

DAFTAR PUSTAKA

- Abarca-vargas, R., Malacara, C. F. P., & Petricevich, V. L. (2016). Characterization of chemical compounds with antioxidant and cytotoxic activities in *Bougainvillea x buttiana* Holttum and Standl, (var. Rose) extracts. *Antioxidants*, 5(4), 45. <https://doi.org/10.3390/antiox5040045>
- Adelakun, O. E., Bolarinwa, I. F., & Adejuyitan, J. A. (2019). Bioactive compounds in plants and their antioxidant capacity. In M. R. Goyal & A. O. Ayeleso (Eds.), *Bioactive Compounds of Medicinal Plants: Properties and Potential for Human Health* (pp. 13–34). Apple Academic Press. <https://doi.org/10.1201/b10300-9>
- Ahmad, S., Ahmad, S., Bibi, A., Ishaq, M. S., Afridi, M. S., Kanwal, F., Zakir, M., & Fatima, F. (2014). Phytochemical analysis, antioxidant activity, fatty acids composition, and functional group analysis of *Heliotropium bacciferum*. *Scientific World Journal*, 2014. <https://doi.org/10.1155/2014/829076>
- Alara, O. R., Abdurahman, N. H., & Alara, J. A. (2020). *Carica papaya*: comprehensive overview of the nutritional values, phytochemicals and pharmacological activities. In *Advances in Traditional Medicine*. Springer Singapore. <https://doi.org/10.1007/s13596-020-00481-3>
- Altemimi, A., Lakhssassi, N., Baharlouei, A., Watson, D. G., & Lightfoot, D. A. (2017). Phytochemicals: Extraction, isolation, and identification of bioactive compounds from plant extracts. *Plants*, 6(4), 42. <https://doi.org/10.3390/plants6040042>
- Anderson, S., Allen, P., Peckham, S., & Goodwin, N. (2008). Scoping studies in the commissioning of research on the organisation and delivery of health services. *Health Research Policy and Systems*, 6(7), 1–12. <https://doi.org/10.1186/1478-4505-6-7>
- Anjum, V., Arora, P., Ansari, S. H., Najmi, A. K., & Ahmad, S. (2017). Antithrombocytopenic and immunomodulatory potential of metabolically characterized aqueous extract of *Carica papaya* leaves. *Pharmaceutical Biology*, 55(1), 2043–2056. <https://doi.org/10.1080/13880209.2017.1346690>
- Aravind, G., Bhowmik, D., Duraivel, S., & Harish, G. (2013). Traditional and medicinal uses of *Carica papaya*. *Journal of Medicinal Plants Studies*, 1(1), 7–15.
- Arctos. (2018). *Carica papaya in Arctos*. [https://arctos.database.museum/name/Carica papaya](https://arctos.database.museum/name/Carica%20papaya)

- Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19–32. <https://doi.org/10.1080/1364557032000119616>
- Aromataris, E., & Pearson, A. (2014). The systematic review: An overview. *The American Journal of Nursing*, 114(3), 53–58.
- Babbar, N. (2015). An introduction to alkaloids and their applications in pharmaceutical chemistry. *The Pharma Innovation Journal*, 4(10), 74–75.
- Bandaranayake, W. M. (2006). Quality control, screening, toxicity, and regulation of herbal drugs. In I. Ahmad, F. Aqil, & M. Owais (Eds.), *Modern Phytomedicine, Turning Medicinal Plants into Drugs* (pp. 25–58). John Wiley & Sons.
- Barbieri, R., Coppo, E., Marchese, A., Daglia, M., Sobarzo-Sánchez, E., Nabavi, S. F., & Nabavi, S. M. (2017). Phytochemicals for human disease: An update on plant-derived compounds antibacterial activity. *Microbiological Research*, 196, 44–68. <https://doi.org/10.1016/j.micres.2016.12.003>
- Barimah, J., Yanney, P., Laryea, D., & Quarcoo, C. (2017). Effect of drying methods on phytochemicals, antioxidant activity and total phenolic content of dandelion leaves. *American Journal of Food and Nutrition*, 5(4), 136–141. <https://doi.org/10.12691/ajfn-5-4-4>
- Basalingappa, K. M., Anitha, B., Raghu, N., Gopenath, T. S., Karthikeyan, M., Gnanasekaran, A., & Chandrashekrappa, G. K. (2018). Medicinal uses of *Carica papaya*. *Journal of Natural & Ayurvedic Medicine*, 2(6). <https://doi.org/10.23880/jonam-16000144>
- Bergonio, K. B., & Perez, M. A. (2016). The potential of male papaya (*Carica papaya*, L.) flower as a functional ingredient for herbal tea production. *Indian Journal of Traditional Knowledge*, 15(1), 41–49.
- Berk, Z. (2018). Extraction. In Z. Berk (Ed.), *Food Process Engineering and Technology (Third Edition)* (pp. 289–310). Academic Press. <https://doi.org/10.1016/c2016-0-03186-8>
- Bernhoft, A. (2010). A brief review on bioactive compounds in plants. In A. Bernhoft (Ed.), *Bioactive compounds in plants – benefits and risks for man and animals* (pp. 11–17). The Norwegian Academy of Science and Letters.
- Biesalski, H. K., Dragsted, L. O., Elmadfa, I., Grossklaus, R., Müller, M., Schrenk, D., Walter, P., & Weber, P. (2009). Bioactive compounds: Safety and efficacy. *Nutrition*, 25(11–12), 1206–1211. <https://doi.org/10.1016/j.nut.2009.06.014>

