & Ardiningsih, P. (2022). Antibacterial Activity of Endophytic Fungifrom Insulin Leaves (*Smallanthus sonchifolius* (Poepp. & Endl.) H.Robb) against Bacteria *Escherichia coli* and *Staphylococcus aureus*. *Pharmacon*, 11(2), 1481–1487.
- Fatimah, S., Ragadhita, R., Al Husein, 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*, 2(1), 65–76.
- Furqonita, A., Aritonang, A. B., & Wibowo, M. A. (2021). Sintesis TiO<sub>2</sub> Terdoping Bi<sup>3+</sup> dan Uji Aktivitas Fotokatalis Antibakteri *E. coli* dengan Bantuan Sinar Tampak. *Indonesian Journal of Pure and Applied Chemistry*, 4(2), 69–80.
- Ganeshbabu, M., Kannan, N., Venkatesh, P. S., Paulraj, G., Jeganathan, K., & MubarakAli, D. (2020). Synthesis and Characterization of BiVO<sub>4</sub> Nanoparticles for Environmental Applications. *RSC Advances*, 10(31), 18315–18322. <https://doi.org/10.1039/d0ra01065k>.
- Gerasimov, A. M., Eremina, O. V., Cherkasova, M. V., & Dmitriev, S. V.

- (2020). Application of Particle Size Analysis in Various Industries. *Journal of Physics*, 2(2), 1–6.
- Hakim, A. R., & Mulia, S. (2020). Narrative Review: Optimasi Etanol sebagai Pelarut Senyawa Flavonoid dan Fenolik. *Jurnla Surya Medika*, 6(1), 177–180.
- Hakim, L., Girkantara, M., & Nawir, M. (2019). Karakterisasi Struktur Material Pasir Bongkahan Galian Golongan C dengan menggunakan X-Ray Diffraction (XRD) di Kota Palangkaraya. *Jejaring Matematika Dan Sains*, 1(1).
- Huo, R., Yang, X., Liu, Y., & Xu, Y. (2016). Visible-light Photocatalytic Degradation of Glyphosate Over BiVO<sub>4</sub> Prepared by Different Co-precipitation Methods. *Materials Research Bulletin*. <https://doi.org/10.1016/j.materresbull.2016.12.012>.
- Javed, R., Zia, M., Naz, S., Aisida, S. O., Ain, N., & Ao, Q. (2020). Role of Capping Agents in the Application of Nanoparticles in Biomedicine and Environmental Remediation: Recent Trends and Future Prospects. *Journal of Nanobiotechnology*, 18(172), 1–15. <https://doi.org/10.1186/s12951-020-00704-4>.
- Lestari, D., Fitriani, & Anggraenni, S. (2021). Skrining Fitokimia dan Uji Aktivitas Antibakteri Fraksi Etil Asetat dan n-Heksana dari Daun Mangga Katsuri. *Kovalen: Jurnal Riset Kimia*, 7(3), 227–2233.
- Ma, J., Lin, L., & Chen, Y. (2019). Facile solSid-State Synthesis for Producing Molybdenum and Tungsten Co-doped Monoclinic BiVO<sub>4</sub> as the Photocatalyst for Photoelectrochemical Water Oxidation. *International Journal of Hydrogen Energy*, 44(16), 7905–7914. <https://doi.org/10.1016/j.ijhydene.2019.02.077>.
- Matussin, S. N., Khan, F., Harunsani, M. H., & Kim, Y. (2023). Visible-Light-Induced Photocatalytic and Photoantibacterial Activities of Co-Doped CeO<sub>2</sub>. *ACS OMEGA*, 8, 11868–11879. <https://doi.org/10.1021/acsomega.2c07058>.
- Meng, X., Zhang, L., Dai, H., Zhao, Z., Zhang, R., & Liu, Y. (2011). Surfactant-Assisted Hydrothermal Fabrication and Visible-light-driven Photocatalytic Degradation of Methylene Blue Over Multiple Morphological BiVO<sub>4</sub> Single-crystallites. *Materials Chemistry and Physics*, 125(1–2), 59–65. <https://doi.org/10.1016/j.matchemphys.2010.08.071>.
- Mohamed, H. E. A., Afridi, S., Khalil, A. T., Zohra, T., Alam, M. M., Ikram, A., Shinwari, Z. K., & Maaza, M. (2019). Phytosynthesis of BiVO<sub>4</sub> Nanorods using *Hyphaene Thebaica* for Diverse Biomedical Applications. *AMB Express*, 9, 1–14. <https://doi.org/10.1186/s13568-019-0923-1>.
- Mohammed, S. J., Amin, H. H. H., Aziz, S. B., Sha, A. M., Hassan, S., Aziz, J. M. A., & Rahman, H. S. (2019). Structural Characterization, Antimicrobial Activity, and In Vitro Cytotoxicity Effect of Black Seed Oil. *Evidence-Based Complementary and Alternative Medicine*, 2019, 1–9.

