

REFERENCES

- Adharini, R.I., Suyono, E.A., Suadi, Jayanti, A.D., Setyawan, A.R., 2019. A comparison of nutritional values of *Kappaphycus alvarezii*, *Kappaphycus striatum*, and *Kappaphycus spinosum* from the farming sites in Gorontalo Province, Sulawesi, Indonesia. *J. Appl. Phycol.* 31, 725–730. <https://doi.org/10.1007/s10811-018-1540-0>
- Bernal, J., Mendiola, J.A., Ibáñez, E., Cifuentes, A., 2011. Advanced analysis of nutraceuticals. *J. Pharm. Biomed. Anal.* 55, 758–774. <https://doi.org/10.1016/j.jpba.2010.11.033>
- Carrera, C., Ruiz-Rodríguez, A., Palma, M., Barroso, C.G., 2012. Ultrasound assisted extraction of phenolic compounds from grapes. *Anal. Chim. Acta* 732, 100–104. <https://doi.org/10.1016/j.aca.2011.11.032>
- Celli, G.B., Ghanem, A., Brooks, M.S.L., 2015. Optimization of ultrasound-assisted extraction of anthocyanins from haskap berries (*Lonicera caerulea* L.) using Response Surface Methodology. *Ultrason. Sonochem.* 27, 449–455. <https://doi.org/10.1016/j.ultsonch.2015.06.014>
- Chakraborty, K., Joseph, D., 2016. Antioxidant Potential and Phenolic Compounds of Brown Seaweeds *Turbinaria conoides* and *Turbinaria ornata* (Class: Phaeophyceae). *J. Aquat. Food Prod. Technol.* 25, 1249–1265. <https://doi.org/10.1080/10498850.2015.1054540>
- Chawla, G., Ranjan, C., 2016. Principle, Instrumentation, and Applications of UPLC: A Novel Technique of Liquid Chromatography. *Open Chem. J.* 3, 1–16. <https://doi.org/10.2174/1874842201603010001>
- Chemat, F., Rombaut, N., Sicaire, A.G., Meullemiestre, A., Fabiano-Tixier, A.S., Abert-Vian, M., 2017. Ultrasound assisted extraction of food and natural products. Mechanisms, techniques, combinations, protocols and applications. A review. *Ultrason. Sonochem.* 34, 540–560. <https://doi.org/10.1016/j.ultsonch.2016.06.035>
- Chemat, F., Zill-E-Huma, Khan, M.K., 2011. Applications of ultrasound in food technology: Processing, preservation and extraction. *Ultrason. Sonochem.* 18, 813–835. <https://doi.org/10.1016/j.ultsonch.2010.11.023>

