

DAFTAR PUSTAKA

- Abdelwahab, S.I., Taha, M.M.E., Alhazmi, H.A., Ahsan, W., ur Rehman, Z., Al Bratty, M. dan Makeen, H. (2019). Phytochemical profiling of costus (*Saussurea lappa* Clarke) root essential oil, dan its antimicrobial dan toxicological effects. *Tropical Journal of Pharmaceutical Research*, 18(10), 2155-2160.
- Adamowski, M., & Friml, J. (2015). PIN-dependent auxin transport: action, regulation, and evolution. *The Plant Cell*, 27(1), 20-32.
- Agouillal, F., Taher, Z.M., Moghrani, H., Nasrallah, N., & El Enshasy, H. (2017). A Review of Genetic Taxonomy, Biomolecules Chemistry dan Bioactivities of Citrus Hystrix DC. *Biosciences Biotechnology Research Asia*, 14(1), p.285.
- Ahmad, W., Zahir, A., Nadeem, M., Zia, M., Hano, C., & Abbasi, B.H. (2019). Thidiazuron-induced efficient biosynthesis of phenolic compounds in callus culture of *Ipomoea turbinata* Lagasca dan Segura. *In vitro Cellular & Developmental Biology-Plant*, 55(6), 710-719.
- Akbar, H. R. (2010). isolasi dan identifikasi golongan flavonoid daun dandang gendis (*Clinacanthus nutans*) berpotensi sebagai antioksidan.
- Anitasari, S.D. (2018). *Dasar Teknik Kultur Jaringan Tanaman*. Deepublish.
- Asra, R., Samarlina, R.A., & Silalahi, M. (2020). Hormon tumbuhan. UKI Press. Jakarta, p. 9.
- Azwanida, N.N. (2015). A review on the extraction methods use in medicinal plants, principle, strength dan limitation. *Med Aromat Plants*, 4(196), 2167-0412.
- Balilashaki, K., Vahedi, M., & Karimi, R. (2015). *In vitro* Direct regeneration from node dan leaf explants of *Phalaenopsis* cv. Surabaya. *Plant Tissue Culture dan Biotechnology*, 25(2), 193-205.
- Basalma, D., Uranbey, S., Mirici, S., & Kolsarici. (2008). TDZ x IBA induced shoot regeneration from cotyledonary leaves dan *in vitro* multiplication in

- safflower (*Carthamus tinctorius* L.). *African Journal of Biotechnology*, 7(8), 960-961.
- Becker, H., & Sauerwein. (1990). Manipulating the biosynthetic capacity of plant cell cultures. In Charlwood, B.V dan M.J.C. Rhodes (Edits). *Secondary Products from Plant Tissue Culture*, p. 43-50.
- Bewley, J.D., Bradford, K., & Hilhorst, H. (2012). *Seeds: physiology of development, germination dan dormancy*. Springer Science & Business Media.
- Bintang, M. (2010). *Biokimia : Teknik penelitian*. Erlangga . Jakarta, p. 166-168.
- Bohm H, & Rink E. Betalaines. (1998). In: Constabel F, & Vasil I, (editors). *Cell culture dan somatic cell genetics of plants* (vol. 5, pp. 449 – 63). Academic Press
- Britanica. (2022). *Germination of seeds*. <https://www.britannica.com/science/seed-plant-reproductive-part/Afterripening-stratification-and-temperature-effects> . Diakses pada tanggal 05 November 2022.
- Buckley, T.N. (2005). The control of stomata by water balance. *New phytologist*, 168(2), 275-292.
- Chamorro, E.R., Zambón, S.N., Morales, W.G., Sequeira, A.F., & Velasco, G.A. (2012). Study of the chemical composition of essential oils by gas chromatography. *Gas chromatography in plant science, wine technology, toxicology dan some specific applications*, 1, 307-324.
- Chan, S.W., Lee, C.Y., Yap, C.F., Wan Aida, W.M., & Ho, C.W. (2009). Optimisation of extraction conditions for phenolic compounds from limau purut (*Citrus hystrix*) peels. *International Food Research Journal*, 16(2).
- Chanthaphon, S., Chanthachum, S., & Hongpattarakere, T. (2008). Antimicrobial activities of essential oils dan crude extracts from tropical *Citrus* spp. against food-related microorganisms. *Songklanakarin Journal of Science & Technology*, 30.
- Chawla, H. S. (2002). *Introduction to Plant Biotechnology*. Science Publisher. United States of America, p. 15.

