

DAFTAR PUSTAKA

- Abbasi, M., Daneshpour, M. S., Hedayati, M., Mottaghi, A., Pourvali, K., & Azizi, F. (2019). Dietary Total Antioxidant Capacity and the Risk of Chronic Kidney Disease in Patients With Type 2 Diabetes: A Nested Case-Control Study in the Tehran Lipid Glucose Study. *Journal of Renal Nutrition*, 29(5), 394–398. <https://doi.org/10.1053/j.jrn.2018.11.008>
- Ahmad Khan, M. S., & Ahmad, I. (2018). Herbal Medicine: Current Trends and Future Prospects. In *New Look to Phytomedicine: Advancements in Herbal Products as Novel Drug Leads*. Elsevier Inc. <https://doi.org/10.1016/B978-0-12-814619-4.00001-X>
- Aina, O., Gautam, L., Simkhada, P., & Hall, S. (2020). *Prevalence, determinants and knowledge about herbal medicine and non-hospital utilisation in southwest Nigeria: A cross-sectional study*. *BMJ Open*, 10(9). <https://doi.org/10.1136/bmjopen-2020-040769>
- Alaiya, A., Assad, L., Alkhafaji, D., Shinwari, Z., Almana, H., Shoukri, M., Alkorbi, L., Ibrahim, H. G., Abdelsalam, M. S., Skolnik, E., Adra, C., & Albaqumi, M. (2015). *Proteomic analysis of Class IV lupus nephritis*. *Nephrology Dialysis Transplantation*, 30(1), 62–70. <https://doi.org/10.1093/ndt/gfu215>
- Alkhamaiseh, S. I., & Aljofan, M. (2020). *Prevalence of use and reported side effects of herbal medicine among adults in Saudi Arabia*. *Complementary Therapies in Medicine*, 48 (July 2019), 102255. <https://doi.org/10.1016/j.ctim.2019.102255>
- AM, A., & K., K. (2018). Efektivitas Antiinflamasi Ekstrak Etanoldaun Sumambu (*Hyptis capitatajacq.*) pada Tikus Putih Jantan (*Rattus norvegicus.*) yang Diinduksidengan Karagenan. 12, 17–23.
- Amelia F. Dasar Ilmu Kesehatan Masyarakat Five Level of Prevention. *Published Online* 2021:2-7.
- Amir, N., Ananda, D., & Elvianti, N. (2019). Potensi Cangkang Sotong (*Sepia sp.*) Sebagai Antiinflamasi pada Penderita Asma. *Jurnal IPTEKS PSP*, 6(12), 207–213. <https://doi.org/https://doi.org/10.20956/jipsp.v6i12.8873>
- Andayani, D., Suprihartini, E., & Astuti, M. (2018). Efek Antiinflamasi Ekstrak Etanol Krokot (*Portulaca oleracea, L.*) pada Udem Tikus yang di Induksi Karagenin. *Journal of Pharmaceutical Science and Clinical Research*, 3(1), 43. <https://doi.org/10.20961/jpscr.v3i1.15108>
- Andrie, M., & Dies, S. (2017). Efektivitas Sediaan Salep yang Mengandung Ekstrak Ikan Gabus (*Channa striata*) pada Proses Penyembuhan Luka Akut Stadium II Terbuka pada Tikus Jantan Galur Wistar. *Pharm Sci Res*, 4(2), 88–101.
- Anisa, N., Amaliah, N. A., Al Haq, P. M., & Arifin, A. N. (2019). Efektifitas Anti Inflamasi Daun Mangga (*Mangifera Indica*) Terhadap Luka Bakar Derajat Dua. *Sainsmat: Jurnal Ilmiah Ilmu Pengetahuan Alam*, 8(1), 1. <https://doi.org/10.35580/sainsmat81101182019>
- Anwar, K., Widodo, D. F., Nurlily, N., Triyasmono, L., Sudarsono, S., & Nugroho, A. E. (2018). *Wound Healing Activity of Ethanolic Extract Gel of Tawas Ut Tuber (Ampelocissus rubiginosa L.) in Incisional Model Wistar Rats*. *Traditional Medicine Journal*, 23(1), 30. <https://doi.org/10.22146/mot.29063>
- Ardhie, A. (2011). Radikal Bebas dan Peran Antioksidan dalam Mencegah Penuaan. *Medicinus Anti Aging. Scientific Journal of Pharmaceutical Development and Medical Application*, 24(1), 4–9.

- Arief, H., & Widodo, M. A. (2018). Peranan Stres Oksidatif pada Proses Penyembuhan Luka. *Jurnal Ilmiah Kedokteran Wijaya Kusuma*, 5(2), 22. <https://doi.org/10.30742/jikw.v5i2.338>
- Ariëns, R. A. S., Lai, T. S., Weisel, J. W., Greenberg, C. S., & Grant, P. J. (2002). *Role Of Factor XIII In Fibrin Clot Formation And Effects Of Genetic Polymorphisms. Blood*, 100(3), 743–754. <https://doi.org/10.1182/blood.V100.3.743>
- Arsana, I. N., Oka, I. B., & Juliasih, N. K. A. (2014). Aktivitas Antioksidan Ekstrak Etanol Kulit Buah Manggis (*Garcinia mangostana* L.). *Prosiding Seminar Nasional Prodi Biologi F. MIPA UNHI*, 206–212.
- Aryzki, S., & Susanto, Y. (2019). Efektivitas Daun Ramania Asal Kalimantan Selatan Untuk Menurunkan Kadar Gula Darah. *Jurnal Ilmiah Ibnu Sina (JIIS): Ilmu Farmasi Dan Kesehatan*, 4(2), 341–352. <https://doi.org/10.36387/jiis.v4i2.342>
- Asfaw Erku, D., & Basazn Mekuria, A. (2016). *Prevalence and Correlates of Complementary and Alternative Medicine Use Among Hypertensive Patients in Gondar Town, Ethiopia. Evidence-Based Complementary and Alternative Medicine*, 2016. <https://doi.org/10.1155/2016/6987636>
- Astutik, S., Pretzsch, J., & Kimengsi, J. N. (2019). *Asian Medicinal Plants Production and Utilization Potentials: A review. Sustainability (Switzerland)*, 11(19), 1–33. <https://doi.org/10.3390/su11195483>
- Audah, K. A. (2019). *Drug discovery: A biodiversity perspective. Nanotechnology: Applications in Energy, Drug and Food*, 249–265. https://doi.org/10.1007/978-3-319-99602-8_12
- Audina, M., Yuliet, & Khaerati, K. (2018). Efektivitas Antiinflamasi Ekstrak Etanol Daun Sumambu (*Hyptis capitata* Jacq.) Pada Tikus Jantan (*Rattus norvegicus* L.). *Bocelebes*, 12(2), 17–23.
- Aziz, M. A., Majeed, G. H., Diab, K. S., & Al-Tamimi, R. J. (2016). *The Association of Oxidant-Antioxidant Status in Patients with Chronic Renal Failure. Renal Failure*, 38(1), 20–26. <https://doi.org/10.3109/0886022X.2015.1103654>
- Badriyah, B., Achmadi, J., & Nuswantara, L. K. (2017). Kelarutan Senyawa Fenolik dan Aktivitas Antioksidan Daun Kelor (*Moringa oleifera*) di Dalam Rumen Secara In Vitro. *Jurnal Peternakan Indonesia (Indonesian Journal of Animal Science)*, 19(3), 116. <https://doi.org/10.25077/jpi.19.3.116-121.2017>
- Barrientos, S., Stojadinovic, O., Golinko, M. S., Brem, H., & Tomic-Canic, M. (2008). *Growth Factors and Cytokines in Wound Healing. Wound Repair and Regeneration*, 16(5), 585–601. <https://doi.org/10.1111/j.1524-475X.2008.00410.x>
- Biworo, A., Abdurrahim, Nupiah, N., Hamidah, S., & Suhartono, E. (2019). *The Effect of Dayak Onion (Eleutherine Palmifolia (L.) Merr) Tuber Extract Against Erythema and Melanin Index on Rat (Rattus Norvegicus) Skin Induced by Acute UV. AIP Conference Proceedings*, 2108. <https://doi.org/10.1063/1.5110011>
- Bocci, V., & Valacchi, G. (2015). Nrf2 activation as target to implement therapeutic treatments. *Frontiers in Chemistry*, 3 feb, 1–6. <https://doi.org/10.3389/fchem.2015.00004>
- Boy, H. I. A., Rutilla, A. J. H., Santos, K. A., Ty, A. M. T., Yu, A. I., Mahboob, T., Tangpoong, J., & Nissapatorn, V. (2018). *Recommended Medicinal Plants as Source of Natural Products: A Review. Digital Chinese Medicine*, 1(2), 131–142. [https://doi.org/10.1016/S2589-3777\(19\)30018-7](https://doi.org/10.1016/S2589-3777(19)30018-7)
- Brunicardi, F. C. (2019). *Schwartz's Principles of Surgery Eleventh Edition*. <https://doi.org/10.1093/med/9780199665549.003.0042>
- Buckner CA, Lafrenie RM, Dénommée JA. *Complementary and Alternative Medicine Use in Patients Before And After A Cancer Diagnosis. Intech*.

