

DAFTAR PUSTAKA

1. Razoki. Antioxidant and Antibacterial Activities of Ethanol Extract of Matoa (*Pometia pinnata*) Leaves. *Journall Phaemaceutical Sci.* 2023;6(2):351-357.
2. Tungmunthum D, Thongboonyou A, Pholboon A, Yangsabai A. Flavonoids and Other Phenolic Compounds from Medicinal Plants for Pharmaceutical and Medical Aspects. *Medicines.* 2020;5(3):93. doi:10.3390/medicines5030093
3. Yu L, Wu Y, Liu D, et al. The kinetic behavior of antioxidant activity and the stability of aqueous and organopolyphenol extracts from navel orange peel. *Food Sci Technol.* 2022;42:1-11. doi:10.1590/fst.90621
4. Malaka R, Munirah, Maruddin F, Vargas-Vargas MA, Jimenez-Silva A. Evaluation of the potential of matoa (*Pometia pinnata*) leaf extract as an antioxidant activity in pasteurized milk. *Canrea J Food Technol Nutr Culin J.* 2023;6(2):100-118. doi:10.20956/canrea.v6i2.1024
5. Adrian, Syahputra RA, Lie S, Theo S, Nugraha SE. Antioxidant, Total Phenol, Total Flavonoid, and LC-MS/MS Analysis of *Pometia Pinnata* Ethanol Extract. In: *2021 IEEE International Conference on Health, Instrumentation & Measurement, and Natural Sciences (InHeNce)*. IEEE; 2021:1-5. doi:10.1109/InHeNce52833.2021.9537214
6. Putri AC, Yuliana TN, Suzery M, Aminin ALN. Total Phenolic, Flavonoid, and LC-MS Analysis of the Ethanolic Extract of Matoa (*Pometia pinnata*) Leaves from Kudus, Central Java, Indonesia. *J Kim Sains dan Apl.* 2024;26(12):477-482. doi:10.14710/jksa.26.12.477-482
7. Vo Q V., Thong NM, Le Huyen T, et al. A thermodynamic and kinetic study of the antioxidant activity of natural hydroanthraquinones. *RSC Adv.* 2020;10(34):20089-20097. doi:10.1039/d0ra04013d
8. Rajan VK, Ragi C, Muraleedharan K. A computational exploration into the structure, antioxidant capacity, toxicity and drug-like activity of the anthocyanidin "Petunidin." *Heliyon.* 2019;5(7):e02115. doi:10.1016/j.heliyon.2019.e02115
9. Natural M, Journal P, Mujtahid IF, et al. Studi In Silico Prediksi Sifat Fisikokimia dan Toksisitas Senyawa Tectoquinone Sebagai α -Glukosidase inhibitor. *Makassar Nat Prod J.* 2024;2(3):215-221.
10. Aparicio S. A systematic computational study on flavonoids. *Int J Mol Sci.* 2020;11(5):2017-2038. doi:10.3390/ijms11052017
11. Utoro PAR, Witoyo JE, Alwi M. Tinjauan literatur singkat bioaktivitas ekstrak daun matoa (*Pometia pinnata*) dari Indonesia dan aplikasinya pada produk pangan. *J Trop AgriFood.* 2022;4(2):67. doi:10.35941/jtaf.4.2.2022.9293.67-76
12. Rahmawati R, Tahir M, Amir AHW. Kandungan Senyawa Kimia Dan Aktivitas Farmakologi Tanaman Matoa (*Pometia Pinnata* J.R. Forster & J.G. Forster). *As-Syifaa J Farm.* 2021;13(2):108-115. Doi:10.56711/Jifa.V13i2.778