- Chen, W., Y. Liu, M. Li, J. Mao, L. Zhang, R., & Huang, L. Ye. (2015). Anti-tumor effect of α pinene on human hepatoma cell lines through inducing G2/M cell cycle arrest. *Journal of Pharmacological Sciences*, 127 (3), 332–338. <https://doi.org/10.1016/j.jphs.2015.01.008>.
- Chinapongtitiwat, V., Jongaroontaprangsee, S., Chiewchan, N., & Devahastin, S. (2013). Important flavonoids dan limonin in selected Thai citrus residues. *Journal of Functional Foods*, 5(3), 1151-1158.
- Chutia, M., Bhuyan, P.D., Pathak, M.G., Sarma, T.C., & Boruah, P. (2009). Antifungal activity dan chemical composition of *Citrus reticulata* Blanco essential oil against phytopathogens from North East India. *LWT-Food Science dan Technology*, 42(3), 777-780.
- Collin, H.A. (2001). Secondary product formation in plant tissue cultures. *Plant growth regulation*, 34(1), 119-134.
- Dalimartha, S. (2015). *Tanaman Obat di Lingkungan Sekitar*. Pustaka Pembangunan Swadaya Nusantara. Jakarta, p. 15.
- Damayanti, F. (2019). *Peningkatan Biosintesis Terpenoid pada Kultur Sel Lini Jeruk Purut (*Citrus hystrix* DC.) dengan Elisitasi dan Pemberian Prekursor*. [Tesis]. Universitas Gadjah Mada. Yogyakarta.
- Day, R.A., & Underwood. (1998). *Quantitative Analysis*. 6th Ed. Prentice Hall, Inc. New York, 671, p. 480-489.
- de Araujo Junior, R. F., Eich, C., Jorquera, C., Schomann, T., Baldazzi, F., Chan, A. B., & Cruz, L. J. (2020). Ceramide and palmitic acid inhibit macrophage-mediated epithelial–mesenchymal transition in colorectal cancer. *Molecular and cellular biochemistry*, 468(1), 153-168.
- Devy, N. F., Yulianti, Y., & Andrini, A. (2010). Kandungan Flavonoid dan Limonoid pada Berbagai Fase Pertumbuhan Tanaman Jeruk Kalamondin (*Citrus mitis* Blanco) dan Purut (*Citrus hystrix* Dc.). *Jurnal Hortikultura*, 20(1).

- DITP. (2022). Plant Tissue Culture. <https://www.ditpthinkthailand.com/thai-tissue-culture-brings-innovation-to-agriculture/>. Diakses pada tanggal 05 November 2022
- Djukri & Purwoko. (2003). Pengaruh Naungan Paranet terhadap Sifat Toleransi Tanaman Talas (*Colocasia esculenta* L) Schott. *Ilmu Pertanian*, 2 (10), 17-25.
- Doorant, S.H, L.C. Rose, H. Suhaimi, Mohammad, H. Rozaini dan M.Z.H., & Tai, M. (2011). Preliminary evaluation on the antibacterial activities of *Citrus hystrix* oil emulsions stabilized by tween 80 dan span 80. *Int J Pharm Pharm Sci 3 (Supl 2)*, 209–211.
- Duvic, M., Talpur, R., Ni, X., Zhang, C., Hazarika, P., Kelly, C., Chiao, J.H., Reilly, J.F., Ricker, J.L., Richon, V.M., & Frankel, S.R. (2007). Phase 2 trial of oral vorinostat (suberoylanilide hydroxamic acid, SAHA) for refractory cutaneous T-cell lymphoma (CTCL). *Blood*, 109(1), 31-39.
- Faisal, M., Ahmad, N., & Anis, M. (2005). Shoot multiplication in *Rauvolfia tetraphylla* L. using thidiazuron. *Plant Cell, Tissue dan Organ Culture*, 80(2), 187-190.
- Fan, S.L., Rita, M.A., Dzolkhifli, O., & Mawardi, R. (2011). Insecticidal properties of *Citrus hystrix* DC leaves essential oil against *Spodoptera litura* fabricius. *Journal of Medicinal Plants Research*, 5(16), 3739-3744.
- Filipecki, M., Wisniewska, A., Yin, Z., & Malepszy, S. (2005). The heritable changes in metabolic profiles of plants regenerated in different types of *in vitro* culture. *Plant Cell Tissue Organ Cult*, 82, 349–356.
- Finnin, M.S., Donigian, J.R., Cohen, A., Richon, V.M., Rifkind, R.A., Marks, P.A., Breslow, R., & Pavletich, N.P. (1999). Structures of a histone deacetylase homologue bound to the TSA dan SAHA inhibitors. *Nature*, 401(6749), 188-193.
- Ganesh, M., & Mohankumar, M. (2017). Extraction dan identification of bioactive components in *Sida cordata* (Burm. f.) using gas chromatography–mass spectrometry. *Journal of food science dan technology*, 54(10), 3082-3091.