- Chen, B.-Y., Kuo, C.-H., Liu, Y.-C., Ye, L.-Y., Chen, J.-H., Shieh, C.-J., 2012. Ultrasonic-assisted extraction of the botanical dietary supplement resveratrol and other constituents of *Polygonum cuspidatum*. *J. Nat. Prod.* 75, 1810–1813. <https://doi.org/10.1021/np300392n>
- Chesnut, S.M., Salisbury, J.J., 2007. The role of UHPLC in pharmaceutical development. *J. Sep. Sci.* 30, 1183–1190. <https://doi.org/10.1002/jssc.200600505>
- Da Porto, C., Porretto, E., Decorti, D., 2013. Comparison of ultrasound-assisted extraction with conventional extraction methods of oil and polyphenols from grape (*Vitis vinifera* L.) seeds. *Ultrason. Sonochem.* 20, 1076–1080. <https://doi.org/10.1016/j.ultsonch.2012.12.002>
- Damongilala, L.J., Widjanarko, S.B., Zubaidah, E., Runtuwene, M.R.J., 2013. Antioxidant Activity Against Methanol Extraction of *Eucheuma cottonii* and *E. spinosum* Collected From North Sulawesi Waters, Indonesia. *Food Sci. Qual. Manag.* 17, 7–14.
- Do, Q.D., Angkawijaya, A.E., Tran-Nguyen, P.L., Huynh, L.H., Soetaredjo, F.E., Ismadji, S., Ju, Y.H., 2014a. Effect of extraction solvent on total phenol content, total flavonoid content, and antioxidant activity of *Limnophila aromatica*. *J. Food Drug Anal.* 22, 296–302. <https://doi.org/10.1016/j.jfda.2013.11.001>
- Do, Q.D., Angkawijaya, A.E., Tran-Nguyen, P.L., Huynh, L.H., Soetaredjo, F.E., Ismadji, S., Ju, Y.H., 2014b. Effect of extraction solvent on total phenol content, total flavonoid content, and antioxidant activity of *Limnophila aromatica*. *J. Food Drug Anal.* 22, 296–302. <https://doi.org/10.1016/j.jfda.2013.11.001>
- Elboughdiri, N., 2018. Effect of Time, Solvent-Solid Ratio, Ethanol Concentration and Temperature on Extraction Yield of Phenolic Compounds From Olive Leaves. *Eng. Technol. Appl. Sci. Res.* <https://doi.org/10.48084/etasr.1983>
- Fallas, M.M., Neue, U.D., Hadley, M.R., McCalley, D. V., 2010. Further investigations of the effect of pressure on retention in ultra-high-pressure liquid chromatography. *J. Chromatogr. A* 1217, 276–284.

<https://doi.org/10.1016/j.chroma.2009.11.041>

- Farah Diyana, A., Abdullah, A., Shahrul Hisham, Z.A., Chan, K.M., 2015. Antioxidant activity of red algae *Kappaphycus alvarezii* and *Kappaphycus striatum*. *Int. Food Res. J.* 22, 1977–1984.
- Folin, O., Denis, W., 1915. a Colorimetric Method for the Determination of Phenols (and Phenol Derivatives) in Urine. *J. Biol. Chem.* 22, 305–308. [https://doi.org/10.1016/s0021-9258\(18\)87648-7](https://doi.org/10.1016/s0021-9258(18)87648-7)
- Galvan D’Alessandro, L., Kriaa, K., Nikov, I., Dimitrov, K., 2012. Ultrasound assisted extraction of polyphenols from black chokeberry. *Sep. Purif. Technol.* 93, 42–47. <https://doi.org/10.1016/j.seppur.2012.03.024>
- Ganesan, P., Kumar, C.S., Bhaskar, N., 2008. Antioxidant properties of methanol extract and its solvent fractions obtained from selected Indian red seaweeds. *Bioresour. Technol.* 99, 2717–2723. <https://doi.org/10.1016/j.biortech.2007.07.005>
- Garcia-Castello, E.M., Rodriguez-Lopez, A.D., Mayor, L., Ballesteros, R., Conidi, C., Cassano, A., 2015. Optimization of conventional and ultrasound assisted extraction of flavonoids from grapefruit (*Citrus paradisi* L.) solid wastes. *LWT - Food Sci. Technol.* 64, 1114–1122. <https://doi.org/10.1016/j.lwt.2015.07.024>
- Gutiérrez-Grijalva, E.P., Ambriz-Pérez, D.L., Leyva-López, N., Castillo-López, R.I., Heredia, J.B., 2016. Bioavailability of dietary phenolic compounds: Review. *Rev. Esp. Nutr. Humana y Diet.* 20, 140–147. <https://doi.org/10.14306/renhyd.20.2.184>
- Hammi, K.M., Jdey, A., Abdelly, C., Majdoub, H., Ksouri, R., 2015. Optimization of ultrasound-assisted extraction of antioxidant compounds from Tunisian *Zizyphus lotus* fruits using response surface methodology. *Food Chem.* 184, 80–89. <https://doi.org/10.1016/j.foodchem.2015.03.047>
- Heffernan, N., Smyth, T.J., Fitzgerald, R.J., Soler-Vila, A., Brunton, N., 2014. Antioxidant activity and phenolic content of pressurised liquid and solid-liquid extracts from four Irish origin macroalgae. *Int. J. Food Sci. Technol.* 49, 1765–1772. <https://doi.org/10.1111/ijfs.12512>
- Herrero, M., Plaza, M., Cifuentes, A., Ibáñez, E., 2012. Extraction Techniques for