- 2016;11(tourism):13.
- Burchi, F., Fanzo, J., & Frison, E. (2011). The role of food and nutrition system approaches in tackling hidden hunger. *International Journal of Environmental Research and Public Health*, 8(2), 358–373. <https://doi.org/10.3390/ijerph8020358>
- Cava, C., Bertoli, G., & Castiglioni, I. (2020). In silico discovery of candidate drugs against covid-19. *Viruses*, 12(4), 1–14. <https://doi.org/10.3390/v12040404>
- Chhabra, S., Chhabra, N., Kaur, A., & Gupta, N. (2017). Wound Healing Concepts in Clinical Practice of OMFS. *Journal of Maxillofacial and Oral Surgery*, 16(4), 403–423. <https://doi.org/10.1007/s12663-016-0880-z>
- CLARK, E. G. (1954). Natural history of syphilis and levels of prevention. *The British Journal of Venereal Diseases*, 30(4), 191–197. <https://doi.org/10.1136/sti.30.4.191>
- Clark, R. A. F. (1993). Regulation of fibroplasia in cutaneous wound repair. *American Journal of the Medical Sciences*, 306(1), 42–48. <https://doi.org/10.1097/00000441-199307000-00011>
- Clarke, S. P., Rockett, J. L., Sloane, D. M., & Aiken, L. H. (2002). Organizational climate, staffing, and safety equipment as predictors of needlestick injuries and near-misses in hospital nurses. *American Journal of Infection Control*, 30(4), 207–216. <https://doi.org/10.1067/mic.2002.123392>
- Committee, I. B. (2013). *Report of the IBC on traditional medicine systems and their ethical implications - UNESCO Digital Library*. September 2012. <https://unesdoc.unesco.org/ark:/48223/pf0000217457>
- Cordell, G. A., & Colvard, M. D. (2005). Some thoughts on the future of ethnopharmacology. *Journal of Ethnopharmacology*, 100(1–2), 5–14. <https://doi.org/10.1016/j.jep.2005.05.027>
- Dechsupa, S., Kothan, S., Vergote, J., Leger, G., Martineau, A., Beranger, S., Kosanlavit, R., Moretti, J. L., & Mankhetkorn, S. (2007). Quercetin, Siamois 1 and Siamois 2 induce apoptosis in human breast cancer MDA-MB-435 cells xenograft in vivo. *Cancer Biology and Therapy*, 6(1), 56–61. <https://doi.org/10.4161/cbt.6.1.3548>
- Dina, H., & Taufiqurrahman, I. (2016). *Uji variasi konsentrasi pelarut etanol terhadap kadar total flavonoid ekstrak daun ramania (bouea macrophylla griffith)*. 000(12), 4–8.
- Dinh, T., Tecilazich, F., Kafanas, A., Doupis, J., Gnardellis, C., Leal, E., Tellechea, A., Pradhan, L., Lyons, T. E., Giurini, J. M., & Veves, A. (2012). Mechanisms involved in the development and healing of diabetic foot ulceration. *Diabetes*, 61(11), 2937–2947. <https://doi.org/10.2337/db12-0227>
- Dwi Rahayu, Dyah Ika Krisnawati, Erna Susilowati, Yunarsih, Puguh Santoso, M. A. (2021). Optimalisasi Pencegahan Dan Penganggulangan Covid 19 Dengan Peran Serta Sebagai Vaksinasi. *Jurnal Pengabdian Kepada Masyarakat (JPKM) - Aphelion*, 3(September), 207–212. <http://jurnal.globalhealthsciencegroup.com/index.php/JPM>
- Edelman, C. L., & Connelly, E. (2017). *Health Promotion Throughout the Life Span*.
- El-Ferjani, R. M., Ahmad, M., Dhiyaaldeen, S. M., Harun, F. W., Ibrahim, M. Y., Adam, H., Mohd Yamin, B., Al-Obaidi, M. M. J., & Al Batran, R. (2016). In vivo Assessment of Antioxidant and Wound Healing Improvement of a New Schiff Base Derived Co (II) Complex in Rats. *Scientific Reports*, 6(December). <https://doi.org/10.1038/srep38748>
- Elfahmi, Woerdenbag, H. J., & Kayser, O. (2014). Jamu: Indonesian traditional herbal medicine towards rational phytopharmacological use. *Journal of Herbal Medicine*, 4(2), 51–73. <https://doi.org/10.1016/j.hermed.2014.01.002>
- Ellis, C. R., Kruhlak, N. L., Kim, M. T., Hawkins, E. G., & Stavitskaya, L. (2018). Predicting

- opioid receptor binding affinity of pharmacologically unclassified designer substances using molecular docking. *PLoS ONE*, 13(5), 1–18. <https://doi.org/10.1371/journal.pone.0197734>
- Taufiqurrahman, I., Erwandi, S., & Sukmana, B. I. (2018). The Comparison of Total Flavonoid Content In Ramania (Bouea macrophylla Griffith) Bark and Leaf Extract Using Maceration Method. *Dentino*, 3(2), 122–126.
- F Yvonne Schulman. (2016). *Veterinarian's Guide to Maximizing Biopsy Results*. John Wiley and Son.
- Fafa, M. N., Sargowo, D., Agoes, A., & Nurwidyaningtyas, W. (2014). *Polymorphysm of UCP 2 and H 2 O 2 concentration to the CEC Level Variations As Predictors of Endothelial Activation In Stroke Kardiologi Indonesia Penelitian Klinis Polimorfisme Gen UCP 2 Dan Kadar H 2 O 2 Terhadap Variasi CEC Sebagai Prediktor Aktivasi E*. 35(4), 255–262.
- Faleiro, M. L., & Miguel, G. (2020). Antimicrobial and antioxidant activities of natural compounds: Enhance the safety and quality of food. *Foods*, 9(9). <https://doi.org/10.3390/foods9091145>
- Ferni, S. (2017). Pengaruh Pemberian Alga Coklat (Sargassum sp.) Terhadap Enzim Katalase Kelenjar Submandibularis Tikus Rattus Norvegicus Strain Wistar Akibat Iradiasi Linear Energy Transfer (LET) Rendah. *Qanun Medika - Medical Journal Faculty of Medicine Muhammadiyah Surabaya*, 1(02), 1–10. <https://doi.org/10.30651/qm.v1i02.490>
- FH, T. (1959). Preventive Medicine for the Doctor in His Community: An Epidemiologic Approach. *Arch Intern Med*. [Doi: 10.1001/Archinte.1959.00270010170027].
- Fini, A., Brunetti, C., Ferdinando, M. Di, Ferrini, F., & Tattini, M. (2011). Stress-induced flavonoid biosynthesis and the antioxidant machinery of plants. *Plant Signaling and Behavior*, 6(5), 709–711. <https://doi.org/10.4161/psb.6.5.15069>
- Fitriyani, A., Winarti, L., Muslichah, S., & Nuri, D. (2011). Uji antiinflamasi ekstrak metanol daun sirih merah(piper crocatum ruiz & pav) pada tikus pitih anti-iinflammatory activity of piper crocatum ruiz & pav. leaves metanolic extract in rats. *Majalah Obat Tradisional*, 16(1), 34–42. <https://doi.org/https://doi.org/10.22146/tradmedj.8020>
- Frawley, J. E., Anheyer, D., Davidson, S., & Jackson, D. (2017). Prevalence and characteristics of complementary and alternative medicine use by Australian children. *Journal of Paediatrics and Child Health*, 53(8), 782–787. <https://doi.org/10.1111/jpc.13555>
- Fuadi, M. I., Elfiah, U., & Misnawi. (2019). Jumlah Fibroblas pada Luka Bakar Derajat II pada Tikus dengan Pemberian Gel Ekstrak Etanol Biji Kakao dan Silver Sulfadiazine. *E-Jurnal Pustaka Kesehatan*, 3(2), 244–248.
- Geck, M. S., Cristians, S., Berger-González, M., Casu, L., Heinrich, M., & Leonti, M. (2020). Traditional herbal medicine in mesoamerica: Toward its evidence base for improving universal health coverage. *Frontiers in Pharmacology*, 11(July). <https://doi.org/10.3389/fphar.2020.01160>
- Gleissner, C. A., Von Hundelshausen, P., & Ley, K. (2008). Platelet chemokines in vascular disease. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 28(11), 1920–1927. <https://doi.org/10.1161/ATVBAHA.108.169417>
- Gonzalez, A. C. D. O., Andrade, Z. D. A., Costa, T. F., & Medrado, A. R. A. P. (2016). Wound healing - A literature review. *Anais Brasileiros de Dermatologia*, 91(5), 614–620. <https://doi.org/10.1590/abd1806-4841.20164741>
- Guest, J. F., Ayoub, N., McIlwraith, T., Uchegbu, I., Gerrish, A., Weidlich, D., Vowden, K., & Vowden, P. (2017). Health economic burden that different wound types

- impose on the UK's National Health Service. *International Wound Journal*, 14(2), 322–330. <https://doi.org/10.1111/iwj.12603>
- Guest, J. F., Fuller, G. W., & Vowden, P. (2020). Cohort study evaluating the burden of wounds to the UK's National Health Service in 2017/2018: Update from 2012/2013. *BMJ Open*, 10(12), 1–15. <https://doi.org/10.1136/bmjopen-2020-045253>
- Guo, J., Low, K., Mei, L., Li, J., Qu, W., & Guan, G. (2020). *Use of traditional medicine for dental care by different ethnic groups in New Zealand*. 1–13. <https://doi.org/10.21203/rs.3.rs-15533/v1>
- Guo, S., & DiPietro, L. A. (2010). Critical review in oral biology & medicine: Factors affecting wound healing. *Journal of Dental Research*, 89(3), 219–229. <https://doi.org/10.1177/0022034509359125>
- Gupta, S., Shinde, S., & Shinde, R. K. (2022). Topical Management of Wound: A Narrative Review of Cadexomer Iodine Ointment Versus Povidone Iodine Ointment. *Cureus*, 14(4). <https://doi.org/10.7759/cureus.24598>
- Hakeem, K. R., Abdul, W. M., Hussain, M. M., & Razvi, S. S. I. (2019). Oral health and herbal medicine. In *SpringerBriefs in Public Health*. <https://doi.org/10.1007/978-3-030-04336-0>
- Handito, D., Basuki, E., Saloko, S., Dwikasari, L. G., Triani, E., Mataram, U., Kedokteran, F., & Mataram, U. (2022). Analisis Komposisi Bunga Telang (*Clitoria ternatea*) sebagai Antioksidan Alami pada Produk Pangan. *Prosiding SAINTEK*, 4(November 2021), 23–24.
- Hanifa, D., & Susilawati, Y. (2017). Potensi Tanaman Gandaria (*Bouea macrophylla* Griff) Sebagai Obat Herbal Yang Beraktivitas Antioksidan. *Farmaka*, 15(Vol 15, No 3 (2017): Farmaka), 134–142.
- Hariyanto, T., Herawati, H., & Wahyuningsri. (2015). Hubungan Antara Konsumsi Rokok Dengan Lama Proses Penyembuhan Luka Operasi Elektif Steril Fase Inflamasi di Instalasi Rawat Inap II Rumah Sakit Umum daerah dr. Saiful Anwar Malang. *Jurnal Keperawatan*, 6(Nomor 1 Versi), 57–62.
- Hasanah, U., Yusriadi, Y., & Khumaidi, A. (2017). Formulasi Gel Ekstrak Etanol Daun Kelor (*Moringa oleifera* Lam) Sebagai Antioksidan. *Natural Science: Journal of Science and Technology*, 6(1), 46–57. <https://doi.org/10.22487/25411969.2017.v6.i1.8079>
- Heal, C. F., van Driel, M. L., Lepper, P. D., & Banks, J. L. (2014). Topical antibiotics for preventing surgical site infection in wounds healing by primary intention. *Cochrane Database of Systematic Reviews*, 2014(12). <https://doi.org/10.1002/14651858.CD011426>
- Heinrich, M. (2012). Ethnobotany and Natural Products: The Search for New Molecules, New Treatments of Old Diseases or a Better Understanding of Indigenous Cultures? *Frontiers in Medicinal Chemistry - (Volume 2)*, 0, 431–450. <https://doi.org/10.2174/978160805205910502010431>
- Taufiqurrahman, I., Hermalinda, R., & Helmi, Z. N. (2019). Total flavonoid content analysis flavonoid content analysis of ramania leaves' extract using ethanol, methanol and N-HEXANE as solvents. *Dentino Jurnal Kedokteran Gigi*, 4(1), 60–63. <https://ppjp.ulm.ac.id/journal/index.php/dentino/article/view/6177%0Ahttps://lens.org/046-443-820-902-440>
- Taufiqurrahman, I., Humaira, S., & Dewi, N. (2020). The effect of Ramania leaf (*Bouea macrophylla* Griff) extract gel on the number of fibroblast cells of incision in male wistar rats (*Rattus norvegicus*). *Katalog Universitas Lambung Mangkurat*, VII(1), 6–11.

