

DAFTAR PUSTAKA

- Alappat, B., Sarna, J.A., Truong, C., Kleinrichert, K., and Brehm, P., 2015. Anticancer and antioxidant properties of flavored green tea extracts. *Journal of Agriculture & Life Science*, 2, p. 15-24.
- Andarwulan, N., Kusnandar, F., and Herawati, D., 2011., *Analisis Pangan*. Jakarta: Dian Rakyat.
- Atoui, A. K., Mansouri, A., Boskou, G., and Kefalas, P., 2005. Tea and herbal infusions: their antioxidant activity and phenolic profile. *Food chemistry*, 89(1), p. 27-36.
- Barry, F., 1914. The influence of temperature on chemical reaction in general. *American Journal of Botany*, 1(5), p. 203-25.
- Box, J.D., 1983. Investigation of the Folin-Ciocalteu phenol reagent for the determination of polyphenolic substances in natural waters. *Water research*, 17(5), p. 511-25.
- Braud, L., Peyre, L., De Sousa, G., Armand, M., Rahmani, R., and Maixent, J.M., 2015. Effect of brewing duration on the antioxidant and hepatoprotective abilities of tea phenolic and alkaloid compounds in a t-BHP oxidative stress-induced rat hepatocyte model. *Molecules*, 20(8), p. 14985-15002.
- Cao, G., Alessio, H.M., and Cutler, R.G., 1993. Oxygen-radical absorbance capacity assay for antioxidants. *Free radical biology and medicine*, 14(3), p. 303-11.
- Castiglioni, S., Damiani, E., Astolfi, P., and Carloni, P., 2015. Influence of steeping conditions (time, temperature, and particle size) on antioxidant properties and sensory attributes of some white and green teas. *International journal of food sciences and nutrition*, 66(5), p. 491-97.

- Chaturvedula, V.S.P. and Prakash, I., 2011. The aroma, taste, color and bioactive constituents of tea. *Journal of Medicinal Plants Research*, 5(11), p.2110-24.
- Chen, C.W., and Ho, C.T., 1995. Antioxidant properties of polyphenols extracted from green and black teas. *Journal of food lipids*, 2(1), p. 35-46.
- Chen, Z.Y., Zhu, Q.Y., Tsang, D., and Huang, Y., 2001. Degradation of green tea catechins in tea drinks. *Journal of agricultural and food chemistry*, 49(1), p. 477-82.
- Cheng, Y., Huynh-Ba, T., Blank, I., and Robert, F., 2008. Temporal changes in aroma release of Longjing tea infusion: Interaction of volatile and nonvolatile tea components and formation of 2-butyl-2-octenal upon aging. *Journal of Agricultural and Food Chemistry*, Vol. 56 No. 6, p. 2160-9.
- Cleverdon, R., Elhalaby, Y., McAlpine, M.D., Gittings, W., and Ward, W.E., 2018. Total polyphenol content and antioxidant capacity of tea bags: comparison of black, green, red rooibos, chamomile and peppermint over different steep times. *Beverages*, 4(1), p. 15.
- Corwin, E.J., 2009, *Buku Saku Patofisiologi*. Edisi 3. Jakarta: EGC
- Damiani, E., Bacchetti, T., Padella, L., Tiano, L., and Carloni, P., 2014. Antioxidant activity of different white teas: Comparison of hot and cold tea infusions. *Journal of Food Composition and Analysis*, 33(1), p. 59-66.
- Departemen Kesehatan R.I., 2006. *Parameter Standar Umum Ekstrak Tumbuhan Obat*. Jakarta: Departemen Kesehatan R.I.
- Dewanto, V., Wu, X. and Liu, R.H. 2002., Processed sweet corn has higher antioxidant activity. *Journal of Agricultural and food Chemistry*, 50(17), p. 4959-64.

