

## DAFTAR PUSTAKA

- Adekola, F. A., Hodonou, D. S. S., & Adegoke, H. I. (2016). Thermodynamic and kinetic studies of biosorption of iron and manganese from aqueous medium using rice husk ash. *Applied Water Science*, 6(4), 319-330.
- Adimas, Z. T., Habitu, T. A., Adimas, M. A., & Abera, B. D. (2024). The effect of concentration of cinnamon extract and storage time on physicochemical, microbial and sensory attributes of avocado juice. *Applied Food Research*, 4(2). <https://doi.org/10.1016/j.afres.2024.100585>
- Agustin, N., Susanti, D. Y., & Kurniawan, M. P. (2026). Sustainable Extraction of Cinnamon Phenolics through Synergy of Green Solvents and Microwave-Assisted Technology. *Jurnal Teknik Pertanian Lampung (Journal of Agricultural Engineering)*, 15(1), 243–255. <https://doi.org/10.23960/jtepl.v15i1.243-255>
- Alizadeh Behbahani, B., Falah, F., Lavi Arab, F., Vasiee, M., & Tabatabaee Yazdi, F. (2020). Chemical Composition and Antioxidant, Antimicrobial, and Antiproliferative Activities of Cinnamomum zeylanicum Bark Essential Oil. *Evidence-Based Complementary and Alternative Medicine*, 2020. <https://doi.org/10.1155/2020/5190603>
- Alwi, A. L., Nuraisyah, A., Ulma, Z., Mastutik, L., & Nirmala, R. Perbandingan Kadar Air Green Bean Dan Roast Bean Kopi Robusta Gumitir Jember Berdasarkan Metode Pengolahan Dan Level Roasting.
- Aventi. (2015). Penelitian Pengukuran Kadar Air Buah. *Seminar Nasional Cendekiawan*, 1(1), 12–27.
- Benjamin, C., Paul, M. F., & Fidel, T. (2016). Coffee: Health Effects. In *Encyclopedia of Food and Health*. Academic Press is an imprint of Elsevier.
- Bhatt, K., Vaidya, D., Kaushal, M., Gupta, A., Soni, P., Arya, P., Gautam, A & Sharma, C. (2020). Microwaves and radiowaves: in food processing and preservation. *International Journal of Current Microbiology and Applied Sciences*, 9(9), 118-131.
- Bindon, K. A., Bacic, A., & Kennedy, J. A. (2012). Tissue-specific and developmental modifications of grape cell walls influence the adsorption of proanthocyanidins. *Journal of Agricultural and Food Chemistry*, 60(36), 9249–9260. <https://doi.org/10.1021/jf301552t>
- De Bruyn, F., Zhang, S. J., Pothakos, V., Torres, J., Lambot, C., Moroni, A. V., Callanan, M., Sybesma, W., Weckx, S., & De Vuyst, L. (2017). Exploring the impacts of postharvest processing on the microbiota and metabolite profiles during green coffee bean production. *Applied and Environmental Microbiology*, 83(1). <https://doi.org/10.1128/AEM.02398-16>
- Demircan, H., Oral, R. A., Toker, O. S., & Palabiyik, I. (2024). Investigation of the Effects of Phenolic Extracts Obtained from Agro-Industrial Food Wastes on Gelatin Modification. *ACS Omega*, 9(18), 20263–20276. <https://doi.org/10.1021/acsomega.4c00690>
- Dias, R. C. E., & Benassi, M. de T. (2015). Discrimination between arabica and robusta coffees using hydrosoluble compounds: Is the efficiency of the parameters dependent on the roast degree? *Beverages*, 1(3), 127–139. <https://doi.org/10.3390/beverages1030127>

- Dong, W., Cheng, K., Hu, R., Chu, Z., Zhao, J., & Long, Y. (2018). Effect of microwave vacuum drying on the drying characteristics, color, microstructure, and antioxidant activity of green coffee beans. *Molecules*, 23(5). <https://doi.org/10.3390/molecules23051146>