- Gardner, F.P, R.B. Pearce, & R.L. Mitchel. (1991). *Fisiologi Tanaman Budidaya*. UI-Press. Jakarta.
- Garfansa, M.P., & Sukma, K.P. (2021). Translokasi asimilat tanaman jagung (*Zea mays* L.) hasil persilangan varietas Elos dan Sukmaraga pada cekaman garam. *Agrovigor: Jurnal Agroekoteknologi*, 14(1), 61-65.
- Gautam, V., Kohli, S.K., Arora, S., Bhardwaj, R., Kazi, M., Ahmad, A., Raish, M., Ganaie, M.A., & Ahmad, P. (2018). Antioxidant dan antimutagenic activities of different fractions from the leaves of *Rhododendron arboreum* Sm. dan their GC-MS profiling. *Molecules*, 23(9), 2239.
- Gerhards, P., Bons, U., Sawazki, J., Szigan, J., & Wertmann, A. (2008). *GC/MS in clinical chemistry*. John Wiley & Sons.
- Giacco, F., & Brownlee, M. (2010). Oxidative stress dan diabetic complications. *Circulation research*, 107(9), 1058-1070.
- Guo, B., Abbasi, B.H., Zeb, A., Xu, L.L., & Wei, Y.H. (2011). Thidiazuron: a multi-dimensional plant growth regulator. *African Journal of Biotechnology*, 10(45), 8984-9000.
- Gupta, S. D, & Ibaraki, Y. (2008). *Plant Tissue Culture Engineering*. Springer. Netherlands, p. 85-86.
- Hardy, S., Langelier, Y., & Prentki, M. (2000). Oleate activates phosphatidylinositol 3-kinase dan promotes proliferation dan reduces apoptosis of MDA-MB-231 breast cancer cells, whereas palmitate has opposite effects¹. *Cancer research*, 60(22), 6353-6358.
- Haryanti, S. (2008). Respon pertumbuhan jumlah dan luas daun nilam (*Pogostemon cablin* Benth) pada Tingkat Naungan yang Berbeda. *Anatomi Fisiologi*, 16(2), 20-26.
- Håversen, L., Danielsson, K.N., Fogelström, L., & Wiklund, O. (2009). Induction of proinflammatory cytokines by long-chain saturated fatty acids in human macrophages. *Atherosclerosis*, 202(2), 382-393.
- Hendaryono, D. P. S., & W. Ari. (2008). *Teknik Kultur Jaringan*. Penerbit Kanisius. Yogyakarta, p. 28-70.

- Hendra, A. R. (2010). Isolasi dan Identifikasi Golongan Flavonoid Daun Dandang Gendis (*Clinacanthus nutans*) Berpotensi sebagai Antioksidan.[Skripsi]. *Bandung: IPB*.
- Herawan, T., & Ismail, B. (2009). Penggunaan kombinasi auksin dan sitokinin untuk menginduksi tunas pada kultur jaringan sengon (*Falcataria moluccana*) menggunakan bagian kotiledon. *Jurnal Pemuliaan Tanaman Hutan*, 3(1), 23-32.
- Hutadilok-Towatana, N., Chaityamutti, P., Panthong, K., Mahabusarakam, W., & Rukachaisirikul, V. (2006). Antioxidative and free radical scavenging activities of some plants used in Thai folk medicine. *Pharmaceutical Biology*, 44(3), 221-228.
- Ibrahim M.S.D, N.N. Kristina, & N. Bermawi. (2004). Pengaruh NAA dan IBA Terhadap Inisiasi Akar Lada (*Piper nigrum* L) Hasil Radiasi Secara *In vitro*. Makalah Poster Pada Simposium IV Hasil Penelitian Tanaman Perkebunan.
- Ibrahim, M. (2022). Role of Endogenous dan Exogenous Hormones in Bioactive Compounds Production in Medicinal Plants Via *In vitro* Culture Technique. *Plant Hormones: Recent Advances, New Perspectives dan Applications*, 131.
- Intregated Taxonomic Information System (ITIS). 2021. Classification of *Citrus hystrix* DC. <https://www.itis.gov/> diakses tanggal 10 April 2021.
- Irawanto, R., Ariyanti, E.E. dan Hendrian, R., 2015. Jeruju (*Acanthus ilicifolius*): Biji, perkecambahan dan potensinya. *Jurnal Penelitian*, pp.1011-1018.
- Iskandar, D. (2006). Pengaruh dosis pupuk N, P, dan K terhadap pertumbuhan dan produksi tanaman jagung manis di lahan kering. *Jurnal Saint dan Teknologi. IPTEK net*.
- Jamilah, B., Abdulkadir, G., & Suhaila, M. (2011). Phenolics in *Citrus hystrix* leaves obtained using supercritical carbon dioxide extraction. *International Food Research Journal*, 18(3).
- Karalija, E., S.C. Zeljkovic, P. Tarkowski, E. Muratovic, & A. Paric. (2017). The effect of cytokinins on growth, *phenolics*, antioxidant dan antimicrobial