- Hung, T. J. (2020). Scientization of Jamu in Indonesia: Reacting to Fake Jamu, Pressures of Nationalism, and the Preservation of Local Wisdom. *Nusantara: An International Journal of Humanities and Social Sciences*, 2(1), 105–137. <https://doi.org/10.6936/NIJHSS.202006>
- ifayanti, titin. (2017). Pengaruh Vitamin E Terhadap Aktivitas Enzim Glutation Peroksidase (GSH-Px) Pada Tikus Strain Wistar Jantan Yang Terpapar Karbon Tetraklorida (CCl₄). *JIK- Jurnal Ilmu Kesehatan*, 1(1), 27–31. <https://doi.org/10.33757/jik.v1i1.6>
- Ifora, I., Sintia, B., & Srangege, Y. (2021). Pengaruh Penghambatan Enzim Siklooksigenase-2 dan Aktivitas Antiinflamasi dari Ekstrak Daun Ketumbar (*Coriandrum sativum* L.). *Jurnal Kefarmasian Indonesia*, 11(1), 17–24. <https://doi.org/10.22435/jki.v11i1.3487>
- Ighodaro, O. M., Akinloye, O. A., Ugbaja, R. N., & Omotainse, S. O. (2017). Sapium ellipticum (Hochst) Pax ethanol leaf extract modulates glucokinase and glucose-6-phosphatase activities in streptozotocin induced diabetic rats. *Asian Pacific Journal of Tropical Biomedicine*, 7(6), 544–548. <https://doi.org/10.1016/j.apjtb.2017.05.009>
- Iqbal, U., Celi, L. A., & Li, Y. C. J. (2020). How can artificial intelligence make medicine more preemptive? *Journal of Medical Internet Research*, 22(8), 6–9. <https://doi.org/10.2196/17211>
- J.B., C. (2000). Efficacy, safety, quality control, marketing and regulatory guidelines for herbal medicines (phytotherapeutic agents). *Brazilian Journal of Medical and Biological Research*, 33(2), 179–189. <http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=emed5&NEWS=N&AN=2000095062>
- Jakovels, D., Kuzmina, I., Berzina, A., Valeine, L., & Spigulis, J. (2013). Noncontact monitoring of vascular lesion phototherapy efficiency by RGB multispectral imaging. *Journal of Biomedical Optics*, 18(12), 126019. <https://doi.org/10.1117/1.jbo.18.12.126019>
- Jayantie, D. D., Farida, Y., & Taurhesia, S. (2022). Aktivitas Antioksidan dan Inhibisi Enzim Tirokinase Estrak Etanol Buah Gandaria (*Bouea macrophylla* Griff.) Secara In Vitro. *Pharmacoscript*, 5(1), 62–70.
- Johnson, T. R., Gómez, B. I., McIntyre, M. K., Dubick, M. A., Christy, R. J., Nicholson, S. E., & Burmeister, D. M. (2018). The cutaneous microbiome and wounds: New molecular targets to promote wound healing. *International Journal of Molecular Sciences*, 19(9), 1–19. <https://doi.org/10.3390/ijms19092699>
- Jones, G. C., Becker, M., van Hille, R. P., & Harrison, S. T. L. (2013). The effect of sulfide concentrate mineralogy and texture on Reactive Oxygen Species (ROS) generation. *Applied Geochemistry*, 29, 199–213. <https://doi.org/10.1016/j.apgeochem.2012.11.015>
- Kamilatussaniah, Yuniasti, A., & Iswari, R. (2015). Pengaruh Suplementasi Madu Kelengkeng terhadap Kadar TSA dan MDA Tikus Putih yang Diinduksi Timbal (Pb). *Jurnal MIPA Unnes*, 38(2), 108–114.
- Kartika, R. W., Bedah, B., Paru, J., & Luka, A. P. (2015). Perawatan Luka Kronis dengan Modern Dressing. *Perawatan Luka Kronis Dengan Modern Dressing*, 42(7), 546–550.
- Kasote, D. M., Katyare, S. S., Hegde, M. V., & Bae, H. (2015). Significance of antioxidant potential of plants and its relevance to therapeutic applications. *International Journal of Biological Sciences*, 11(8), 982–991. <https://doi.org/10.7150/ijbs.12096>
- Kemenkes RI. Riskesdas. Badan Penelit Dan Pengemb Kesehat Kementeri Kesehat Ri. 2018;1(1):1.

- Kewo, L. A., Pangemanan, D. H. C., & Supit, A. (2019). Perbedaan Penyembuhan Luka Pasca Ekstraksi Gigi Antara Pasien Perokok Dengan Bukan Perokok Di RSGM Unsrat. *E-GiGi*, 7(2), 92–97. <https://doi.org/10.35790/eg.7.2.2019.25141>
- Khalishah, N., Oktiani, B. W., & Adhani, R. (2021). Antibacterial Effectiveness Test of Ramania Leaves (*Bouea macrophylla* Griffith) Flavonoids Extract on *Aggregatibacter Actinomycetemcomitans* Bacteria Causing Aggressive Periodontitis. *Dentino: Jurnal Kedokteran Gigi*, 6(1), 25. <https://doi.org/10.20527/dentino.v6i1.10636>
- Krinke, G. J. (2000). *The laboratory rat*. Elsevier.
- Krishnamurthy, P., & Wadhwani, A. (2012). Antioxidant Enzymes and Human Health. *Antioxidant Enzyme*, 3–15. <https://doi.org/10.5772/48109>
- Kujath, P., & Michelsen, A. (2008). Wounds – From Physiology to Wound Dressing. *Deutsches Ärzteblatt International*, 105(13). <https://doi.org/10.3238/arztebl.2008.0239>
- Kumalasari, E., Susanto, Y., Rahmi, M. Y., & Febrianty, R. D. (2019). Pengaruh pemberian ekstrak etanol daun ramania (*bouea macrophylla griffith*) terhadap penurunan kadar gula darah mencit putih (*mus musculus*) yang diinduksi aloksan. *Journal Current Pharmaceutical Sciences*, 2(2), 2598–2095.
- Kumar, V., Ahmed, D., Gupta, P. S., Anwar, F., & Mujeeb, M. (2013). Anti-diabetic, antioxidant and anti-hyperlipidemic activities of *Melastoma malabathricum* Linn. leaves in streptozotocin induced diabetic rats. *BMC Complementary and Alternative Medicine*, 13, 1–19. <https://doi.org/10.1186/1472-6882-13-222>
- Kumar, V., Nagarajan, K., & Khan, A. A. (2013). Animal Models for The Evaluation of Wound Healing Activity. *International Bulletin of Drug Research, January*, 93–107.
- Kurahashi, T., & Fujii, J. (2015). Roles of antioxidative enzymes in wound healing. *Journal of Developmental Biology*, 3(2), 57–70. <https://doi.org/10.3390/jdb3020057>
- Kurnaz, M. L., & Aksan Kurnaz, I. (2021). Commercialization of medicinal bioeconomy resources and sustainability. *Sustainable Chemistry and Pharmacy*, 22(June), 100484. <https://doi.org/10.1016/j.scp.2021.100484>
- Kyaw, B. M., Järbrink, K., Martinengo, L., Car, J., Harding, K., & Schmidtchen, A. (2018). Need for improved definition of “chronic wounds” in clinical studies. *Acta Dermato-Venereologica*, 98(1), 157–158. <https://doi.org/10.2340/00015555-2786>
- Taufiqurrahman, I., Laila, F., & Irnamanda, D. (2018). Phytochemical and Cytotoxicity Testing of Ramania Leaves (*Bouea macrophylla* Griffith) Ethanol Extract toward Vero Cells Using MTT Assay Method. *Dentino Jurnal Kedokteran Gigi*, 11(1), 51–56.
- Lan, X. Y., Chung, T. T., Huang, C. L., Lee, Y. J., & Li, W. C. (2020). Traditional herbal medicine mediated regulations during head and neck carcinogenesis. *Biomolecules*, 10(9), 1–19. <https://doi.org/10.3390/biom10091321>
- Laporan Nasional Riskesdas. (2018). Laporan_Nasional_RKD2018_FINAL.pdf. In *Badan Penelitian dan Pengembangan Kesehatan* (p. 198).
- Laurens, N., Koolwijk, P., & de Maat, M. P. (2006). Fibrin structure and wound healing. *Journal of Thrombosis and Haemostasis: JTH*, 4(5), 932–939. <https://doi.org/10.1111/j.1538-7836.2006.01861.x>
- Laut, M., Ndaong, N. A., & Utami, T. (2019). Cutaneous wound healing activity of herbal ointment containing the leaf extract of *Acalypha indica* L. on mice (*Mus musculus*). *Journal of Physics: Conference Series*, 1146(1). <https://doi.org/10.1088/1742-6596/1146/1/012025>
- Layal, K. (2016). Peran Nrf2 Dalam Patogenesis Stres Oksidatif dan Inflamasi pada Penyakit Ginjal Kronik. *Syifa' MEDIKA: Jurnal Kedokteran Dan Kesehatan*, 7(1), 16.