- BPS. (2022). *Produksi Buah-buahan Menurut Jenis Tanaman Menurut Provinsi, 2021*. BPS, Statistik Pertanian Hortikultura SPH.
https://www.bps.go.id/indikator/indikator/view_data_pub/0000/api_pub/SGJsZ0s5RjRyTWN1eDNyUERzbTI0Zz09/da_05/1
- Bravo, L. (1998). *Polyphenols : Chemistry, dietary sources, metabolism, and nutritional significance*. 56(11), 317–333.
- Calixto, J. B. (2005). Twenty-five years of research on medicinal plants in Latin America: A personal view. *Journal of Ethnopharmacology*, 100(1–2), 131–134. <https://doi.org/10.1016/j.jep.2005.06.004>
- Carbonell-Capella, J. M., Buniowska, M., Barba, F. J., Esteve, M. J., & Frígola, A. (2014). Analytical methods for determining bioavailability and bioaccessibility of bioactive compounds from fruits and vegetables: A review. *Comprehensive Reviews in Food Science and Food Safety*, 13(2), 155–171. <https://doi.org/10.1111/1541-4337.12049>
- Chang, T. S. (2009). An updated review of tyrosinase inhibitors. *International Journal of Molecular Sciences*, 10(6), 2440–2475. <https://doi.org/10.3390/ijms10062440>
- Chaves-Bedoya, G., & Nuñez, V. (2007). A SCAR marker for the sex types determination in Colombian genotypes of *Carica papaya*. *Euphytica*, 153(1–2), 215–220. <https://doi.org/10.1007/s10681-006-9256-7>
- Chen, X. D., & Putranto, A. (2013). *Modelling Drying Processes: A Reaction Engineering Approach : A reaction engineering approach*. Cambridge University Press. <https://doi.org/doi:10.1017/CBO9780511997846>
- Cheng, S. H., Barakatun-Nisak, M. Y., Anthony, J., & Ismail, A. (2015). Potential medicinal benefits of *Cosmos caudatus* (Ulam Raja): A scoping review. *Journal of Research in Medical Sciences*, 20(10), 1000–1006. <https://doi.org/10.4103/1735-1995.172796>
- Cheung, G. Y. C., Bae, J. S., & Otto, M. (2021). Pathogenicity and virulence of *Staphylococcus aureus*. *Virulence*, 12(1), 547–569. <https://doi.org/10.1080/21505594.2021.1878688>
- Chirinos, R., Campos, D., Pedreschi, R., & Larondelle, Y. (2007). Optimization of extraction conditions of antioxidant phenolic compounds from mashua (*Tropaeolum tuberosum* Ruiz & Pavón) tubers. *Separation and Purification Technology*, 55(2), 217–225. <https://doi.org/10.1016/j.seppur.2006.12.005>
- Choudhari, A. S., Mandave, P. C., Deshpande, M., Ranjekar, P., & Prakash, O. (2020). Phytochemicals in cancer treatment: From preclinical studies to clinical practice. *Frontiers in Pharmacology*, 10, 1–17.

<https://doi.org/10.3389/fphar.2019.01614>

- Choudhury, H., Pandey, M., Kui, C., Shi, C., Koh, J., Kong, L., Yee, L., Ahmad, N., Wai, S., Sin, T., Rao, M., Gorain, B., & Kesharwani, P. (2018). An update on natural compounds in the remedy of diabetes mellitus : A systematic review. *Journal of Traditional Chinese Medical Sciences*, 8(3), 361–376. <https://doi.org/10.1016/j.jtcme.2017.08.012>
- Colquhoun, H. L., Levac, D., O'Brien, K. K., Straus, S., Tricco, A. C., Perrier, L., Kastner, M., & Moher, D. (2014). Scoping reviews: Time for clarity in definition, methods, and reporting. *Journal of Clinical Epidemiology*, 67(12), 1291–1294. <https://doi.org/10.1016/j.jclinepi.2014.03.013>
- Davis, K., Drey, N., & Gould, D. (2009). What are scoping studies ? A review of the nursing literature. *International Journal of Nursing Studies*, 46(10), 1386–1400. <https://doi.org/10.1016/j.ijnurstu.2009.02.010>
- Desjardins, Y. (2019). Health effects and potential mode of action of papaya (*Carica papaya* L.) bioactive chemicals. *Acta Horticulturae*, 1250, 197–208. <https://doi.org/10.17660/ActaHortic.2019.1250.28>
- Devi, S. V., & Prakash, N. K. U. (2011). A study on phytochemistry, antimicrobial, antifungal and antioxidant properties of male flower of *Carica papaya* L. *International Journal of Applied Biology*, 2(3), 20–23.
- Dotto, J. M., & Abihudi, S. A. (2021). Nutraceutical value of *Carica papaya*: A review. *Scientific African*, 13, e00933. <https://doi.org/10.1016/j.sciaf.2021.e00933>
- Dwivedi, M. K., Sonter, S., Mishra, S., Patel, D. K., & Singh, P. K. (2020). Antioxidant, antibacterial activity, and phytochemical characterization of *Carica papaya* flowers. *Beni-Suef University Journal of Basic and Applied Sciences*, 9(1), 1–11. <https://doi.org/10.1186/s43088-020-00048-w>
- Elgharbawy, A. A., Samsudin, N., Benbelgacem, F. F., Hashim, Y. Z. H., & Salleh, H. M. (2020). Phytochemicals with antifungal properties : Cure from nature. *Malaysian Journal of Microbiology*, 16(4). <https://doi.org/10.21161/mjm>
- Enemor, V. H. A., Nworji, O. F., Ogbodo, U. C., Ngwu, O. R., Orji, E. C., & Ohagim, I. O. (2020). Screening of *Carica papaya* seeds for pharmacologically bioactive and nutritionally beneficial substances for optimization of its nutraceutical potential. *European Journal of Nutrition & Food Safety*, 12(11), 59–66. <https://doi.org/10.9734/ejnfs/2020/v12i1130319>
- Espín, J. C., García-Conesa, M. T., & Tomás-Barberán, F. A. (2007). Nutraceuticals: Facts and fiction. *Phytochemistry*, 68(22–24), 2986–3008. <https://doi.org/10.1016/j.phytochem.2007.09.014>

