

DAFTAR PUSTAKA

- Adelina, R. 2013. Uji Molekular Docking Annomuricin E dan Muricapentocin pada Aktivitas Antipriloferasi. *Jurnal Ilmu Kefarmasian Indonesia* 12(1):32-36.
- Agistia, D. D., H. Purnomo, M. Tegar, A. E. Nugroho. 2013. Interaksi Senyawa Aktif dari *Aegle marmelos* Correa sebagai Anti Inflamasi dengan Reseptor COX1 dan COX-2. *Traditional Medicine Journal*. Vol.18:80-87.
- Ali, S and Coombes, R.C. 2000. Esterogen Receptor Alpha in Human Breast Cancer: Occurrence and Significance. *Journal of Mammary Gland Biology and Neoplasia* 5, 271-281.
- Anam, K. 2015. Isolasi Senyawa Triterpenoid dari Alga Merah (*Eucheuma cottonii*) Menggunakan Kromatografi Lapis Tipis (KLT) dan Analisisnya Menggunakan Spektrofotometri UV-VIS dan FT-IR. Skripsi. Jurusan Kimia, Fakultas Sains dan Teknologi. Universitas Islam Negeri Maulana Malik Ibrahim Malang.
- American Cancer Society. 2017. About Breast Cancer. <https://www.cancer.org/content/dam/CRC/PDF/Public/8577.00.pdf>, diakses tanggal 2 Agustus 2018.
- Astuti, A.T. 2014. Senyawa Bioaktif. Fakultas Ilmu Kesehatan, Universitas Respati Yogyakarta.
- Azwanida, N.N. 2015. A Review on the Extraction Methodes Use in Medicinal Plants, Principle, Strength and Limitation. *Med Aromat Plants*, 4:196.
- Bidura, I.G.N.G et al. 2016. Characteristic and Antioxidant Activities of Gaharu (*gyrinops versteegii*) Leaves. *J. Biol. Chem. Research*, 33(1):294-301
- Christi, G.J. 2019. *Liquid Chromatography Mass Spectrofotometry (LC-MS)*. Dahham, S.S., Ahamed, M.B.K., Hassan, L.E.A., Majid, A.M.S.A., Majid
- Dar, A.M. and Mir, S. 2017. Molecular Docking: Approaches, Types, Applications, and Basic Challenges. *J. Anal Bioanal Tech* 8:356.
- De Laurentiis, M., Arpino, G., Massarelli, E., Ruggiero, A., Carlomagno, C., Ciardiello, F., Torotora, G., D'agostino, D., Caputo, F., Cancelli, G., Montagna, E., Malorni, L., Zinno, L., Lauria, R., Bianco, A.R., and De Placido, S. 2005. A Meta-Analysis on The Interaction Between HER-2 Expression and Response to Endocrine Treatment in Advanced Breast Cancer. *Clin Cancer Res* 11(13):4741-4748.
- Ding Hou, 1960. Thymelaeaceae. In: Van Steenis, C.G.G.J. (ed.), *Flora Malesiana Series I, Volume 6*. Wolter Noordhoff Publishing, Groningen, The Netherlands, pp.1-48.
- Fadhilah, Y.S. 2016. Identifikasi Golongan senyawa toksik daun gaharu *Gyrinops versteegii* (Gilg.) domke dan *aquilaria malaccensis* lamk. terhadap sel. kanker payudara T47D. tesis. Biologi, Program pascasarjana fakultas biologi, Universitas Gadjah Mada.
- FAO. 2002. Product and market agarwood. *Nonwood News*. 9: 37-38.
- Fernando, F., Irawan, M.I., dan Fadlan, A. 2019. Bat Algorithm for Sloving Molecular Docking of Alkaloid Compound SA2014 Towards Cyclin D1 Protein in Cancer. *Journal of Physics: Conference Series* 1366(2019) 012089.
- Ferwadi, S., Rahmat G. dan Winni A. 2017. Studi Docking Molecular Senyawa Asam Sinamat dan Derivatnya sebagai Inhibitor Protein 1j4x pada Sel Kanker Serviks. *Jurnal Kimia Mulawarman*. Vol. 14(2): 84-90.
- Filimonov, D.A., Lagunin, A.A., Glorizova, T.A., Rudik, A.V., Druzhilovskii, D.S., Pogodin, P.V., and Poroikov V.V. 2014. Prediction of the Biological

- Activity Spectra of Organic Compounds Using the Pass Online Web Resource. *Chemistry of Heterocyclic Compounds* 50, 444-457.
