DAFTAR PUSTAKA

Abdurrohman, D. 1998. Isolasi Tanin dari Daun Kaliandra. Laporan Pkl. Jurusan Kimia. Institut Pertanian Bogor

Adelakun, O. E., and Duodu, G. 2017. Identification and Quantification of Phenolic Compounds and Bioactive Properties of Sorghum-cowpea-based Food Subjected to an In vitro Digestion Model, European Journal of Nutrition & Food Safety, 7(1), 57–66. https://doi.org/10.9734/EJNFS/2017/20310

Adebowale, K. O., Olu-Owolabi, B. I., Olayinka, O. O., dan Lawal, O. S. 2005. Effect of Heat Moisture Treatment and Annealing on Physicochemical Properties of Red Sorghum Starch. African Journal of Biotechnology. 4(9), 928–933.

Adelakun, O. E., dan Duodu, G. 2017. Identification and Quantification of Phenolic Compounds and Bioactive Properties of Sorghum-Cowpea-Based Food Subjected to an In vitro Digestion Model, 7(1), 57–66. https://doi.org/10.9734/EJNFS/2017/20310

Al-Hilphy, A. R. S. 2014. A practical study for new design of essential oils extraction apparatus using ohmic heating, International Journal of Agricultural Science, retrieved from internet: www.internationalscholarsjournals.org, 4(12), 351–366.

Al-Hilphy, A. R. S., Alrikabi, A. K. J., dan Al-Salim, A. M. 2015. Extraction of Phenolic Compounds from Wheat Bran using Ohmic Heating, Food Science and Quality Management, 43(November 2016), 21–29.

Alara, O. R., Abdurahman, N. H., dan Olalere, O. A. 2019. Mathematical Modelling and Morphological Properties of Thin Layer Oven Drying of Vernonia Amygdalina Leaves, Journal of the Saudi Society of Agricultural Sciences, 18(3), 309–315. https://doi.org/10.1016/j.jssas.2017.09.003

Alhalaweh, A., Alzghoul, A., dan Kaialy, W. 2014. Data Mining of Solubility Parameters for Computational Prediction of Drug-Excipient Miscibility, Drug Development and Industrial Pharmacy, 40(7), 904–909. https://doi.org/10.3109/03639045.2013.789906

Amrinola, W., Widowati, S., dan Hariyadi, P. 2015. Metode Pembuatan Sorgum Sosoh Rendah Tanin pada Pembuatan Nasi Sorgum (Sorghum Bicolor L) Instan, ComTech: Computer, Mathematics and Engineering Applications, 6(1), 9–19.

Amarowicz, R., Toszynska, A., dan Shahidi, F. 2004. Antioxidant Activity of Extract of Almond Seeds and Its Fractions. J Food Lipids. 12, 344–358.

Asokapandian, S., Venkatachalam, S., Swamy, G. J., dan Kuppusamy, K. 2016. Optimization of Foaming Properties and Foam Mat Drying of Muskmelon Using Soy Protein, Journal of Food Process Engineering, 39(6), 692–701. https://doi.org/10.1111/jfpe.12261

Awika, J.M. 2000. Sorghum Phenols as Antioxidants. M.S. Thesis. Texas A&M University: College Station, TX.

Awika, J. M., Dykes, L., Gu, L., Rooney, L. W., dan Prior, R. L. 2003. Processing of Sorghum (Sorghum bicolor) and Sorghum Products Alters Procyanidin Oligomer and Polymer Distribution and Content, Journal of Agricultural and Food Chemistry, 51(18), 5516–5521. https://doi.org/10.1021/jf0343128

Awika, J.M. and Rooney, L.W. 2004. Sorghum Phytochemicals and Their Potential Impact on Human Health. Phytochemistry, 65, 1199-1221. www.ncbi.nlm.nih.gov/pubmed/15184005.http://dx.doi.org/10.1016/j.phytochem.2004.04.001

Azeez, L., Adebisi, S. A., Oyedeji, A. O., Adetoro, R. O., dan Tijani, K. O. 2019. Bioactive Compounds' Contents, Drying Kinetics and Mathematical Modelling of Tomato Slices Influenced by Drying Temperatures and Time, Journal of the Saudi Society of Agricultural Sciences, 18(2), 120–126. https://doi.org/10.1016/j.jssas.2017.03.002

Azizpour, M., Mohebbi, M., Hossein Haddad Khodaparast, M., dan Varidi, M. 2014. Optimization of Foaming Parameters and Investigating the Effects of Drying Temperature on the Foam-Mat Drying of Shrimp (Penaeus indicus), Drying Technology, 32(4), 374–384. https://doi.org/10.1080/07373937.2013.794829

Baghdikian, B., Filly, A., Fabiano-Tixier, A. S., Petitcolas, E., Mabrouki, F., Chemat, F., dan Ollivier, V. 2016. Extraction by Solvent using Microwave and Ultrasound-Assisted Techniques Followed by HPLC Analysis of Harpagoside from Harpagophytum Procumbens and Comparison with Conventional Solvent Extraction Methods, Comptes Rendus Chimie, 19(6), 692–698. https://doi.org/10.1016/j.crci.2016.02.020

Bakirtzi, C., Triantafyllidou, K., dan Makris, D. P. 2016. Novel Lactic Acid-based Natural deep eutectic solvents: Efficiency in the ultrasound-assisted extraction of antioxidant polyphenols from common native Greek medicinal plants, Journal of Applied Research on Medicinal and Aromatic Plants, 3(3), 120–127. https://doi.org/10.1016/j.jarmap.2016.03.003

Barba, F. J., Zhu, Z., Koubaa, M., Sant'Ana, A. S., dan Orlien, V. 2016. Green alternative methods for the extraction of antioxidant bioactive compounds from winery wastes and by-products: A review, Trends in Food Science and Technology, 49(January), 96–109. https://doi.org/10.1016/j.tifs.2016.01.006

Barros, F., Dykes, L., Awika, J. M., dan Rooney, L. W. 2013. Accelerated solvent extraction of phenolic compounds from sorghum brans, Journal of Cereal Science, 58(2), 305–312. https://doi.org/10.1016/j.jcs.2013.05.011

Baum, S. J. dan Hixson, A. W. 1941. M a s s Transfer Coefficients in Liquid-Solid Agitation Systems, Industrial & Engineering Chemistry, 33(4), 478–485.