- Ezez, D., & Tefera, M. (2021). Effects of solvents on total phenolic content and antioxidant activity of ginger extracts. *Journal of Chemistry*, 2021, Article 6635199. <https://doi.org/10.1155/2021/6635199>
- FAO. (2022). *FAOSTAT: Crops and livestock products*. Food and Agriculture Organization of the United Nations. <https://www.fao.org/faostat/en/#data/QCL>
- Fernandes, M. S., & Kerkar, S. (2017). Microorganisms as a source of tyrosinase inhibitors : a review. *Annals of Microbiology*, 67(4), 343–358. <https://doi.org/10.1007/s13213-017-1261-7>
- Fernández-García, E., Carvajal-Lérida, I., & Pérez-Gálvez, A. (2009). In vitro bioaccessibility assessment as a prediction tool of nutritional efficiency. *Nutrition Research*, 29(11), 751–760. <https://doi.org/10.1016/j.nutres.2009.09.016>
- Filipiak, A., Chrapek, M., Wawszczak, M., Głuszek, S., Majchrzak, M., Wróbel, G., Łysek-Gładysińska, M., Gniadkowski, M., & Adamus-Białek, W. (2020). Pathogenic factors correlate with antimicrobial resistance among clinical *Proteus mirabilis* strains. *Frontiers in Microbiology*, 11, 2896. <https://doi.org/10.3389/fmicb.2020.579389>
- Forbes, J. M., & Cooper, M. E. (2013). Mechanisms of diabetic complications. *Physiological Reviews*, 93(1), 137–188. <https://doi.org/10.1152/physrev.00045.2011>
- Fraga-Corral, M., García-Oliveira, P., Pereira, A. G., Lourenço-Lopes, C., Jimenez-Lopez, C., Prieto, M. A., & Simal-gandara, J. (2020). Technological application of tannin-based extracts. *Molecules*, 25(3), 614.
- Gad, S. C. (2011). Alternatives to in vivo studies in toxicology. In B. Ballantyne, T. C. Marrs, T. Syversen, D. A. Casciano, & S. C. Sahu (Eds.), *General, Applied and Systems Toxicology*. John Wiley & Sons.
- Galanakis, C. M., Goulas, V., Tsakona, S., Manganaris, G. A., & Gekas, V. (2013). A knowledge base for the recovery of natural phenols with different solvents phenols with different solvents. *International Journal Of Food Properties*, 16(2), 382–396. <https://doi.org/10.1080/10942912.2010.522750>
- Gillbro, J. M., & Olsson, M. J. (2011). The melanogenesis and mechanisms of skin-lightening agents - existing and new approaches. *International Journal of Cosmetic Science*, 33(3), 210–221. <https://doi.org/10.1111/j.1468-2494.2010.00616.x>

- Grant, M. J., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal*, 26(2), 91–108. <https://doi.org/10.1111/j.1471-1842.2009.00848.x>
- Guaadaoui, A., Benaicha, S., Elmajdoub, N., Bellaoui, M., & Hamal, A. (2014). What is a bioactive compound? A combined definition for a preliminary consensus. *International Journal of Food Sciences and Nutrition*, 3(3), 174–179. <https://doi.org/10.11648/j.ijnfs.20140303.16>
- Halder, S., & Khaled, K. L. (2021). Anti-nutritional profiling from the edible flowers of *Allium cepa*, *Cucurbita maxima* and *Carica papaya* and its comparison with other commonly consumed flowers. *International Journal of Herbal Medicine*, 9(5), 55–61. <https://doi.org/10.22271/flora.2021.v9.i6a.784>
- Hariono, M., Julianus, J., Djunarko, I., Hidayat, I., Adelya, L., Indayani, F., Auw, Z., Namba, G., & Hariyono, P. (2021). The future of *Carica papaya* leaf extract as an herbal medicine product. *Molecules*, 26(22), 6922. <https://doi.org/10.3390/molecules26226922>
- Horváth, G., Bencsik, T., Ács, K., & Kocsis, B. (2016). Sensitivity of ESBL-producing gram-negative bacteria to essential oils, plant extracts, and their isolated compounds. In K. Kon & M. Rai (Eds.), *Antibiotic Resistance: Mechanisms and New Antimicrobial Approaches* (Issue 2, pp. 239–269). Academic Press. <https://doi.org/10.1016/B978-0-12-803642-6.00012-5>
- Ikram, E. H. K., Stanley, R., Netzel, M., & Fanning, K. (2015). Phytochemicals of papaya and its traditional health and culinary uses - A review. *Journal of Food Composition and Analysis*, 41, 201–211. <https://doi.org/10.1016/j.jfca.2015.02.010>
- Iqbal, J., Abbasi, B. A., Mahmood, T., Kanwal, S., Ali, B., Shah, S. A., & Khalil, A. T. (2017). Plant-derived anticancer agents: A green anticancer approach. *Asian Pacific Journal of Tropical Biomedicine*, 7(12), 1129–1150. <https://doi.org/10.1016/j.apjtb.2017.10.016>
- Jackson, C. M., Esnouf, M. P., Winzor, D. J., & Duewer, D. L. (2007). Defining and measuring biological activity: Applying the principles of metrology. *Accreditation and Quality Assurance*, 12(6), 283–294. <https://doi.org/10.1007/s00769-006-0254-1>
- Jiménez, V. M., Mora-Newcomer, E., & Gutiérrez-Soto, M. V. (2014). Biology of the Papaya Plant. In R. Ming & P. H. Moore (Eds.), *Genetics and Genomics of Papaya* (pp. 17–33). Springer Science + Business Media. <https://doi.org/10.1007/978-1-4614-8087-7>