- <https://doi.org/10.32502/sm.v7i1.1390>
- Lee, W. Y., Lee, C. Y., Kim, Y. S., & Kim, C. E. (2019). The methodological trends of traditional herbal medicine employing network pharmacology. *Biomolecules*, 9(8). <https://doi.org/10.3390/biom9080362>
- Lo, Z. J., Lim, X., Eng, D., Car, J., Hong, Q., Yong, E., Zhang, L., Chandrasekar, S., Tan, G. W. L., Chan, Y. M., Sim, S. C., Oei, C. W., Zhang, X., Dharmawan, A., Ng, Y. Z., Harding, K., Upton, Z., Yap, C. W., & Heng, B. H. (2020). Clinical and economic burden of wound care in the tropics: a 5-year institutional population health review. *International Wound Journal*, 17(3), 790–803. <https://doi.org/10.1111/iwj.13333>
- Lukitaruna, D., Hendrati, L. Y., & K.N, A. (2022). Gambaran Pelaksanaan Program Pengendalian dan Pemberantasan COVID-19 di Wilayah Kerja Puskesmas Keputih Surabaya 2020. *Preventif: Jurnal Kesehatan Masyarakat*, 13(1), 131–143. <https://doi.org/10.22487/preventif.v13i1.273>
- M. Alsen, M., & Sihombing, R. (2014). Infeksi Luka Operasi. *Majalah Kedokteran Sriwijaya*, 46(3), 229–235.
- Margono, S. (2005). *Metodologi penelitian pendidikan*. Rineka Cipta.
- Martínez, C. C., Gómez, M. D., & Oh, M. S. (2017). Use of traditional herbal medicine as an alternative in dental treatment in mexican dentistry: A review. *Pharmaceutical Biology*, 55(1), 1992–1998. <https://doi.org/10.1080/13880209.2017.1347188>
- Maryam, S. (2014). Aktivitas Antioksidan Pada Tempe Kacang Hijau Hasil Proses Fermentasi Menggunakan Inokulum Tradisional. *Seminar Nasional FMIPA UNDIKSHA IV Tahun*, 428–435.
- Maulana HDJ. *Promosi Kesehatan*. Buku Kedokteran EGC; 2009.
- Micha, R., Peñalvo, J. L., Cudhea, F., Imamura, F., Rehm, C. D., & Mozaffarian, D. (2017). Association between dietary factors and mortality from heart disease, stroke, and type 2 diabetes in the United States. *JAMA - Journal of the American Medical Association*, 317(9), 912–924. <https://doi.org/10.1001/jama.2017.0947>
- Mirando, A. C., E Silva, R. L., Chu, Z., Campochiaro, P. A., Pandey, N. B., & Popel, A. S. (2020). Suppression of ocular vascular inflammation through peptide-mediated activation of angiopoietin-tie2 signaling. *International Journal of Molecular Sciences*, 21(14), 1–20. <https://doi.org/10.3390/ijms21145142>
- Miwa, S., Muller, F. L., & Beckman, K. B. (2008). The Basics of Oxidative Biochemistry. *Oxidative Stress in Aging, January 2008*, 11–35. https://doi.org/10.1007/978-1-59745-420-9_2
- Moghadam, E. T., Yazdani, M., Tahmasebi, E., Tebyanian, H., Ranjbar, R., Yazdani, A., Seifalian, A., & Tafazoli, A. (2020). Current herbal medicine as an alternative treatment in dentistry: In vitro, in vivo and clinical studies. *European Journal of Pharmacology*, 889(June), 173665. <https://doi.org/10.1016/j.ejphar.2020.173665>
- Monzon, J., Liu, L., Brill, H., Goldstein, A. M., Tucker, M. A., From, L., McLaughlin, J., Hogg, D., & Lassam, N. J. (1998). CDKN2A Mutations in Multiple Primary Melanomas. *New England Journal of Medicine*, 338(13), 879–887. <https://doi.org/10.1056/nejm199803263381305>
- Mueller, M., Janngon, K., Puttipan, R., Unger, F. M., Viernstein, H., & Okonogi, S. (2015). Anti-inflammatory, antibacterial, and antioxidant activities of Thai medicinal plants. *International Journal of Pharmacy and Pharmaceutical Sciences*, 7(11), 123–128.
- Muhammad, B. Y., & Awaisu, A. (2008). The need for enhancement of research, development, and commercialization of natural medicinal products in Nigeria: Lessons from the Malaysian experience. *African Journal of Traditional*,

- Complementary and Alternative Medicines*, 5(2), 120–130.
- Taufiqurrahman, I., Muliawan, R., & Edyson. (2018). PERBEDAAN TOTAL Flavonoid Antara Metode Pengeringan Alami Dan Pengeringan Buatan Pada Ekstrak Daun Ramania (*Bouea macrophylla* Griffith). *Dentin*, 11(Vol 2, No 1 (2018)), 97–102. <https://ppjp.ulm.ac.id/journals/index.php/dnt/article/view/417>
- Munoz, U., & Castilla-Cortazar, I. (2012). Protection Against Oxidative Stress and “IGF-I Deficiency Conditions.” *Antioxidant Enzyme*. <https://doi.org/10.5772/51047>
- Taufiqurrahman, I., Nabilah, N., & Rasyid, N. I. (2021). The Comparison Of Ramania (*Bouea macrophylla* Griff) AND BINJAI (*Mangifera caesia*) Leaves Extract Gel Effect On Collagen Density. *Dentino: Jurnal Kedokteran Gigi*, 6(2), 159. <https://doi.org/10.20527/dentino.v6i2.11999>
- Naibaho, F. G., Putra, E. D., Panjaitan, D., & Wardhana, V. W. (2022). Analisis Molecular Docking Senyawa dari Jamur Endofit Bawang Dayak (*Eleutherine bulbosa*) Sebagai Inhibitor Lipase Pankreas. *Biosaintropis (Bioscience-Tropic)*, 7(2), 133–141. <https://doi.org/10.33474/e-jbst.v7i2.484>
- Nafiu, A. B., & Rahman, M. T. (2015). Anti-inflammatory and antioxidant properties of unripe papaya extract in an excision wound model. *Pharmaceutical Biology*, 53(5), 662–671. <https://doi.org/10.3109/13880209.2014.936470>
- Nguyen, N. H., Nguyen, T. T., Ma, P. C., Ta, Q. T. H., Duong, T. H., & Vo, V. G. (2020). Potential antimicrobial and anticancer activities of an ethanol extract from bouea macrophylla. *Molecules*, 25(8). <https://doi.org/10.3390/molecules25081996>
- Nguyen, N. T., Nguyen, T. H., Pham, T. N. H., Huy, N. T., Bay, M. Van, Pham, M. Q., Nam, P. C., Vu, V. V., & Ngo, S. T. (2020). Autodock Vina Adopts More Accurate Binding Poses but Autodock4 Forms Better Binding Affinity. *Journal of Chemical Information and Modeling*, 60(1), 204–211. <https://doi.org/10.1021/acs.jcim.9b00778>
- Nuneza, O. M., Rodriguez, B. C., & Nasiad, J. G. M. (2021). Ethnobotanical survey of medicinal plants used by the mamanwa tribe of surigao del norte and agusan del norte, Mindanao, Philippines. *Biodiversitas*, 22(6), 3284–3296. <https://doi.org/10.13057/BIODIV/D220634>
- Nurden, A. T. (2011). Platelets, inflammation and tissue regeneration. *Thrombosis and Haemostasis*, 105(SUPPL. 1), 13–33. <https://doi.org/10.1160/THS10-11-0720>
- Opatha, S. A. T., Titapiwatanakun, V., Boonpisutiinant, K., & Chutoprapat, R. (2022). Preparation, Characterization and Permeation Study of Topical Gel Loaded with Transfersomes Containing Asiatic Acid. *Molecules*, 27(15), 1–16. <https://doi.org/10.3390/molecules27154865>
- Opneja, A., Kapoor, S., & Stavrou, E. X. (2019). Contribution of platelets, the coagulation and fibrinolytic systems to cutaneous wound healing. *Thrombosis Research*, 179, 56–63. <https://doi.org/10.1016/j.thromres.2019.05.001>
- Palumpun, E. F., Wiraguna, A. A. G. P., Medicine, P. P. A., Penyakit, D., Andrologi, D., Kedokteran, F., & Udayana, U. (2017). Pemberian ekstrak daun sirih (*Piper betle*) secara topikal meningkatkan ketebalan epidermis, jumlah fibroblas, dan jumlah kolagen dalam proses penyembuhan luka pada tikus jantan galur Wistar (*Rattus norvegicus*) Wimpie Pangkahila Menjadi tua adalah su. 5.
- Pandey, A. K., Division, C., & Forest, N. (2017). *Biotechnological Approach For Medicinal Plant Conservation And Enhanced Production Of Secondary Metabolites Ashok Kumar Pandey * and Yogesh Chandra Tripathi Chemistry Division, Forest Research Institute, New Forest, Dehradun - 248006, Uttarakhand, India*. 4(11), 352–362. [https://doi.org/10.13040/IJPSR.0975-8232.IJP.4\(11\).352-62](https://doi.org/10.13040/IJPSR.0975-8232.IJP.4(11).352-62)
- Pane, M. H., Rahman, A. O., & Ayudia, E. I. (2021). Gambaran Penggunaan Obat Herbal