Blackwell, D. L., Herald, T. J., Bean, S. R., dan Gadgil, P. 2012. Alkaline extraction of phenolic compounds from intact sorghum kernels, International Journal of Food Science and Technology, 47(12), 2671–2675. https://doi.org/10.1111/j.1365-2621.2012.03138.x

Bröhan, M., Jerkovic, V., Wilmotte, R., dan Collin, S. 2011. Catechins and derived procyanidins in red and white sorghum: Their contributions to antioxidant activity, Journal of the Institute of Brewing, 117(4), 600–607. https://doi.org/10.1002/j.2050-0416.2011.tb00510.x

Cao, J., Chen, L., Li, M., Cao, F., Zhao, L., dan Su, E. 2018. Efficient extraction of proanthocyanidin from Ginkgo biloba leaves employing rationally designed deep eutectic solvent-water mixture and evaluation of the antioxidant activity, Journal of Pharmaceutical and Biomedical Analysis, 158, 317–326. https://doi.org/10.1016/j.jpba.2018.06.007

Chan, C. H., Yusoff, R., dan Ngoh, G. C. 2014. Modeling and kinetics study of conventional and assisted batch solvent extraction, Chemical Engineering Research and Design, 92(6), 1169–1186. https://doi.org/10.1016/j.cherd.2013.10.001

Chemat, F., Rombaut, N., Sicaire, A. G., Meullemiestre, A., Fabiano-Tixier, A. S., dan Abert-Vian, M. 2017. Ultrasound assisted extraction of food and natural products. Mechanisms, techniques, combinations, protocols and applications. A review, Ultrasonics Sonochemistry, 34, 540–560. https://doi.org/10.1016/j.ultsonch.2016.06.035

Chen, X. X., Liang, G., Chai, W. M., Feng, H. L., Zhou, H. T., Shi, Y., dan Chen, Q. X. 2014. Antioxidant and antityrosinase proanthocyanidins from Polyalthia longifolia leaves, Journal of Bioscience and Bioengineering, 118(5), 583–587. https://doi.org/10.1016/j.jbiosc.2014.04.015

Chen, Y., dan Mu, T. 2019. Application of deep eutectic solvents in biomass pretreatment and conversion, Green Energy and Environment, 4(2), 95–115. https://doi.org/10.1016/j.gee.2019.01.012

Cheng, S., Y. Sun, dan L. Halgreen. 2009. The relationships of sorghum kernel pericarp and testa characteristics with tannin content. Asian J. Crop. Sci.1 :1-5.

Chia, V.V., Pang, S.F., Gimbun, J., Abdullah, S., dan Yusoff, M.M. 2019. Effect of Amplitude on Ultrasonic Assisted Extraction of Caffeic Acid from AndrographisPaniculata, (3), 524–527.

Chiremba, C., Rooney, L. W., dan Beta, T. 2012. Microwave-assisted extraction of bound phenolic acids in bran and flour fractions from sorghum and maize cultivars varying in hardness, Journal of Agricultural and Food Chemistry, 60(18), 4735–4742. https://doi.org/10.1021/jf300279t

Choe, E. dan Min, B. D. 2009. Mechanisms of antioxidant in the oxidation of foods, Comprehensive Review in Food Science and Food Safety, 8, 345–358.

Dani, U. 2017. Pertumbuhan Dan Hasil Tanaman Sorgum Di Lahan Marginal dengan Pemberian Pupuk Kandang Domba. Jurnal Ilmu Pertanian dan Peternakan.Volume 5 Nomor 1 Juli 2017

Dehghannya, J., Pourahmad, M., Ghanbarzadeh, B., dan Ghaffari, H. 2018. Heat and mass transfer modeling during foam-mat drying of lime juice as affected by different ovalbumin concentrations, Journal of Food Engineering, 238, 164–177. https://doi.org/10.1016/j.jfoodeng.2018.06.014

Dehghannya, J., Pourahmad, M., Ghanbarzadeh, B., dan Ghaffari, H. 2019. Heat and mass transfer enhancement during foam-mat drying process of lime juice: Impact of convective hot air temperature, International Journal of Thermal Sciences. https://doi.org/10.1016/j.ijthermalsci.2018.07.023

Devi, P. S., Saravanakumar, M., dan Mohandas, S. 2011. Identification of 3-deoxyanthocyanins from red sorghum (Sorghum bicolor) bran and its biological properties, African Journal of Pure and Applied Chemistry, 5(7), 181–193.