- Fischer E. The influence of configuration on enzyme activity. *Dtsch Chem Ges.* 1894;27:2984–93.
- Fitriani, H et al. 2006. Pembuatan Teh Dari Daun Gaharu Jenis *Gyrinops versteegii*. *Jurnal ilmiah Biologi "Bioscientist"*, 2(1): 137-144.
- Forest, G. 2010. Sekilas Tentang *Gyrinops versteegii*, <http://konservasitumbuhan.blogspot.com/2010/02/sekilas-tentang-gyrinops-versteegii.html>, diakses tanggal 30 Juli 2018.
- Gates, P. 2005. *High Performance Liquid Chromatography Mass Spectrometry* (HPLC/MS). <http://www.bris.ac.uk/nerelmsf/techniques/hplcms.html>, diakses pada tanggal 15 Maret, 2020
- Gilg. 1932. *Gyrinops versteegii*. [http://zipcodezoo.com/Plants/Gyrinops versteegii.asp](http://zipcodezoo.com/Plants/Gyrinops_versteegii.asp), diakses tanggal 4 November 2018
- Hertz, D. L., McLeod, H.L., dan Hoskins, J.M. 2009. Pharmacogenetics of Breast Cancer Therapies. *the breast*, 18:59-63.
- Holliday, D.L. and Speirs, V. 2011. Choosing the Right Cell Line for Breast Cancer Research. *Breast Cancer Research* 13, 215 (2011).
- Huang, S.Y. and Zou, X. 2010. Advances and Challenges in Protein-Ligand Docking. *International Journal of Molecular Sciences* 11(8):3016-34.
- Hughes, J.P., Rees, S., Kalindjian, S.B., Philpott, K.L. 2011. Principles of Early Drug Discovery. *British Journal of Pharmacology* 162: 1239-1249
- Hutami, D.R. 2020. Aktivitas Antidiabetes Ekstrak Daun Gaharu *Gyrinops versteegii* (Gilg.) Domke secara *In Vitro* dan *In Silico*. Skripsi. Fakultas Biologi, Universitas Gadjah Mada.
- Indiarto, E.N. 2018. Profil Metabolit ¹H-NMR Rimpang *Curcuma* dan *Zingiber* dari Tiga Lokasi Berbeda. Skripsi. Fakultas Biologi, Universitas Gadjah Mada.
- Irwanto, R. 2016. Sitotoksitas dan Identifikasi Golongan Senyawa Metabolit Sekunder Daun Gaharu *Aquilaria malaccensis* Lamk dan *Gyrinops versteegii* (Gilg.) Domke Terhadap Sel Kanker Kolon WiDr. Skripsi. Fakultas Biologi, Universitas Gadjah Mada.
- Ishikawa, T., Ichikawa, Y., Shimizu, D., Sasaki, T., Tanabe Mikiko., Chishima, T., Takabe, K., Endo, I. 2014. The Role of HER-2 in Breast cancer. *J Surg Sci.* 2014 Dec;2 (1):4-9.
- Ismail, S.N., Maulidiani, M., Akhtar, M.T., Abas, F., Ismail, S.I., Khaatib, A., Ali, N.A.M., and Shaari, K. 2017. Discriminative Analysis of Different Grades of Gaharu (*Aquilaria malaccensis* Lamk.) via ¹H-NMR-Based Metabolomics Using PLS-DA and Random Forests Classification Models. *Molecules*, 22, 1612.
- Jyotimayee, K., Kumar, S., and Sarangi, M. 2013. Thin Layer Chromatography: A Tool of Biotechnology for Isolation of Bioactive Compounds from Medicinal Plants. *J. Pharm. Sci. Rev. Res.* 18(1):126-132
- Kaddurah-Daouk, Rima, Kristal, Bruce S. Weinshilboum, Richard M. 2008. Metabolomics: A Global Biochemical Approach to Drug Response and Disease. *Annual Review of Pharmacology and Toxicology.* 48:653-683.
- Kahlert, S., Nuedling, S., van Eickels, M., Vetter, H., Meyer, R. and Grohe, C. 2000. Estrogen Receptor Alpha Rapidly Activates the IGF-1 Receptor Pathway. *J Biol Chem* 275(24):18447-18453
- Kemenkes RI. 2017. Panduan Penatalaksanaan Kanker Payudara. Jakarta Selatan.