- the Determination of Phenolic Compounds in Food. *Compr. Sampl. Sample Prep.* 4, 159–180. <https://doi.org/10.1016/B978-0-12-381373-2.00132-0>
- Heydari Majd, M., Rajaei, A., SalarBashi, D., Mortazavi, S.A., Bolourian, S., 2014. Optimization of ultrasonic-assisted extraction of phenolic compounds from bovine pennyroyal (*Phlomidioschema parviflorum*) leaves using response surface methodology. *Ind. Crops Prod.* 57, 195–202. <https://doi.org/10.1016/j.indcrop.2014.03.031>
- Hossain, M.B., Brunton, N.P., Patras, A., Tiwari, B., O'Donnell, C.P., Martin-Diana, A.B., Barry-Ryan, C., 2012. Optimization of ultrasound assisted extraction of antioxidant compounds from marjoram (*Origanum majorana* L.) using response surface methodology. *Ultrason. Sonochem.* 19, 582–590. <https://doi.org/10.1016/j.ultsonch.2011.11.001>
- ICH, 2005. ICH Topic Q2 (R1) Validation of Analytical Procedures: Text and Methodology. Geneva, Switzerland.
- Ignat, I., Volf, I., Popa, V.I., 2011. A critical review of methods for characterisation of polyphenolic compounds in fruits and vegetables. *Food Chem.* <https://doi.org/10.1016/j.foodchem.2010.12.026>
- Kadam, S.U., Tiwari, B.K., Álvarez, C., O'Donnell, C.P., 2015a. Ultrasound applications for the extraction, identification and delivery of food proteins and bioactive peptides. *Trends Food Sci. Technol.* <https://doi.org/10.1016/j.tifs.2015.07.012>
- Kadam, S.U., Tiwari, B.K., Smyth, T.J., O'Donnell, C.P., 2015b. Optimization of ultrasound assisted extraction of bioactive components from brown seaweed *Ascophyllum nodosum* using response surface methodology. *Ultrason. Sonochem.* 23, 308–316. <https://doi.org/10.1016/J.ULTSONCH.2014.10.007>
- Kim, S., Chojnacka, K., Compounds, B., 2013. Handbook(Quase completo) of Microalgal Culture – Applied Phycology and Biotechnology 2e Encyclopedia of Marine Plant Bioactives and Drug Marine Proteins and Peptides – Biological Activities Food and Industrial Bioproducts and Handbook of Plant Food Phytoc. Wiley-vch Verlag GmbH & Co. KgaA, Weinheim, Gemany.
- Kim, S.M., Kang, S.W., Jeon, J.S., Jung, Y.J., Kim, W.R., Kim, C.Y., Um, B.H.,