Dewar, J., Orovan, E. dan Taylor, J. R. N. 1997. Effect of alkaline steeping on water uptake and malt quality in sorghum, Journal of the Institute of Brewing, 103(5), 283–285. https://doi.org/10.1002/j.2050-0416.1997.tb00957.x

Dewi, E.S. dan Yusuf, M. 2017. Potensi Pengembangan Sorgum Sebagai Pangan Alternatif, Pakan Ternak Dan Bioenergi Di Aceh. Jurnal Agroteknologi, Vol. 7 No. 2, Februari 2017: 27 – 32

Djaeni, M., Prasetyaningrum, A., Sasongko, S. B., Widayat, W., dan Hii, C. L. 2013. Application of foam-mat drying with egg white for carrageenan: drying rate and product quality aspects, Journal of Food Science and Technology, 52(2), 1170–1175. https://doi.org/10.1007/s13197-013-1081-0

Djaeni, Mohamad, Kumoro, A. C., Sasongko, S. B., dan Dwi, F. 2018. Drying Rate and Product Quality Evaluation of Roselle (Hibiscus sabdariffa L .) Calyces Extract Dried with Foaming Agent under Different Temperatures, International Journal of Food Science, 2018, 1–17.

Dykes, L., Waniska, R. D., dan Rooney, W. L. 2005. Phenolic compounds and antioxidant activity of sorghum grains of varying genotypes, Journal of Agricultural and Food Chemistry, 53(17), 6813–6818. https://doi.org/10.1021/jf050419e

Dykes, L., Rooney, W. L., dan Rooney, L. W. 2013. Evaluation of phenolics and antioxidant activity of black sorghum hybrids, Journal of Cereal Science, 58(2), 278–283. https://doi.org/10.1016/j.jcs.2013.06.006

Earp, C. F., McDonough, C. M., dan Rooney, L. W. 2004. Microscopy of pericarp development in the caryopsis of Sorghum bicolor (L.) Moench, Journal of Cereal Science, 39(1), 21–27. https://doi.org/10.1016/S0733-5210(03)00060-2

Fadil, E., Babikir, E., dan Tinay, A. H. El .1993. Effect of soaking in water or in sodium carbonate on tannin content and in vitro protein digestibility of sorghum cultivars, International Journal of Food Science & Technology, 28(4), 389–395. https://doi.org/10.1111/j.1365-2621.1993.tb01285.x

Ramón, M.R., Espinoza, M.C.F., dan Durand, E. 2017. Application of Deep Eutectic Solvents (DES) for Phenolic Compounds Extraction: Overview, Challenges, and Opportunities. https://doi.org/10.1021/acs.jafc.7b01054

Flamini, R. 2013. Recent Applications of Mass Spectrometry in the Study of Grape and Wine Polyphenols, ISRN Spectroscopy, 2013, 1–45. https://doi.org/10.1155/2013/813563

Fontana, A. R., Antoniolli, A., dan Bottini, R. 2013. Grape pomace as a sustainable source of bioactive compounds: Extraction, characterization, and biotechnological applications of phenolics, Journal of Agricultural and Food Chemistry, 61(38), 8987–9003. https://doi.org/10.1021/jf402586f

Gallasch, R.G. 2012. The Impact of Commercial Tannin Additions and Addition Timing on Finger Lakes Red Wine Color. Thesis. Cornell University

Gavahian, M., Chu, Y. H., dan Sastry, S. 2018. Extraction from Food and Natural Products by Moderate Electric Field: Mechanisms, Benefits, and Potential Industrial Applications, Comprehensive Reviews in Food Science and Food Safety, 17(4), 1040–1052. https://doi.org/10.1111/1541-4337.12362

Gavahian, M., Sastry, S., Farhoosh, R., dan Farahnaky, A. 2020. Ohmic heating as a promising technique for extraction of herbal essential oils: Understanding mechanisms, recent findings, and associated challenges (1st ed.), Advances in Food and Nutrition Research, Elsevier Inc., 91, 227–273. https://doi.org/10.1016/bs.afnr.2019.09.001

Ghaderi-Ghahfarrokhi, M., Sadeghi-Mahoonak, A. R., Alami, M., dan Mousavi Khanegah, A. 2017. Effect of processing treatments on polyphenol removal from kernel of two Iranian acorns varieties, International Food Research Journal, 24(1), 86–93.

Gous, F. 1989. Tannins and phenols in black sorghum. Ph.D. Dissertation. Texas A&M University: College Station, TX.

Grubben, G.J.H. dan Partohardjono, S., 1996. Plant Resources of South-east Asia. Backhuys Publishers, Leiden. Pp.122-128.

Hagerman, A. E. 2011. Method for Acid Butanol Assay of Dried Fig Samples, 8–10.

Hahn, D. H., Rooney, L. W. and Earp, C. F. 1984. Tannins and phenols of sorghum Cereal Foods World. 29:776-779.

Hashemi, S. M. B., Khaneghah, A. M., dan Akbarirad, H. 2016. The effects of amplitudes ultrasound-assisted solvent extraction and pretreatment time on the yield and quality of Pistacia Khinjuk hull oil, Journal of Oleo Science, 65(9), 733–738. https://doi.org/10.5650/jos.ess15252

Hermawan, R. 2014. Usaha Budidaya Sorgum Si Jago Lahan Kekeringan. Pustaka Baru Press. Yogyakarta

Hosseini, S., Gharachorloo, M., Ghiassi-Tarzi, B., dan Ghavami, M. 2016. Evaluation of the organic acids ability for extraction of anthocyanins and phenolic compounds from different sources and their degradation kinetics during cold storage, Polish Journal of Food and Nutrition Sciences, 66(4), 261–269. https://doi.org/10.1515/pjfns-2015-0057

Hou, F., Su, D., Xu, J., Gong, Y., Zhang, R., Wei, Z., Chi, J., dan Zhang, M. 2016. Enhanced Extraction of Phenolics and Antioxidant Capacity from Sorghum (Sorghum bicolor L. Moench) Shell Using Ultrasonic-Assisted Ethanol–Water Binary Solvent, Journal of Food Processing and Preservation, 40(6), 1171–1179. https://doi.org/10.1111/jfpp.12699

Hu, X., dan Zhou, Q. 2011. Comparisons of microwave-assisted extraction, simultaneous distillation-solvent extraction, Soxhlet extraction and ultrasound probe for polycyclic musks in sediments: Recovery, repeatability, matrix effects and bioavailability, Chromatographia, 74(5–6), 489–495. https://doi.org/10.1007/s10337-011-2084-5

Hultin, P. G. 2002. A Guide to Solvents and Reagents in Introductory Organic Chemistry for students in 2 . 222, Water, (February).