- Dong, W., Kitamura, Y., Kokawa, M., Suzuki, T., & Amini, R. K. (2024). Microstructural Modification and Sorption Capacity of Green Coffee Beans. *Foods*, 13(21). <https://doi.org/10.3390/foods13213398>
- Elayadi, F., Boumya, W., Achak, M., Chhiti, Y., Alaoui, F. E. M. hamdi, Barka, N., & Adlouni, C. El. (2021). Experimental and modeling studies of the removal of phenolic compounds from olive mill wastewater by adsorption on sugarcane bagasse. *Environmental Challenges*, 4. <https://doi.org/10.1016/j.envc.2021.100184>
- Erskine, E., Gültekin Subaşlı, B., Vahapoglu, B., & Capanoglu, E. (2022). Coffee Phenolics and Their Interaction with Other Food Phenolics: Antagonistic and Synergistic Effects. In *ACS Omega* (Vol. 7, Number 2, pp. 1595–1601). American Chemical Society. <https://doi.org/10.1021/acsomega.1c06085>
- Fachrully Septiano, A., & Erna Setyaningsih, N. (2021). Analisis Citra Hasil Scanning Electron Microscopy Energy Dispersive X-Ray (SEM EDX) Komposit Resin Timbal dengan Metode Contrast to Noise Ratio (CNR). In *Indonesian Journal of Mathematics and Natural Sciences* (Vol. 44, Number 2). <http://journal.unnes.ac.id/nju/index.php/JM>
- Fan, Y., Li, J., Guo, Y., Xie, L., & Zhang, G. (2021). Digital image colorimetry on smartphone for chemical analysis: A review. *Measurement: Journal of the International Measurement Confederation*, 171(June 2020), 108829. <https://doi.org/10.1016/j.measurement.2020.108829>
- Grzelczyk, J., Budryn, G., Kołodziejczyk, K., & Ziętała, J. (2024). The Influence of Maceration and Flavoring on the Composition and Health-Promoting Properties of Roasted Coffee. *Nutrients*, 16(17). <https://doi.org/10.3390/nu16172823>
- Gumulya, D., & Helmi, I. S. (2017). Kajian Bidaya Minum Kopi Indonesia. *Dimensi*, 13(2), 153–172.
- Guo, J., Jiang, X., Tian, Y., Yan, S., Liu, J., Xie, J., Zhang, F., Yao, C., & Hao, E. (2024). Therapeutic Potential of Cinnamon Oil: Chemical Composition, Pharmacological Actions, and Applications. In *Pharmaceuticals* (Vol. 17, Number 12). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/ph17121700>
- Hameed, A., Hussain, S. A., Ijaz, M. U., Ullah, S., Pasha, I., & Suleria, H. A. R. (2018). Farm to Consumer: Factors Affecting the Organoleptic Characteristics of Coffee. II: Postharvest Processing Factors. *Comprehensive Reviews in Food Science and Food Safety*, 17(5), 1184–1237. <https://doi.org/10.1111/1541-4337.12365>
- Hamid Nour, A., Ruth Oluwaseun, A., Hamid Nour, A., Suliman Omer, M., & Ahmed, N. (2021). *Microwave-Assisted Extraction of Bioactive Compounds (Review)*. InTechOpen. [www.intechopen.com](http://www.intechopen.com)
- Harianja, Y. J., Ginting, S., Suhaidi, I., Studi Ilmu dan Teknologi Pangan Fakultas Pertanian USU Medan Jl Sofyan No, P. A., & USU Medan, K. (2019). PENGARUH PENAMBAHAN EKSTRAK KULIT KAYU MANIS (Cinnamomum burmanii Blume) SEBAGAI BAHAN PENGAWET ALAMI

UNTUK MENINGKATKAN UMUR SIMPAN MINUMAN KOPI. In *Ilmu dan Teknologi Pangan J.Rekayasa Pangan dan Pert* (Vol. 7).

- Hong, S. M., Kamaruddin, A. H., & Nadzir, M. M. (2023). A Review on Extraction, Antimicrobial Activities and Toxicology of Cinnamomum cassia in Future Food Protection. In *Biointerface Research in Applied Chemistry* (Vol. 13, Number 6). AMG Transcend Association. <https://doi.org/10.33263/BRIAC136.581>
- Hussain, S. Z., & Maqbool, K. (2014). GC-MS: Principle, Technique and its application in Food Science. *Int J Curr Sci*, 13, 116–126.
