

DAFTAR PUSTAKA

- Adriani, N., Nuryanti., dan Maimun., 2017, Mekanisme Reaksi Substitusi Nukleofilik S_N1 dan S_N2 dengan Senyawa Halogen Organik, *Prosiding SEMIRATA 2017 Bidang MIPA BKS-PTN Wilayah Barat*, 12-14 Mei, Jambi.
- Anand, A., Khurana, R., Wahal, N., Mahajan, S., Mehta, M., Satija, S., Sharma, N., Vyas, M., dan Khurana, N., 2019, Vanillin: A Comprehensive Review of Pharmacological Activities, *Plant Archives*, 2(19), 1000-1004.
- Antony, H.A., dan Parija, S.C., 2016, Antimalaria Drug Resistance: An Overview, *Tropical Parasitol*, 6, 30–41.
- Arya, A., Foko, L.P.K., Chaudhry, S., Sharma, A., dan Singh, V., 2021, Artemisinin-Based Combination Therapy (ACT) and Drug Resistance Molecular Markers: A Systematic Review of Clinical Studies from Two Malaria Endemic Regions – India and Sub-Saharan Africa, *Int Parasitol Drugs Drug Resist*, 15, 43-56.
- Auof, C., Lecomte, J., Villeneuve, P., Dubreucq, E., Fulcrand, H., 2012, Chemo-Enzymatic Functionalization of Gallic and Vanillic Acids: Synthesis of Bio-Based Epoxy Resins Prepolymers, *Green Chem*, 14, 2328-2336.
- Batista, R., Junior, A.J.S., dan Oliveira, A.B., 2009, Plant-Derived Antimalarial Agents: New Leads and Efficient Phytomedicines, part II. Non-Alkaloidal Natural Products, *Molecules*, 14, 3037-3072.
- Breloy, L., Negrell, C., Mora, A.-S., Li, W.S.J., Brezova, V., Caillol, S., dan Versace, D., 2020, Vanillin Derivative as Performing Type I Photoinitiator, *Eur Polym J*, 132, 1-8.
- Choudhary, A., Karmer, K.J., dan Raines, R.T., 2011, An $n \rightarrow \pi^*$ Interaction in Aspirin: Implications for Structure and Reactivity, *J Org Chem*, 76(19), 7933-7937.
- Christina, T.L., Tobing, Wahrianto, Saputri, E., Wafa, N.I., Zulfianti, P.D., Sihalo, L.I., Husna, A.R., Salsabila, D., Silalahi, F.H.H., Sitohang, A.I., Sabrina, A., Harianja, A.D.H., Barus, S.A., Sabina, S., Rahma, A.A., Velaro, A.J., Khairunnisa, K., Salim, E., Nurkolis, F., dan Syahputra, R.A., 2024, Malaria in Indonesia: Current Treatment Approaches, Future Strategies, and Potential Herbal Interventions, *Pharmacia*, 71, 1-4.
- Corma, A., Formes, V., Iborra, S., Mifsud, M., dan Renz, M., 2004, One-Pot Synthesis of Phenols from Aromatic Aldehydes by Baeyer–Villiger Oxidation with using H_2O_2 Water-Tolerant Lewis Acids in Molecular Sieves, *J Catal*, 221, 67-76.

- Esmaeili, S., Ghiaee, A., Naghibi, F., dan Mosaddegh, M., 2015, Antiplasmodial Activity and Cytotoxicity of Plants used in Traditional Medicine of Iran for the Treatment of Fever, *Iran J Pharm Res*, 14, 103-7.
- Fache, M., Darroman, E., Besse, V., Auvergne, R., Caillol, S., dan Boutevin, B., 2014, Vanillin, a Promising Biobased Building-Block for Monomer Synthesis, *Green Chem*, 16, 1987-1998.
- Fallah-Mehrjardi, M., Kiasat, A.R., dan Niknam, K., 2018, Nucleophilic Ring-Opening of Epoxides: Trends in β -Substituted Alcohols Synthesis, *J. Iran. Chem. Sos*, 15, 2033-2081.
- Fessenden, R.J., dan Fessenden, J.S., 1986, *Organic Chemistry*, Edisi ketiga, Brooks/Cole Pub. Co., California.
- Gallage, N. J., dan Møller, B. L., 2015, Vanillin-Bioconversion and Bioengineering Of the Most Popular Plant Flavor and its De Novo Biosynthesis in the Vanilla Orchid, *Mol Plant*, 1(8), 40-57.
- González-Sanz, M., Berzosa, P., dan Norman, F.F., 2023, Updates on Malaria Epidemiology and Prevention Strategies, *Curr. Infect. Dis. Rep*, 25, 131-139.
- Hafid, A.F., Puliansari, N., Lestari, N.S., Tumewu, L., Rahman, A., dan Widyawaruyanti, A., 2016, Skrining Aktivitas Antimalaria Beberapa Tanaman Indonesia Hasil Eksplorasi dari Hutan Raya Cangar, Batu-Malang, Jawa Timur, *Jurnal Farmasi dan Ilmu Kefarmasian Indonesia*, 1(3), 6-11.
- Hasyim, H., Dale, P., Groneberg, D.A., Kuch, U., dan Müller, R., 2019, Social Determinants of Malaria in an Endemic Area of Indonesia, *Malar J*, 134(18), 1-11.
- Heravi, M.M., Ghavidel, M., dan Mohammadkhani, L., 2018, Beyond a Solvent: Triple Roles of Dimethylformamide in Organic Chemistry, *RSC Adv*, 8, 27832-27862.
- Hussain, H., Al-Harrasi, A., Green, I.R., Ahmed, I., Abbas, G., dan Rehman, N.U., 2014, *meta*-Chloroperbenzoic acid (*m*CPBA): A Versatile Reagent in Organic Synthesis, *RSC Adv*, 4, 12882-12917.
- Ho, K., Yazan, L.S., Ismail, N., dan Ismail, M., 2011, Toxicology Study of Vanillin on Rats Via Oral and Intra-Peritoneal Administration, *Foodchemtox*, 49, 25-30.
- Horn, A., dan Kasmaier, U., 2018, Purified *m*CPBA, a Useful Reagent for the Oxidation of Aldehydes, *Eur J Chem*, 20-21, 2531-2536.