- Jothivel, N., Ponnusamy, S. P., Appachi, M., Singaravel, S., Rasilingam, D., Deivasigamani, K., & Thangavel, S. (2007). Anti-diabetic activity of methanol leaf extract of *Costus pictus* D. DON in alloxan-induced diabetic rats. *Journal of Health Science*, 53(6), 655–663. <https://doi.org/10.1248/jhs.53.655>
- Kadiri, O., Olawoye, B., Fawale, O. S., & Adalumo, O. A. (2016). Nutraceutical and antioxidant properties of the seeds, leaves and fruits of *Carica papaya*: Potential relevance to humans diet, the food industry and the pharmaceutical industry - A review. *Turkish Journal of Agriculture - Food Science and Technology*, 4(12), 1039–1052. <https://doi.org/10.24925/turjaf.v4i12.1039-1052.569>
- Kaper, J. B., Nataro, J. P., & Mobley, H. L. T. (2004). Pathogenic *Escherichia coli*. *Nature Reviews Microbiology*, 2(2), 123–140. <https://doi.org/10.1038/nrmicro818>
- Karaś, M., Jakubczyk, A., Szymanowska, U., Złotek, U., & Zielińska, E. (2017). Digestion and bioavailability of bioactive phytochemicals. *International Journal of Food Science and Technology*, 52(2), 291–305. <https://doi.org/10.1111/ijfs.13323>
- Khalil, H., Peters, M. D., Tricco, A. C., Pollock, D., Alexander, L., McInerney, P., Godfrey, C. M., & Munn, Z. (2021). Conducting high quality scoping reviews- challenges and solutions. *Journal of Clinical Epidemiology*, 130, 156–160. <https://doi.org/10.1016/j.jclinepi.2020.10.009>
- Khameneh, B., Iranshahy, M., Soheili, V., & Bazzaz, F. (2019). Review on plant antimicrobials: a mechanistic viewpoint. *Antimicrobial Resistance and Infection Control*, 8(1), 1–28. <https://doi.org/https://doi.org/10.1186/s13756-019-0559-6>
- Khan, M., Ahmed, J., Gul, A., Ikram, A., & Lalani, F. K. (2018). Antifungal susceptibility testing of vulvovaginal *Candida* species among women attending antenatal clinic in tertiary care hospitals of Peshawar. *Infection and Drug Resistance*, 11, 447–456. <https://doi.org/10.2147/IDR.S153116>
- Kola, P., Metowogo, K., Kantati, Y. T., Lawson-Evi, P., Kpemissi, M., El-Hallouty, S. M., Mouzou, A. P., Eklugadegbeku, K., & Aklikokou, K. A. (2020). Ethnopharmacological survey on medicinal plants used by traditional healers in central and kara regions of Togo for antitumor and chronic wound healing effects. *Evidence-Based Complementary and Alternative Medicine*, 2020, Article ID 6940132. <https://doi.org/10.1155/2020/6940132>
- Kris-Etherton, P. M., Hecker, K. D., Bonanome, A., Coval, S. M., Binkoski, A. E., Hilpert, K. F., Griel, A. E., & Etherton, T. D. (2002). Bioactive compounds in foods: Their role in the prevention of cardiovascular disease and cancer. *American Journal of Medicine*, 113(9), 71–88. <https://doi.org/10.1016/s0002->

9343(01)00995-0

- Krishna, K. L., Paridhavi, M., & Patel, J. A. (2008). Review on nutritional, medicinal and pharmacological properties of papaya (*Carica papaya* linn.). *Indian Journal of Natural Products and Resources*, 7(4), 364–373.
- Lako, J., Trenerry, V. C., Wahlqvist, M., Wattanapenpaiboon, N., Sotheeswaran, S., & Premier, R. (2007). Phytochemical flavonols, carotenoids and the antioxidant properties of a wide selection of Fijian fruit, vegetables and other readily available foods. *Food Chemistry*, 101(4), 1727–1741. <https://doi.org/10.1016/j.foodchem.2006.01.031>
- Le Thao My, P., Van Luc, T., Do Dat, T., Hoai Thanh, V., Khanh Duy, H., Thanh Phong, M., Minh Nam, H., & Huu Hieu, N. (2020). Optimization of flavonoids extraction from vietnamese male papaya (*Carica papaya*, L.) flowers by ultrasound-assissted method and testing bioactivities of the extract. *ChemistrySelect*, 5(42), 13407–13416. <https://doi.org/10.1002/slct.202002723>
- Leitão, M., Ribeiro, T., García, P. A., Barreiros, L., & Correia, P. (2022). Benefits of fermented papaya in human health. *Foods*, 11(4), 563. <https://doi.org/10.3390/foods11040563>
- Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: advancing the methodology. *Implementation Science*, 5(69), 1–9. <https://doi.org/10.1186/1748-5908-5-69>
- Li, W., Yuan, G., Pan, Y., Wang, Co., & Chen, H. (2017). Network pharmacology studies on the bioactive compounds and action mechanisms of natural products for the treatment of diabetes mellitus: A review. *Frontiers in Pharmacology*, 8, 74. <https://doi.org/10.3389/fphar.2017.00074>
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., Clarke, M., Devereaux, P. J., Kleijnen, J., & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: explanation and elaboration. *BMJ*, 339, b2700. <https://doi.org/10.1136/bmj.b2700>
- Lien, G. T. K., Van, D. T. T., Cuong, D. H., Yen, P. H., Tai, B. H., & Kiem, P. Van. (2019). A new phenolic constituent from *Carica papaya* flowers and its tyrosinase inhibitory activity. *Natural Product Communications*, 14(7). <https://doi.org/10.1177/1934578X19850987>
- Lim, T. K. (2012). *Carica papaya*. In *Edible medicinal and non-medicinal plants* (Vol. 1). Springer. <http://link.springer.com/10.1007/978-90-481-8661-7>