- Indrawanto, C., Kamawati, E., Munarso, Prastowo, S., Rubijo, B., & Siswanto. (2010). *Budidaya dan Pascapanen Kopi*. Pusat Penelitian dan Pengembangan Perkebunan.
- International Coffee Organization (ICO). (2025). *Coffee Market Report – February 2025*. <https://www.ico.org/documents/cy2024-25/cmr-0225-e.pdf>
- Izza, H. F., Susanti, D. Y., Mariyam, S., & Saputro, A. D. (2023). Performance of microwave-assisted extraction of proanthocyanidins from red sorghum grain in various power and citric acid concentration. *Journal of the Saudi Society of Agricultural Sciences*, 22(7), 480–492. <https://doi.org/10.1016/j.jssas.2023.05.002>
- Jaramillo Jimenez, B. A., Awwad, F., & Desgagné-Penix, I. (2024). Cinnamaldehyde in Focus: Antimicrobial Properties, Biosynthetic Pathway, and Industrial Applications. In *Antibiotics* (Vol. 13, Number 11). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/antibiotics13111095>
- Joardder, M. U. H., & Karim, A. (2023). Pore Evolution in Cell Walls of Food Tissue during Microwave-Assisted Drying: An In-Depth Investigation. *Foods*, 12(13). <https://doi.org/10.3390/foods12132497>
- Kaseke, T., Opara, U. L., & Fawole, O. A. (2020). Effect of microwave pretreatment of seeds on the quality and antioxidant capacity of pomegranate seed oil. *Foods*, 9(9). <https://doi.org/10.3390/foods9091287>
- Khwaja, O., Siddiqui, M. H., & Younis, K. (2020). Underutilized kadam (Neolamarckia cadamba) fruit: Determination of some engineering properties and drying kinetics. *Journal of the Saudi Society of Agricultural Sciences*, 19(6), 401–408. <https://doi.org/10.1016/j.jssas.2020.06.001>
- Killday, K. B., Davey, M. H., Glinski, J. A., Duan, P., Veluri, R., Proni, G., Daugherty, F. J., & Tempesta, M. S. (2011). Bioactive A-type proanthocyanidins from Cinnamomum cassia. *Journal of Natural Products*, 74(9), 1833–1841. <https://doi.org/10.1021/np1007944>
- Klejdus, B., & Kováčik, J. (2016). Quantification of phenols in cinnamon: A special focus on “total phenols” and phenolic acids including DESI-Orbitrap MS detection. *Industrial Crops and Products*, 83, 774–780. <https://doi.org/10.1016/j.indcrop.2015.11.060>
- Koro Roasters. (2024). *Discovering the world of coffee processing methods: From fruit to cup*. Koro Roasters. <https://koro.id/blogs/beans-and-beyond/discovering-the-world-of-coffee-processing-methods-from-fruit-to-cup>
- Kutluay, S., Şahin, Ö., & Baytar, O. (2024). Enhanced benzene vapor adsorption through microwave-assisted fabrication of activated carbon from peanut shells

- using ZnCl<sub>2</sub> as an activating agent. *Environmental Science and Pollution Research*, 31(19), 27935–27948. <https://doi.org/10.1007/s11356-024-32973-z>
- Lazaridis, D. G., Kitsios, A. P., Koutoulis, A. S., Malisova, O., & Karabagias, I. K. (2024). Fruits, Spices and Honey Phenolic Compounds: A Comprehensive Review on Their Origin, Methods of Extraction and Beneficial Health Properties. In *Antioxidants* (Vol. 13, Number 11). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/antiox13111335>
- Liang, L., Liu, Y., Wu, L., Weng, L., Qiu, H., Zhong, W., & Meng, F. (2024). Advances in Extraction Protocols, Degradation Methods, and Bioactivities of Proanthocyanidins. In *Molecules* (Vol. 29, Number 10). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/molecules29102179>
- Liu, X., Huang, H., Yang, L., & Huang, K. (2023). Degree of Coupling in Microwave-Heating Polar-Molecule Reactions. *Molecules*, 28(3). <https://doi.org/10.3390/molecules28031364>
- Mamuaja, C. F. (2016). *PENGAWASAN MUTU DAN KEAMANAN PANGAN*. Unsrat Press.
