

REFERENCES

- Atmadja, W.S. 1996. Pengenalan Jenis-jenis Rumput Laut Indonesia. Puslitbang Oseanologi-LIPI. Jakarta.
- Baba, S.A. dan S.A. Malik. 2015. Determination of total phenolic and flavonoid content, antimicrobial and antioxidant activity of a root extract of *Arisaema jacquemontii* Blume. *Journal of Taibah University for Science*. 9(4):449-454
- Boney, A.D. 1965. Aspect of Biology of the Seaweeds of economics Importance. *Marine Biology*.3. 105-253.
- Cahyaningrum, K., A. Husni & S.A. Budhiyanti. 2016. Aktivitas antioksidan ekstrak rumput laut cokelat (*Sargassum polycystum*). *AGRITECH* 36: 2-9
- Camacho O., L. Mattio, S. Draisma. S. Fredericq., and G.D. Pulido. 2014. Morphological and molecular assessment of *Sargassum schnetteri* comb.nov. and *Sargassum* section *Cladophyllum* sect. nov *Journal of Systematics and Biodiversity*. 13:105-130
- Chen, J., Li, Y., Zhu, Q., Li, T., Lu, H., Wei, N., Huang, Y., Shi, R., Ma, X., Wang, X., Sheng, J. 2017. Anti-skin-aging effect of epigallocatechin gallate by regulating epidermal growth factor receptor pathway on aging mouse model induced by d-Galactose. *Mechanisms of Ageing and Development*. Vol. 164:2017. pp 1-7, <https://doi.org/10.1016/j.mad.2017.03.007>.
- Cheresh, D.A.; Stupack, D.G. Regulation of angiogenesis: Apoptotic cues from the ECM. *Oncogene* 2008, 27, 6285–6298
- Chia-Wei Phan, Nur Faizah Abu Bakar & Ainon Hamzah (2013) A Comparative Study on Biosurfactant Activity of Crude Oil–Degrading Bacteria and Its Correlation to Total Petroleum Hydrocarbon Degradation, *BioremediationJournal*, 17:4, 240-251.
- Circu, M.L., Aw, T.Y., 2010. Reactive Oxygen Species, Cellular Redox Systems and Apoptosis. *Free Radic Biol Med*. Mar 15; 48(6): 749–762. 10.1016/j.freeradbiomed.2009.12.022
- Dermawan, Hardi. Production of ROS and its effects on mitochondrial and nuclear DNA, human spermatozoa, and sperm function. *Medical Journal of Indonesia*. 2007; 8
- Dertyasasa E. D, Tunjung W. A. S. .2017. Volatile Organic Compounds of Kaffir Lime (*Citrus Hystrix* DC.) Leaves Fractions and Their Potency as Traditional Medicine. *Biosci Biotech Res Asia* 2017;14(4).
- Dikalov, S.I., Harrison, D.G., 2014. Methods for detection of mitochondrial and cellular reactive oxygen species. *Antioxid Redox Signal*. 20(2):372-82. doi: 10.1089/ars.2012.4886.
- Farage MA. Miller KW. Berardesca E. Maibach HI. Clinical implications of aging skin: cutaneous disorders in the elderly. *Am J Clin Dermatol*. 2009; 10:73.
- Farage, M.A., Miller, K.W., Elsner, P. Maibach, H.I., 2013. Characteristics of the Aging Skin. *Adv Wound Care (New Rochelle)* 2013 Feb; 2(1): 5–10. doi: 10.1089/wound.2011.0356
- Fisher, G.J.; Varani, J.; Voorhees, J.J. 2008.Looking older: Fibroblast collapse and therapeutic implications. *Arch. Dermatol.*, 144, 666–672.
- Gunin, P.D., Bazha, S.N., Danzhalova, E.V., Tserenkhand, G., Drobyshev, Yu.I., and Ariunbold, E. 2010. Modern Structure and Dynamics of the Plant