- Droge, W., 2002. Free radicals in the physiological control of cell function. *Physiological reviews*, 82(1), p.47-95.
- Du, G.J., Zhang, Z., Wen, X.D., Yu, C., Calway, T., Yuan, C.S., and Wang, C.Z., 2012. Epigallocatechin Gallate (EGCG) is the most effective cancer chemopreventive polyphenol in green tea. *Nutrients*, 4(11), p. 1679-91.
- Everette, J.D., Bryant, Q.M., Green, A.M., Abbey, Y.A., Wangila, G.W., and Walker, R.B., 2010. Thorough study of reactivity of various compound classes toward the Folin–Ciocalteu reagent. *Journal of agricultural and food chemistry*, 58(14), p. 8139-44.
- Fanaro, G.B., Silveira, A.P.M., Nunes, T.C.F., Costa, H.S.F., Villavicencio, A.L.C.H., and Purgatto, E., 2009. Effects of γ -radiation on white tea volatiles. *International Nuclear Atlantic Conference (INAC): Innovations in nuclear technology for a sustainable future*.
- Fernando, C.D., and Soysa, P., 2015. Extraction Kinetics of phytochemicals and antioxidant activity during black tea (*Camellia sinensis* L.) brewing. *Nutrition journal*, 14(1), p. 74.
- Folin, O., 1927. Tyrosine and tryptophan determinations in proteins. *Journal of Biological Chemistry*, 73, p. 649-72.
- Fujimura, Y., Tachibana, H., and Yamada, K., 2004. Lipid raft-associated catechin suppresses the Fc ϵ RI expression by inhibiting phosphorylation of the extracellular signal-regulated kinase1/2. *FEBS letters*, 556(1-3), p. 204-210.
- Gan, P.T. and Ting, A.S.Y., 2019. Our tea-drinking habits: effects of brewing cycles and infusion time on total phenol content and antioxidants of common teas. *Journal of Culinary Science & Technology*, 17(2), p. 170-83.
- Gorjanović, S., Komes, D., Pastor, F.T., Belščak-Cvitanović, A., Pezo, L., Hečimović, I., and Sužnjević, D., 2012. Antioxidant capacity of teas

- and herbal infusions: polarographic assessment. *Journal of agricultural and food chemistry*, 60(38), 9573-80.
- Graham, H.N., 1992. Green tea composition, consumption, and polyphenol chemistry. *Preventive medicine*, 21(3), p. 334-50.
- Gramza-Michalowska, A., Korczak, J. and Kmiecik, D., 2007. Green tea extracts obtained after different brewing methods antioxidative properties in lipid systems. In *5th Euro Fed Lipid Congress and 24th Nordic Lipid Symposium, "Oils, Fats and Lipids: from Science to Applications* (p. 16-19).
- Hajiaghaalipour, F., Sanusi, J., and Kanthimathi, M.S., 2016. Temperature and time of steeping affect the antioxidant properties of white, green, and black tea infusions. *Journal of Food Science*, 81(1), p. 246-54.
- Handa, S.S., Khanuja, S.P.S., Longo, G., and Rakesh, D.D., 2008. Extraction technologies for medicinal and aromatic plants (United Nations Industrial Development Organisation and the International Centre for Science and High Technology). *International Centre for Science and High Technology-United Nations Industrial Development Organization, area Science Park Padriciano*, 99, p. 34012.
- Hartoyo, A. 2003. *Teh dan Khasiatnya Bagi Kesehatan*. Yogyakarta: Kanisius.
- Henning, S.M., Fajardo-Lira, C., Lee, H.W., Youssefian, A.A., Go, V.L., and Heber, D., 2003. Catechin content of 18 teas and a green tea extract supplement correlates with the antioxidant capacity. *Nutrition and cancer*, 45(2), p. 226-35.
- Horžić, D., Komes, D., Belščak, A., Ganić, K.K., Iveković, D., and Karlović, D., 2009. The composition of polyphenols and methylxanthines in teas and herbal infusions. *Food chemistry*, 115(2), p. 441-8.
- Izzreen, N.Q. and Mohd Fadzelly, A.B.A.B., 2013. Phytochemicals and antioxidant properties of different parts of *Camellia sinensis* leaves