- Maulana, A., Rizkuloh, L. R., & Susanti, S. (2025). Comparison of Total Phenolic Content in Water, Ethyl Acetate, and n-Hexane Fractions of Cinnamon Bark (*Cinnamomum burmannii*) Ethanol Extract. *Jurnal Sains dan Teknologi Farmasi Indonesia*, 14(2), 162-169.
- Mohammadzadeh, Z., Shojaeiyan, A., Mahfeli, M., Ayyari, M., Tohidfar, M., Mokhtassi-Bidgoli, A., & Atighi, M. R. (2025). Predictive modeling of CIELAB color parameters in okra accessions based on phytochemical composition and antioxidant activity: A non-destructive Imagej and RSM approach. *LWT*, 228. <https://doi.org/10.1016/j.lwt.2025.118080>
- Mohsenin, N. N. (1970). *Physical Properties of Plant and Animal Material Vol 1. (Structure, Physical, Characteristics, and Mechanical Properties)*. Gordon and Breach Science Publishers.
- Moreno, E. K. G., De Macêdo, I. Y. L., Batista, E. A., Machado, F. B., Santos, G. R., Andrade, D. M. L., Rocha, M. L., Lima, N. M., Vaz, B. G., & Gil, E. S. (2022). Evaluation of Antioxidant Potential of Commercial Cinnamon Samples and Its Vasculature Effects. *Oxidative Medicine and Cellular Longevity*, 2022. <https://doi.org/10.1155/2022/1992039>
- Muñoz-neira, M. J., Roa-ardila, M. F., & Correa-celi, C. R. (2020). Comparative analysis of drying coffee beans using microwave and conventional oven. *Revista Facultad de Ingenieria*, (95), 100–108. <https://doi.org/10.17533/udea.redin.20191151>
- Muzolf-Panek, M., & Waśkiewicz, A. (2022). Relationship between Phenolic Compounds, Antioxidant Activity and Color Parameters of Red Table Grape Skins Using Linear Ordering Analysis. *Applied Sciences (Switzerland)*, 12(12). <https://doi.org/10.3390/app12126146>
- Najiyati, S., & Danarti. (2012). *Kopi : Budi Daya dan Penanganan Pascapanen*. PT. Penebar Swadaya.
- Niwagaba, J., & Kipkoechsitienei, W. (2019). *Effect of Moisture Content on the Physical Properties of Coffee Beans (Robusta)*. *Effect of Moisture Content on the Physical Properties of Coffee Beans (Robusta)*. 12(7), 1–13. <https://doi.org/10.9790/2380-1207010113>

- Nugroho, P., Puspita, D., Maria Lidi, I., Teknologi Pangan, J., Kedokteran dan Ilmu Kesehatan, F., & Kristen Satya Wacana, U. (n.d.). *PROFILING KOMPONEN AROMA KOPI ARABIKA MANGGARAI DENGAN APLIKASI GAS CHROMATOGRAPHY MASS SPECTROMETRY (GC-MS)* (Vol. 9, Number 1). JSTP.
- Nurcholis, W., Alfadzrin, R., Izzati, N., Arianti, R., Vinnai, B. Á., Sabri, F., Kristof, E., & Artika, I. M. (2022). Effects of methods and durations of extraction on total flavonoid and phenolic contents and antioxidant activity of java cardamom (*Amomum compactum* Soland Ex Maton) fruit. *Plants*, *11*(17), 2221.
- Oliveira, N. A. de, Cornelio-Santiago, H. P., Fukumasu, H., & Oliveira, A. L. de. (2018). Green coffee extracts rich in diterpenes – Process optimization of pressurized liquid extraction using ethanol as solvent. *Journal of Food Engineering*, *224*, 148–155. <https://doi.org/10.1016/j.jfoodeng.2017.12.021>
- Oliveros, N. O., Hernández, J. A., Sierra-Espinosa, F. Z., Guardián-Tapia, R., & Pliego-Solórzano, R. (2017). Experimental study of dynamic porosity and its effects on simulation of the coffee beans roasting. *Journal of Food Engineering*, *199*, 100-112.