- Communities on the South Border of Dry Steppe of the Central Mongolia, *Aridnye Ekosistemy*, , vol. 16, no. 2, pp. 65–75.
- Handayani, T., Sutarno, dan A.D. Setyawan. 2004. Analisis Komposisi Nutrisi Rumput Laut *Sargassum crassifolium* J. Agardh. *Biofarmasi*. 2(2): 45-52.
- Hwang, ES., Kim SH., Lee, S., Lee, CH., Do, SG., Kim, J., Kim SY. (2013) A comparative study of baby immature and adult shoots of aloe vera on UVB-induced skin photoaging in vitro. *Res. Phytother*
- I. Bergman and R. Loxley, Two improved and simplified methods for the spectrophotometric determination of hydroxyproline, *Anal. Chem.*, 35 (1963) 1861-1863
- Injury-driven stiffening of the dermis expedites skin carcinoma progression. *Cancer Res*. 2016, 76, 940–951.
- IT IS. 2016. *Sargassum cristaeifolium* C. Agardh. From integrated Taxonomic Information System on-line database. http://www.itis.gov/servlet/singleRpt/singleRpt?search_topic=TSN&search_value=11411 diakses pada 9 Desember 2017
- Jacob, M.P. Extracellular matrix remodeling and matrix metalloproteinases in the vascular wall during aging and in pathological conditions. *Biomed. Pharmacother*. 2003, 57, 195–202.
- K. J. Johnston, A. I. Oikarinen, N. J. Lowe, J. G. Clark and J. Uitto, Ultraviolet radiation-induced connective tissue changes in the skin of hairless mice, *J. Invest. Dermatol.*, 82 (1984) 587-590.
- Khotimchenko, SV. Fatty acid composition of seven *Sargassum* species. *Phytochemistry*. 1991. 30: 2639-2641
- Kementrian kelautan dan perikanan . 2016. <http://kkp.go.id/2016/09/28/4-kiat-menteri-susi-kembangkan-rumput-laut/>. Diakses pada tanggal 9 Desember 2017.
- Kim, S. K., and Chojnacka, K. (2015). *Marine Algae Extracts. Processes, Products and Applications*. Weinheim: WILEY–VCH Verlag GmbH & Co. KGaA.
- Kisang Ryu, Hye-Rin Lee, Woo Gon Kim, (2012) "The influence of the quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioral intentions", *International Journal of Contemporary Hospitality Management*, Vol. 24 Issue: 2, pp.200-223
- Krishnaiah D, Devi T, Bono A, Sarbatly R. Studies on phytochemical constituents of six Malaysian medicinal plants. *Journal of Medicinal Plants Research*. 2009;3(2):67-72. . Lavker, R.M. Structural alterations in exposed and unexposed aged skin. *J. Investig. Dermatol*. 1979, 73, 59–66.
- Krueger N. Luebberding S. Oltmer M. Streker M. Kerscher M. Age-related changes in skin mechanical properties: a quantitative evaluation of 120 female subjects. *Skin Res Technol*. 2011; 17:141.
- Leccia MT, Yaar M, Allen N, Gleason M, Gilchrest BA. Solar simulated irradiation modulates gene expression and activity of antioxidant enzymes in cultured human dermal fibroblasts. *Exp Dermatol* 2001;10:272-9.
- Lee, J.J., Ticar, B.F., Rohmah, Z., Park, S.H., Kang, D., Kang, S.J., Choi, B.D. 2017. Skin regeneration effect of the Glycosaminoglycans from *Liparis*