2013. Determination of major phlorotannins in *Eisenia bicyclis* using hydrophilic interaction chromatography: Seasonal variation and extraction characteristics. *Food Chem.* 138, 2399–2406. <https://doi.org/10.1016/J.FOODCHEM.2012.11.057>
- LOWRY, O.H., ROSEBROUGH, N.J., FARR, A.L., RANDALL, R.J., 1951. Protein measurement with the Folin phenol reagent. *J. Biol. Chem.* 193, 265–275. [https://doi.org/10.1016/s0021-9258\(19\)52451-6](https://doi.org/10.1016/s0021-9258(19)52451-6)
- Machu, L., Misurcova, L., Ambrozova, J.V., Orsavova, J., Mlcek, J., Sochor, J., Jurikova, T., 2015. Phenolic content and antioxidant capacity in algal food products. *Molecules* 20, 1118–1133. <https://doi.org/10.3390/molecules20011118>
- Mannino, A.M., Micheli, C., 2020. Ecological function of phenolic compounds from mediterranean fucoid algae and seagrasses: An overview on the genus *Cystoseira sensu lato* and *Posidonia oceanica* (L.) Delile. *J. Mar. Sci. Eng.* 8, 12–17. <https://doi.org/10.3390/jmse8010019>
- Martin, M., Guiochon, G., 2005. Effects of high pressure in liquid chromatography. *J. Chromatogr. A* 1090, 16–38. <https://doi.org/10.1016/j.chroma.2005.06.005>
- Matanjun, P., Mohamed, S., Mustapha, N.M., Muhammad, K., 2009. Nutrient content of tropical edible seaweeds, *Eucheuma cottonii*, *Caulerpa lentillifera* and *Sargassum polycystum*. *J. Appl. Phycol.* 21, 75–80. <https://doi.org/10.1007/s10811-008-9326-4>
- Medina-Torres, N., Ayora-Talavera, T., Espinosa-Andrews, H., Sánchez-Contreras, A., Pacheco, N., 2017. Ultrasound assisted extraction for the recovery of phenolic compounds from vegetable sources. *Agronomy* 7. <https://doi.org/10.3390/agronomy7030047>
- Mekinić, I.G., Skroza, D., Šimat, V., Hamed, I., Čagalj, M., Perković, Z.P., 2019. Phenolic content of brown algae (Pheophyceae) species: Extraction, identification, and quantification. *Biomolecules* 9. <https://doi.org/10.3390/biom9060244>
- Merdekawati, W., Susanto, A.B., 2009. Kandungan Dan Komposisi Pigmen Rumput Laut Serta Potensinya Untuk Kesehatan. *Squalen Bull. Mar. Fish.*

- Postharvest Biotechnol. 4, 41. <https://doi.org/10.15578/squalen.v4i2.147>
- Monteiro, M., Santos, R.A., Iglesias, P., Couto, A., Serra, C.R., Gouvinhas, I., Barros, A., Oliva-Teles, A., Enes, P., Díaz-Rosales, P., 2020. Effect of extraction method and solvent system on the phenolic content and antioxidant activity of selected macro- and microalgae extracts. *J. Appl. Phycol.* 32, 349–362. <https://doi.org/10.1007/s10811-019-01927-1>
- Muñiz-Márquez, D.B., Martínez-Ávila, G.C., Wong-Paz, J.E., Belmares-Cerda, R., Rodríguez-Herrera, R., Aguilar, C.N., 2013. Ultrasound-assisted extraction of phenolic compounds from *Laurus nobilis* L. and their antioxidant activity. *Ultrason. Sonochem.* 20, 1149–1154. <https://doi.org/10.1016/j.ultsonch.2013.02.008>
- Naczki, M., Shahidi, F., 2014. *Antioxidant Properties of Food Phenolics*, Food Phenolics. CRC Press, Boca Raton, FL, USA. <https://doi.org/10.1201/9780203508732.ch8>
- Naseri, A., Holdt, S.L., Jacobsen, C., 2019. Biochemical and Nutritional Composition of Industrial Red Seaweed Used in Carrageenan Production. *J. Aquat. Food Prod. Technol.* 28, 967–973. <https://doi.org/10.1080/10498850.2019.1664693>
- Nguyen, D.T.T., Guillarme, D., Heinisch, S., Barrioulet, M.P., Rocca, J.L., Rudaz, S., Veuthey, J.L., 2007. High throughput liquid chromatography with sub-2 μm particles at high pressure and high temperature. *J. Chromatogr. A* 1167, 76–84. <https://doi.org/10.1016/j.chroma.2007.08.032>
- Nurjanah, Nurilmala, M., Anwar, E., Luthfiyana, N., Hidayat, T., 2017. Identification of bioactive compounds of seaweed *Sargassum* sp. and *Eucheuma cottonii* Doty as a raw sunscreen cream. *Proc. Pakistan Acad. Sci. Part B* 54, 311–318.
- Otero, P., López-Martínez, M.I., García-Risco, M.R., 2019. Application of pressurized liquid extraction (PLE) to obtain bioactive fatty acids and phenols from *Laminaria ochroleuca* collected in Galicia (NW Spain). *J. Pharm. Biomed. Anal.* 164, 86–92. <https://doi.org/10.1016/j.jpba.2018.09.057>
- Palanikumar, K., Davim, J.P., 2013. Electrical discharge machining: study on