- Pada Masyarakat Indonesia Dan Interaksinya Terhadap Obat Konvensional Tahun 2020. *Journal of Medical Studies*, 1(1), 40–62.
- Pansara, C., Mishra, R., Mehta, T., Parikh, A., & Garg, S. (2020). Formulation of Chitosan Stabilized Silver Nanoparticle-Containing Wound Healing Film: In Vitro and In Vivo Characterization. *Journal of Pharmaceutical Sciences*, 109(7), 2196–2205. <https://doi.org/10.1016/j.xphs.2020.03.028>
- Pe, M. (2015). *The significance of sustainable development of natural product drugs*. Cordell 2011.
- Peltzer, K., & Pengpid, S. (2015). Utilization and practice of traditional/complementary/alternative medicine (T/CAM) in southeast asian nations(ASEAN) member states. *Studies on Ethno-Medicine*, 9(2), 209–218. <https://doi.org/10.1080/09735070.2015.11905437>
- Peltzer, K., & Pengpid, S. (2019). The use of herbal medicines among chronic disease patients in Thailand: A cross-sectional survey. *Journal of Multidisciplinary Healthcare*, 12, 573–582. <https://doi.org/10.2147/JMDH.S212953>
- Pemerintah RI. (2009). Undang-Undang Republik Indonesia Nomor 36 Tahun 2009 Tentang Kesehatan. In *Journal of Human Development*. http://www.keepeek.com/Digital-Asset-Management/oecd/development/the-world-economy_9789264022621-en#.WQjA_1Xyu70%23page3%0Ahttp://www.sciencemag.org/cgi/doi/10.1126/science.1191273%0Ahttps://greatergood.berkeley.edu/images/application_uploads/Diener-Subje
- Pešić, M., Podolski-Renić, A., Stojković, S., Matović, B., Zmejkoski, D., Kojić, V., Bogdanović, G., Pavićević, A., Mojović, M., Savić, A., Milenković, I., Kalauzi, A., & Radotić, K. (2015). Anti-cancer effects of cerium oxide nanoparticles and its intracellular redox activity. *Chemico-Biological Interactions*, 232, 85–93. <https://doi.org/10.1016/j.cbi.2015.03.013>
- Piters BDES, Alam G, Kop P Van De. Developing A Sustainable Medicinal-Plant Chain In India - Linking people, markets and values. *Agro-Food Chain Networks Dev*. Published online 2006:191-202.
- Pramono, W. B., Leksana, E., & Satoto, H. H. (2016). Pengaruh Pemberian Ropivakain Infiltrasi Terhadap Tampilan Kolagen Di Sekitar Luka Insisi Pada Tikus Wistar. *JAI (Jurnal Anestesiologi Indonesia)*, 8(1), 1. <https://doi.org/10.14710/jai.v8i1.11859>
- Prasetyono, T. O. H. (2009). General concept of wound healing, revisited. *Medical Journal of Indonesia*, 18(3), 208–216. <https://doi.org/10.13181/mji.v18i3.364>
- Primadina, N., Basori, A., & Perdanakusuma, D. S. (2019a). Proses Penyembuhan Luka Ditinjau Dari Aspek Mekanisme Seluler Dan Molekuler. *Qanun Medika*, 3(1), 31–43.
- Probst, Y. C., Guan, V. X., & Kent, K. (2017). Dietary phytochemical intake from foods and health outcomes: A systematic review protocol and preliminary scoping. *BMJ Open*, 7(2). <https://doi.org/10.1136/bmjopen-2016-013337>
- Purnama, H., Sriwidodo, & Ratnawulan, S. (2017). Review Sistematis: Proses Penyembuhan dan Perawatan Luka. *Farmaka*, 15(2), 251–256.
- Puspitasari, D., & Apriasari, M. L. (2017). Analysis of traumatic ulcer healing time under the treatment of the Mauli banana (*Musa acuminata*) 25% stem extract gel. *Padjadjaran Journal of Dentistry*, 29(1), 21–25. <https://doi.org/10.24198/pjd.vol29no1.11598>
- Qomariyah, L., Panjaitan, F. U. A., & Rosihan, A. (2021). ANTIBACTERIAL EFFECTIVITY OF FLAVONOID FRACTION OF RAMANIA LEAF EXTRACT (*Bouea macrophylla* Griffith) AGAINST *Porphyromonas gingivalis*. *Dentino : Jurnal*

- Kedokteran Gigi*, 6(1), 72. <https://doi.org/10.20527/dentino.v6i1.10644>
- Rachmadi, T. R., Wakhid Yuliyanto, Ari Waluyo, & Dyah Ekasari. (2022). Pelaksanaan Kegiatan Bulan Imunisasi Anak Nasional (BIAN) di 10 Desa Kecamatan Buluspesantren, Kabupaten Kebumen. *JURPIKAT (Jurnal Pengabdian Kepada Masyarakat)*, 3(2), 358–371. <https://doi.org/10.37339/jurpikat.v3i2.1017>
- Taufiqurrahman, I., Rahman, A., & Edyson. (2017). Perbedaan Total Flavonoid Antara Metode Maserasi dengan Sokletasi Pada Ekstrak Daun Ramania (*Bouea macrophylla* Griff). *Dentino Jurnal Kedokteran Gigi*, 1(1), 22–27.
- Rajan, N. S., & Bhat, R. (2017). Volatile constituents of unripe and ripe kundang fruits (*Bouea macrophylla* Griffith). *International Journal of Food Properties*, 20(8), 1751–1760. <https://doi.org/10.1080/10942912.2016.1218892>
- Rajan, N. S., Bhat, R., & Karim, A. (2014). Preliminary studies on the evaluation of nutritional composition of unripe and ripe 'Kundang' fruits (*Bouea macrophylla* Griffith). *International Food Research Journal*, 21(3), 985–990.
- Rambe, P. S., Putra, I. B., & Yosi, A. (2022). The effect of roselle leaf (*Hibiscus sabdariffa* L.) extract gel on wound healing. *Journal of Medicine and Life*, 15(10), 1246–1251. <https://doi.org/10.25122/jml-2021-0425>
- Rao, A. V., & Ali, A. (2007). Biologically active phytochemicals in human health: Lycopene. *International Journal of Food Properties*, 10(2), 279–288. <https://doi.org/10.1080/10942910601052673>
- Raynor, D. K., Dickinson, R., Knapp, P., Long, A. F., & Nicolson, D. J. (2011). Buyer beware? Does the information provided with herbal products available over the counter enable safe use? *BMC Medicine*, 9(August). <https://doi.org/10.1186/1741-7015-9-94>
- Rezvani Ghomi, E., Khalili, S., Nouri Khorasani, S., Esmaeely Neisiany, R., & Ramakrishna, S. (2019). Wound dressings: Current advances and future directions. *Journal of Applied Polymer Science*, 136(27), 1–12. <https://doi.org/10.1002/app.47738>
- Riyanti, H., Simanjutak, S. B. I., & Winarsi, H. (2014). Aktivitas Glutation Peroksidase dan Kadar Gula Darah Tikus Diabetes yang Diberi Ekstrak Daun Kapulaga (*Amomum cardamomum*). *Scripta Biologica*, 1(2), 153. <https://doi.org/10.20884/1.sb.2014.1.2.442>
- Taufiqurrahman, I., Rizkia, D., & Dewi, R. K. (2021). The Effect of Ramania Leaf (*Bouea Macrophylla* Griff) Extract Gel On Collagen Fibers Density in Incisional Wound Of Male Wistar Rats. *Dentino: Jurnal Kedokteran Gigi*, 6(1), 96. <https://doi.org/10.20527/dentino.v6i1.10648>
- Roni, A., Maruf, A., & Marliani, L. (2021). Uji Sitotoksik Ekstrak Tanaman Gandaria (*Bouea macrophylla* Griff) Terhadap Sel HeLa. *Jurnal Kimia Riset*, 6(1), 39. <https://doi.org/10.20473/jkr.v6i1.24254>
- Ross, R., Glomset, J., Kariya, B., & Harker, L. (1974). A platelet dependent serum factor that stimulates the proliferation of arterial smooth muscle cells in vitro. *Proceedings of the National Academy of Sciences of the United States of America*, 71(4), 1207–1210. <https://doi.org/10.1073/pnas.71.4.1207>
- Rudiana, T., Fitriyanti, F., & Adawiah, A. (2018). Aktivitas antioksidan dari batang Gandaria (*Bouea macrophylla* Griff). *EduChemia (Jurnal Kimia Dan Pendidikan)*, 3(2), 195. <https://doi.org/10.30870/educhemia.v3i2.3328>
- S. Susmitha, P. Meenambigai, R. Shyamala Gowri, K. U. H. and R. V. (2016). Purification of Catalase Enzyme from Nostoc and its Physiochemical Properties. *International Journal of Microbiological Research*, 7(1), 30–35. <https://doi.org/10.5829/idosi.ijmr.2016.7.1.96142>

- Sabirin, I. P., Maskoen, A. M., & Hernowo, B. S. (2013). Peran Ekstrak Etanol Topikal Daun Mengkudu (*Morinda citrifolia* L .) pada Penyembuhan Luka Ditinjau dari Imunoekspresi CD34 dan Kolagen pada Tikus Galur Wistar Role of Noni (*Morinda citrifolia* L .) Leaf Ethanolic Extract Topical Application on Wound Heal. *Majalah Kedokteran Bandung*, 45(4), 226–233.
- Saftia ayzki, Y. susanto. (2019). Proceeding of Sari Mulia University Pharmacy National Seminars Skrining Fitokimia Ekstrak Daun Ramania (*Bouea macrophylla* Griffith) Asal Kalimantan Selatan. *University Pharmacy National Seminar*, 1(1), 76–85.
- Sahaidullah, A., & Haque. (2010). Linking Medicinal Plant Production with Livelihood Enhancement in Bangladesh: Implications of a Vertically Integrated Value Chain. *The Journal of Transdisciplinary Environmental Studies*, 9(2), 1–18.
- Saknite, I., Zavorins, A., Jakovels, D., Spigulis, J., & Kisis, J. (2016). Comparison of single-spot technique and RGB imaging for indeks eritema estimation. *Physiological Measurement*, 37(3), 333–346. <https://doi.org/10.1088/0967-3334/37/3/333>
- Salcido, R. (2017). Pyoderma Gangrenosum: The Great Impostor. *Advances in Skin and Wound Care*, 30(12), 533. <https://doi.org/10.1097/01.ASW.0000526947.58641.df>
- Santosa, W. R. B., & Riyono, R. (2018). Perbandingan Efektifitas Pemberian Kompres Madu dan Kompres Gula Kristal terhadap Penyembuhan Luka pada Tikus Putih. *Strada Jurnal Ilmiah Kesehatan*, 7(1), 28–35. <https://doi.org/10.30994/sjik.v7i1.143>
- Sari, M. F., & Yuliani, S. H. (2015). Pembuatan Dan Uji Aktivitas Sediaan Gel Scarless Wound Dengan Ekstrak Binahong Dan Zat Aktif Ibuprofen Prita Patricia *) , Sri Hartati Yuliani Fakultas Farmasi, Universitas Sanata Dharma, Yogyakarta. 12(2), 54–60.
- Sayuti, K., & Yenrina, R. (2015). *Antioksidan Alami dan Sintetik*.
- Schmidt, H.-P. (2012). 55 Uses of Biochar. *Ithaka Journal*, 25(1/2012), 13–25.
- Seal, M., Rishi, R., Satish, G., Divya, K. T., Talukdar, P., & Maniyar, R. (2016). Herbal panacea: The need for today in dentistry. *Journal of International Society of Preventive and Community Dentistry*, 6(2), 105–109. <https://doi.org/10.4103/2231-0762.178744>
- Shaheed, K. A., Algaraawi, N. I., Alsultany, A. K., Abbas, Z. H., Khshayyish, I. K., & Al Khazali, M. T. (2019). Analysis of bioactive phytochemical compound of (*Cyperus iria* L.) by using gas chromatography -mass spectrometry. *IOP Conference Series: Earth and Environmental Science*, 388(1). <https://doi.org/10.1088/1755-1315/388/1/012064>
- Shanmuga Rajan, N., & Bhat, R. (2016). Antioxidant compounds and antioxidant activities in unripe and ripe kundang fruits (*Bouea macrophylla* Griffith). *Fruits*, 71(1), 41–47. <https://doi.org/10.1051/fruits/2015046>
- Shao, X., Yan, C., Sun, D., Fu, C., Tian, C., Duan, L., & Zhu, G. (2020). Association between glutathione peroxidase-1 (Gpx-1) polymorphisms and schizophrenia in the Chinese han population. *Neuropsychiatric Disease and Treatment*, 16, 2297–2305. <https://doi.org/10.2147/NDT.S272278>
- Sihombing, M., & Raflizar. (2010). Status Gizi dan Fungsi Hati Mencit (Galur CBS-Swiss) dan Tikus Putih (Galur Wistar). In *Media litbangkes* (Vol. 20, Issue 1, pp. 33–40).
- Simanjuntak, E. J., & Zulham, Z. (2020). Superoksida Dismutase (Sod) Dan Radikal Bebas. *Jurnal Keperawatan Dan Fisioterapi (JKF)*, 2(2), 124–129. <https://doi.org/10.35451/jkf.v2i2.342>
- Sjamsuhidajat, R. W. D. J., & De Jong, W. (2010). *Buku-Ajar Ilmu Bedah* (3rd ed.). buku kedokteran EGC.
- Smith, J. S. (2020). Variations in the aftercare of facial wounds: a survey of maxillofacial clinicians. *British Journal of Oral and Maxillofacial Surgery*, 58(5), 552–557.