- tessellatus eggs. *Int J Biol Macromol.*, Vol.105:2, pp 1369-1374, <https://doi.org/10.1016/j.ijbiomac.2017.08.182>.
- Machu, L., L. Misurcova, J. V. Ambrozova, J. Orsavova, J. Mlcek, J. Sochor, dan T. Jurikova. 2015. Phenolic Content and Antioxidant Capacity in Algal Food Products. *Molecules*. 20(1): 1118-1133.
- Mamta S, Jyoti S, Rajeev N, Dharmendra S, Abhishek G. Phytochemistry of medicinal plants. *Journal of Pharmacognosy and Phytochemistry*. 2013;1(6):168-182. Mittapalli, V.R.; Madl, J.; Loffek, S.; Kiritsi, D.; Kern, J.S.; Romer, W.; Nystrom, A.; Bruckner-Tuderman, L.
- Ngoci SN, Mwendia CM. Mwaniki CG. Phytochemical and cytotoxicity testing of *Indigofera lupatana* Baker F. *Journal of Animal & Plant Sciences*. 2011;11(1): 1364-1373.
- Ni, R., 2014. A Brief Analysis of the South Korean Cosmetics Market. <https://cosmetic.chemlinked.com/news/cosmetic-news/brief-analysis-south-korean-cosmetics-market>. Accessed 30 September 2018.
- Othmer. 1986. Seaweed colloids in Encyclopedia of Chemical technology. Marine Biological Institute. New York
- Park, S. H., I. S. Seo, S. J. Lee, dan S. P. Lee. 2015. Study on the Health Benefits of Brown Algae (*Sargassum muticum*) in Volunteers. *Journal of Food and Nutrition Research*. 3(2): 126-130.
- Patra, G., M.A. Ali, K.V. Chanu, L. Jonathan and L.K. Joy et al., 2008. PCR based diagnosis of *Eimeria tenella* infection in broiler chicken. *Int. J. Poult. Sci.*, 9: 813-818.
- Pugliese P. *Physiology of the skin II*. Allured Publishing Corporation; 2001. pp. 109–137.
- Quan, T.; Fisher, G.J. Role of age-associated alterations of the dermal extracellular matrix microenvironment in human skin aging: A mini-review. *Gerontology* 2015, 61, 427–434.
- Rittié, L., and Fisher, G. J. (2002). UV-light-induced signal cascades and skin aging. *Ageing Res. Rev.* 1, 705–720. doi: 10.1016/S1568-1637(02)00024-7
- Ryu, B. M., Z. J. Qian, M. M. Kim, K. W. Nam, dan S. K. Kim. 2009. Antiphotaging Activity and Inhibition of Matrix Metaloproteinase (MMP) by Marine Red Alga, *Corallina pilufera* Methanol Extract. *Radiation Physics and Chemistry*. 78(2): 98-105.
- Safia, R.A. 2013. Jenis dan Sebara Makroalga di Zona Intertidal Pantai Ngandong dan Pantai Drini Kabupaten Gunungkidul. Fakultas Pertanian. Universitas Gadjah Mada. Yogyakarta. Skripsi.
- Sahubawa, L., N. Hakim, dan M. Lasindrang. 2015. Kajian sebaran potensi ekonomi sumber daya kelautan di pantai selatan Daerah Istimewa Yogyakarta sebagai upaya percepatan investasi. *Jurnal Tekno Sains*. 2(4): 101-108.
- Schmid, M., F. Guihéneuf, dan D.B. Stengel. 2014. Fatty acid contents and profiles of 16 macroalgae collected from the Irish Coast at two seasons. *Journal of Applied Phycology*. 26(10):451-463
- Shindo Y, Hashimoto T. Time course of changes in antioxidant enzymes in human skin fibroblasts after UVA irradiation. *IJ Dermatol Sci* 1997;14:225-32.



- Shimoda, M., Mellody, Kieran T., Akira, O., .2010. Carcinoma-associated fibroblasts are a rate-limiting determinant for tumour progression. *Seminars in Cell & Developmental Biology*: 21: 19-25
- Taubert D, Roesen R, Schömig E. Effect of cocoa and tea intake on blood pressure: A metaanalysis. *Arch. Intern. Med.* 2007; 167(7):626–34
- Valencia, I.C.; Falabella, A.; Kirsner, R.S.; Eaglstein, W.H. Chronic venous insufficiency and venous legulceration. *J. Am. Acad. Dermatol.* 2001, 44, 401–424.