- potential in liquid agitated shoot cultures of *Knautia sarajevensis*. *Plant Cell, Tissue dan Organ Culture (PCTOC)*. 131(2), 347-357.
- Kaur, C., & Kapoor, H.C. (2001). Antioxidants in fruits dan vegetables—the millennium’s health. *International journal of food science & technology*, 36(7), 703-725.
- Keskın, D., Ceyhan, N., Uğur, A., & Dbey, A. D. (2012). Antimicrobial activity and chemical constitutions of West Anatolian olive (*Olea europaea* L.) leaves. *Journal of Food, Agriculture & Environment*, 10(2), 99-102.
- Khan, M.D., Hammadul, H., Islam, M.Q., Ashrafuzzaman, Md., Prodhan, S.H. (2019). An Efficient Regeneration System for Native Orange (*Citrus reticulata*) through *In vitro* Culture Technique. *Agricultural Sciences*, 10, 975-984.
- Khan, T., Abbasi, B.H., Khan, M.A., & Shinwari, Z.K. (2016). Differential effects of thidiazuron on production of anticancer *phenolic* compounds in callus cultures of *Fagonia indica*. *Applied biochemistry dan biotechnology*, 179(1), 46-58.
- Koyama, T. (2014). The roles of ethylene dan transcription factors in the regulation of onset of leaf senescence. *Frontiers in plant science*, 5, 650.
- Krishnamoorthy, K., & Subramaniam, P. (2014). Phytochemical profiling of leaf, stem, dan tuber parts of *Solena amplexicaulis* (Lam.) Gdanhi using GC-MS. *International scholarly research notices*, 2014.
- Kuete, V., Mbaveng, A. T., Nono, E. C., Simo, C. C., Zeino, M., Nkengfack, A. E., & Efferth, T. (2016). Cytotoxicity of seven naturally occurring phenolic compounds towards multi-factorial drug-resistant cancer cells. *Phytomedicine*, 23(8), 856-863.
- Kyte, L., Kleyn, J., Scoggins, H., & Bridgen, M. (2013). *Plants from Test Tubes : An Introduction to Micropropagation* fourth edition. Timber Press. London, pp. 70-71.
- Lawrence, B.M., Hogg, J.W., Terhune, S.J., & Podimuang, V. (1971). *Constituents of the leaf dan peel oils of Citrus hystrix, DC.*, 10, 1404-14045
- Leba, M.A.U. (2017). *Buku Ajar: Ekstraksi dan real kromatografi*. Deepublish, p. 81-85.