Kang, J., Price, W. E., Ashton, J., Tapsell, L. C., dan Johnson, S. 2016. Identification and characterization of phenolic compounds in hydromethanolic extracts of sorghum wholegrains by LC-ESI-MSn, Food Chemistry, 211, 215–226. https://doi.org/10.1016/j.foodchem.2016.05.052

Kalhor, P., dan Ghandi, K. 2019. Deep eutectic solvents for pretreatment, extraction, and catalysis of biomass and food waste, Molecules, 24(22). https://doi.org/10.3390/molecules24224012

Kallithraka, S., Garcia-Viguera, C., Bridle, P., dan Bakker, J. 1995. Survey of solvents for the extraction of grape seed phenolics, Phytochemical Analysis, 6(5), 265–267. https://doi.org/10.1002/pca.2800060509

Kayodé, A. P. P., Linnemann, A. R., Hounhouigan, J. D., Nout, M. J. R., dan van Boekel, M. A. J. S. 2006. Genetic and environmental impact on iron, zinc and phytate in food sorghum grown in Benin. Journal of Agricultural and Food Chemistry 54, 256-262.

Khadambi, T N., 2007, Extraction of phenolic compounds dan quantification of the total phenol and condensed tannin content of bran fraction of condensed tannin and condensed tannin-free sorghum varieties . University of Pretoria etd

Khwaja, O., Siddiqui, M. H., dan 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

Kostaropoulos, A. E., dan Saravacos, G. D. 1997. Thermal diffusivity of granular and porous foods at low moisture content, Journal of Food Engineering, 33(1–2), 101–109. https://doi.org/10.1016/s0260-8774(97)00036-8

Kullu, J., Dutta, A., Constales, D., Chaudhuri, S., dan Dutta, D. 2014. Experimental and modeling studies on microwave-assisted extraction of mangiferin from Curcuma amada, 3 Biotech, 4(2), 107–120. https://doi.org/10.1007/s13205-013-0125-5

Laguerre, M., Bayrasy, C., Panya, A., Weiss, J., McClements, D. J., Lecomte, J., Decker, E. A., and Villeneuve, P. 2015. What Makes Good Antioxidants in Lipid-Based Systems? The Next Theories Beyond the Polar Paradox, Critical Reviews in Food Science and Nutrition, 55(2), 183–201. https://doi.org/10.1080/10408398.2011.650335

Lazar, L., Talmaciu, A. I., Volf, I., dan Popa, V. I. 2016. Kinetic modeling of the ultrasound-assisted extraction of polyphenols from Picea abies bark, Ultrasonics Sonochemistry, 32, 191–197. https://doi.org/10.1016/j.ultsonch.2016.03.009

Lee, Y. R., Woo, K. S., Kim, K. J. Son, J. R. dan Jeong. H.S. 2007. Antioxi-dant activities of ethanol extracts from germinated specialty rough rice. Food Science Biotechnology 16(5): 765-770

Leewatchararongjaroen, J., dan Anuntagool, J. 2016. Effects of Dry-Milling and Wet-Milling on Chemical, Physical and Gelatinization Properties of Rice Flour, Rice Science, 23(5), 274–281. https://doi.org/10.1016/j.rsci.2016.08.005

Leng, K. Y., dan Suyin, G. 2019. Natural Deep Eutectic Solvent (NADES) as a Greener Alternative for the Extraction of Hydrophilic (Polar) and Lipophilic (Non-Polar) Phytonutrients, Key Engineering Materials, 797(4), 20–28. https://doi.org/10.4028/www.scientific.net/KEM.797.20

Lenny, S. 2006. Senyawa Flavonoida, Fenilpropanoida dan Alkaloida. http://repository.usu.ac.id/bitstream/123456789/1842/3/06003489

Links, M. R., Taylor, J., Kruger, M. C., dan Taylor, J. R. N. 2015. Sorghum condensed tannins encapsulated in kafirin microparticles as a nutraceutical for inhibition of amylases during digestion to attenuate hyperglycaemia, Journal of Functional Foods, 12, 55–63. https://doi.org/10.1016/j.jff.2014.11.003

Lisperguer, J., Saravia, Y., dan Vergara, E. 2016. Structure and Thermal Behavior of Tannins from Acacia dealbata Bark and Their Reactivity Toward Formaldehyde, 4, 3188–3190.

Lu, Y., dan Luthria, D. 2016. Influence of gelatinization on the extraction of phenolic acids from wheat fractions, Food Chemistry, 194, 1138–1142. https://doi.org/10.1016/j.foodchem.2015.08.074

Luo, X., Cui, J., Zhang, H., Duan, Y., Zhang, D., Cai, M., and Chen, G. 2018. Industrial Crops & Products Ultrasound assisted extraction of polyphenolic compounds from red sorghum (Sorghum bicolor L .) bran and their biological activities and polyphenolic compositions, Industrial Crops & Products, 112(301), 296–304. https://doi.org/10.1016/j.indcrop.2017.12.019

Mahmood S., Ali H., Ahmad F., dan Iqbal Z. 2014. Estimation of tannins in different sorghum varieties and their effects on nutrient digestibility and absorption of some minerals in caged white leghorn layers. Int. J. Agric. Biol. 16, 217–221.