- <https://doi.org/10.1016/j.bjoms.2020.02.010>
- Sorg, H., Tilkorn, D. J., Hager, S., Hauser, J., & Mirastschijski, U. (2017). Skin Wound Healing: An Update on the Current Knowledge and Concepts. *European Surgical Research*, 58(1–2), 81–94. <https://doi.org/10.1159/000454919>
- Suarsana, I., Wresdiyati, T., & Suprayogi, A. (2013). Respon Stres Oksidatif dan Pemberian Isoflavon terhadap Aktivitas Enzim Superoksida Dismutase dan Peroksidasi Lipid pada Hati Tikus. *Jitv*, 18(Th), 146–152.
- Sucianti, A., Yusa, N. M., & Sughita, I. M. (2021). Pengaruh Suhu Pengeringan Terhadap Aktivitas Antioksidan Dan Karakteristik Teh Celup Herbal Daun Mint (*Mentha piperita* L.). *Jurnal Ilmu Dan Teknologi Pangan (ITEPA)*, 10(3). <https://doi.org/10.24843/itepa.2021.v10.i03.p06>
- Suhartono, E., Bahriansyah, M., & Triawanti. (2016). The inhibition effect of kelakai (*Stenochlaena palustris*) extract on cadmium-induced glycation and fructation In-vitro. *International Journal of Pharmaceutical and Clinical Research*, 8(4), 248–253.
- Sukalingam, K. (2018). Preliminary phytochemical analysis and in vitro antioxidant properties of Malaysian 'Kundang' (*Bouea macrophylla* Griffith). *Trends in Pythochemical Research (TPR)*, 43(6), 261–266.
- Sultana, A., Hossain, M. J., Kuddus, M. R., Rashid, M. A., Zahan, M. S., Mitra, S., Roy, A., Alam, S., Sarker, M. M. R., & Mohamed, I. N. (2022). Ethnobotanical Uses, Phytochemistry, Toxicology, and Pharmacological Properties of *Euphorbia neriifolia* Linn. against Infectious Diseases: A Comprehensive Review. *Molecules*, 27(14). <https://doi.org/10.3390/molecules27144374>
- Sumarjo S. Mengenal Penyakit Menuju Sehat. *Medikora*. 2015;(1):66-82. doi:10.21831/medikora.v0i1.4706
- Sun, B. K., Siprashvili, Z., & Khavari, P. A. (2014). Advances in skin grafting and treatment of cutaneous wounds. *Science*, 346(6212), 941–945. <https://doi.org/10.1126/science.1253836>
- Sunarno, S., Damayanti, R., Devi, A., Fikri, M., Pratiwi, F., & Ayu, L. (2018). Aplikasi biomaterial aktif dari daging ikan gabus (*Channa striata*) untuk penyembuhan luka pascaoperasi pada hewan model tikus Wistar. *Jurnal Biologi Tropika*, 1(2), 13. <https://doi.org/10.14710/jbt.1.2.13-20>
- Supasuteekul, C., Nuamnaichati, N., Mangmool, S., Likhitwitayawuid, K., Tengamnuay, P., Putalun, W., & Sritularak, B. (2017). Antioxidant Activity and Upregulation of Antioxidant Enzymes of Phenolic Glycosides from *Aquilaria crassna* Leaves. *Natural Product Communications*, 12(11), 1691–1694. <https://doi.org/10.1177/1934578x1701201108>
- Surjantoro, A., Zarasade, L., & Hariani, L. (2022). Comparison of the effectiveness between single and repeated administration of topical Tretinoin 0.05% on full-thickness acute wound healing. *Bali Medical Journal*, 11(2), 779–783. <https://doi.org/10.15562/bmj.v11i2.3494>
- Susiarti, S., Rahayu, M., & Rugayah. (2018). Diversity of Indonesian Medicinal Plant in the lowland Forest, Bodogol and Its Surrounding of Mount Gede-Pangrango National Park, West Java. *IOP Conference Series: Earth and Environmental Science*, 166(1). <https://doi.org/10.1088/1755-1315/166/1/012021>
- Syafarina, M. (2017). Perbedaan total flavonoid antara tahap pengeringan alami dan buatan pada ekstrak daun binjai (*mangifera caesia*). *Kedokteran Gigi*, 1(1), 84–88.
- Taek, M. M., Tukan, G. D., Prajogo, B. E. W., & Agil, M. (2021). Antiplasmodial activity and phytochemical constituents of selected antimalarial plants used by native people in west timor Indonesia. *Turkish Journal of Pharmaceutical Sciences*, 18(1), 80–90. <https://doi.org/10.4274/tjps.galenos.2019.29000>

- Tanga, M., Lewu, F. B., Oyediji, A. O., & Oyediji, O. O. (2020). Yield and morphological characteristics of Burdock (*Arctium lappa* L.) in response to mineral fertilizer application. *Asian Journal of Agriculture and Biology*, 8(4), 511–518. <https://doi.org/10.35495/ajab.2019.11.524>
- Taufiqurrahman, I., Abdi, M., & Yusrinie, W. (n.d.). Effectiveness Of Ramania Leaves Extract (*Bouea macrophylla* Griff) Gel As An Antiseptic Against *Staphylococcus aureus*. *On Progress*.
- Taufiqurrahman, I., Aqilla, G. R., & Wydiamala, E. (2017). Uji Efektivitas Ekstrak Etanol Daun Ramania (*Bouea macrophylla* Griffith) Terhadap Mortalitas Larva *Artemia salina* Leach. *Dentino: Jurnal Kedokteran Gigi*, 2(2), 170–176. <https://ppjp.ulm.ac.id/journal/index.php/dentino/article/view/3995>
- Taufiqurrahman, I., Anita, R. S., Isyana, E., Putri, U. J., Zulkifli, A., Hadju, V., Suhartono, E., & Hendrawan, M. I. (n.d.). STUDI IN SILLICO ANTIINFLAMASI SENYAWA AKTIF EKSTRAK DAUN RAMANIA (*Bouea macrophylla* Griffith) TERHADAP PROTEIN KINASE C- β . *On Progress*.
- Taufiqurrahman, I., Denis, D. C., Edyson, E., Erlita, I., & Hendrawan, M. I. (n.d.). PERBANDINGAN AKTIVITAS ANTIOKSIDAN ANTARA METODE EKSTRAKSI MASERASI DENGAN SOKLETASI PADA EKSTRAK DAUN RAMANIA (*Bouea macrophylla* Griffith). *On Progress*.
- Taufiqurrahman I, Fitri L, DH I. Phytochemical and Cytotoxicity Testing Of Ramania Leaves (*Bouea macrophylla* Griffith) Ethanol Extraxt Towars Vero Cells Using MTT Assay Method. *Dentino J Kedokt Gigi*. 2018;III(1):51-56.
- Taufiqurrahman, I., Gupita, S. H. N., Oktiani, B. W., Panjaitan, F. U. A., Aspriyanto, D., Zulkifli, A., Hadju, V., Suhartono, E., & Erlita, I. (n.d.). The Effect Of Ramania Leaves Extract (*Bouea macrophylla* Griff) Gel On Osteoblast (in vivo Study of Post Extraction in Wistar Rats (*Rattus norvegicus*)). *On Progress*.
- Taufiqurrahman, I., Hadistina, M., Utami, J. P., Zulkifli, A., Hadju, V., Suhartono, E., Erlita, I., & Hendrawan, M. I. (n.d.). An In Silico Study Anti-Inflammatory of Active Compound of Ramania Leaves Extract (*Bouea macrophylla* Griffith) Againts Angiopoietin-2. *On Progress*.
- Taufiqurrahman, I., Juliani, R., Utami, J. P., Huldani, H., Oktiani, B. W., Zulkifli, A., Hadju, V., Suhartono, E., & Erlita, I. (n.d.). The Effect Of Ramania Leaves Extract (*Bouea macrophylla* Griff) Gel On Macrophage and Neovascular (in vivo Study of Post Extraction in Wistar Rats (*Rattus norvegicus*)). *On Progress*.
- Taufiqurrahman, I., Mahdjar, R. R., & Firdaus, I. W. A. K. (n.d.). THE EFFECT OF 15% concentrated ramania leaf gel extract (*Bouea macrophylla* Griffith) on the thickness of the epitel (in vivo study after Wistar Rats (*Rattis Norvegicus*) tooth extraction). *On Progress*.
- Taufiqurrahman, I., Ningrum, G. P., Wasiaturrahmah, Y., Utami, J. P., Zulkifli, A., Hadju, V., Suhartono, E., Erlita, I., & Muhammad Irpan Hendrawan. (n.d.). An in Silico Study Anti-Inflammatory Activity of Active Compounds *Bouea macrophylla* Griff Against Toll Like Receptors-4. *On Progress*.
- Taufiqurrahman, I., Norsaidah, N., Isyana, E., Putri, U. J., Zulkifli, A., Hadju, V., Suhartono, E., & Hendrawan, M. I. (n.d.). Studi in silico antiinflamasi senyawa aktif ekstrak daun ramania (*Bouea macrophylla* griff) terhadap reseptor siklooksigenase-2. *On Progress*.
- Teichert, M., Milde, L., Holm, A., Stanicek, L., Gengenbacher, N., Savant, S., Ruckdeschel, T., Hasanov, Z., Srivastava, K., Hu, J., Hertel, S., Bartol, A., Schlereth, K., & Augustin, H. G. (2017). Pericyte-expressed Tie2 controls angiogenesis and vessel maturation. *Nature Communications*, 8(May), 1–12.