- from Sabah Tea Plantation in Sabah, Malaysia. *International Food Research Journal*, 20(1), p. 307-12.
- Jang, H.D., Chang, K.S., Huang, Y.S., Hsu, C.L., Lee, S.H. and Su, M.S., 2007. Principal phenolic phytochemicals and antioxidant activities of three Chinese medicinal plants. *Food chemistry*, 103(3), p.749-56.
- Jiménez-Zamora, A., Delgado-Andrade, C., and Rufián-Henares, J.A., 2016. Antioxidant capacity, total phenols and color profile during the storage of selected plants used for infusion. *Food chemistry*, 199, p. 339-46.
- Khan, N. and Mukhtar, H., 2007. Tea polyphenols for health promotion. *Life sciences*, 81(7), p. 519-33.
- Komes, D., Horžić, D., Belščak, A., Ganić, K.K., and Vulić, I., 2010. Green tea preparation and its influence on the content of bioactive compounds. *Food research international*, 43(1), p. 167-76.
- Krinsky, N.I., 1992. Mechanism of action of biological antioxidants. *Proceedings of the Society for Experimental Biology and Medicine*, 200(2), p. 248-54.
- Krishnan, R. and Maru, G.B., 2004. Inhibitory effect (s) of polymeric black tea polyphenol fractions on the formation of [3H]-B (a) P-derived DNA adducts. *Journal of agricultural and food chemistry*, 52(13), p. 4261-9.
- Kumamoto, M., Sonda, T., Nagayama, K., and Tabata, M., 2001. Effects of pH and metal ions on antioxidative activities of catechins. *Bioscience, biotechnology, and biochemistry*, 65(1), p. 126-32.
- Langley-Evans, S. C., 2000. Antioxidant potential of green and black tea determined using the ferric reducing power (FRAP) assay. *International journal of food sciences and nutrition*, 51(3), p. 181-8.
- Le Gall, G., Colquhoun, I. J., and Defernez, M., 2004. Metabolite profiling using 1H NMR spectroscopy for quality assessment of green tea,

- Camellia sinensis (L.). *Journal of Agricultural and Food Chemistry*, 52(4), p. 692-700.
- Lin, S.D., Yang, J.H., Hsieh, Y.J., Liu, E.H., and Mau, J.L., 2014. Effect of different brewing methods on quality of green tea. *Journal of Food Processing and Preservation*, 38(3), p. 1234-43.
- Liu, S., Ai, Z., Qu, F., Chen, Y., and Ni, D., 2017. Effect of steeping temperature on antioxidant and inhibitory activities of green tea extracts against α -amylase, α -glucosidase and intestinal glucose uptake. *Food chemistry*, 234, p. 168-73.
- Lobo, V., Patil, A., Phatak, A., and Chandra, N., 2010. Free radicals, antioxidants and functional foods: Impact on human health. *Pharmacognosy reviews*, 4(8), p. 118-26.
- Mahmood, T., Akhtar, N., and Khan, B.A., 2010. The morphology, characteristics, and medicinal properties of Camellia sinensis tea. *Journal of Medicinal Plants Research*, 4(19), 2028-33.
- Martono, Y. and Martono, S., 2012. Analisis kromatografi cair kinerja tinggi untuk penetapan kadar asam galat, kafein dan epigalokatekin galat pada beberapa produk teh celup. *Agritech*, 32(4).
- Maruyama, K., Kihara-Negishi, F., Ohkura, N., Nakamura, Y., Nasui, M., and Saito, M., 2017. Simultaneous determination of catechins and caffeine in green tea-based beverages and foods for specified health uses. *Food and Nutrition Sciences*, 8(3), p. 316-25.
- McAlpine, M.D. and Ward, W.E., 2016. Influence of steep time on polyphenol content and antioxidant capacity of black, green, rooibos, and herbal teas. *Beverages*, 2(3), p. 17.
- Menet, M.C., Sang, S., Yang, C.S., Ho, C.T., and Rosen, R.T., 2004. Analysis of theaflavins and thearubigins from black tea extract by MALDI-TOF mass spectrometry. *Journal of agricultural and food chemistry*, 52(9), p. 2455-61.