- Koshland, D.E. 1963. The Key-Lock Theory and The Induced Fit Theory. *Angew, Chem. Int ed.engl* (33): 2375-2378.
- Kuntz, I.D., Blaney, J.M., Oatley, S.J., Langridge, R., and Ferrin, T.E. 1982. A Geometric Approach to Macromolecule-Ligand Interactions. *Journal of Molecular Biology*, 161(2), 269-288
- Lagunin, A., Stepanchikova, A., Filimonov, D., and Poroikov, V. 2000. PASS: Prediction of Activity Spectra for Biologically Active Substance. *Bioinformatics*, 16(8):747-8.
- Lazebnik, Y.A., Kaufmann, S.H., Desnoyers, S., Poirier, G.G., and Earnshaw, W.C. 1994. Cleavage of Poly(ADP-ribose) Polymerase by A Proteinase With Properties Like ICE. *Nature* 371(6495):346-7.
- Lenny, S. 2006. Senyawa Terpenoida dan Steroida. Medan: FMIPA, USU
- Li, Y., Yang, D., and Yin, X. 2020. Clinicopathological Characteristic and Breast Cancer-Spesific Survival of Patience With Single Hormone Receptor- Positive Breast Cancer. *JAMA, Netw Open*, 3(1):e1918160.
- Lim, H., Son, K.H., Chang, H.W., Bae, K.H., Kang, S.S., Kim, H.P. 2008. Anti-inflammatory Activity of Pectolinarigenin and Pectolinarin Isolated from *Cirsium chanroenicum*. *Biol. Pharm. Bull*, 31(11):2063-2067.
- Lu, M., Xu, X., Lu, H., Lu, Z., Xu, B., Tan, C., Shi, K., Guo, R., and Kong, Q. 2016. Evaluation of Anti-tumor and Chemoresistance-lowering Effects of Pectolinarigenin from *Cirsium japonicum* Fisch ex DC in Breast Cancer. *Tropical Journal of Pharmaceutical Research March* 15(3):547-553.
- Macdonald, F and Ford, C.H.J. 1997. *Molecular Biology of Cancer*. BIOS Scientific Publishers, Oxford.
- Malviya, N., Malviya, S., Jain, S., Vyas, S. 2017. A review of Potential of Medicinal Plants in the Management and Treatment of Male Sexual Dysfunction. *Andrologia* 48(8):880-893.
- Mangan Y. 2009. Solusi Sehat Mencegah dan Mengatasi Kanker. Jakarta: PT. Agro Media Pustaka.
- McConkey, B.J., Sobolev, V., Edelman, M. 2002. The Performance of Current Methodes in Lifand-Protein Docking. *Current Science*, 83:845-855
- Mega, I.M. and D. A. Swastini (2010). Screening Fitokimia dan Aktivitas Antiradikal bebas Ekstrak Metanol Batang Gaharu (*Gyrinops versteegii*). *J. Kimia* 4 (2). Jurusan Kimia FMIPA. Universitas Udayana. Denpasar.
- Megumi, R.S. 2018. Gaharu, Emas Hijau Nusantara yang terancam. <https://www.greeners.co/flora-fauna/gaharu-emas-hijau-nusantara-terancam/>, Diakses 2 Januari 2019.
- Menendez, J.A., Vellon, L., Colomer, R., and Lupu, R. 2005. Oleic acid, the Mainn Monounsaturated Fatty Acid of Olive Oil Suppresses Her-2/*neu* (*erbB-2*) Expression and Synergistically Enhances the Growth Inhibitory Effects of Trastuzumab (HerceptinTM) in Breast Cancer Cells with Her-2/*neu* Oncogene Amplification. *Annals of Oncology*, 16(3):359-371
- Milman, B.L. 2011. *Chemical Identification and its Quality Assurance*. Springer-Verlag Berlin Heidelberg
- Mukriani. 2014. Ekstraksi, Pemisahan Senyawa, dan Identifikasi Senyawa Aktif. *Jurnal Kesehatan* 7(2):361-367.

- Nasir, A.N. 2013. Karakterisasi Senyawa Flavonoid Hasil Isolasi Ekstrak Metanol Daun Gamal (*Gliricidia maculata*). Skripsi. Lampung: FMIPA, Universitas Lampung.
- Ningsih. IY. 2016. Penanganan Pasca Panen. Biologi Farmasi. Fakultas Farmasi, Universitas Jember.