Mandic, A. I., Dilas, S. M., Cetkovic, G. S., Canadanovic-Brunet, J. M., dan Tumbas, V. T. 2008. Polyphenolic composition and antioxidant activities of grape seed extract, International Journal of Food Properties, 11(4), 713–726. https://doi.org/10.1080/10942910701584260

Medina, M.B. 2011. Simple and rapid method for the analysis of phenolic compounds in beverages and grains. Journal of Agricultural and Food Chemistry, 59, 1565–1571.

Medina-Torres, N., Ayora-Talavera, T., Espinosa-Andrews, H., Sánchez-Contreras, A., dan Pacheco, N. 2017. Ultrasound Assisted Extraction for the Recovery of Phenolic Compounds from Vegetable Sources, Agronomy, 7(3), 47. https://doi.org/10.3390/agronomy7030047

Merghem, R., Jay, M., Brun, N., dan Voirin, B. 2004. Qualitative analysis and HPLC isolation and identification of procyanidins from Vicia faba, Phytochemical Analysis, 15(2), 95–99. https://doi.org/10.1002/pca.731

Mkandawire, N. L., Kaufman, R. C., Bean, S. R., Weller, C. L., Jackson, D. S., dan Rose, D. J. 2013. Effects of Sorghum (Sorghum bicolor (L.) Moench) Tannins on α - Amylase Activity and in Vitro Digestibility of Starch in Raw and Processed Flours.

Cuevas Montilla, E., Hillebrand, S., Antezana, A., dan Winterhalter, P. 2011. Soluble and bound phenolic compounds in different bolivian purple corn (Zea mays L.) cultivars. Journal of Agricultural and Food Chemistry, 59, 7068–7074.

Mott, C. L., Hettiarachchy, N. S., dan Qi, M. 1999. Effect of xanthan gum on enhancing the foaming properties of whey protein isolate, JAOCS, Journal of the American Oil Chemists' Society, 76(11), 1383–1386. https://doi.org/10.1007/s11746-999-0154-8

Mudjisihono, R. dan D.S. Damardjati. 1987. Prospek kegunaan sorgum sebagai Sumber pangan dan pakan. Jurnal Penelitian dan Pengembangan Pertanian VI(I):1-5.

Mudjisihono, R. dan S. Suprapto. 1987. Budidaya dan Pengolahan Sorgum. Penebar Swadaya, Jakarta.

Muthukumaran, A., Ratti, C., dan Raghavan, V. 2008. Foam-mat freeze drying of egg white and mathematical modeling Part I optimization of egg white foam stabilit, Drying Technology, 26(4), 508–512. https://doi.org/10.1080/07373930801929581

Ngoua-Meye-Misso, R.-L., Sima-Obiang, C., Ndong, J. D. L. C., Ondo, J. P., Ovono Abessolo, F., dan Obame-Engonga, L.-C. 2018. Phytochemical screening, antioxidant, anti-inflammatory and antiangiogenic activities of Lophira procera A. Chev. (Ochnaceae) medicinal plant from Gabon , Egyptian Journal of Basic and Applied Sciences, 5(1), 80–86. https://doi.org/10.1016/j.ejbas.2017.11.003

Njongmeta, N.L.A. 2009. Dissertation Extractability Profiling And Antioxidant Activity Of Flavonoids In Sorghum Grain And Non-Grain Materials. Graduate Studies of Texas A&M University

Nisa, F. C. 2010. Extraction of Natural Antioxidant from Local Sorghum Brown Variety and Its Activity Enhancement by Germination and Microwave, 11(3), 184–195.

Olugbami, J. O., Gbadegesin, M. A., dan Odunola, O. A. 2014. In vitro evaluation of the antioxidant potential, phenolic and flavonoid contents of the stem bark ethanol extract of Anogeissus leiocarpus., African Journal of Medicine and Medical Sciences, 43(Suppl 1), 101–109.

Ochanda. S.O., Onyango C.A., Mwasaru M.A., Ochieng' J. K, dan Mathooko F.M.. 2010. Effects of alkali treatment on tannins and phytates in red Sorghum, White Sorghum and Pearl Millet, Journal of Applied Biosciences, 36, pp. 2409–2418.

Petigny, L., Périno-Issartier, S., Wajsman, J., dan Chemat, F. 2013. Batch and continuous ultrasound assisted extraction of boldo leaves (Peumus boldus Mol.), International Journal of Molecular Sciences, 14(3), 5750–5764. https://doi.org/10.3390/ijms14035750

Pokorny, J.N, Anishlieva, M.Y., Gordon. 2001. Antioxidants in Food. Boca Raton Boston New York. Washington, DC:CRC Press

Prasetyaningrum, A., dan Djaeni, M. 2012. Drying Spirulina with Foam Mat Drying at Medium Temperature, International Journal of Sci. and Eng, 3 (October), 1–3.

Prior, R. L., dan Gu, L. 2005. Occurrence and biological significance of proanthocyanidins in the American diet, Phytochemistry, 66 (18 SPEC. ISS.), 2264–2280. https://doi.org/10.1016/j.phytochem.2005.03.025

Puértolas, E., Luengo, E., Álvarez, I., dan Raso, J. 2012. Improving Mass Transfer to Soften Tissues by Pulsed Electric Fields: Fundamentals and Applications, Annual Review of Food Science and Technology, 3(1), 263–282. https://doi.org/10.1146/annurev-food-022811-101208

Putri, W. S., Warditiani, N. K., dan Larasanty, L. P. F. 2013. Skrining Fitokimia Ekstrak Etil Asetat Kulit Buah Manggis (Garcinia mangostana L .), 56–59.