machining characteristics of WC/Co composites, Machining and machine-tools. Woodhead Publishing Limited.
<https://doi.org/10.1533/9780857092199.135>

Parenrengi, A., Fahrur, M., Makmur, M., Mulyaningrum, S.R.H., 2017. SELEKSI RUMPUT LAUT *Kappaphycus striatum* DALAM UPAYA PENINGKATAN LAJU PERTUMBUHAN BIBIT UNTUK BUDIDAYA. *J. Ris. Akuakultur* 11, 235. <https://doi.org/10.15578/jra.11.3.2016.235-248>

Parisi, O.I., Puoci, F., Restuccia, D., Farina, G., Iemma, F., Picci, N., 2013a. Polyphenols and Their Formulations: Different Strategies to Overcome the Drawbacks Associated with Their Poor Stability and Bioavailability, Polyphenols in Human Health and Disease. Elsevier Inc. <https://doi.org/10.1016/B978-0-12-398456-2.00004-9>

Parisi, O.I., Puoci, F., Restuccia, D., Farina, G., Iemma, F., Picci, N., 2013b. Polyphenols and Their Formulations: Different Strategies to Overcome the Drawbacks Associated with Their Poor Stability and Bioavailability, in: Polyphenols in Human Health and Disease. Elsevier Inc., pp. 29–45. <https://doi.org/10.1016/B978-0-12-398456-2.00004-9>

Peterson, G.L., 1983. Determination of Total Protein. *Methods Enzymol.* 91, 95–119. [https://doi.org/10.1016/S0076-6879\(83\)91014-5](https://doi.org/10.1016/S0076-6879(83)91014-5)

Peterson, G.L., 1979. Review of the folin phenol protein quantitation method of lowry, rosebrough, farr and randall. *Anal. Biochem.* [https://doi.org/10.1016/0003-2697\(79\)90222-7](https://doi.org/10.1016/0003-2697(79)90222-7)

Phang, S.M., 2006. Seaweed resources in Malaysia: Current status and future prospects. *Aquat. Ecosyst. Heal. Manag.* 9, 185–202. <https://doi.org/10.1080/14634980600710576>

Picó, Y., 2013. Ultrasound-assisted extraction for food and environmental samples. *TrAC - Trends Anal. Chem.* <https://doi.org/10.1016/j.trac.2012.12.005>

Rajauria, G., Foley, B., Abu-Ghannam, N., 2016. Identification and characterization of phenolic antioxidant compounds from brown Irish seaweed *Himantalia elongata* using LC-DAD–ESI-MS/MS. *Innov. Food Sci. Emerg. Technol.* 37, 261–268. <https://doi.org/10.1016/j.ifset.2016.02.005>