- Molyneux, P., 2004. The use of the stable free radical diphenylpicrylhydrazyl (DPPH) for estimating antioxidant activity. *Songklanakarin Journal of Science and Technology*, 26(2), p. 211-19.
- Mulja, M. and Suharman. 1995. *Analisis Instrumental*. Surabaya: Airlangga University Press.
- Pastoriza, S., Pérez-Burillo, S., and Rufián-Henares, J.Á., 2017. How brewing parameters affect the healthy profile of tea. *Current Opinion in Food Science*, 14, p. 7-12.
- Pérez-Burillo, S., Giménez, R., Rufián-Henares, J.A., and Pastoriza, S., 2018. Effect of brewing time and temperature on antioxidant capacity and phenols of white tea: Relationship with sensory properties. *Food Chemistry*, 248, p. 111-8.
- Peterson, G.L., 1979. Review of the Folin phenol protein quantitation method of Lowry, Rosebrough, Farr and Randall. *Analytical biochemistry*, 100(2), p. 201-20.
- PNGio., 2017. Camellia Sinensis Leaf Png - Green Tea Tea Tree Oil Camellia Sinensis #557344 - PNG Images – PNGio. Diakses dari https://img2.pngio.com/green-tea-tea-tree-oil-camellia-sinensis-557344-png-images-pngio-camellia-sinensis-leaf-png-900_640.png pada tanggal 10 Agustus 2020.
- Prior, R.L., Wu, X., and Schaich, K., 2005. Standardized methods for the determination of antioxidant capacity and phenolics in foods and dietary supplements. *Journal of agricultural and food chemistry*, 53(10), p. 4290-4302.
- Rathee, J.S., Hassarajani, S.A., and Chattopadhyay, S., 2007. Antioxidant activity of *Nyctanthes arbor-tristis* leaf extract. *Food chemistry*, 103(4), p.1350-57.

- Rice-Evans, C.A., and Diplock, A.T., 1993. Current status of antioxidant therapy. *Free Radical Biology and Medicine*, 15(1), p. 77-96.
- Rohdiana, D., Arief, D.Z., and Soemantri, M., 2013. Aktivitas penangkapan radikal bebas DPPH (1.1-Diphenyl-2-picryl-hydrazyl) oleh teh putih berdasarkan suhu dan lama penyeduhan. *Jurnal Penelitian Teh dan Kina*, 16(1), p.45-50.
- Roy, J., 2011. *An introduction to pharmaceutical sciences: Production, chemistry, techniques and technology*. Cambridge: Woodhead Publishing, p. 153-81.
- Royal Society of Chemistry., 2013. *The Merck Index Online*. Diakses dari <https://www.rsc.org/Merck-Index/monograph/m4639/diphenylpicrylhydrazyl%20free%20radical?q=unauthorize>, pada tanggal 29 Juni 2020.
- Safdar, N., Sarfaraz, A., Kazmi, Z., and Yasmin, A., 2016. Ten different brewing methods of green tea: comparative antioxidant study. *Journal of Applied Biology & Biotechnology*, 4(03), p. 33-40.
- Sajilata, M.G., Bajaj, P.R. and Singhal, R.S., 2008. Tea polyphenols as nutraceuticals. *Comprehensive reviews in food science and food safety*, 7(3), p. 229-54.
- Saklar, S., Ertas, E., Ozdemir, I.S., and Karadeniz, B., 2015. Effects of different brewing conditions on catechin content and sensory acceptance in Turkish green tea infusions. *Journal of food science and technology*, 52(10), p. 6639-46.
- Shah, S., Gani, A., Ahmad, M., Shah, A., Gani, A., and Masoodi, F.A., 2015. In vitro antioxidant and antiproliferative activity of microwave-extracted green tea and black tea (*Camellia sinensis*): a comparative study. *NutraFoods*, 14(4), p. 207-15.