Rachmaniah, O., Jumiati Fazriyah, L., Hesti Seftiyani, N., dan Rachimoellah, M. 2018. Tailoring Properties of Acidic Types of Natural Deep Eutectics Solvents (NADES): Enhanced Solubility of Curcuminoids from Curcuma zeodaria , MATEC Web of Conferences, 156, 01011. https://doi.org/10.1051/matecconf/201815601011

Raharjo, S. 2004. Oksidasi Lemak pada Makanan: Implikasinya pada Mutu Makanan dan Kesehatan. Universitas Gadjah Mada, Yogyakarta.

Rachmaniah, O., Gama, G. R. F., Pratama, Z. A., dan Rachimoellah, M. 2020. Antimicrobial effect of dissolved curcuminoid in natural deep eutectic solvents (NADES) to Escherichia coli and Staphylococcus aureus: A promising candidate for antimicrobial photodynamic therapy (aPDT), Malaysian Journal of Fundamental and Applied Sciences, 16(5), 514–518. https://doi.org/10.11113/mjfas.v16n5.1572

Romano, A., Masi, P., Pucci, E., Oliviero, V., dan Ferranti, P. 2017. Encapsulated proanthocyanidins as novel ingredients, Chemical Engineering Transactions, 57, 1885–1890. https://doi.org/10.3303/CET1757315

Rowe, R.C., P.J. Sheskey., dan M.E. Quin. 2003. Handbook of Pharmaceutical Excipient, 4th ed. Pharmaceutical Press, Washington DC.

Ruesgas-Ramón, M., Figueroa-Espinoza, M. C., dan Durand, E. 2017. Application of Deep Eutectic Solvents (DES) for Phenolic Compounds Extraction: Overview, Challenges, and Opportunities, Journal of Agricultural and Food Chemistry, 65(18), 3591–3601. https://doi.org/10.1021/acs.jafc.7b01054

Salahi, M. R., Mohebbi, M., dan Taghizadeh, M. 2015. Foam-Mat Drying of Cantaloupe (Cucumis melo): Optimization of Foaming Parameters and Investigating Drying Characteristics, Journal of Food Processing and Preservation, 39(6), 1798–1808. https://doi.org/10.1111/jfpp.12414

Salehi, H. S., Ramdin, M., Moultos, O. A., dan Vlugt, T. J. H. 2019. Computing solubility parameters of deep eutectic solvents from Molecular Dynamics simulations, Fluid Phase Equilibria, 497, 10–18. https://doi.org/10.1016/j.fluid.2019.05.022

Sano, Y., Kubota, S., Kawarazaki, A., Kawamura, K., Kashiwai, H., dan Kuwahara, F. 2019. Mathematical model for coffee extraction based on the volume averaging theory, Journal of Food Engineering, 263(May), 1–12. https://doi.org/10.1016/j.jfoodeng.2019.05.025

Santoso, U., Kubo, K., Ota, T., Tadokoro, T., dan Maekawa, A. 1996. Antioxidative Effect of Coconut (Cocos nucifera L.) Water Extract on TBARS Value in Liver of Rats Fed Fish Oil Diet, Indonesian Food and Nutrition Progress, Indonesian Food and Nutrition progress. https://doi.org/10.22146/jifnp.48

Santoso, U. 2004. Antioxidant Activity of the Extractof Tropical Rhizomes. Indonesian Food and Nutrition Progress Vol 11, No 1 (2004). Gadjah Mada University. ISSN 0854-6177https://doi.org/10.22146/jifnp.25

Santoso, U. 2016. Antioksidan Pangan. UGM Press.

Sawai, Y., Moon, J. H., Sakata, K., dan Watanabe, N. 2005. Effects of structure on radical-scavenging abilities and antioxidative activities of tea polyphenols: NMR analytical approach using 1,1-diphenyl-2-picrylhydrazyl radicals, Journal of Agricultural and Food Chemistry, 53(9), 3598–3604. https://doi.org/10.1021/jf040423a

Savi, L. K., Dias, M. C. G. C., Carpine, D., Waszczynskyj, N., Ribani, R. H., dan Haminiuk, C. W. I. 2019. Natural deep eutectic solvents (NADES) based on citric acid and sucrose as a potential green technology: a comprehensive study of water inclusion and its effect

on thermal, physical and rheological properties, International Journal of Food Science and Technology, 54(3), 898–907. https://doi.org/10.1111/ijfs.14013

Savova, M., dan Kolusheva, T. 2007. The use of group contribution method for predicting the solubility of seed polyphenols of Vitis vinifera L. within a wide polarity range in solvent mixtures, Journal of the University of Chemical Technology and Metallurgy, retrieved from internet: http://uctm.edu/journal/j2007-3/10_Savova_295-300.pdf, 42(3), 295–300.

Selvamuthukumaran, M., dan Shi, J. 2017. Recent advances in extraction of antioxidants from plant by-products processing industries, Food Quality and Safety, 1(1), 61–81. https://doi.org/10.1093/fqs/fyx004

Sharp, K. A. 2001. Water: Structure and Properties, Encyclopedia of Life Sciences, (April 2001). https://doi.org/10.1038/npg.els.0003116

Sherwin, E., 1978. Oxidation and Antioxidants in Fat and Oil Processing. Journal of The American Oil Chemists' Society, Volume 55, pp. 809-814.

