

DAFTAR PUSTAKA

- Aji, A., Bahri, S., & Tantalia. (2017). Pengaruh Waktu Ekstraksi dan Konsentrasi HCl Untuk Pembuatan Pektin dari Kulit Jeruk Bali (*Citrus maxima*). *Jurnal Teknologi Kimia Unimal*, 6(1), 33–44. <https://doi.org/doi:10.29103/jtku.v6i1.467>
- Albrecht, J., Köberle, M., Preis, S., Biedermann, T., Seidl, H. P., Lindner, M., Florig, E., & Zink, A. (2024). Herbal Agents Against Dermatophytes: Effect of 43 Herbal Agents on Dermatophyte Growth. *Dermatologic Therapy*, 2024(1). <https://doi.org/10.1155/2024/6727040>
- Amukty, I. N. F. O. Y., & Puspasari, N. M. I. (2024). Karakteristik Penderita Dermatofitosis di Poliklinik Kulit dan Kelamin RSUD Tabanan Periode Tahun 2016-2021. *Syntax Literate*. 9(9), 10. <https://doi.org/10.36418/syntax-literate.v9i10>
- Argüelles, J. C., Sánchez-Fresneda, R., Argüelles, A., & Solano, F. (2024). Natural Substances as Valuable Alternative for Improving Conventional Antifungal Chemotherapy: Lights and Shadows. In *Journal of Fungi* (Vol. 10, Issue 5). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/jof10050334>
- Bakewell-Stone, P. (2023). *Artocarpus heterophyllus* (jackfruit). In *CABI Compendium*. <https://doi.org/10.1079/cabicompendium.1832>
- Bellmann, R., & Smuszkiewicz, P. (2017). Pharmacokinetics of antifungal drugs: practical implications for optimized treatment of patients. In *Infection* (Vol. 45, Issue 6, pp. 737–779). Urban und Vogel GmbH. <https://doi.org/10.1007/s15010-017-1042-z>
- Bitencourt, T. A., TakahasiKomoto, T., Marins, M., & Fachin, A. L. (2014). Antifungal activity of flavonoids and modulation of expression of genes of fatty acid synthesis in the dermatophyte *Trichophyton rubrum*. *BMC Proceedings*, 8(S4). <https://doi.org/10.1186/1753-6561-8-s4-p53>
- Celestrino, G. A., Reis, A. P. C., Criado, P. R., Benard, G., & Sousa, M. G. T. (2019). *Trichophyton rubrum* Elicits Phagocytic and Pro-inflammatory Responses in Human Monocytes Through Toll-Like Receptor 2. *Frontiers in Microbiology*, 10. <https://doi.org/10.3389/fmicb.2019.02589>
- Chander, J. (2018). *Textbook of Medical Mycology 4* (4th ed.). Jaypee Brothers Medical Publishers (P) Ltd.