- Lertsatitthanakorn P, Taweechaisupapong S, Aromdee C, & Khunkitti W. (2006). *In vitro* bioactivities of essential oils used for acne control. *Int J Aroma*, 16(1), 43–49.
- Lestari, E. G. (2011). *Peranan zat pengatur tumbuh dalam perbanyakan tanaman melalui kultur jaringan*, p. 63-68.
- Leva, A., & Rinaldi, L. M. R. (2012). *Recent Advances in Plant in vitro Culture*. Rijeka: InTech, p: 1-3.
- Librán-Pérez, M., Pereiro, P., Figueras, A., & Novoa, B. (2019). Antiviral activity of palmitic acid via autophagic flux inhibition in zebrafish (*Danio rerio*). *Fish & shellfish immunology*, 95, 595-605.
- Lin, L., Ding, Y., Wang, Y., Wang, Z., Yin, X., Yan, G., Zhang, L., Yang, P., & Shen, H. (2017). Functional lipidomics: Palmitic acid impairs hepatocellular carcinoma development by modulating membrane fluidity dan glucose metabolism. *Hepatology*, 66(2), 432-448.
- Ling SL, & Mohamed S. (2001). Alpha-Tocopherol content in 62 edible tropical plants. *J Agric Food Chem*, 49, 3101-3105.
- Liu, S. H., Su, C. C., Lee, K. I., & Chen, Y. W. (2016). Effects of bisphenol a metabolite 4-Methyl-2, 4-bis (4-hydroxyphenyl) pent-1-ene on lung function and type 2 pulmonary alveolar epithelial cell growth. *Scientific reports*, 6(1), 1-11.
- Mahadi, I., Syafi'i, W., & Agustiani, S. (2015). Kultur jaringan jeruk kasturi (*Citrus microcarpa*) dengan menggunakan hormon kinetin dan naftalen acetyl acid (NAA). *Dinamika Pertanian*, 30(1), 37-44.
- Mahmudah, Z. (2021). *Pengaruh kombinasi zat pengatur tumbuh auksin (iaa dan 2, 4-d) dan sitokinin (BAP) terhadap induksi kalus dan kandungan flavonoid tanaman iler (Plectranthus scutellarioides) secara in vitro*. [Doctoral dissertation], UIN Sunan Ampel. Surabaya.
- Mancini, A., Imperlini, E., Nigro, E., Montagnese, C., Daniele, A., Orrù, S. dan Buono, P. (2015). Biological dan nutritional properties of palm oil dan palmitic acid: effects on health. *Molecules*, 20(9), 17339-17361.
- Mayneris-Perxachs, J., Guerendiain, M., Castellote, A.I., Estruch, R., Covas, M.I., Fitó, M., Salas-Salvadó, J., Martínez-González, M.A., Aros, F., Lamuela-

- Raventós, R.M. dan López-Sabater, M.C. (2014). Plasma fatty acid composition, estimated desaturase activities, dan their relation with the metabolic syndrome in a population at high risk of cardiovascular disease. *Clinical nutrition*, 33(1), 90-97.
- Mihra, M., Jura, M.R. dan Ningsih, P. (2018). Analisis Kadar Tanin dalam Ekstrak Daun Mimba (*Azadirachta indica* a. Juss) dengan Pelarut Air dan Etanol. *Jurnal Akademika Kimia*, 7(4), 179-184.
- Milman, B. (2015). General principles of identification by mass spectrometry. *TrAC Trends in Analytical Chemistry*. 69 (1), 24-33.
- Moon, M.L., Joesting, J.J., Lawson, M.A., Chiu, G.S., Blevins, N.A., Kwakwa, K.A. dan Freund, G.G. (2014). The saturated fatty acid, palmitic acid, induces anxiety-like behavior in mice. *Metabolism*, 63(9), 1131-1140.
- Murinah. (2020). *Perkecambahan Dan Pertumbuhan Kecambah Bidara (*Ziziphus mauritiana* Lam.) Secara In vitro Dan Ex vitro Pada Kondisi Gelap Dan Terang*. [Skripsi]. Universitas Negeri Semarang.
- Musini, A., Prakash, R. M. J., & Giri, A. (2013). Phytochemical investigations and antibacterial activity of *Salacia oblonga* Wall ethanolic extract. *Annals of Phytomedicine*, 2, 102-107.
- Mustika, S., Fathurrahman, F., Mahfudz, M., & Saleh, M.S. (2010). Perkecambahan benih pinang pada berbagai cara penanganan benih dan cahaya. *Agroldan: Jurnal Ilmu-ilmu Pertanian*, 17(2).
- Niamthiang, S., & Sawasdee, P. (2013). Cholinesterase inhibitors from the leaves dan roots of *Citrus hystrix* DC. In *Pure dan applied chemistry international conference*.
- Nonogaki, H. (2014). Speed dormancy dan germination emerging mechanisms dan new hypotheses. *Frontiers on plant science*, 5 (233), 1-14.
- Nor, O.M. (1999). Volatile aroma compounds in *Citrus hystrix* oil. *J. Trop. Agric. Food Sci*, 27, 225-229.