- Lim, X. Y., Tan, T. Y. C., Rosli, S. H. M., Saat, M. N. F., Ali, S. S., & Mohamed, A. F. S. (2021). *Cannabis sativa* subsp. *sativa*'s pharmacological properties and health effects: A scoping review of current evidence. *PLoS ONE*, 16(1), Article e0245471. <https://doi.org/10.1371/journal.pone.0245471>
- Liu, R. H. (2004). Potential synergy of phytochemicals in cancer prevention: Mechanism of action. *Journal of Nutrition*, 134(12), 3479–3485. <https://doi.org/10.1093/jn/134.12.3479s>
- Ma, H., Moore, P. H., Liu, Z., Kim, M. S., Yu, Q., Fitch, M. M. M., Sekioka, T., Paterson, A. H., & Ming, R. (2004). High-density linkage mapping revealed suppression of recombination at the sex determination locus in papaya. *Genetics*, 166(1), 419–436.
- Marpaung, F. S., Tampubolon, E. J. br, Andika, M. I., Lubis, Y. E. P., & Mutia, M. S. (2021). The effectiveness test of papaya (*Carica papaya* L.) flower extract on blood sugar level of the sucrose-induced male mice (*Mus musculus* L.). *Biospecies*, 14(1), 24–31.
- Marston, A., & Hostettmann, K. (2006). Separation and quantification of flavonoids. In Ø. M. Andersen & K. R. Markham (Eds.), *Flavonoids: chemistry, biochemistry and applications* (pp. 1–36). CRC Press LLC.
- Martinez, R. M. (2013). *Bacillus subtilis*. In S. Maloy & K. Hughes (Eds.), *Brenner's Encyclopedia of Genetics, 2nd Edition* (Vol. 1). Elsevier Inc. <https://doi.org/10.1016/B978-0-12-374984-0.00125-X>
- Martirosyan, D. M., & Singh, J. (2015). A new definition of functional food by FFC: What makes a new definition unique? *Functional Foods in Health and Disease*, 5(6), 209–223. <https://doi.org/10.31989/ffhd.v5i6.183>
- Ming, R., Yu, Q., & Moore, P. H. (2007). Sex determination in papaya. *Seminars in Cell and Developmental Biology*, 18(3), 401–408. <https://doi.org/10.1016/j.semcdb.2006.11.013>
- Mitra, S., & Dash, R. (2018). Natural products for the management and prevention of breast cancer. *Evidence-Based Complementary and Alternative Medicine*, 2018, Article ID 8324696. <https://doi.org/10.1155/2018/8324696>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & Group, T. P. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, 6(7), Article e1000097. <https://doi.org/10.1371/journal.pmed.1000097>
- Monteiro, C. de A., & Santos, J. R. A. dos. (2020). Phytochemicals and their antifungal potential against pathogenic yeasts. In V. Rao, D. Mans, & L. Rao (Eds.), *Phytochemicals in Human Health*. InTechOpen.

<https://doi.org/10.5772/intechopen.87302>

- Moreau, R. A., Harron, A. F., Powell, M. J., & Hoyt, J. L. (2016). A comparison of the levels of oil, carotenoids, and lipolytic enzyme activities in modern lines and hybrids of grain sorghum. *Journal of the American Oil Chemists' Society*, 93(4), 569–573. <https://doi.org/10.1007/s11746-016-2799-4>
- Morton, J. (1987). Papaya. In J. F. Morton (Ed.), *Fruits of Warm Climates* (pp. 336–346). Creative Resource Systems Inc. https://hort.purdue.edu/newcrop/morton/papaya_ars.html
- Mukhaimin, I., Saraswati, E. A., Ajizah, R., & Triyastuti, M. S. (2019). Product quality of quercetin extract from *Carica Papaya* L flower by microwave-assisted extraction (MAE). *Jurnal Rekayasa Kimia & Lingkungan*, 14(2), 139–146. <https://doi.org/10.23955/rkl.v14i2.14598>
- Mukherjee, P. K. (2019). Extraction and other downstream procedures for evaluation of herbal drugs. In *Quality Control and Evaluation of Herbal Drugs* (pp. 195–236). Elsevier Inc. [https://doi.org/https://doi.org/10.1016/B978-0-12-813374-3.00006-5](https://doi.org/10.1016/B978-0-12-813374-3.00006-5)
- Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., Mcarthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, 18(1), 1–7. [https://doi.org/https://doi.org/10.1186/s12874-018-0611-x](https://doi.org/10.1186/s12874-018-0611-x)
- Nainggolan, M., & Kasmirul. (2015). Cytotoxicity activity of male *Carica papaya* L . flowers on MCF-7 breast cancer cells. *Journal of Chemical and Pharmaceutical Research*, 7(5), 772–775.
- Nantasenamat, C., Isarankura-Na-Ayudhya, C., & Prachayasittikul, V. (2010). Advances in computational methods to predict the biological activity of compounds. *Expert Opinion on Drug Discovery*, 5(7), 633–654. <https://doi.org/10.1517/17460441.2010.492827>
- Nawaz, H., Shad, M. A., Rehman, N., Andaleeb, H., & Ullah, N. (2020). Effect of solvent polarity on extraction yield and antioxidant properties of phytochemicals from bean (*Phaseolus vulgaris*) seeds. *Brazilian Journal of Pharmaceutical Sciences*, 56, Article e17129. <https://doi.org/10.1590/s2175-97902019000417129>
- Nga, V. T., Trang, N. T. H., Tuyet, N. T. A., Phung, N. K. P., Duong, N. T. T., & Thu, N. T. H. (2020). Ethanol extract of male *Carica papaya* flowers demonstrated non-toxic against MCF-7, HEP-G2, HELA, NCI-H460 cancer cell lines. *Vietnam Journal of Chemistry*, 58(1), 86–91. <https://doi.org/10.1002/vjch.2019000142>