- Conde-Cuevas, E., Hernández-Castro, R., Fuentes-Venado, C. E., Arenas, R., Frías-De-León, M. G., Moreno-Coutiño, G., Ocharan-Hernández, M. E., Farfan-García, E. D., Pinto-Almazán, R., & Martínez-Herrera, E. (2025). *Trichophyton rubrum* Phenotypic Virulence Factors in Mexican Strains. *Biology*, 14(6). <https://doi.org/10.3390/biology14060661>

- Deng, R., Wang, X., & Li, R. (2023). Dermatophyte infection: from fungal pathogenicity to host immune responses. In *Frontiers in Immunology* (Vol. 14). Frontiers Media SA. <https://doi.org/10.3389/fimmu.2023.1285887>
- Devy, D., & Ervianti, E. (2018). Studi Retrospektif: Karakteristik Dermatofitosis (Characteristic of Dermatophytosis: A Retrospective Study). *Berkala Ilmu Kesehatan Kulit Dan Kelamin*, 30(1), 66–72. <https://doi.org/https://doi.org/10.20473/bikk.V30.1.2018.66-72>
- Eloff, J. N. (2019). Avoiding pitfalls in determining antimicrobial activity of plant extracts and publishing the results. In *BMC Complementary and Alternative Medicine* (Vol. 19, Issue 1). BioMed Central Ltd. <https://doi.org/10.1186/s12906-019-2519-3>
- Gardner, E. M., Gagné, R. J., Kendra, P. E., Montgomery, W. S., Raguso, R. A., McNeil, T. T., & Zerega, N. J. C. (2018). A flower in fruit's clothing: Pollination of jackfruit (*artocarpus heterophyllus*, moraceae) by a new species of gall midge, *clinodiplosis ultracrepidata* sp. Nov. (Diptera: Cecidomyiidae). *International Journal of Plant Sciences*, 179(5), 350–367. <https://doi.org/10.1086/697115>
- GBIF Secretariat. (2023). *GBIF Backbone Taxonomy*. <https://doi.org/10.15468/39omei>
- Ghiasian, Seyed. A., Maghsood, A. H., Abniki, A., & Mirshafiey, A. (2017). The Immunomodulatory Effect of *Trichophyton Rubrum* Exoantigens in the Treatment of Experimental Septic Arthritis. *The Open Microbiology Journal*, 11(1), 72–82. <https://doi.org/10.2174/1874285801711010072>
- Gupta, A. K., & Foley, K. A. (2015). Antifungal treatment for pityriasis versicolor. In *Journal of Fungi* (Vol. 1, Issue 1, pp. 13–29). MDPI AG. <https://doi.org/10.3390/jof1010013>
- Gupta, A. K., Wang, T., Mann, A., Piguet, V., Chowdhary, A., & Bakotic, W. L. (2025). Mechanisms of resistance against allylamine and azole antifungals in *Trichophyton*: A renewed call for innovative molecular diagnostics in susceptibility testing. *PLoS Pathogens*, 21(2 February). <https://doi.org/10.1371/journal.ppat.1012913>
- Hu, Q., Chen, Y. Y., Jiao, Q. Y., Khan, A., Li, F., Han, D. F., Cao, G. D., & Lou, H. X. (2018). Triterpenoid saponins from the pulp of *Sapindus mukorossi* and their antifungal activities. *Phytochemistry*, 147, 1–8. <https://doi.org/10.1016/j.phytochem.2017.12.004>
- ITIS. (2025). *Artocarpus heterophyllus* Lam. Integrated Taxonomic Information System. <https://doi.org/10.5066/F7KH0KBK>
- Jartarkar, S. R., Patil, A., Goldust, Y., Cockerell, C. J., Schwartz, R. A., Grabbe, S., & Goldust, M. (2022). Pathogenesis, Immunology and Management of

- Dermatophytosis. In *Journal of Fungi* (Vol. 8, Issue 1). MDPI. <https://doi.org/10.3390/jof8010039>