- Nuringtyas, T.R., Choi, Y.H., Verpoorte, R., Oeter, G.L.K. & Leiss, K.K., 2012, 'Differential Tissue Distribution of Metabolites in *Jacobaea vulgaris*, *Jacobaea aquatic* and Their Crosses', *Phytochemistry*, 78, 89-97.
- Pan Dik. 2017. Laporan Pendahuluan Ca Mammae (*Carcinoma Mammae*/Kanker Payudara), diakses tanggal 13 November 2018.
- Perdani, L. 2019. Efektivitas Fraksi Potensial Daun Gaharu *Gyrinops Versteegii* (Gilg.) Domke dan *Aquilaria malaccensis* Lamk Terhadap Apoptosis dan Proliferasi Sel Kanker Payudara T47D. Skripsi. Fakultas Biologi. Universitas Gadjah Mada.
- Pogodin, P.V., Lagunin, A., Filimonov, D.A., Poroikov, V. 2015. PASS Targets: Ligand-based Multi-target Computational System Based on A Public Data and Naive Bayes Approach. *SAR and QSAR in Environmental Research* 26(10):1-11.
- Puspasari, R.R. 2018. Penghambatan Siklus Sel Kanker Payudara T47D oleh Fraksi Aktif Ekstrak Kloroform Campuran Daun Penghasil Gaharu *Gyrinops versteegii* (Gilg.) Domke dan *Aquilaria malaccensis* (Lamk.). Skripsi. Fakultas Biologi, Universitas Gadjah Mada.
- Rachmania, R.A. 2019, Validasi Protokol Skrining Virtual dan Analisis Interaksi Inhibitor Antiproliferasi Sel Kanker Berbasis Bahan Alam Terhadap Reseptor Cyclin-Dependent Kinase 4 (CDK-4). *Media Farmasi* 16(1):21-40.
- Roger, P, Sahla, M.E., Makela, S., Gustafsson, J.A., Baldet, P., and Rochefort. 2001. Decreased Expression of Esterogen Receptor Beta Protein in Proliferative Preinvasive Mammary Tumors. *Cancer Res* 61(6):2537-2541.
- Saifudin, A. *Senyawa Alam Metabolit Sekunder: Teori, Konsep, dan Teknik Pemurnian*. Yogyakarta: Deepublish.
- Sharma, G.N., Dave, R., Sanadya, J., Sharma, P., and Sharma, K.K. 2010. Various Types and Management Of Breast Cancer: An Overview. *J Adv Pharm Technol Res* 1(2) 109-126.
- Trifonova, O., Lokhov, P., and Archakov, A. 2013. Postgenomics Diagnostics: Metabolomics Approaches to Human Blood Profiling. *OMICS: A Journal of Integrative Biology*, Vol 17 No.11.
- Tyas, A.N. 2011. Uji Aktivitas Penangkap Radikal Bebas Fraksi Semipolar Ekstrak Etanol Daun Benalu Mangga (*Dendrophthoe pentandra* (L.)Miq.) Dengan Metode DPPH. Skripsi. Fakultas Farmasi, Universitas Muhammadiyah Surakarta
- Waksmundzka-Hajnos M, Sherma J, Kowalska T. (2008). Thin layer chromatography in phytochemistry. CRC Press.
- Wang, D.S.Y. Secondary Metabolites From Plants. Departement of Forestry, NCHU. diakses tanggal 2 Agustus 2018.
- Wardana, T.A.P. 2019. Identifikasi Senyawa Aktif Anti Kanker Ekstrak Dan Fraksi Daun Gaharu (*Gyrinops versteegii* (Gilg.) Domke) Dengan Metode LC-MS dan GC-MS. Skripsi. Fakultas Biologi, Universitas Gadjah Mada.

- Yarden, Y. 2001. The EGFR Family and Its Ligand in Human Cancer. Signalling Mechanisms and Therapeutic Opportunities. *Eur J Cancer* 37 suppl 4:S3-8.
- Yanti, I.G.A.A.D., Swastini, D.A., and Kardena, I.M. 2013. Skrining Fitokimia Ekstrak Metanol Daun Gaharu (*Gyrinops versteegii* (Gilg) Domke). *Jurnal Farmasi Udayana*.
- Zeeuw, J.D. 2013. What do Chromatogrms tell us? Peak Shape.. Multiple Peaks for the Same Component. Restek Corporation.