Shukla, M., Rathore, P., Jain, A., dan Nayak, S. 2010. Enhanced solubility study of glipizide using different solubilization techniques, International Journal of Pharmacy and Pharmaceutical Sciences, 2(2), 46–48.

Sikwese, F. 2005. Sorghum phenolic extracts: their storage stability and antioxidant activity in sunflower oil.

Sikwese, F. E., dan Duodu, K. G. 2007. Antioxidant effect of a crude phenolic extract from sorghum bran in sunflower oil in the presence of ferric ions, Food Chemistry, 104(1), 324–331. https://doi.org/10.1016/j.foodchem.2006.11.042

Simonyan, K. J., Okene, A. M., dan Yiljep, Y. D. 2007. Some Physical Properties of Samaru Sorghum 17 Grains, Agricultural Engineering International: The CIGR Ejournal, IX(January 2007), 1–15.

Singh, A. 2010. Optimization of microwave-assisted extraction of antioxidants from potato peels, ProQuest Dissertations and Theses, retrieved from internet: http://search.proquest.com/docview/869228230?accountid=14777, M.Sc.(August).

Sirappa, M. P. 2003. Prospek pengembangan sorgum di Indonesia sebagai komoditas alternatif untuk pangan, pakan, dan industri. Jurnal Litbang Pertanian, 22(4), 133-140

Smith, E. L., Abbott, A. P., dan Ryder, K. S. 2014. Deep Eutectic Solvents (DESs) and Their Applications, Chemical Reviews, 114(21), 11060–11082. https://doi.org/10.1021/cr300162p

Spiro, M., dan Price, W. E. 1987. Kinetics and equilibria of tea infusion: Part 7-The effects of salts and of pH on the rate of extraction of caffeine from Kapchorua Pekoe Fannings, Food Chemistry, 25(1), 49–59. https://doi.org/10.1016/0308-8146(87)90053-7

Srinivas, K., King, J. W., Monrad, J. K., Howard, L. R., dan Hansen, C. M. 2009. Optimization of subcritical fluid extraction of bioactive compounds using hansen solubility parameters, Journal of Food Science, 74(6), 342–354. https://doi.org/10.1111/j.1750-3841.2009.01251.x

Sritongtae, B., Morgan, M. R. A., dan Duangmal, K. 2017. Drying kinetics, physico-chemical properties, antioxidant activity and phenolic composition of foam-mat dried germinated rice bean (Vigna umbellata) hydrolysate, International Journal of Food Science and Technology, 52(7), 1710–1721. https://doi.org/10.1111/ijfs.13401

Suarni. 2004. Komposisi asam amino penyusun protein beberapa serealia. J. Stigma XII (3):352-355.

Suarni. 2012. Potensi Sorgum sebagai Bahan Pangan Fungsional, IPTEK Tanaman Pangan, 7(1), 58–66.

Sumarno dan S. Karsono. 1996. Prospek tanaman sorgum untuk pengembangan agroindustri. Risalah Simposium. Edisi khusus

Balitkabi No. 4. Malang.Sumarno dkk. 2013. Sorgum. Jakarta: IAARD Press Badan Penelitian dan Pengembangan Pertanian Jln. Ragunan 29, Pasarminggu, Jakarta 12540

Suryani, N.C., Permana, D.G. dan Jambe, A.A.G.N.A. 2016. Pengaruh Jenis Pelarut terhadap Kandungan Total Flavonoid dan Aktivitas Antioksidan Ekstrak Daun Matoa (Pometia pinnata). https://simdos.unud.ac.id/uploads/file_penelitian_1_dir/8717ce9f43ee82bd10e8dfee6a8770c1

Susanti, D. Y., Sediawan, W. B., Fahrurrozi, M., dan Hidayat, M. 2020a Studies on Kinetics and Optimum Agitation of Phenolic Compound Extraction from Intact Red Sorghum, 755–767 in Lecture Note in Mechanical Engineering, Springer, Singapore. https://doi.org/10.1007/978-981-15-4481-1_72

Susanti, D. Y., Sediawan, W. B., Fahrurrozi, M., dan Hidayat, M. 2020b. 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., dan Hidayat, M. 2021a. 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

Susanti, D. Y., Sediawan, W. B., Fahrurrozi, M., dan Hidayat, M. 2019. A mechanistic model of mass transfer in the extraction of bioactive compounds from intact sorghum pericarp, Processes, 7(11). https://doi.org/10.3390/pr7110837

Susanti, D. Y., Sediawan, W. B., Fahrurrozi, M., dan Hidayat, M. 2021b. 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, (xxxx). https://doi.org/10.1016/j.jssas.2021.02.007

Suzuki, M., Sano, M., Yosidha, R., Degawa, M., Mitase, T dan Yamamoto, M.M. 2003. Epimerization of Tea Catechin and O-Methylated Derivatives of (-)-Epigallocatechin-3-O-gallate: Relationship Between Epimerization and Chemical Structure. J. Agric. Food Chem. 51: 510- 514.

Teo, C.C., Tan, S.N., Yong, J.W.H., Hew, C.S., dan Ong, E.S., 2010. Pressurized hot water extraction (PHWE). Journal of Chromatography. A 1217, 2484–2494.