- Pamungkas, K. D., Karyadi, J. N. W., Setyaningsih, W., & Susanti, D. Y. (2025). Microwave-Assisted Extraction's Kinetics of Phycobiliprotein from *Spirulina Platensis*: Influence of Citric Acid Concentration. *Trends in Sciences*, *22*(7). <https://doi.org/10.48048/tis.2025.10042>
- Panggabean, E. (2011). *Buku Pintar Kopi*. AgroMedia Pustaka.
- Pathan, F. L., Trimukhe, A. M., Deshmukh, R. R., & Annapure, U. S. (2023). A peleg modeling of water absorption in cold plasma-treated Chickpea (*Cicer arietinum* L.) cultivars. *Scientific Reports*, *13*(1), 7857.
- Pereira, L. L., Guarçoni, R. C., Pinheiro, P. F., Osório, V. M., Pinheiro, C. A., Moreira, T. R., & ten Caten, C. S. (2020). New propositions about coffee wet processing: Chemical and sensory perspectives. *Food Chemistry*, *310*(December 2019), 125943. <https://doi.org/10.1016/j.foodchem.2019.125943>
- Pez Jaeschke, D., Rocha Teixeira, I., Damasceno Ferreira Marczak, L., & Domeneghini Mercali, G. (2021). Phycocyanin from *Spirulina*: A review of extraction methods and stability. In *Food Research International* (Vol. 143). Elsevier Ltd. <https://doi.org/10.1016/j.foodres.2021.110314>
- Puspitasari, I., Sandra, S., & Wibisono, Y. (2019). Physical Properties of Peanuts in Talam 1 Varieties, Talam 2 Varieties and Takar 2 Varieties. *Jurnal Ilmiah Rekayasa Pertanian Dan Biosistem*, *7*(2), 174–184. <https://doi.org/10.29303/jrpb.v7i2.127>
- Putri, W. D. R., Riyanto, E. I., Heliana, A., Wellang, A., & Zubaidah, E. (2021). Optimization of Microwave-Assisted Extraction (MAE) Time and Material to Solvent Ratio of Gembili (*Dioscorea esculenta*) Water-Soluble Polysaccharides (WSP). *Industria: Jurnal Teknologi Dan Manajemen Agroindustri*, *10*(1), 78–98. <https://doi.org/10.21776/ub.industria.2021.010.01.9>
- Rahardjo, P. (2012). *Panduan Budidaya dan Pengolahan Kopi Arabika dan Robusta*. Penebar Swadaya.

- Rakasivi, K. G. J., & Chin, K. B. (2022). Antioxidant activity of Cinnamomum cassia extract and quality of raw chicken patties added with C. cassia powder and Pleurotus sajor-caju powder as functional ingredients during storage. *Animal Bioscience*, 35(8), 1279–1288. <https://doi.org/10.5713/ab.21.0444>
- Rauf, A., Imran, M., Abu-Izneid, T., Iahtisham-Ul-Haq, Patel, S., Pan, X., Naz, S., Sanches Silva, A., Saeed, F., & Rasul Suleria, H. A. (2019). Proanthocyanidins: A comprehensive review. In *Biomedicine and Pharmacotherapy* (Vol. 116). Elsevier Masson s.r.l. <https://doi.org/10.1016/j.biopha.2019.108999>
- Reska Junianda, C., Fonna Rozali, Z., & Br Tarigan, E. (2023). KAJIAN LITERATUR: MANFAAT KOPI KAYU MANIS. *JFP Jurnal Ilmiah Mahasiswa Pertanian*, 8(4). [www.jim.unsyiah.ac.id/JFP](http://www.jim.unsyiah.ac.id/JFP)
- Rodrigues, R. D. P., Silva, A. S. e., Carlos, T. A. V., Bastos, A. K. P., de Santiago-Aguiar, R. S., & Rocha, M. V. P. (2020). Application of protic ionic liquids in the microwave-assisted extraction of phycobiliproteins from *Arthrospira platensis* with antioxidant activity. *Separation and Purification Technology*, 252. <https://doi.org/10.1016/j.seppur.2020.117448>
- Rozana, Hasbullah, R., & Muhandri, T. (2016). Respon Suhu pada Laju Pengeringan dan Mutu Manisan Mangga Kering (*Mangifera indica* L.). *Jurnal Keteknikaan Pertanian*, 4, 59–66.