- Oktavianus, R. (2021). Pengaruh Zpt (Bap, Tdz, 2 Ip) Terhadap Pertumbuhan Globular Pisang Barangan (*Musa Acuminata* L) Pada Media Ms. *Green Swarnadwipa: Jurnal Pengembangan Ilmu Pertanian*, 10(2), 252-259.
- Parnata, A. S. (2004). *Pupuk organik cair aplikasi dan manfaatnya*. Agromedia Pustaka. Jakarta, pp. 21-23.
- Pereira, D.M., Correia-da-Silva, G., Valentão, P., Teixeira, N., & Danrade, P.B. (2013). Palmitic acid dan ergosta-7, 22-dien-3-ol contribute to the apoptotic effect dan cell cycle arrest of an extract from *Marthasterias glacialis* L. in neuroblastoma cells. *Marine drugs*, 12(1), 54-68.
- Pierik, R.L.M. (1987). *In vitro Culture of Higher Plants*. Martinus Nijhoff Publisher. London, p. 344.
- Pourebadi, N., Motafakkerazad, R., Kosari-Nasab, M., Farsad Akhtar, N., & Movafeghi, A., 2015. The influence of TDZ concentrations on *in vitro* growth dan production of secondary metabolites by the shoot dan callus culture of *Lallemantia iberica*. *Plant Cell, Tissue dan Organ Culture (PCTOC)*, 122(2), 331-339.
- Prakash, A., & Vuppu, S. (2014). *Punica granatum* (pomegranate) rind extract as a potent substitute for L ascorbic acid with respect to the antioxidant activity. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*, 5, 597-603.
- Putra, R.R., & Shofi, M. (2017). Pengaruh hormon Napthalen Acetic Acid terhadap inisiasi akar tanaman kangkung air (*Ipomoea aquatica* Forssk.). *Jurnal Wiyata: Penelitian Sains dan Kesehatan*, 2(2), 108-113.
- Rajendran, L., Ravishankar, G.A., Venkataraman, L.V., & Prathiba, K.R. (1992). Anthocyanin production in callus cultures of *Daucus carota* as influenced by nutrient stress dan osmoticum. *Biotechnology letters*, 14(8), 707-712.
- Rao, S.R., & Ravishankar, G.A. (2002). Plant cell cultures: chemical factories of secondary metabolites. *Biotechnology advances*, 20(2), pp.101-153.

- Rustikawati, R., Simarmata, M., Turmudi, E., & Herison, C. (2014). Penentuan kadar garam kultur hara untuk seleksi toleransi salinitas pada padi lokal Bengkulu. *Akta Agrosia*, 17(2), 101-107.
- Sa'ad, H., Peppelenbosch, M.P., Roelofsen, H., Vonk, R.J. dan Venema, K. (2010). Biological effects of propionic acid in humans; metabolism, potential applications dan underlying mechanisms. *Biochimica et Biophysica Acta (BBA)-Molecular dan Cell Biology of Lipids*, 1801(11), 1175-1183.
- Sahai, O.P. dan Shuler, M.L. (1984). Environmental parameters influencing phenolics production by batch cultures of *Nicotiana tabacum*. *Biotechnology dan bioengineering*, 26(2), 111-120.
- Salisbury, F.B., & Ross, C.W. (1995). *Fisiologi Tumbuhan* : Jilid III. Penerbit ITB Bandung
- Santoso, U. (2006). *Antioksidan*. Sekolah Pasca Sarjana Universitas Gadjah Mada. Yogyakarta
- Sawada, K., Kawabata, K., Yamashita, T., Kawasaki, K., Yamamoto, N., & Ashida, H. (2012). Ameliorative effects of polyunsaturated fatty acids against palmitic acid-induced insulin resistance in L6 skeletal muscle cells. *Lipids in health dan disease*, 11(1), 1-9.
- Sawamura, M. (2010). *Citrus Essential Oils: Flavor dan Fragrance*. John Wiley & Sons. New Jersey, p. 101.
- Schroeter, L.C. (1963). Oxidation of sulfurous acid salts in pharmaceutical systems. *Journal of Pharmaceutical Sciences*, 52(9), 888-892.
- Scott, A.M., Wolchok, J.D., & Old, L.J. (2012). Antibody therapy of cancer. *Nature reviews cancer*, 12(4), 278-287.
- Seitz, H.U., & Hinderer, W. (1998). *Anthocyanins*. In: Constabel F, Vasil I, editors. *Cell culture dan somatic cell genetics of plants* (Vol 5, pp. 49–76). Academic Press. San Diego
- Setiati, S. (2003). Radikal bebas, antioksidan, dan proses menua. *Medika*, 29(6), 366-9.