13. Wahyudin I, Tosida E, Andria F. *Buku Ajar Ilmu Kayu*. Fakultas Kehutanan Universitas Hasanuddin; 2020.
14. Mahardani OT, Yuanita L. Efek Metode Pengolahan Dan Penyimpanan Terhadap Kadar Senyawa Fenolik Dan Aktivitas Antioksidan. *Unesa J Chem*. 2021;10(1):64-78. doi:10.26740/ujc.v10n1.p64-78
15. Ningsih IS, , Moralita Chatr LA, Violita. Senyawa Aktif Flavonoid yang Terdapat Pada Tumbuhan. *SERAMBI Biol*. 2023;8(2):7.
16. Dias MC, Pinto DCGA, Silva AMS. Plant Flavonoids: Chemical Characteristics and Biological Activity. *Molecules*. 2021;26(17):5377. doi:10.3390/molecules26175377
17. Halliwell B, Gutteridge JMC. *Free Radicals in Biology and Medicine*. Oxford University Press; 2015. doi:10.1093/acprof:oso/9780198717478.001.0001
18. Mehta SK, Gowder SJT. Members of Antioxidant Machinery and Their Functions. In: *Basic Principles and Clinical Significance of Oxidative Stress*. InTech; 2015. doi:10.5772/61884
19. Zheng YZ, Deng G, Liang Q, Chen DF, Guo R, Lai RC. Antioxidant Activity of Quercetin and Its Glucosides from Propolis: A Theoretical Study. *Sci Rep*. 2017;7(1):7543. doi:10.1038/s41598-017-08024-8
20. Reis M, Lobato B, Lameira J, Santos AS, Alves CN. A theoretical study of phenolic compounds with antioxidant properties. *Eur J Med Chem*. 2007;42(4):440-446. doi:10.1016/j.ejmech.2006.11.008
21. Yu J, Su NQ, Yang W. Describing Chemical Reactivity with Frontier Molecular Orbitals. *JACS Au*. 2022;2(6):1383-1394. doi:10.1021/jacsau.2c00085
22. Salman, S.Si., M. Farm; Firawati, S.Si., M.Si; Deni setiawan MCP. *FARMAKOKINETIKA*. Vol 7. EUREKA MEDIA AKSARA; 2020.
23. Widaningrum P, Triana P, Santoso R. Konsep Farmakologi , Farmakodinamika dan Farmakokinetika. *Politek Kesehatan Kemenkes Yogyakarta*. Published online 2022:17.
24. Elshama S, Abdalla ME, Mohamed AM. Role of Natural Antioxidants in Treatment of Toxicity. *J Toxicol Anal*. 2018;1(1):3. <http://www.imedpub.com/journal-toxicological-analysis/inpress.php>
25. Nguyen, Nguyen Thi My, Nguyen Van Din MVB. The prediction of pKa values for phenolic compounds by the DFT theory. *J Sci Technol Issue Inf Commun Technol*. 2022;(Figure 1):50-57. doi:10.31130/ud-jst.2022.047E
26. Prianto B. Pemodelan Kimia Komputasi. *Ber Dirgant*. 2007;8(1):4. http://jurnal.lapan.go.id/index.php/berita_dirantara/article/view/711
27. Prof. Dr. Edy Cahyono, M.Si. Dr. Nanik Wijayati, M.Si. Samuel Budi Kusumawardhana, M.Sc., Ph.D Dr. Sri Mursiti, M.Si. Dante Alighiri MS, Dr. Agung Tri Prasetya, M.Si. Harjono MS, Drs. Kasmui MS. *Kimia Organik Fisik*. Cetakan Pe. UNNES PRESS; 2020.