- Ruiz-Garcia, Y., Smith, P. A., & Bindon, K. A. (2014). Selective extraction of polysaccharide affects the adsorption of proanthocyanidin by grape cell walls. *Carbohydrate Polymers*, 114, 102–114. <https://doi.org/10.1016/j.carbpol.2014.07.024>
- Sa'diyah, K., Ahmad, U., Widyotomo, S., & Yusianto, Y. (2019). Pengaruh Lama Perendaman Buah dan Fermentasi terhadap Warna Kulit Tanduk dan Citarasa Kopi Robusta. *Jurnal Tanaman Industri Dan Penyegar*, 6(1), 33. <https://doi.org/10.21082/jtidp.v6n1.2019.p33-40>
- SCAA. (2009). *SCAA Protocols: Grading Green Coffee*. Specialty Coffee Association of America.
- Shinjo, N., Waddell, G., & Green, J. (2020). A tale of two cinnamons: A comparative review of the clinical evidence of *Cinnamomum verum* and *C. cassia* as diabetes interventions. *Journal of Herbal Medicine*, 21. <https://doi.org/10.1016/j.hermed.2020.100342>
- Singh, R. P., & Heldman, D. R. (2013). Fluid Flow in Food Processing. In *Introduction to Food Engineering fifth edition* (2). Academic Press.
- Siregar, A. Z., Setiavani, G., Alfiah, A. K., Pane, D. E., Lubis, D. R., Surbakti, E. B., & Padang, H. M. (2026). STUDI LITERASI: PERBEDAAN MORFOLOGI KOPI ARABIKA DAN KOPI ROBUSTA. *Jurnal Intelek Dan Cendekiawan Nusantara*, 2(6), 13586-13594.
- Snehitha, N., & Meghwal, M. (2021). Determination of Engineering Properties of Coffee Beans and Coffee Powder. *Journal of Food Processing & Technology Research Article I J Food Process Technol*, 12, 547.
- Susanti, D. Y., Kalyani, N. F., Astuti, F. P., Purwandari, F. A., Kurniawan, M. P., Kistanti, A., Pamungkas, K. D., & Setyaningsih, W. (2025). Characterization and Performance Evaluation of NADES-CAF in Ultrasound and Microwave Extraction of Phycocyanin from *Arthrospira platensis*. *International Journal*

- of Design and Nature and Ecodynamics*, 20(1), 21–30.  
<https://doi.org/10.18280/ijdne.200103>
- Susanti, D. Y., Kistanti, A., Hidayat, M., Setyaningsih, W., Carrera, C. A., & Hernanda, R. A. P. (2026). Kinetic studies of microwave assisted extraction of functional compounds from cinnamon in the preparation of a coffee flavoring technique. *Journal of the Saudi Society of Agricultural Sciences*, 25(1), 22. <https://doi.org/10.1007/s44447-025-00122-8>
- Susanti, D. Y., Sediawan, W. B., Fahrurrozi, M., & Hidayat, M. (2020). Optimization of Agitation and Kinetic Studies on Proanthocyanidin Compound Extraction from Red Sorghum Grains in Agitated Vessel. *IOP Conference Series: Materials Science and Engineering*, 778(1). <https://doi.org/10.1088/1757-899X/778/1/012085>
- Susanti, D. Y., Sediawan, W. B., Fahrurrozi, M., & Hidayat, M. (2021). Foam-mat drying in the encapsulation of red sorghum extract: Effects of xanthan gum addition on foam properties and drying kinetics. *Journal of the Saudi Society of Agricultural Sciences*, 20(4), 270–279. <https://doi.org/10.1016/j.jssas.2021.02.007>
- Susanti, D. Y., Sediawan, W. B., Fahrurrozi, M., Hidayat, M., & Putri, A. Y. (2021). Encapsulation of red sorghum extract rich in proanthocyanidins: Process formulation and mechanistic model of foam-mat drying at various temperature. *Chemical Engineering and Processing - Process Intensification*, 164(November 2020), 108375. <https://doi.org/10.1016/j.cep.2021.108375>
- Suyatma. (2009). Diagram Warna Hunter. In *Jurnal Penelitian Ilmiah Teknologi Pertanian*. Institut Pertanian Bogor.