- <https://doi.org/10.1038/ncomms16106>
- Thomford, N. E., Senthebane, D. A., Rowe, A., Munro, D., Seele, P., Maroyi, A., & Dzobo, K. (2018). Natural products for drug discovery in the 21st century: Innovations for novel drug discovery. *International Journal of Molecular Sciences*, 19(6). <https://doi.org/10.3390/ijms19061578>
- Tiarasari, R. (2014). *Rehabilitation and Disability Limitation of Youth 22 Years Old Morbus Hansen*. 3, 96–107.
- Timmermans, S., & Berg, M. (2003). The practice of medical technology. *Sociology of Health and Illness*, 25(SPEC. ISS.), 97–114. <https://doi.org/10.1111/1467-9566.00342>
- Tottoli, E. M., Dorati, R., Genta, I., Chiesa, E., Pisani, S., & Conti, B. (2020). Skin wound healing process and new emerging technologies for skin wound care and regeneration. *Pharmaceutics*, 12(8), 1–30. <https://doi.org/10.3390/pharmaceutics12080735>
- Tripathi, Y. C., & Voeks, R. (2017). Ethnobotany and its relevance in contemporary research. *Journal of Medicinal Plants*, 5(3), 123–129.
- Triyo Rachmadi, Titi Pudji Rahayu, Ari Waluyo, & Wakhid Yuliyanto. (2021). Pemberian Vaksinasi Covid-19 Bagi Masyarakat Kelompok Petugas Pelayanan Publik di Kecamatan Buluspesantren. *JURPIKAT (Jurnal Pengabdian Kepada Masyarakat)*, 2(2), 104–119. <https://doi.org/10.37339/jurpikat.v2i2.643>
- Untari, E. K., Wahdaningsih, S., & Damayanti, A. (2014). Efek Fraksi n-Heksana Kulit *Hylocereus polyrhizus* Terhadap Aktivitas Katalase Tikus Stres Oksidatif. *Pharmaceutical Sciences and Research*, 1(3), 141–153. <https://doi.org/10.7454/psr.v1i3.3489>
- Valenzuela-Silva, C. M., Tuero-Iglesias, A. D., Garcia-Iglesias, E., Gonzalez-Diaz, O., Del Rio-Martin, A., Alos, I. B. Y., Fernandez-montequin, J. I., & López-Saura, P. A. (2013). Granulation response and partial wound closure predict healing in clinical trials on advanced diabetes foot ulcers treated with recombinant human epidermal growth factor. *Diabetes Care*, 36(2), 210–215. <https://doi.org/10.2337/dc12-1323>
- Velnar, T., Bailey, T., & Smrkolj, V. (2009). The wound healing process: An overview of the cellular and molecular mechanisms. *Journal of International Medical Research*, 37(5), 1528–1542. <https://doi.org/10.1177/147323000903700531>
- Wardhani. (2013). Naskah Publikasi Naskah Publikasi. *Occupational Medicine*, 53(4), 130.
- Welz, A. N., Emberger-Klein, A., & Menrad, K. (2019). The importance of herbal medicine use in the German health-care system: Prevalence, usage pattern, and influencing factors. *BMC Health Services Research*, 19(1), 1–11. <https://doi.org/10.1186/s12913-019-4739-0>
- Weydert, C. J., & Cullen, J. J. (2010). Measurement of superoxide dismutase, catalase and glutathione peroxidase in cultured cells and tissue. *Nature Protocols*, 5(1), 51–66. <https://doi.org/10.1038/nprot.2009.197>
- Wicaksana A. Promosi Kesehatan Dalam Pengendalian Filariasis Health Promotion in the Control of Filariasis. 2016;10(02):89-96.
- Widodo, A. (2007). *Sensitivity instrument of assessment risk decubitus in Screening early detection risk of decubitus in moslem hospital of surakarta*. 8(1), 39–54.
- Willett, W. C. (1995). Diet, nutrition, and avoidable cancer. *Environmental Health Perspectives*, 103(SUPPL. 8), 165–170. <https://doi.org/10.1289/ehp.95103s8165>
- Winarsi, H. (2007). *Antioksidan Alami & Radikal Bebas*. Kanisius.
- Wintoko, R., Dwi, A., & Yadika, N. (2020). Manajemen Terkini Perawatan Luka Update Wound Care Management. *JK Unila*, 4, 183–189.

- Woldemariam, G., Demissew, S., & Asfaw, Z. (2021). An ethnobotanical study of traditional medicinal plants used for human ailments in yem ethnic group, south ethiopia. *Ethnobotany Research and Applications*, 22(Ahlberg 2017), 1–15. <https://doi.org/10.32859/ERA.22.09.1-15>
- World Health Organization (WHO). (1984). *Glossary of terms used in the "Health for All."* URL: <https://apps.who.int/iris/handle/10665/39565> [Accessed 2022-10-18].
- Yan, Z. X., Luo, Y., & Liu, N. F. (2017). Blockade of angiopoietin-2/Tie2 signaling pathway specifically promotes inflammation-induced angiogenesis in mouse cornea. *International Journal of Ophthalmology*, 10(8), 1187–1194. <https://doi.org/10.18240/ijo.2017.08.01>
- Younus, H. (2018). Therapeutic potentials of superoxide dismutase. . *International Journal of Health Sciences*, 12(3), 88–93. <http://www.ncbi.nlm.nih.gov/pubmed/29896077> <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC5969776>
- Yuan, H., Ma, Q., Ye, L., & Piao, G. (2016). The traditional medicine and modern medicine from natural products. *Molecules*, 21(5). <https://doi.org/10.3390/molecules21050559>
- Yunanto, A., Setiawan, B., & Suhartono, E. (2009). *Kapita Selektia Biokimia Peran Radikal Bebas Pada Intoksikasi.pdf*. Pustaka Banua.
- Yuniastuti, A., & Susanti, R. (2013). Analisis Sekuen Gen Glutation Peroksidase (Gpx1) Sebagai Deteksi Stres Oksidatif Akibat Infeksi Mycobacterium Tuberculosis. *Jurnal Sain Dan Teknologi*, 103–112.
- Zhang, Y. J., Gan, R. Y., Li, S., Zhou, Y., Li, A. N., Xu, D. P., Li, H. Bin, & Kitts, D. D. (2015). Antioxidant phytochemicals for the prevention and treatment of chronic diseases. *Molecules*, 20(12), 21138–21156. <https://doi.org/10.3390/molecules201219753>

LAMPIRAN

1. Ethical Clearance

	KOMISI ETIK PENELITIAN KESEHATAN FAKULTAS KEDOKTERAN GIGI UNIVERSITAS LAMBUNG MANGKURAT BANJARMASIN - INDONESIA <i>THE ETHICAL COMMITTEE OF MEDICAL RESEARCH ETHICS DENTISTRY FACULTY UNIVERSITY OF LAMBUNG MANGKURAT BANJARMASIN – INDONESIA</i>
KETERANGAN KELAIKAN ETIK (ETHICAL CLEARANCE) No. 069/KEPKG-FKGULM/EC/IV/2023 Komisi Etik Kesehatan Fakultas Kedokteran Gigi Universitas Lambung Mangkurat dengan memperhatikan hak asasi manusia dan kesejahteraan dalam penelitian kedokteran, setelah mempelajari dengan seksama rancangan penelitian yang diusulkan, dengan ini menyatakan bahwa penelitian dengan : <i>The Committee Of Medical Research Ethics Of Dentistry Faculty, Lambung Mangkurat University, with regards of the protection of human rights and welfare in medical research, has carefully reviewed the proposal entitled :</i> Judul : <i>Title :</i> PEMANFAATAN DAUN RAMANIA (<i>Bouea macrophylla</i> Griffith) UNTUK PENCEGAHAN KERADANGAN DAN PENYEMBUHAN LUKA <i>UTILIZATION OF RAMANIA LEAVES (<i>Bouea macrophylla</i> Griffith) FOR INFLAMMATION PREVENTION AND WOUND HEALING</i> Nama Peneliti : Irham Taufiqurrahman <i>Name of the investigator</i> Nama Institusi : Program Doktor Ilmu Kesehatan Masyarakat <i>Name of Institution</i> Universitas Hasanuddin Makassar <i>Doctor of Public Health Study Program University Of Hasanuddin Makassar</i> DINYATAKAN LAIK ETIK <i>Approved for ethical clearance</i> Banjarmasin, 06 April 2023 Komisi Etik Penelitian, <i>The ethical committee research</i>   drg. Sherli Diana, Sp.KG NIDN 198702272019032020	

2. Sertifikat Hasil Uji Determinasi Daun Ramania

2.1 Kabupaten Banjarbaru



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA
Alamat: Jl. Jend. A. Yani Km. 35.8 Banjarbaru Telp/Fax (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 033.d/LB.LABDASAR/II/2021

Nomor Referensi	: II-21-020	Tanggal Masuk	: 19 Februari 2021
Nama	: Rizki Ramadhiyanti M.	Tanggal Selesai	: 22 Februari 2021
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No. Invoice	: 030/TS-02/2021	Jenis Tumbuhan	: Daun Ramania

HABITUS
Pohon, tinggi mencapai 25 m.

DAUN
Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11-45 cm (panjang) dan 4 - 13 cm (lebar).

BATANG
Batang silindris, warna coklat.

AKAR
Akar tunggang.