- Ramić, M., Vidović, S., Zeković, Z., Vladić, J., Cvejin, A., Pavlić, B., 2015. Modeling and optimization of ultrasound-assisted extraction of polyphenolic compounds from *Aronia melanocarpa* by-products from filter-tea factory. *Ultrason. Sonochem.* 23, 360–368. <https://doi.org/10.1016/j.ultsonch.2014.10.002>
- Rao, J.S., Kumar, B., 2012. 3D Blade root shape optimization, Institution of Mechanical Engineers - 10th International Conference on Vibrations in Rotating Machinery. Woodhead Publishing Limited. <https://doi.org/10.1533/9780857094537.4.173>
- Şahin, S., Şamli, R., 2013. Optimization of olive leaf extract obtained by ultrasound-assisted extraction with response surface methodology. *Ultrason. Sonochem.* 20, 595–602. <https://doi.org/10.1016/j.ultsonch.2012.07.029>
- Sánchez-Camargo, A.D.P., Montero, L., Stiger-Pouvreau, V., Tanniou, A., Cifuentes, A., Herrero, M., Ibáñez, E., 2016. Considerations on the use of enzyme-assisted extraction in combination with pressurized liquids to recover bioactive compounds from algae. *Food Chem.* 192, 67–74. <https://doi.org/10.1016/j.foodchem.2015.06.098>
- Saranraj, P., 2015. Antimicrobial Activity of Gracilaria Folifera Extracts Against Pathogenic Microorganisms. *International Journal of Current Biochemistry and Biotechnology*
- Setyaningsih, W., Saputro, I.E., Palma, M., Barroso, C.G., 2016a. Pressurized liquid extraction of phenolic compounds from rice (*Oryza sativa*) grains. *Food Chem.* 192, 452–459. <https://doi.org/10.1016/j.foodchem.2015.06.102>
- Setyaningsih, W., Saputro, I.E., Palma, M., Barroso, C.G., 2016b. Stability of 40 phenolic compounds during ultrasound-assisted extractions (UAE), in: AIP Conference Proceedings. <https://doi.org/10.1063/1.4958517>
- Shahidi, F., Ambigaipalan, P., 2015. Phenolics and polyphenolics in foods, beverages and spices: Antioxidant activity and health effects - A review. *J. Funct. Foods.* <https://doi.org/10.1016/j.jff.2015.06.018>
- Sharmila, G., Nikitha, V.S., Ilaiyarasi, S., Dhivya, K., Rajasekar, V., Kumar, N.M.,

- Muthukumaran, K., Muthukumaran, C., 2016. Ultrasound assisted extraction of total phenolics from *Cassia auriculata* leaves and evaluation of its antioxidant activities. *Ind. Crops Prod.* 84, 13–21. <https://doi.org/10.1016/j.indcrop.2016.01.010>
- Shi, J., Nawaz, H., Pohorly, J., Mittal, G., Kakuda, Y., Jiang, Y., 2005. Extraction of Polyphenolics from Plant Material for Functional Foods—Engineering and Technology. *Food Rev. Int.* 21, 139–166. <https://doi.org/10.1081/FRI-200040606>
- Shirsath, S.R., Sonawane, S.H., Gogate, P.R., 2012. Intensification of extraction of natural products using ultrasonic irradiations-A review of current status. *Chem. Eng. Process. Process Intensif.* <https://doi.org/10.1016/j.cep.2012.01.003>
- Singleton, V.L., Orthofer, R., Lamuela-Raventós, R.M., 1999. Analysis of total phenols and other oxidation substrates and antioxidants by means of folin-ciocalteu reagent. *Methods Enzymol.* 299, 152–178. [https://doi.org/10.1016/S0076-6879\(99\)99017-1](https://doi.org/10.1016/S0076-6879(99)99017-1)
- Soria, A.C., Villamiel, M., 2010. Effect of ultrasound on the technological properties and bioactivity of food: A review. *Trends Food Sci. Technol.* 21, 323–331. <https://doi.org/10.1016/j.tifs.2010.04.003>
- Sousa, A.D., Maia, A.I.V., Rodrigues, T.H.S., Canuto, K.M., Ribeiro, P.R.V., de Cassia Alves Pereira, R., Vieira, R.F., de Brito, E.S., 2016. Ultrasound-assisted and pressurized liquid extraction of phenolic compounds from *Phyllanthus amarus* and its composition evaluation by UPLC-QTOF. *Ind. Crops Prod.* 79, 91–103. <https://doi.org/10.1016/j.indcrop.2015.10.045>
- Sridhar, S., Divya, S., Madhuri, R., Sudhakar, M., 2013. Uplc - a dynamic and expeditious approach to liquid chromatography. *Int. J. Pharm. Chem. Biol. Sci.* 3, 1139–1152.
- Tan, J., Lim, P., Phang, S., 2017. Tropical Seaweed Farming Trends, Problems and Opportunities. *Trop. Seaweed Farming Trends, Probl. Oppor.* 29–43. <https://doi.org/10.1007/978-3-319-63498-2>
- Tao, Y., Zhang, Z., Sun, D.W., 2014. Kinetic modeling of ultrasound-assisted