- Tarasov, A., Bochkova, A., Muzyukin, I., Chugunova, O., & Stozhko, N. (2022). The Effect of Pre-Treatment of Arabica Coffee Beans with Cold Atmospheric Plasma, Microwave Radiation, Slow and Fast Freezing on Antioxidant Activity of Aqueous Coffee Extract. *Applied Sciences (Switzerland)*, 12(12). <https://doi.org/10.3390/app12125780>
- Tarigan, I. L., Munawaroh, S., Sutrisno, Yusnaidar, & Latief, M. (2023). Liberica coffee enriched with Cinnamon (*Cinnamomum verum*): synergetic study of sensory, antioxidant activity, and chemical components. *Coffee Science*, 18. <https://doi.org/10.25186/v18i.2149>
- Tulini, F. L., Souza, V. B., Echalar-Barrientos, M. A., Thomazini, M., Pallone, E. M. J. A., & Favaro-Trindade, C. S. (2016). Development of solid lipid microparticles loaded with a proanthocyanidin-rich cinnamon extract (*Cinnamomum zeylanicum*): Potential for increasing antioxidant content in functional foods for diabetic population. *Food Research International*, 85, 10–18. <https://doi.org/10.1016/j.foodres.2016.04.006>
- USDA Foreign Agricultural Service. (2025). *Production-Coffee*. <https://www.fas.usda.gov/data/production/commodity/0711100>
- Vinícius de Melo Pereira, G., Soccol, V. T., Brar, S. K., Neto, E., & Soccol, C. R. (2017). Microbial ecology and starter culture technology in coffee processing. *Critical Reviews in Food Science and Nutrition*, 57(13), 2775–2788. <https://doi.org/10.1080/10408398.2015.1067759>
- Yao, J., Chen, H., Zhang, J., Zhang, X., & Guan, W. (2021). Effects of Microwave Heating Paths on Pores and Cracks in Bituminous Coal. *ACS Omega*, 6(38), 24493–24501. <https://doi.org/10.1021/acsomega.1c02922>

- Yusibani, E., Woodfield, P. L., Rahwanto, A., & Surbakti, M. S. (2023). Physical and Chemical Properties of Indonesian Coffee Beans for Different Postharvest Processing Methods. *Journal of Engineering & Technological Sciences*, 55(1).
- Zhang, C., Fan, L., Fan, S., Wang, J., Luo, T., Tang, Y., Chen, Z., & Yu, L. (2019). Cinnamomum cassia Presl: A review of its traditional uses, phytochemistry, pharmacology and toxicology. *Molecules*, 24(19). <https://doi.org/10.3390/molecules24193473>
- Zhang, F., Sun, Z., Li, X., Kong, B., Sun, F., Cao, C., Chen, Q., Zhang, H., & Liu, Q. (2023). Ultrasound-assisted alkaline extraction of protein from Tenebrio molitor larvae: Extraction kinetics, physiochemical, and functional traits. *Ultrasonics Sonochemistry*, 95. <https://doi.org/10.1016/j.ultsonch.2023.106379>
- Zhang, K. X., Ye, W. Q., Yun, S. J., Zhou, Z. Y., Yu, S., Piao, X. C., Jiang, J., & Lian, M. L. (2024). Green flash extraction optimization of Cynanchum wilfordii adventitious roots and evaluation of their cancer cell inhibition. *Sustainable Chemistry and Pharmacy*, 42. <https://doi.org/10.1016/j.scp.2024.101859>
- Zhang, R., Chen, H., Yu, Q., Zhang, Y., Liu, F., Wang, F., Chen, X., & Liu, Y. (2023). Extraction of bioactive compounds from cinnamon residues with deep eutectic solvents and its molecular mechanism. *Chemical Engineering Science*, 273. <https://doi.org/10.1016/j.ces.2023.118630>