BUAH
Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu.

BUNGA
Bunga muncul dari ketiak daun berbentuk malai, berwarna kekuningan yang kemudian berubah kecoklatan.

NAMA LOKAL
Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), ramieu (Gayo), barania (Dayak ngaju), dondoriah (Minangkabau), wates (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





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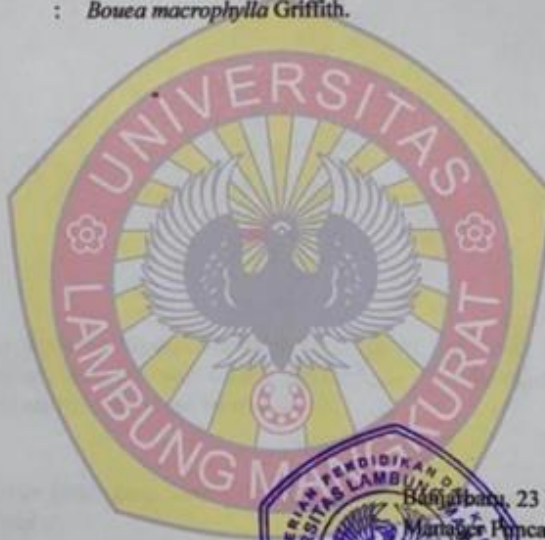
KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 033.d/LB.LABDASAR/II/2021

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	Bouea
Species	:	<i>Bouea macrophylla</i> Griffith.



Banjarbaru, 23 Februari 2021
Mutiara Puncak,

Dr. Totok Wianto, S.Si., M.Si.
NIP. 19780504 200312 1 004

2.2 Kabupaten Rantau



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,83 Banjarbaru Telp/Fax: (0511) 4772826, website: www.labdasar-ulm.ac.id

SERTIFIKAT HASIL UJI
Nomor: 153a/LB.LABDASAR/VIII/2022

Nomor Referensi	: VII-22-006	Tanggal Masuk	: 21 Juli 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 15 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No.Invoice	: 172/TS-07/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tunggang.

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, Biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai; bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarmasin Telp/Fax: (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 153a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	Bouea
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarmasin, 16 Agustus 2022

Manager Kuncak,

Dr. Firdaus Wianto, S.Si., M.Si.

NIP. 19780504 200312 1 004

NB : Sampel tanaman ramania diambil di Rantau

2.3 Kabupaten Marabahan



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35.8 Banjarbaru Telp/Fax (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 155a/LB.LABDASAR/VIII/2022

Nomor Referensi	: VII-22-006	Tanggal Masuk	: 21 Juli 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 15 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No Invoice	: 172/TS-07/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tunggang.

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai; bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 155a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	Bouea
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarbaru, 16 Agustus 2022

Manager Pascak,

Dr. Totok Trianto, S.Si., M.Si.

NIP 19780504 200312 1 004

NB : Sampel tanaman ramania diambil di Marabahan

2.4 Kabupaten Kandangan



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA**

Alamat: Jl. Jend. A. Yani Km. 35.8 Banjarbaru Telp/Fax: (0511) 4772826, website: www.labdasar-uriam.org

**SERTIFIKAT HASIL UJI
Nomor: 154a/LB.LABDASAR/VIII/2022**

Nomor Referensi	: VII-22-006	Tanggal Masuk	: 21 Juli 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 15 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No Invoice	: 172/TS-07/2022	Jenis Tumbuhan	: Ramanan

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tunggang.

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, Biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai; bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramanan (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax (0511) 4772826, website: www.labdasec-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 154a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	Bouea
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarbaru, 16 Agustus 2022

Manager Puncak,

Dr. Totok Wianto, S.Si., M.Si.

NIP. 19780504 200312 1 004

NB : Sampel tanaman ramania diambil di Kandangan

2.5 Kabupaten Balangan



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA**

Alamat: Jl. Jend. A. Yani Km. 35, Banjarbaru/Telp/Fax (0511) 4772826, website: www.labdasar-salam.org

**SERTIFIKAT HASIL UJI
Nomor: 156a/LB.LABDASAR/VIII/2022**

Nomor Referensi	: VII-22-006	Tanggal Masuk	: 21 Juli 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 15 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No Invoice	: 172/TS-07/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tunggang.

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai, bunga tetrameris, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 156a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	Bouea
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarbaru, 16 Agustus 2022

Manager Praktak,

Dr. Iotok Wianto, S.Si., M.Si.
NIP. 19780504 200312 1 004

NB : Sampel tanaman ramania diambil di Balangan

2.6 Kabupaten Pagatan



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA**

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax: (0511) 4772826, website: www.labdaser.unlam.org

**SERTIFIKAT HASIL UJI
Nomor: 164a/LB.LABDASAR/VIII/2022**

Nomor Referensi	: VIII-22-005	Tanggal Masuk	: 2 Agustus 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 23 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No Invoice	: 180/TS-08/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tunggang

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, Biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai; bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 164a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	Bouea
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarbaru, 23 Agustus 2022

Widyadarmas, Puncak,

Dr. Totok Wianto, S.Si., M.Si.

NIP. 19780904 200312 1 004

NB : Sampel tanaman ramania diambil di Pagatan

2.7 Kabupaten Batu Licin



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA**

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax: (0511) 4772826, website: www.labdasar-snlam.org

**SERTIFIKAT HASIL UJI
Nomor: 165a/LB.LABDASAR/VIII/2022**

Nomor Referensi	: VIII-22-005	Tanggal Masuk	: 2 Agustus 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 23 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No Invoice	: 180/TS-08/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tunggang.

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, Biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai; bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax: (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 165a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	Bouea
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarbaru, 23 Agustus 2022
Manager Puncak,

Dit. Protokol Wianto, S.Si., M.Si.
NIP. 19780404 200312 1 004

NB : Sampel tanaman ramania diambil di Bahulicin

2.8 Kabupaten Amuntai



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA**

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax (0511) 4772826, website: www.labdasar-salam.org

**SERTIFIKAT HASIL UJI
Nomor: 152a/LB.LABDASAR/VIII/2022**

Nomor Referensi	: VII-22-005	Tanggal Masuk	: 14 Juli 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 15 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No Invoice	: 171/TS-07/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau lorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tunggang

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai; bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax: (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 152a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	: Plantae
Divisi	: Magnoliophyta
kelas	: Magnoliopsida
Ordo	: Sapindales
Family	: Anacardiaceae
Genus	: Bouea
Species	: Bouea macrophylla Griffith.

Banjarbaru, 16 Agustus 2022

Manager Puncak,

Dr. Fandi Wianto, S.Si., M.Si.
NIP. 19780504 200312 1 004

NB : Sampel tanaman ramania diambil di Amuntai

3. Sertifikat hasil uji determinasi daun Pegagan



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru, Telp/Fax 05111 4772826, website: www.labdasar-onlam.org

SERTIFIKAT HASIL UJI
Nomor: 061a/LB.LABDASAR/II/2023

Nomor Referensi	: I-23-042	Tanggal Masuk	: 20 Januari 2023
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 27 Januari 2023
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No.Invoice	: 042/TS-01/2023	Jenis Tumbuhan	: Pegagan

HABITUS

Terna atau herba menahun.

DAUN

Daun tunggal, bertangkai panjang, dan terdiri dari 2-10 helai daun, dalam roset. Helaian daun berbentuk ginjal, panjang tangkai 1-50 cm, pada pangkal berbentuk pelepah, tepi bergerigi atau beringgit dan agak berambut.

BATANG

Tidak berbatang, mempunyai rimpang pendek dan stolon-stolon yang merayap, panjang 10-80 cm.

AKAR

Serabut.

BUAH

Buah majemuk tak terbatas, kecil bergantung, berbentuk lonjong, pipih, panjang 2-2,5 mm, baunya wangi, dan rasanya pahit.

BUNGA

Bunga tersusun dalam karangan berupa payung, tunggal atau 3-5 bunga bersama-sama keluar dari ketiak daun, dan berwarna merah muda atau putih.

NAMA LOKAL

Pegago (Minangkabau); antanan gede, antanan rambat (Sunda); ganggagan, kerok batok, pantegowang, panegowang, rendeng, calingan rambat, pegagan, atau gagan-gagan (Jawa); taidah (Bali); balele (Sasak, Nusa Tenggara); kelai lere (Sawo, Nusa Tenggara); wisu-wisu, pegaga (Makasar); daun tungke-tungke, cipubalawo (Bugis); hisuhisu (Aselayar, Sulawesi); kos tekosan, gan gagan (Madura); sarowati, kori-kori (Halmahera), kolotidi menora (Ternate), dan dogakue, gogakue, atau sandanan (Irian).



4. Sertifikat hasil uji determinasi daun *Camelia sinensis*



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA**

Alamat: Jl. Jend. A. Yani Km. 35.8 Banjarbaru, Telp./Fax (0511) 4772826, website: www.labdasar-ulm.org

**SERTIFIKAT HASIL UJI
Nomor: 121a/LB.LABDASAR/III/2023**

Nomor Referensi	: III-23-006	Tanggal Masuk	: 6 Maret 2023
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 27 Maret 2023
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No. Invoice	: 091/TS-03/2023	Jenis Tumbuhan	: Teh

HABITUS

Perdu atau pohon kecil.

DAUN

Daun tunggal; hijau muda dengan panjang 5 - 30 cm dan lebar sekitar 4 cm; ujung runcing, tepi rata, pangkal daun tumpul. Daun tua berwarna lebih gelap.

BATANG

Silindris, berkayu, warna coklat.

AKAR

Tunggang, warna coklat tua.

BUAH

Buahnya berbentuk pipih, bulat, dan terdapat satu biji dalam masing-masing buah dengan ukuran sebesar kacang.

BUNGA

Bunganya kuning-putih berdiameter 2,5-4 cm dengan 7 hingga 8 petal; diameter 2,5 - 4 cm dan biasanya berdiri sendiri atau saling berpasangan dua-dua.

NAMA LOKAL

Teh.



5. Sampel Daun Ramania dari beberapa wilayah di Kalimantan Selatan



6. Persiapan Perlakuan Hewan Coba



7. Evaporasi Ekstrak Ramania dan Camelia



8. Ruang Karantina Tikus



9. Proses Sondasi Teh



10. Hasil Pengambilan Sampel Darah Tikus



11. *Reagen* Aktivitas Enzim



12. *Full Set Kit Studio Foto*