- Nugroho, A., Heryani, H., Choi, J. S., & Park, H. J. (2017). Identification and quantification of flavonoids in *Carica papaya* leaf and peroxynitrite-scavenging activity. *Asian Pacific Journal of Tropical Biomedicine*, 7(3), 208–213. <https://doi.org/10.1016/j.apjtb.2016.12.009>
- Okos, M. R., Campanella, O., Namsimhan, G., Singih, R. K., & Weitnauer, A. C. (2007). Food Dehydration. In D. R. Heldman & D. B. Lund (Eds.), *Handbook of Food Engineering* (Second ed., pp. 601–744). CRC Press.
- Osbourn, A., Goss, J. M., & Field, R. A. (2011). The saponins – polar isoprenoids with important and diverse biological activities. *Natural Product Reports*, 28(7), 1261–1268. <https://doi.org/10.1039/c1np00015b>
- Otsuki, N., Dang, N. H., Kumagai, E., Kondo, A., Iwata, S., & Morimoto, C. (2010). Aqueous extract of *Carica papaya* leaves exhibits anti-tumor activity and immunomodulatory effects. *Journal of Ethnopharmacology*, 127(3), 760–767. <https://doi.org/10.1016/j.jep.2009.11.024>
- Paterson, A. H., Felker, P., Hubbel, S. P., & Ming, R. (2008). The fruits of tropical plant genomics. *Tropical Plant Biology*, 1(1), 3–19. <https://doi.org/10.1007/s12042-007-9004-8>
- Person, A. K., Chudgar, S. M., Norton, B. L., Tong, B. C., & Stout, J. E. (2010). *Aspergillus niger*: An unusual cause of invasive pulmonary aspergillosis. *Journal of Medical Microbiology*, 59(7), 834–838. <https://doi.org/10.1099/jmm.0.018309-0>
- Peters, M. D. J., Godfrey, C. M., Khalil, H., McInerney, P., Parker, D., & Soares, C. B. (2015). Guidance for conducting systematic scoping reviews. *International Journal of Evidence-Based Healthcare*, 13(3), 141–146. <https://doi.org/10.1097/XEB.0000000000000050>
- Peters, M. D. J., Marnie, C., Tricco, A. C., Pollock, D., Munn, Z., Alexander, L., McInerney, P., Godfrey, C. M., & Khalil, H. (2020). Updated methodological guidance for the conduct of scoping reviews. *JBIM Evidence Synthesis*, 18(10), 2119–2126. <https://doi.org/10.11124/JBIES-20-00167>
- Peters, M., Godfrey, C., McInerney, P., Baldini Soares, C., Khalil, H., & Parker, D. (2017). Chapter 11: Scoping Reviews. In: Aromataris E, Munn Z (Editors). In *Joanna Briggs Institute Reviewer's Manual*. The Joanna Briggs Institute.
- Peters, M., Godfrey, C., McInerney, P., Munn, Z., Tricco, A., & Khalil, H. (2020). Chapter 11: Scoping Reviews (2020 version). In: Aromataris E, Munn Z (Editors). In *JBIM Manual for Evidence Synthesis*. JBI. <https://doi.org/doi.org/10.46658/JBIMES-20-12>

- Peters, M., Godfrey, C., McInerney, P., Soares, C., Khalil, H., & Parker, D. (2015). Chapter 11: Scoping reviews. In: Aromataris E, Munn Z, (Editors). *JBIR Reviewer's Manual*.
- Phongpaichit, S., Nikom, J., Rungjindamai, N., Sakayaroj, J., Hutadilok-Towatana, N., Rukachaisirikul, V., & Kirtikara, K. (2007). Biological activities of extracts from endophytic fungi isolated from *Garcinia* plants. *FEMS Immunology and Medical Microbiology*, 51(3), 517–525. <https://doi.org/10.1111/j.1574-695X.2007.00331.x>
- Podschun, R., & Ullmann, U. (1998). *Klebsiella* spp. as nosocomial pathogens: epidemiology, taxonomy, typing methods, and pathogenicity factors. *Clinical Microbiology Reviews*, 11(4), 589–603. <https://www.ncbi.nlm.nih.gov.proxy-ub.rug.nl/pmc/articles/PMC88898/pdf/cm000589.pdf>
- Poswal, F. S., Russell, G., Mackonochie, M., MacLennan, E., Adukwu, E. C., & Rolfe, V. (2019). Herbal teas and their health benefits: A scoping review. *Plant Foods for Human Nutrition*, 74(3), 266–276. <https://doi.org/10.1007/s11130-019-00750-w>
- Putriani, N., Perdana, J., Meiliana, & Nugrahedi, P. Y. (2020). Effect of thermal processing on key phytochemical compounds in green leafy vegetables: A review. *Food Reviews International*, 1–29. <https://doi.org/10.1080/87559129.2020.1745826>
- Qaseem, A., Barry, M. J., Humphrey, L. L., Forciea, M. A., Clinical Guidelines Committee of the American College of Physicians, Fitterman, N., Boyd, C., Horwitch, C., Iorio, A., Kansagara, D., Manaker, S., McLean, R. M., Vijan, S., & Wilt, T. J. (2017). Oral pharmacologic treatment of type 2 diabetes mellitus: A clinical practice guideline update from the American college of physicians. *Annals of Internal Medicine*, 166(4), 279–290. <https://doi.org/10.7326/M16-1860>
- Ranjan, A., Ramachandran, S., Gupta, N., Kaushik, I., Wright, S., Srivastava, S., Das, H., Srivastava, S., Prasad, S., & Srivastava, S. K. (2019). Role of phytochemicals in cancer prevention. *International Journal of Molecular Sciences*, 20(20), 4981. <https://doi.org/10.3390/ijms20204981>
- Ren, W., Qiao, Z., Wang, H., Zhu, L., & Zhang, L. (2003). Flavonoids: Promising anticancer agents. *Medicinal Research Reviews*, 23(4), 519–534. <https://doi.org/10.1002/med.10033>
- Rivera-Pastrana, D. M., Yahia, E. M., & González-Aguilar, G. A. (2010). Phenolic and carotenoid profiles of papaya fruit (*Carica papaya* L.) and their contents under low temperature storage. *Journal of the Science of Food and Agriculture*, 90(14), 2358–2365. <https://doi.org/10.1002/jsfa.4092>