- Karimi, A., Majlesi, M., & Rafieian-Kopaei, M. (2015). Herbal versus synthetic drugs; beliefs and facts. In *Journal of Nephro pharmacology J Nephro pharmacol* (Vol. 4, Issue 1). <http://www.jnephrpharmacology.com>
- Keshwania, P., Kaur, N., Chauhan, J., Sharma, G., Afzal, O., Alfawaz Altamimi, A. S., & Almalki, W. H. (2023). Superficial Dermatophytosis across the World's Populations: Potential Benefits from Nanocarrier-Based Therapies and Rising Challenges. In *ACS Omega* (Vol. 8, Issue 35, pp. 31575–31599). American Chemical Society. <https://doi.org/10.1021/acsomega.3c01988>
- Khwaza, V., & Aderibigbe, B. A. (2023). Antifungal Activities of Natural Products and Their Hybrid Molecules. In *Pharmaceutics* (Vol. 15, Issue 12). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/pharmaceutics15122673>
- Kim, Y., & Ma, J. (2018). In vitro fungistatic activity of 36 traditional oriental medicines and their synergistic effect against *Trichophyton rubrum*. *Asian Pacific Journal of Tropical Medicine*, 11(2), 109–115. <https://doi.org/10.4103/1995-7645.225017>
- Kumar, K., Srivastav, S., & Sharanagat, V. S. (2021). Ultrasound assisted extraction (UAE) of bioactive compounds from fruit and vegetable processing by-products: A review. In *Ultrasonics Sonochemistry* (Vol. 70). Elsevier B.V. <https://doi.org/10.1016/j.ultsonch.2020.105325>
- Leung, A. K. C., Lam, J. M., Leong, K. F., & Hon, K. L. (2020). Tinea corporis: An updated review. In *Drugs in Context* (Vol. 9). Bioexcel Publishing LTD. <https://doi.org/10.7573/dic.2020-5-6>
- Martins, M. P., Silva, L. G., Rossi, A., Sanches, P. R., Souza, L. D. R., & Martinez-Rossi, N. M. (2019). Global Analysis of Cell Wall Genes Revealed Putative Virulence Factors in the Dermatophyte *Trichophyton rubrum*. *Frontiers in Microbiology*, 10. <https://doi.org/10.3389/fmicb.2019.02168>
- Melati, G. C., Setyaningsih, Y., & Nugraha, Y. (2021). Uji Efektivitas Ekstrak Daun Kenikir (*Cosmos caudatus; Kunth*) Dalam Menghambat Pertumbuhan *Trichophyton rubrum* Secara In Vitro [Universitas Pembangunan Nasional Veteran Jakarta]. <https://repository.upnvj.ac.id/9154/>
- Mohammadifard, H., Amini, K., Bayat, M., Hashemi, S. J., & Noorbakhsh, F. (2022). Molecular study and antifungal susceptibility profile of *Trichophyton rubrum* and *Trichophyton mentagrophytes* strains isolated from lesions of humans and cattle (Vol. 14, Issue 4). <http://ijm.tums.ac.ir>
- Monod, M., Feuermann, M., Salamin, K., Fratti, M., Makino, M., Alshahni, M. M., Makimura, K., & Yamada, T. (2019). *Trichophyton rubrum* Azole Resistance

- Mediated by a New ABC Transporter, TruMDR3. *Antimicrob Agents Chemother*, 63(11). <https://doi.org/10.1128/AAC>
- Moskaluk, A. E., & VandeWoude, S. (2022). Current Topics in Dermatophyte Classification and Clinical Diagnosis. In *Pathogens* (Vol. 11, Issue 9). MDPI. <https://doi.org/10.3390/pathogens11090957>
- Murlistyarini, S., & Yuniasih, D. I. (2023). Peran Daun Nangka *Artocarpus Heterophyllus* di Bidang Dermatologi Tinjauan Literatus. *Journal of Dermatology, Venereology and Aesthetic*, 4(1), 1–6.