Teow, C. C., Truong, V. Den, McFeeters, R. F., Thompson, R. L., Pecota, K. V., dan Yencho, G. C. 2007. Antioxidant activities, phenolic and β-carotene contents of sweet potato genotypes with varying flesh colours, Food Chemistry, 103(3), 829–838. https://doi.org/10.1016/j.foodchem.2006.09.033

Gallasch, R.G., 2012. The Impact of Commercial Tannin Additions dan Addition Timing on Finger Lakes Red Wine Color, (August). Thesis

Torun, M., Dincer, C., Topuz, A., Sahin–Nadeem, H., dan Ozdemir, F. 2015. Aqueous extraction kinetics of soluble solids, phenolics and flavonoids from sage (Salvia fruticosa Miller) leaves, Journal of Food Science and Technology, 52(5), 2797–2805. https://doi.org/10.1007/s13197-014-1308-8

Troter, D., Zlatkovic, M., Djokic-Stojanovic, D., Konstantinovic, S., dan Todorovic, Z. 2016. Citric acid-based deep eutectic solvents: Physical properties and their use as cosolvents

in sulphuric acid-catalysed ethanolysis of oleic acid, Advanced Technologies, 5(1), 53–65. https://doi.org/10.5937/savteh1601053T

Tsutsui, K., Katsuta, K., Matoba, T., Takemasa, M., Funami, T., Sato, E., dan Nishinari, K. 2013. Effects of Time and Temperature of Annealing on Rheological and Thermal Properties of Rice Starch Suspensions during Gelatinization, Journal of Texture Studies, 44(1), 21–33. https://doi.org/10.1111/j.1745-4603.2012.00361.x

Upadhyay, R., Ramalakshmi, K., dan Jagan Mohan Rao, L. 2012. Microwave-assisted extraction of chlorogenic acids from green coffee beans, Food Chemistry, 130(1), 184–188. https://doi.org/10.1016/j.foodchem.2011.06.057

Vernès, L., Vian, M., dan Chemat, F. 2019. Ultrasound and microwave as green tools for solid-liquid extraction, Liquid-Phase Extraction, 355–374. https://doi.org/10.1016/B978-0-12-816911-7.00012-8

Wang, J., Mannan, M. S., dan Wilhite, B. A. 2020. Integrated thermodynamic and kinetic model of homogeneous catalytic N-oxidation processes, AIChE Journal, 66(4), 1–17. https://doi.org/10.1002/aic.16875

Wang, Y., Li, X., Chen, X., Li, B., Mao, X., Miao, J., Zhao, C., Huang, L., dan Gao, W. 2018. Effects of hot air and microwave-assisted drying on drying kinetics, physicochemical properties, and energy consumption of chrysanthemum, Chemical Engineering and Processing - Process Intensification, 129(2010), 84–94. https://doi.org/10.1016/j.cep.2018.03.020

Wang, R. dan Zhou, W. 2004. Stability of tea catechins in the breadmaking process, Journal of Agricultural and Food Chemistry, 52(26), 8224–8229. https://doi.org/10.1021/jf048655x

Widodo, H., Sismindari, S., Asmara, W., dan Rohman, A. 2019. Antioxidant activity, total phenolic and flavonoid contents of selected medicinal plants used for liver diseases and its classification with chemometrics, Journal of Applied Pharmaceutical Science, 9(6), 99–105. https://doi.org/10.7324/JAPS.2019.90614

Wissam, Z., Ghada, B., Wassim, A., dan Warid, K. 2012. Effective extraction of polyphenols and proanthocyanidins from Pomegranate's peel, International Journal of Pharmacy and Pharmaceutical Sciences, 4(Suppl.3), 675–682. https://doi.org/10.1186/2251-6581-13-11.

Wu Y., X. Li, W. Xiang, C. Zhu, Z. Lin, Y. Wu, J. Li,S. Pandravada, D.D. Ridder, G. Bai, M.L. Wang, H.N. Trick, S.R. Bean, M.R. Tuinstraf, T.T. Tessoa, dan J.Yu. 2012. Presence of tannins in sorghum grains is conditioned by different natural alleles of tannin1. PNAS 109(26): 10281–10286.

Xie, D. Y., dan Dixon, R. A. 2005. Proanthocyanidin biosynthesis - Still more questions than answers?, Phytochemistry, 66(18 SPEC. ISS.), 2127–2144. https://doi.org/10.1016/j.phytochem.2005.01.008

Yang, Lei, Sun, X., Yang, F., Zhao, C., Zhang, L., dan Zu, Y. 2012. Application of ionic liquids in the microwave-assisted extraction of proanthocyanidins from larix gmelini bark, International Journal of Molecular Sciences, 13(4), 5163–5178. https://doi.org/10.3390/ijms13045163

Yang, L. 2009. Chemopreventive potential of sorghum with different phenolic profile, (December), 117.

Yılmaz, F. M., Yüksekkaya, S., Vardin, H., dan Karaaslan, M. 2017. The effects of drying conditions on moisture transfer and quality of pomegranate fruit leather (pestil), Journal of the Saudi Society of Agricultural Sciences, 16(1), 33–40. https://doi.org/10.1016/j.jssas.2015.01.003

Zhu, Y., Shi, Z., Yao, Y., Hao, Y., dan Ren, G. 2017. Antioxidant and anti-cancer activities of proanthocyanidins-rich extracts from three varieties of sorghum (Sorghum bicolor) bran, Food and Agricultural Immunology, 28(6), 1530–1543. https://doi.org/10.1080/09540105.2017.1351526

Zhuang, M., Jiang, H., Suzuki, Y., Li, X., Xiao, P., Tanaka, T., Ling, H., Yang, B., Saitoh, H., Zhang, L., Qin, C., Sugamura, K., dan Hattori, T. 2009. Procyanidins and butanol extract of Cinnamomi Cortex inhibit SARS-CoV infection, Antiviral Research, 82(1), 73–81. https://doi.org/10.1016/j.antiviral.2009.02.001