- Rodrigo, R. (2009). *Oxidative stress and antioxidants: their role in human disease*. Nova.
- Rossiter, S. E., Fletcher, M. H., & Wuest, W. M. (2017). Natural products as platforms to overcome antibiotic resistance. *Chemical Reviews*, 117(19), 12415–12474. <https://doi.org/10.1021/acs.chemrev.7b00283>
- Saba, S., & Pattan, N. (2022). The potential health benefits of papaya seeds. *International Journal for Research in Applied Science & Engineering Technology*, 10(1), 44–50. <https://doi.org/https://doi.org/10.22214/ijraset.2022.39271>
- Saini, R. K., Shetty, N. P., Prakash, M., & Giridhar, P. (2014). Effect of dehydration methods on retention of carotenoids, tocopherols, ascorbic acid and antioxidant activity in *Moringa oleifera* leaves and preparation of a RTE product. *Journal of Food Science and Technology*, 51(9), 2176–2182. <https://doi.org/10.1007/s13197-014-1264-3>
- Santana, L. F., Inada, A. C., Santo, B. L. S. d E., Filiú, W. F. O., Pott, A., Alves, F. M., Guimarães, R. C. A., Freitas, K. C., & Hiane, P. A. (2019). Nutraceutical potential of *Carica papaya* in metabolic syndrome. *Nutrients*, 11(7), 1608. <https://doi.org/doi:10.3390/nu11071608>
- Santos, D. C. dos, Barboza, A. da S., Ribeiro, J. S., Junior, S. A. R., Campos, Â. D., & Lund, R. G. (2022). *Bixa orellana* L. (Achiote, Annatto) as an antimicrobial agent: A scoping review of its efficiency and technological prospecting. *Journal of Ethnopharmacology*, 287, 114961. <https://doi.org/10.1016/j.jep.2021.114961>
- Santoso, H. B. (2021). *Farm Bigbook : Budi Daya Sayuran Indigenous di Kebun dan Pot*. Penerbit Andi.
- Sarker, M. M. R., Islam, K. N., Huri, H. Z., Rahman, M., Imam, H., Hosen, M. B., Mohammad, N., & Sarker, M. Z. I. (2014). Studies of the impact of occupational exposure of pharmaceutical workers on the development of antimicrobial drug resistance. *Journal of Occupational Health*, 56, 260–270. <https://doi.org/10.1539/joh.14-0012-OA>
- Sasidharan, S., Chen, Y., Saravanan, D., Sundram, K. M., & Latha, L. Y. (2011). Extraction, isolation and characterization of bioactive compounds from plants' extracts. *African Journal of Traditional, Complementary and Alternative Medicines*, 8(1), 1–10. <https://doi.org/10.4314/ajtcam.v8i1.60483>
- Sharma, A., Bachheti, A., Sharma, P., Bachheti, R. K., & Husen, A. (2020). Phytochemistry, pharmacological activities, nanoparticle fabrication, commercial products and waste utilization of *Carica papaya* L.: A comprehensive review. *Current Research in Biotechnology*, 2, 145–160.

<https://doi.org/10.1016/j.crbiot.2020.11.001>

- Sianipar, M. P., Suwarso, E., & Rosidah, R. (2018). Antioxidant and anticancer activities of hexane fraction from *Carica papaya* L. male flower. *Asian Journal of Pharmaceutical and Clinical Research*, 11(3), 81–83. <https://doi.org/10.22159/ajpcr.2018.v11i3.22382>
- Silva, J. A. T. d, Rashid, Z., Tan, D., Dharini, N., Gera, A., Souza, M. T., & Tennant, P. F. (2007). Papaya (*Carica papaya* L.) biology and biotechnology. *Tree and Forestry Science and Biotechnology*, 1(1), 47–73.
- Singh, S. P., Kumar, S., Mathan, S. V., Tomar, M. S., Singh, R. K., Verma, P. K., Kumar, A., Kumar, S., Singh, R. P., & Acharya, A. (2020). Therapeutic application of *Carica papaya* leaf extract in the management of human diseases. *DARU Journal of Pharmaceutical Sciences*, 28(2), 735–744. <https://doi.org/10.1007/s40199-020-00348-7>
- Snyder, L. R. (1974). Classification of the solvent properties of common liquids. *Journal of Chromatography*, 92(2), 223–230. <https://doi.org/10.1017/CBO9780511720895.015>
- Sobir. (2010). *Sukses Bertanam Pepaya Unggul Kualitas Supermarket*. AgroMedia.
- Solano, F., Briganti, S., Picardo, M., & Ghanem, G. (2006). Hypopigmenting agents: An updated review on biological, chemical and clinical aspects. *Pigment Cell Research*, 19(6), 550–571. <https://doi.org/10.1111/j.1600-0749.2006.00334.x>
- Stamp, N. (2003). Out of the quagmire of plant defense hypotheses. *Quarterly Review of Biology*, 78(1), 23–55. <https://doi.org/10.1086/367580>
- Stănciuc, N., & Râpeanu, G. (2019). Kinetics of phytochemicals degradation during thermal processing of fruits beverages. In A. M. Grumezescu & A. M. Holban (Eds.), *Non-alcoholic Beverages, Volume 6: The Science of Beverages*. Woodhead Publishing. <https://doi.org/10.1016/B978-0-12-815270-6.00013-X>
- Talukdar, N., Barchung, S., & Barman, I. (2021). Phytochemical screening and study of total protein content, antimicrobial activity of the male flower of *Carica papaya* L. *Research Journal of Agricultural Sciences*, 12(5), 1540–1542.
- Tan, C. X., Tan, S. T., & Tan, S. S. (2020). An overview of papaya seed oil extraction methods. *International Journal of Food Science and Technology*, 55(4), 1506–1514. <https://doi.org/10.1111/ijfs.14431>
- Taylor, J. L. S., Rabe, T., McGaw, L. J., Jäger, A. K., & Van Staden, J. (2001). Towards the scientific validation of traditional medicinal plants. *Plant Growth Regulation*, 34(1), 23–37. <https://doi.org/10.1023/A:1013310809275>