- Shantiningsih, R.R., & Diba, S.F. 2015. Efek aplikasi patch gingiva mukoadesif β -carotene akibat paparan radiografi panoramik. *Majalah Kedokteran Gigi Indonesia*, 1(2), 186-192.
- Shihabi, A., Li, W.G., Miller Jr, F.J., & Weintraub, N.L. (2002). Antioxidant therapy for atherosclerotic vascular disease: the promise dan the pitfalls. *American Journal of Physiology-Heart dan Circulatory Physiology*, 282(3), H797-H802.
- Silalahi, M. (2020). Bioaktivitas Asam Jawa (*Tamarindus Indica*) dan Pemanfaatannya. *Florea: Jurnal Biologi dan Pembelajarannya*, 7(2), 85-91.
- Singh, J., Jain, D., Agarwal, P., & Singh, R.P. (2020). Auxin dan cytokinin synergism augmenting biomass dan lipid production in microalgae *Desmodesmus* sp. JS07. *Process Biochemistry*, 95, 223-234.
- Siripongvutikorn S, Thummaratwasik P, & Huang Y. (2005). Antimicrobial dan Antioxidation Effects of Thai seasoning, Tom-Yum. *LTW-Food Sci Technol*, 38(4), 347–352.
- Sitompul, S.M., & Guritno, B. (1995). Analisis Pertumbuhan Tanaman. *Jurnal Biogenesis*, 10(1).
- Sofiyanti, N., Iriani, D., Wahyuni, P.I., Idani, N., & Lestari, P. (2022). Identification, morphology of *Citrus* L.(*Aurantioideae-Rutaceae* Juss.) dan its traditional uses in Riau Province, Indonesia. *Biodiversitas Journal of Biological Diversity*, 23(2), 1038-1047.
- Stankovic, M.S. (2011). Total *phenolic* content, flavonoid concentration dan antioxidant activity of *Marrubium peregrinum* L. extracts. *Kragujevac J Sci*, 33, 63-72.
- Stöckigt, J., & Zenk, M.H. (1977). Strictosidine (isovincoside): the key intermediate in the biosynthesis of monoterpenoid indole alkaloids. *Journal of the Chemical Society, Chemical Communications*, (18), 646-648.

- Suganami, T., Nishida, J., & Ogawa, Y. (2005). A paracrine loop between adipocytes dan macrophages aggravates inflammatory changes: role of free fatty acids dan tumor necrosis factor α . *Arteriosclerosis, thrombosis, dan vascular biology*, 25(10), 2062-2068.
- Suharto, M. A. P., Edy, H. J., & Dumanauw, J. M. (2012). Isolasi dan identifikasi senyawa saponin dari ekstrak metanol batang pisang ambon (*Musa paradisiaca* var. *sapientum* L.). *Pharmacon*, 1(2).
- Sun, Y., & Oliver, J.D. (1994). Antimicrobial action of some GRAS compounds against *Vibrio vulnificus*. *Food Additives & Contaminants*, 11(5), 549-558.
- Tabata M. (1998). *Naphthoquinones*. In: Constaël F, Vasil I, editors. *Cell culture dan somatic cell genetics of plants*, (vol. 5, pp. 99 – 111). Academic Press. San Diego.
- Taiz, L., & Zeiger, E. (1999). *Plant Physiology*. 3rd ed. Sinauer Associates Inc. Sunderland.
- Taiz, L., & Zeiger, E. 2012. *Plant Physiology*. 5th Edition. Sinauer Associates Inc. Sunderland, Massachusetts USA.
- Tanzil, L., Latirah, & Priyanto, D.N.(2017). Antitumor Activity of Extracts from Kaffir Lime (*Citrus Hystrix* DC.) Prepared by Different Solvents. *SANITAS: Jurnal Teknologi dan Seni Kesehatan*, 8 (1), 57-62.
- Tinjan, P., & Jirapakkul, W. (2007). Comparative study on extraction methods of free dan glycosidically bound volatile compounds from kaffir lime leaves by solvent extraction dan solid phase extraction. *Agriculture dan Natural Resources*, 41(5), 300-306.
- Tiwari, P., Kumar, B., Kaur, M., Kaur, G., & Kaur, H. (2011). Phytochemical screening dan extraction: a review. *Internationale pharmaceutica sciencia*, 1(1), 98-106.
- Torres-Hernández, B.A., Valle-Mojica, D., Lisa, M., & Ortíz, J.G. (2015). Valerenic acid dan *Valeriana officinalis* extracts delay onset of

Pentylentetrazole (PTZ)-Induced seizures in adult *Danio rerio* (Zebrafish). *BMC complementary dan alternative medicine*, 15(1), 1-10.

Trigiano, R. N., & Gray, D. J. (2000). *Plant Tissue Culture Concepts dan Laboratory Exercises*. CRC Press. Boca Raton.

Tunjung, W. A. S., Cinatl Jr, J., Michaelis, M., & Smales, C. M. (2015). Anti-cancer effect of kaffir lime (*Citrus hystrix* DC) leaf extract in cervical cancer and neuroblastoma cell lines. *Procedia Chemistry*, 14, 465-468.