- Nasrul, P. I., & Chatri, M. (2024). Peranan Metabolit Sekunder sebagai Antifungi. *Jurnal Pendidikan Tambusai*, 8(1), 15832–15844. <https://doi.org/https://doi.org/10.31004/jptam.v8i1.14626>
- Nuraini, I., Lamri, & Azahra, S. (2024). Gambaran Jamur *Trichophyton Rubrum* Pada Kuku Kaki SMA Negeri Kota Samarinda. *INNOVATIVE: Journal Of Social Science Research*, 4(5), 8896–8905. <https://j-innovative.org/index.php/Innovative>
- Nurhayati, L. S., Yahdiyani, N., & Hidayatulloh, A. (2020). Perbandingan Pengujian Aktivitas Antibakteri Starter Yogurt dengan Metode Difusi Sumuran dan Metode Difusi Cakram. *Jurnal Teknologi Hasil Peternakan*, 1(2), 41. <https://doi.org/10.24198/jthp.v1i2.27537>
- Nurwulan, D., Hidayatullah, T. A., Nuzula, A. F., & Puspita, R. (2019). Profil Dermatofitosis Superfisialis Periode Januari – Desember 2017 Di Rumah Sakit Islam Aisyiah Malang. *Saintika Medika*, 15(1), 25. <https://doi.org/10.22219/sm.vol15.smumm1.8625>
- Oktavia, S., Bahar, M., Wahyuningsih, S., Zulfa, F., & Makkiyah, F. A. (2024). Antibacterial Activity of *Graptophyllum pictum* (L.) Griff Extract using Variations of Ultrasonic Frequency against *Escherichia coli*. *BIOEDUSCIENCE*, 8(2), 154–150. <https://doi.org/10.22236/jbes/14168>
- Pramudito, R. G., Zulfa, F., Yulianti, R., & Setyaningsih, Y. (2025). *Efektivitas Ekstrak Daun Kayu Putih (Melaleuca cajuputi) Metode UAE dalam Menghambat Jamur Trichophyton rubrum Secara In Vitro* [Universitas Pembangunan Nasional Veteran Jakarta]. <http://repository.upnvj.ac.id/id/eprint/34821>
- Purba, A. U. C., Naliani, S., & Sugiaman, V. K. (2023). Efektivitas Antibakteri Fraksi Buah Merah (*Pandanus conoideus* Lam) sebagai Pembersih Gigi Tiruan Sebagian Lepas terhadap *Staphylococcus aureus* Antibacterial Effectiveness of Red Fruit Extract (*Pandanus conoideus* Lam) as Removable Denture Cleanser against *Staphylococcus aureus*. *E-GiGi*, 11(2), 143–151. <https://doi.org/10.35790/eg.v11i>

- Putri, N. L. P. T., & Paramita, N. L. P. V. (2023). Review Aktivitas Antibakteri Ekstrak Daun Sirih Hijau (*Piper betle* L.) Metode Difusi dan Mikrodilusi. *Journal Scientific of Mandalika (JSM)*, 4(2). <http://ojs.cahayamandalika.com/index.php/jomla/issue/archive>
- Putri, R., Minarni, Epinur, Kuncoro, B., Sudrajat, R., & Yuransyah. (2022). *Aktivitas Antijamur Ekstrak Daun Nangka (Artocarpus heterophyllus Lam.) Terhadap Pertumbuhan Candida albicans*. 5(1), 197–203. <https://repository.unja.ac.id/id/eprint/31570>
- Putri, R. N., Wahidah, S. N., Al Hafidz, I. T., & Faisal. (2023). Uji Daya Hambat Antimikroba Secara Difusi Sumuran dan Difusi Paper Disk Potential Test of Inhibition Antimicrobial Compounds by Well Diffusion and Paper Disk Difusion. *Era Sains : Journal of Science, Engineering and Information Systems Research*, 1(4), 28–33. <https://jurnal.eraliterasi.com/index.php/erasains>
- Ryszkiewicz, P., Malinowska, B., & Schlicker, E. (2023). Polypharmacology: promises and new drugs in 2022. In *Pharmacological Reports* (Vol. 75, Issue 4, pp. 755–770). Springer Science and Business Media Deutschland GmbH. <https://doi.org/10.1007/s43440-023-00501-4>
- Sahoo, A., & Mahajan, R. (2016). Management of tinea corporis, tinea cruris, and tinea pedis: A comprehensive review. *Indian Dermatology Online Journal*, 7(2), 77. <https://doi.org/10.4103/2229-5178.178099>