28. Dewi T, Wungu K, Suprijadi D, et al. Studi Komputasi Density Functional Theory dalam Kajian Pengaruh Exchange Cation pada Proses Penyerapan Logam Berat oleh Montmorillonite. *Pros SKF*. Published online 2017:107-111.
29. Regina OA. Quantum mechanical methods in computational chemistry. *IDOSR J Comput Appl Sci*. 2024;9(1):6-10. doi:10.59298/jcas/2024/91.6109000
30. Imelda, Emriadi, Aziz H, Santoni A. Computational Design of Novel Coumarin Sensitizers To Improve the Efficiency of Solar Cells. *Moroccan J Chem*. 2022;10(1):180-190.
31. Ambarsari N, Dayanti R. Aktivitas Antioksidan Ekstrak dan Fraksi Daun Matoa (*Pometia pinnata*). *J Syifa Sci Clin Res*. 2024;5(3). doi:10.37311/jsscr.v5i3.24251
32. Wang Y, Li C, Li Z, Moalin M, Hartog GJM den, Zhang M. Computational Chemistry Strategies to Investigate the Antioxidant Activity of Flavonoids—An Overview. *Molecules*. 2024;29(11):2627. doi:10.3390/molecules29112627
33. Hnid I, Guan L, Chatir E, et al. Visualization and Comprehension of Electronic and Topographic Contrasts on Cooperatively Switched Diarylethene-Bridged Ditopic Ligand. *Nanomaterials*. 2022;12(8):1318. doi:10.3390/nano12081318
34. Scharber MC, Sariciftci NS. Low Band Gap Conjugated Semiconducting Polymers. *Adv Mater Technol*. 2021;6(4). doi:10.1002/admt.202000857
35. Lefebvre C, Klein J, Khartabil H, Boisson J □C., Hénon E. IGMPLOT: A program to identify, characterize, and quantify molecular interactions. *J Comput Chem*. 2023;44(20):1750-1766. doi:10.1002/jcc.27123
36. Farrokhnia M. Density Functional Theory Studies on the Antioxidant Mechanism and Electronic Properties of Some Bioactive Marine Meroterpenoids: Sargahydroquionic Acid and Sargachromanol. *ACS Omega*. 2020;5(32):20382-20390. doi:10.1021/acsomega.0c02354
37. Platzer M, Kiese S, Tybussek T, et al. Radical Scavenging Mechanisms of Phenolic Compounds: A Quantitative Structure-Property Relationship (QSPR) Study. *Front Nutr*. 2022;9. doi:10.3389/fnut.2022.882458
38. Vločskó RB, Mastugin M, Török B, Török M. Correlation of physicochemical properties with antioxidant activity in phenol and thiophenol analogues. *Sci Rep*. 2025;15(1):73. doi:10.1038/s41598-024-83982-4
39. Molski M. Theoretical study on the radical scavenging activity of gallic acid. *Heliyon*. 2023;9(1):e12806. doi:10.1016/j.heliyon.2023.e12806
40. Chakraborty R, de Moraes MMF, Boguslawski K, Nowak A, Świerczyński J, Tecmer P. Toward Reliable Dipole Moments without Single Excitations: The Role of Orbital Rotations and Dynamical Correlation. *J Chem Theory Comput*. 2024;20(11):4689-4702. doi:10.1021/acs.jctc.4c00471
41. Chen Y, Xiao H, Zheng J, Liang G. Structure-Thermodynamics-Antioxidant Activity

- Relationships of Selected Natural Phenolic Acids and Derivatives: An Experimental and Theoretical Evaluation. Salahub D, ed. *PLoS One*. 2015;10(3):e0121276. doi:10.1371/journal.pone.0121276
42. Rathi PC, Ludlow RF, Verdonk ML. Practical High-Quality Electrostatic Potential Surfaces for Drug Discovery Using a Graph-Convolutional Deep Neural Network. *J Med Chem*. 2020;63(16):8778-8790. doi:10.1021/acs.jmedchem.9b01129
43. Murray JS, Politzer P. The electrostatic potential: an overview. *WIREs Comput Mol Sci*. 2021;1(2):153-163. doi:10.1002/wcms.19
44. Liu Y, Si L, Jiang Y, et al. Design of pH-Responsive Nanomaterials Based on the Tumor Microenvironment. *Int J Nanomedicine*. 2025;Volume 20:705-721. doi:10.2147/IJN.S504629
45. Lipinski CA, Lombardo F, Dominy BW, Feeney PJ. Experimental and computational approaches to estimate solubility and permeability in drug discovery and development settings 1PII of original article: S0169-409X(96)00423-1. The article was originally published in *Advanced Drug Delivery Reviews* 23 (1997). *Adv Drug Deliv Rev*. 2001;46(1-3):3-26. doi:10.1016/S0169-409X(00)00129-0
46. Hassan HA, Hassan AR, Mohamed EAR, et al. Targeting Natural Plant Metabolites for Hunting SARS-CoV-2 Omicron BA.1 Variant Inhibitors: Extraction, Molecular Docking, Molecular Dynamics, and Physicochemical Properties Study. *Curr Issues Mol Biol*. 2022;44(10):5028-5047. doi:10.3390/cimb44100342