Tunjung, W.A.S., Fajarina, S., Prabowo, B.H., Damayanti, F., Widyasari, A., Sasongko, A.B., Indrianto, A., Semiarti, E., & Hidayati, L. (2021). Evaluation of Anticancer Bioactive Compounds dan Cytotoxicity of Kaffir Lime (*Citrus hystrix* Dc.) Callus Extract Post Preservation. *Indonesian Journal of Pharmacy*, 179-192.

Tunjung, W.A.S., Fatonah, V., Christy, G.P., Triono, S., & Hidayati, L. (2020). Effect of growth factor in callus induction dan bioactive compounds in seed explant of kaffir lime (*Citrus hystrix* DC.). *Indonesian Journal of Pharmacy*, 31(2), 61.

Verma, S.K., Yücesan, B.B., CİNGÖZ, G., Gürel, S., & Gürel, E. (2011). Direct shoot regeneration from leaf explants of *Digitalis lamarckii*, an endemic medicinal species. *Turkish Journal of Botany*, 35(6), 689-695.

Vijayakumar, R., Panneerselvam, K., Muthukumar, C., Thajuddin, N., Panneerselvam, A., & Saravanamuthu, R. (2012). Optimization of antimicrobial production by a marine actinomycete *Streptomyces afghaniensis* VPTS3-1 isolated from Palk Strait, East Coast of India. *Indian journal of microbiology*, 52(2), 230-239.

Vinoth, B. (2012). Phytochemical analysis dan antibacterial activity of *azadirachta indica* a juss. *International journal of research in plant science*.2(3).

Wada, S., & Reed, B.M. (2011). Stdanaridizing germination protocols for diverse raspberry dan blackberry species. *Scientia Horticulturae*, 132, 42-49.

Waikedre, J., Dugay, A., Barrachina, I., Herrenknecht, C., Cabalion, P., & Fournet, A. (2010). Chemical composition dan antimicrobial activity of the essential

oils from New Caledonian *Citrus macroptera* dan *Citrus hystrix*. *Chemistry & biodiversity*, 7(4), 871-877.

Warsito. (2018). *Deivatisasi Sitronelal*. Universitas Brawijaya Press. Malang, p. 29.

Wattimena. (1991). *Farmakodinamik dan Terapi antibiotik*. Gadjah Mada University Press. Yogyakarta, p. 1-7.

Werdhasari, A. (2014). Peran antioksidan bagi kesehatan. *Jurnal Biotek Medisiana Indonesia*, 3(2), 59-68.

WHO. (2022). World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/cancer>. Diakses pada 1 Oktober 2022.

Witham F. H., & Devlin, R.M. 2002. *Plantphysiology*. Fourth edition. Publisher dan Distributor. New Delhi.

Yulianti, F., Adiredjo, A.L., Soetopo, L., & Ashari, S. (2020). Morphology dan genetic characteristics of potential citrus rootstock in Indonesia. *Biodiversitas Journal of Biological Diversity*, 21(11).

Yuliarti, N. (2010). *Kultur jaringan tanaman skala rumah tangga*. Penerbit Dani.

Yunus, I., Putri, I.Y., & Hafifah, H. (2018). Characterization of Pamelos Leaves (*Citrus maxima* (Burm) Merr) Aceh, Indonesia. *Journal of Tropical Horticulture*, 1(1), 20-23.

Zenk, M.H., El-Shagi, H., & Schulte, U. (1975). Anthraquinone production by cell suspension cultures of *Morinda citrifolia*. *Planta Medica*, 28(S 01), 79-101.

Zhang, Q.W., Lin, L.G., & Ye, W.C. (2018). Techniques for extraction dan isolation of natural products: A comprehensive review. *Chinese medicine*, 13(1), 1-26.

Zhou, B.R., Zhang, J.A., Zhang, Q., Permatasari, F., Xu, Y., Wu, D., Yin, Z.Q., & Luo, D. (2013). Palmitic acid induces production of proinflammatory cytokines interleukin-6, interleukin-1, dan tumor necrosis factor-via a NF- κ B-dependent mechanism in HaCaT keratinocytes. *Mediators of inflammation*, 2013, 1-11.

Zhu, S., Jiao, W., Xu, Y., Hou, L., Li, H., Shao, J., Zhang, X., Wang, R., & Kong, D. (2021). Palmitic acid inhibits prostate cancer cell proliferation dan metastasis by suppressing the PI3K/Akt pathway. *Life Sciences*, 286, 120046.