- Saket, A., Choudhary, H., Singh, S., Shukla, A. K., & Srinivasan, T. (2025). Prospective on Alkaloids-based sustainable methods to treat fungal pathogens: a comprehensive review. In *Archives of Microbiology* (Vol. 207, Issue 8). Springer Science and Business Media Deutschland GmbH. <https://doi.org/10.1007/s00203-025-04381-5>
- Shen, L., Pang, S., Zhong, M., Sun, Y., Qayum, A., Liu, Y., Rashid, A., Xu, B., Liang, Q., Ma, H., & Ren, X. (2023). A comprehensive review of ultrasonic assisted extraction (UAE) for bioactive components: Principles, advantages, equipment, and combined technologies. In *Ultrasonics Sonochemistry* (Vol. 101). Elsevier B.V. <https://doi.org/10.1016/j.ultsonch.2023.106646>
- Silalahi, M. (2021). Pemanfaatan Nangka (*Artocarpus heterophyllus*) Sebagai Obat Tradisional dan Bioaktivitasnya. *Husada Mahakam : Jurnal Kesehatan*, 11(1), 42–53. <http://repository.uki.ac.id/id/eprint/6434>
- Sinawe, H., & Casadeus, D. (2023). Ketoconazole. In *StatPearls [Internet]*. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK559221/>
- Siswanto, U., Devriani, I., Setyowati, N., M, F., & Pujiwati, H. (2025). Morphological Characterization of Jackfruit (*Artocarpus heterophyllus* Lamk) in Kedurang District, Bengkulu, Indonesia. *International Journal of*

Environmental Sciences & Natural Resources, 33(3).
<https://doi.org/10.19080/ijesnr.2025.35.556415>

- Song, G., Xie, W., Kong, X., Zheng, H., Tsui, C. K. M., Xiaodong, S., Liu, W., Li, X., & Liang, G. (2025). The First Isolation of Multiple Antifungal-Drug-Resistant *Trichophyton Rubrum* in China and the Novel Resistance Mechanism. *Mycoses*, 68(11). <https://doi.org/10.1111/myc.70128>
- Su, H., Packeu, A., Ahmed, S. A., Al-Hatmi, A. M. S., Blechert, O., Ilkit, M., Hagen, F., Gräser, Y., Liu, W., Deng, S., Hendrickx, M., Xu, J., Zhu, M., & De Hoog, S. (2019). Species distinction in the *Trichophyton rubrum* complex. *Journal of Clinical Microbiology*, 57(9). <https://doi.org/10.1128/JCM.00352-19>
- Tetti, M. (2014). Ekstraksi, Pemisahan Senyawa, dan Identifikasi Senyawa Aktif. *Jurnal Kesehatan*, 7(2), 361–367. <https://doi.org/https://doi.org/10.24252/kesehatan.v7i2.55>
- Vázquez-González, Y., Ragazzo-Sánchez, J. A., & Calderón-Santoyo, M. (2020). Characterization and antifungal activity of jackfruit (*Artocarpus heterophyllus* Lam.) leaf extract obtained using conventional and emerging technologies. *Food Chemistry*, 330. <https://doi.org/10.1016/j.foodchem.2020.127211>
- Yee, G., Syed, H. A., & Al Aboud, A. M. (2025). Tinea Corporis. In *StatPearls [Internet]*. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK544360/>
- Yeh, C. J., Chen, C. C., Leu, Y. L., Lin, M. W., Chiu, M. M., & Wang, S. H. (2017). The effects of artocarpin on wound healing: In vitro and in vivo studies. *Scientific Reports*, 7(1). <https://doi.org/10.1038/s41598-017-15876-7>
- Yusmaniar, Wardiyah, & Khairun, N. (2017). *Bahan Ajar Farmasi: Mikrobiologi dan Parasitologi* (Yusmaniar, Wardiyah, & N. Khairun, Eds.; 1st ed.). Kemenkes RI.
- Zheng, L., Xu, Y., Wang, C., & Guo, L. (2024). Ketoconazole induces reversible antifungal drug tolerance mediated by trisomy of chromosome R in *Candida albicans*. *Frontiers in Microbiology*, 15. <https://doi.org/10.3389/fmicb.2024.1450557>