- Mulyadi, M., Wuryanti, & Sarjono, R. P. (2017). Konsentrasi Hambat Minimum (KHM) Kadar Sampel Alang-Alang (*Imperata cylindrica*) dalam Etanol melalui Metode Difusi Cakram. *Jurnal Kimia Sains Dan Aplikasi*, 20(3), 130–135.
- Muthmainnah, B. (2017). Skrining Fitokimia Senyawa Metabolit Sekunder dari Ekstrak Etanol Buah Delima (*Punica granatum L.*) dengan Metode Uji Warna. *Media Farmasi*, 12(2).
- Ningsih, D. R., Zusfahair, & Purwati. (2014). Potensi Ekstrak Daun Kamboja (*Plumeria alba L.*) sebagai Antibakteri dan Identifikasi Golongan Senyawa Bioaktifnya. *Molekul*, 9(2), 101–109.
- Ningsih, S. K. W. (2016). *Sintesis Anorganik*. UNP PRESS Padang, Padang.
- Noor, M., Mamun, M. A. Al, Matin, M. A., Islam, F., Haque, S., & Rahman, F. (2018). Effect of pH Variation on Structural, Optical and Shape Morphology of BiVO<sub>4</sub> Photocatalysts. *10th International Conference on Electrical and Computer Engineering*, Bangladesh.
- Numanoglu, H. M., Akgöz, B., & Civalek, Ö. (2018). On dynamic analysis of nanorods. *International Journal of Engineering Science*, 130, 33–50. <https://doi.org/10.1016/j.ijengsci.2018.05.001>.
- Onwudiwe, D. C., Ravele, M. P., & Elemike, E. E. (2020). Eco-friendly Synthesis, Structural Properties and Morphology of Cobalt Hydroxide and Cobalt Oxide Nanoparticles Using Extract of *Litchi chinensis*. *Nano-Structures & Nano-Objects*, 23, 1–8. <https://doi.org/10.1016/j.nanoso.2020.100470>.
- Orimolade, B. O., & Arotiba, O. A. (2019). An Exfoliated Graphite-Bismuth Vanadate Composite Photoanode for the Photoelectrochemical Degradation of Acid Orange 7 Dye. *Electrocatalysis*, 10, 429–435.
- Ovais, M., Khalil, A. T., Islam, N. U., Ahmad, I., & Ayaz, M. (2018). Role of Plant Phytochemicals and Microbial Enzymes in Biosynthesis of Metallic Nanoparticles. *Microbiology and Technology*, (21).
- Palit, P. L., Tambajong, H. F., & Kambey, B. I. (2018). Gambaran Pola Kuman pada Pasien yang dirawat di Ruang Rawat Intensif RSUP. Prof. Dr. R. D. Kanadou Manado Periode Juli 2017 - Juli 2018. *Jurnal Medik Dan Rehabilitasi (JMR)*, 1, 1–8. <https://ejournal.unsrat.ac.id/index.php/jmr/article/view/22305>.
- Qu, J., Cai, Z., Duan, X., Zhang, H., Cheng, H., Han, S., Yu, K., Jiang, Z., Zhang, Y., Liu, Y., Bai, F., Liu, Y., Liu, L., & Yang, L. (2022). *Pseudomonas aeruginosa* Modulates Alginate Biosynthesis and Type VI Secretion System in Two Critically Ill COVID-19 Patients. *Cell and Bioscience*, 12(1), 1–18. <https://doi.org/10.1186/s13578-022-00748-z>.
- Qu, J., Cai, Z., Liu, Y., Duan, X., Han, S., Liu, J., Zhu, Y., Jiang, Z., Zhang, Y., Zhuo, C., Liu, Y., Liu, Y., Liu, L., & Yang, L. (2021). Persistent Bacterial Coinfection of a COVID-19 Patient Caused by a Genetically Adapted *Pseudomonas aeruginosa* Chronic Colonizer. *Frontiers in Cellular and Infection Microbiology*, 11(March), 1–12. <https://doi.org/10.3389/fcimb.2021.641920>.
- Rini, Y. C., Susilowati, F., & Amal, A. S. S. (2020). Uji Aktivitas Antioksidan

- Ekstrak Etanol dan Ekstrak Air Biji Habbatussauda (*Nigella sativa*). *Pharmaceutical of Islamic Pharmacy*, 4(1), 1–8.
- Rolim, W. R., Pelegrino, M. T., Lima, B. D. A., Ferraz, L. S., Costa, F. N., Bernardes, J. S., Rodrigues, T., Brocchi, M., & Seabra, A. B. (2018). Green Tea Extract Mediated Biogenic Synthesis of Silver Nanoparticles: Characterization, Cytotoxicity Evaluation and Antibacterial Activity. *Applied Surface Science*, 463, 66–74. <https://doi.org/10.1016/j.apsusc.2018.08.203>.
- Rollando. (2019). *Senyawa Antibakteri dari Fungi Endofit* (I). CV. Seribu Bintang, Malang.