- Sharangi, A.B., 2009. Medicinal and therapeutic potentialities of tea (Camellia sinensis L.)—A review. *Food Research International*, 42(5-6), p. 529-535.
- Sharpe, E., Hua, F., Schuckers, S., Andreescu, S., and Bradley, R., 2016. Effects of brewing conditions on the antioxidant capacity of twenty-four commercial green tea varieties. *Food chemistry*, 192, p. 380-7.
- Shekhar, T.C. and Anju, G., 2014. Antioxidant activity by DPPH radical scavenging method of Ageratum conyzoides Linn. leaves. *American Journal of Ethnomedicine*, 1(4), p.244-49.
- Shi, J., Yu, J., Pohorly, J., Young, J. C., Bryan, M., and Wu, Y., 2003. Optimization of the extraction of polyphenols from grape seed meal by aqueous ethanol solution. *Journal of Food, Agriculture and Environment*, 1(2), p. 42-7.
- Shimamura, T., Sumikura, Y., Yamazaki, T., Tada, A., Kashiwagi, T., Ishikawa, H., Matsui, T., Sugimoto, N., Akiyama, H. and Ukeda, H., 2014. Applicability of the DPPH assay for evaluating the antioxidant capacity of food additives—inter-laboratory evaluation study—. *Analytical Sciences*, 30(7), p.717-21.
- Sindhi, V., Gupta, V., Sharma, K., Bhatnagar, S., Kumari, R. and Dhaka, N., 2013. Potential applications of antioxidants—A review. *Journal of Pharmacy Research*, 7(9), p.828-35.
- Singleton, V.L. and Rossi, J.A., 1965. Colorimetry of total phenolics with phosphomolybdic-phosphotungstic acid reagents. *American journal of Enology and Viticulture*, 16(3), p. 144-58.
- Wang, R., Zhou, W., and Jiang, X., 2008. Reaction kinetics of degradation and epimerization of epigallocatechin gallate (EGCG) in aqueous system over a wide temperature range. *Journal of agricultural and food chemistry*, 56(8), p. 2694-2701.

- Wang, R., Zhou, W., and Wen, R.A.H., 2006. Kinetic study of the thermal stability of tea catechins in aqueous systems using a microwave reactor. *Journal of Agricultural and Food Chemistry*, 54(16), p. 5924-32.
- Watson, D.G., 1999. *Pharmaceutical Analysis: A Textbook for Pharmacy students and Pharmaceutical Chemists*. Churchill Livingstone.
- Wildman, R.E. eds., 2016. *Handbook of nutraceuticals and functional foods*. 2nd ed. CRC press.
- Windono, T., Hendrajaya, K., Nurfatmawati, H. and Soraya, F., 2001. Uji perendaman radikal bebas terhadap DPPH dari ekstrak kulit buah dan biji anggur (*Vitis liniferol*) Probolinggo Biru dan Bali. *Artikel hasil penelitian Artocarpus*, 1, p.34-43.
- Yang, D.J., Hwang, L.S., and Lin, J.T., 2007. Effects of different steeping methods and storage on caffeine, catechins and gallic acid in bag tea infusions. *Journal of Chromatography A*, 1156(1-2), p. 312-20.
- Yao, Y. and Vieira, A., 2011. Comparative antioxidant properties of citrus species. *International Journal of Food, Nutrition and Public Health*, 4(1), p. 1.
- Zargar, B., Majeed, D., Ganai, S.A., Mir, S.A., and Dar, B.N., 2018. Effect of different processing parameters on antioxidant activity of tea. *Journal of Food Measurement and Characterization*, 12(1), p. 527-34.
- Zuorro, A and Lavecchia, R., 2013. Influence of extraction conditions on the recovery of phenolic antioxidants from spent coffee grounds. *American Journal of Applied Sciences*, 10(5), p. 478.