- Thakur, M., Singh, K., & Khedkar, R. (2020). Phytochemicals: extraction process, safety assessment, toxicological evaluations, and regulatory issues. In B. Prakash (Ed.), *Functional and Preservative Properties of Phytochemicals*. Academic Press. <https://doi.org/10.1016/b978-0-12-818593-3.00011-7>
- Tjitrosoepomo, G. (2005). *Morfologi Tumbuhan*. Gadjah Mada University Press.
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K., Colquhoun, H., Kastner, M., Levac, D., Ng, C., Sharpe, J. P., Wilson, K., Kenny, M., Warren, R., Wilson, C., Stelfox, H. T., & Straus, S. E. (2016). A scoping review on the conduct and reporting of scoping reviews. *BMC Medical Research Methodology*, 16, 15. <https://doi.org/10.1186/s12874-016-0116-4>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., ... Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, 169(7), 467–473. <https://doi.org/10.7326/M18-0850>
- Truong, D. H., Nguyen, D. H., Ta, N. T. A., Bui, A. V., Do, T. H., & Nguyen, H. C. (2019). Evaluation of the use of different solvents for phytochemical constituents, antioxidants, and in vitro anti-inflammatory activities of *Severinia buxifolia*. *Journal of Food Quality*, 2019, Article ID 8178294. <https://doi.org/10.1155/2019/8178294>
- Ukpabi, S. C., Emmanuel, O., Henry, C. C., & Chizaram, E. (2015). Chemical composition of *Carica papaya* flower (paw-paw). *International Journal of Scientific Research and Engineering Studies*, 2(3), 55–57.
- Van, D. T. T., Cuong, D. H., Lien, G. T. K., & Yen, P. H. (2020). Phytochemical study of the ethyl acetate extract of male *Carica papaya* flowers from Quang Nam – Da Nang. *Vietnam Journal of Chemistry*, 58(2), 145–150. <https://doi.org/10.1002/vjch.201900029>
- Vashistha, P., Yadav, A., Dwivedi, U. N., & Yadav, K. (2016). Genetics of sex chromosomes and sex-linked molecular markers in papaya (*Carica papaya* L.). *Molecular Plant Breeding*, 7(28), 1–18. <https://doi.org/10.5376/mpb.2016.07.0028>
- Velu, G., Palanichamy, V., & Rajan, A. P. (2018). Phytochemical and pharmacological importance of plant secondary metabolites in modern medicine. In S. Roopan & G. Madhumitha (Eds.), *Bioorganic Phase in Natural Food: An Overview* (pp. 135–156). Springer, Cham. <https://doi.org/10.1007/978-3-319-74210-6>

- Vogt, N. A., Vriezen, E., Nwosu, A., & Sargeant, J. M. (2021). A scoping review of the evidence for the medicinal use of natural honey in animals. *Frontiers in Veterinary Science*, 7, Article 618301. <https://doi.org/10.3389/fvets.2020.618301>
- World Health Organization (WHO). (2004). *WHO guidelines on safety monitoring of herbal medicines in pharmacovigilance systems*. World Health Organisation. <https://apps.who.int/medicinedocs/documents/s7148e/s7148e.pdf>
- Yu, Q., Navajas-Pérez, R., Tong, E., Robertson, J., Moore, P. H., Paterson, A. H., & Ming, R. (2008). Recent Origin of Dioecious and Gynodioecious Y Chromosomes in Papaya. *Tropical Plant Biology*, 1(1), 49–57. <https://doi.org/10.1007/s12042-007-9005-7>
- Yusnita, Y., Masfria, M., Rosidah, R., & Iksen, I. (2018). Effect of hexane fraction from papaya (*Carica papaya* L.) male flower on cell cycle of colon adenocarcinoma (WiDr) cell and its combination index with doxorubicin. *Asian Journal of Pharmaceutical and Clinical Research*, 11(7), 138–140. <https://doi.org/10.22159/ajpcr.2018.v11i7.25023>
- Zhang, Q. W., Lin, L. G., & Ye, W. C. (2018). Techniques for extraction and isolation of natural products: A comprehensive review. *Chinese Medicine*, 13(1), 1–26. <https://doi.org/10.1186/s13020-018-0177-x>
- Zolghadri, S., Bahrami, A., Khan, M. T. H., Munoz-Munoz, J., Garcia-Molina, F., Garcia-Canovas, F., & Saboury, A. A. (2019). A comprehensive review on tyrosinase inhibitors. *Journal of Enzyme Inhibition and Medicinal Chemistry*, 34(1), 279–309. <https://doi.org/10.1080/14756366.2018.1545767>
- Zunjar, V., Mammen, D., & Trivedi, B. M. (2015). Natural product research : formerly natural product letters antioxidant activities and phenolics profiling of different parts of *Carica papaya* by LCMS-MS. *Natural Product Research*, 29(22), 2097–2099. <https://doi.org/10.1080/14786419.2014.986658>