- Salamah, N., Rozak, M., & Abror, M. Al. (2017). Pengaruh Metode Penyarian terhadap Kadar Alkaloid Total Daun Jembirit (*Tabernaemontana sphaerocarpa*. BL) dengan Metode Spektrofotometri Visibel. *Pharmaciana*, 7(1), 113–122. <https://doi.org/10.12928/pharmaciana.v7i1.6330>.
- Sari, Z. A. A., & Febriawan, R. (2021). Perbedaan Hasil Uji Aktivitas Antibakteri Metode Well Diffusion dan Kirby Bauer terhadap Pertumbuhan Bakteri. *Jurnal Medika Hutama*, 02(04).
- Shereen, M. A., Khan, S., Kazmi, A., Bashir, N., & Siddique, R. (2020). COVID-19 Infection: Emergence, Transmission, and Characteristics of Human Coronaviruses. *Journal of Advanced Research*, 24, 91–98. <https://doi.org/10.1016/j.jare.2020.03.005>.
- Sienkiewicz, A., Wanag, A., Kusiak-nejman, E., Ekiert, E., Rokicka-konieczna, P., & Morawski, A. W. (2021). Effect of Calcination on the Photocatalytic Activity and Stability of TiO<sub>2</sub> Photocatalysts Modified with APTES. *Journal of Environmental Chemical Engineering*, 9(1), 1–12. <https://doi.org/10.1016/j.jece.2020.104794>.
- Silaen, S. (2020). Adanya Kandungan Bakteri *Pseudomonas* sp Terhadap Sayuran Lalapan *Lactuca sativa* dan *Brassica rapa* Subsp. Pekinensis. *Jurnal Biologiku*, 2(1), 20–29.
- Sulistyarini, I., Sari, D. A., & Wicaksono, T. A. (2020). Skrining Fitokimia Senyawa Metabolit Sekunder Batang Buah Naga (*Hylocereus polyrhizus*). *Jurnal Ilmiah Cendekia Eksakta*, 5(1), 56–62.
- Syafrida, M., Darmanti, S., & Izzati, M. (2018). Pengaruh Suhu Pengeringan terhadap Kadar Air, Kadar Flavonoid dan Aktivitas Antioksidan Daun dan Umbi Rumput Teki (*Cyperus rotundus L.*). *Bioma*, 20(1), 44–50.
- Tan, G., Zhang, L., Ren, H., Wei, S., Huang, J., & Xia, A. (2013). Effects of pH on the Hierarchical Structures and Photocatalytic Performance of BiVO<sub>4</sub> Powders Prepared via the Microwave Hydrothermal Method. *ACS Applied Materials and Interfaces*, 5, 5186–5193. doi:10.1021/am401019m.
- Tan, H. L., Amal, R., & Ng, Y. H. (2016). Exploring the Different Roles of Particle Size in Photoelectrochemical and Photocatalytic Water Oxidation on BiVO. *ACS Applied Materials and Interfaces*, 1–26.
- Teilaghi, S., Movaffagh, J., & Bayat, Z. (2020). Preparation as Well as Evaluation of the Nanofiber Membrane Loaded with *Nigella sativa* Extract Using

- the Electrospinning Method. *Journal of Polymers and the Environment*, 28, 1614–1625.
- Thabede, P. M., & Shooto, N. D. (2022). Application of Black Cumin (*Nigella sativa* L.) Seeds for the Removal of Metal Ions and Methylene Blue from Aqueous Solutions. *Cogent Engineering*, 9(1). <https://doi.org/10.1080/23311916.2021.2013419>.
- Wardhani, L. K., & Sulistyani, N. (2012). Uji Aktivitas Antibakteri Ekstrak Etil Asetat Daun Binahong terhadap *Shigella flexneri* Beserta Profil Kromatografi Lapis Tipis. *Jurnal Ilmiah Kefarmasian*, 2(1), 1–16.
- Zhao, G., Wang, M., Cao, X., Guo, Y., Liu, W., & Teng, H. (2019). Effects of pH on the Microstructure and Surface Charge of BiVO<sub>4</sub> Prepared Via Hydrothermal Method: Formation Mechanism and Photocatalytic Performance. *Research on Chemical Intermediates*, 46, 1487–1506. <https://doi.org/10.1007/s11164-019-04046-1>.
- Zou, Y., Lu, M., Jiang, Z., Xu, L., Liu, C., Zhang, L., & Chen, Y. (2021). Hydrothermal Synthesis of Zn-Doped BiVO<sub>4</sub> with Mixed Crystal Phase for Enhanced Photocatalytic Activity. *Optical Materials*, 119. <https://doi.org/10.1016/j.optmat.2021.111398>.
- Zuhrotun, A., Oktaviani, D., & Hasanah, A. (2023). Biosynthesis of Gold and Silver Nanoparticles Using Phytochemical Compounds. *Molecules*, 28(7), 3240. <https://doi.org/10.3390/molecules28073240>.