- extraction of phenolic compounds from grape marc: Influence of acoustic energy density and temperature. *Ultrason. Sonochem.* 21, 1461–1469. <https://doi.org/10.1016/j.ultsonch.2014.01.029>
- Tchabo, W., Ma, Y., Engmann, F.N., Ye, H., 2015. Effect of enzymatic treatment on phytochemical compounds and volatile content of mulberry (*Morus nigra*) must by multivariate analysis. *J. Food Nutr. Res.* 54, 128–141.
- Tiwari, B.K., 2015. Ultrasound: A clean, green extraction technology. *TrAC - Trends Anal. Chem.* <https://doi.org/10.1016/j.trac.2015.04.013>
- Vieira, G.S., Cavalcanti, R.N., Meireles, M.A.A., Hubinger, M.D., 2013. Chemical and economic evaluation of natural antioxidant extracts obtained by ultrasound-assisted and agitated bed extraction from jussara pulp (*Euterpe edulis*). *J. Food Eng.* 119, 196–204. <https://doi.org/10.1016/j.jfoodeng.2013.05.030>
- Vilkhu, K., Mawson, R., Simons, L., Bates, D., 2008. Applications and opportunities for ultrasound assisted extraction in the food industry - A review. *Innov. Food Sci. Emerg. Technol.* 9, 161–169. <https://doi.org/10.1016/j.ifset.2007.04.014>
- Wang, X., Wu, Y., Chen, G., Yue, W., Liang, Q., Wu, Q., 2013. Optimisation of ultrasound assisted extraction of phenolic compounds from *Sparganii rhizoma* with response surface methodology. *Ultrason. Sonochem.* 20, 846–854. <https://doi.org/10.1016/j.ultsonch.2012.11.007>
- Wardhani, D.H., Sari, D.K., Prasetyaningrum, A., 2014. Ultrasonic-Assisted Extraction of Antioxidant Phenolic Coumpounds From *Eucheuma Cottonii*. *Reaktor 14*. <https://doi.org/10.14710/reaktor.14.4.291-297>
- Wong Paz, J.E., Muñiz Márquez, D.B., Martínez Ávila, G.C.G., Belmares Cerda, R.E., Aguilar, C.N., 2015. Ultrasound-assisted extraction of polyphenols from native plants in the Mexican desert. *Ultrason. Sonochem.* 22, 474–481. <https://doi.org/10.1016/j.ultsonch.2014.06.001>
- Xiang, Y., Liu, Y., Lee, M.L., 2006. Ultrahigh pressure liquid chromatography using elevated temperature. *J. Chromatogr. A* 1104, 198–202. <https://doi.org/10.1016/j.chroma.2005.11.118>

Yanuarti, R., Nurjanah, N., Anwar, E., Hidayat, T., 2017. Profil fenolik dan aktivitas antioksidan dari ekstrak rumput laut *Turbinaria conoides* dan *Eucheuma cottonii* (Profile of Phenolic and Antioxidants Activity from Seaweed Extract *Turbinaria conoides* and *Eucheuma cottonii*). *J. Pengolah. Has. Perikan. Indones.* 20, 230–237.

Zhang, Q.A., Shen, H., Fan, X.H., Shen, Y., Wang, X., Song, Y., 2015. Changes of gallic acid mediated by ultrasound in a model extraction solution. *Ultrason. Sonochem.* 22, 149–154. <https://doi.org/10.1016/J.ULTSONCH.2014.06.010>