- Ismiyati, dan Sari., F., 2020, Identifikasi Kenaikan Titik Didih pada Proses Evaporasi, terhadap Konsentrasi Larutan Sari Jahe, *KONVERSI*, 2(9), 33-39.
- Istiqomah., Abdullah., Astuti., M.D., 2020, Peningkatan Kualitas Bio-oil Hasil Minyak Kelapa Sawit Menggunakan Reaksi Epoksidasi dan Hidroksilasi, *Sains dan Terapan Kimia*, 2(14), 63-72.
- Jamil, S.N.H., Ali, A.H., Feroz, S.R., Lam, S.D., Agustar, H.K., Razak, M.R.M., dan Latip, J., 2023, Curcumin and Its Derivatives as Potential Antimalarial and Anti-Inflammatory Agents: A Review on Structure–Activity Relationship and Mechanism of Action, *Pharmaceuticals*, 16, 1-25.
- Kalaria, N., Karad, S.C., dan Raval, D.K., 2018, A Review on Diverse Heterocyclic Compounds as the Privileged Scaffolds in Antimalarial Drug Discovery, *Eur J Med Chem*, 158, 917-936.
- Kaur, B., dan Singh, P., 2022, Epoxides: Developability as Active Pharmaceutical Ingredients and Biochemical Probes, *Bioorg Chem*, 125, 1-24.
- Kherid, M.T., Dianasari, D., dan Nuri., 2020, Uji Aktivitas Antibakteri Ekstrak Etanol Daun Kacaping (*Gardenia augusta Merr.*) dan Fraksinya Terhadap *Salmonella typhi*, *Pharmaceutical Journal of Indonesia*, 5(2), 97-102.
- Maisaroh., dan Purwanto, W., 2019, Tinjauan Termodinamika dan Keseimbangan Kimia dalam Hubungan Perubahan Suhu terhadap Konversi Reaksi Epoksidasi Asam Oleat Berbasis Sawit, *Prosiding Seminar Nasional Pengabdian Masyarakat LPPM UMJ*, 24 September, Jakarta.
- Mathebula, B., Butsi, K.R., Zyl, R.L.V., Vuuren, N.C.J.V., Hoppe, H.C., Michael, J.P., Koning, C.B., Rousseau, A.L., 2019, Preparation and Antiplasmodial Activity of 3',4'-dihydro-1'H-spiro(indoline-3,2'-quinolin)-2-ones, *Chem. biol. drug des*, 4(94), 1849-1858.
- Maji, A.K., 2018, Drug Susceptibility Testing Methods of Antimalarial Agents, *Trop. Parasitol*, 8(2), 70-76.
- Mandal, S., Mandal., S., Ghosh, S.K., Sar, P., Ghosh, A., Saha, R., dan Saha, B., 2016, E Review on the Advancement of Either Synthesis from Organic Solvent to Water, *RSC Adv*, 6, 69605-69614.
- Mutabingwa, T.K., 2005, Artemisinin-Based Combination Therapies (Acts): Best Hope for Malaria Treatment but Inaccessible to The Needy!, *Acta Tropica*, 95(3), 305– 315.
- Nitbani, F.O., 2007, Epoksidasi dan Pembukaan Cincin Epoksida pada Metil Risinoleat, *Thesis*, FMIPA UGM, Yogyakarta.

- Nitbani, F.O., Tembaru, D., Gauru, I., dan Kusumawati, A., 2015, Sintesis Senyawa Metil 9,10-Epoksi Stearat dari Minyak Jarak Pagar (*Jatropha curcas*) Asal Pulau Timor, *Sains dan Terapan Kimia*, 1(9), 37-46.
- Olafson, K.N., Ketchum, M.A., Rimer, J.D., dan Vekilov, P.G., 2015, Mechanisms of Hematin Crystallization and Inhibition by The Antimalarial Drug Chloroquine, *PNAS*, 112(16), 4946-4951.
- Pranowo, H.D., 1995, Epoksidasi Metileugenol dan Metiliso Eugenol dengan Pereaksi Okson dan Asam *meta*-Kloroperbenzoat, *Thesis*, FMIPA UGM, Yogyakarta.
- Sajjadi, S.E., Pestechian, N., Kazemi, M., Mohaghegh, M., dan Hosseini-Safa, A., 2015, Evaluation of the Antimalarial Effect of *Ferulago angulata* (Schlecht.) Boiss. Extract and Suberosin Epoxide Against *Plasmodium berghei* in Comparison with Chloroquine Using in-vivo Test, *Iran J Pharm Res*, 15(3), 515-521.
- Saputra, F., Fadli, A., dan Amri, A., 2016, Kinetika Reaksi pada Sintesis Hidroksiapatit dengan Metode Presipitasi, *Jom FTEKNIK*, 16(3), 1-6.
- Sarker, S.D., Latif, Z., dan Gray, A.I., 2008, *Natural Product Isolation*, Edisi ketiga, Humana Press, New York.
- Sharma, U.K., Mohanakrishnan, D., Sharma, N., Equbal, D., Sahal, D., dan Sinha, A.K., 2015, Facile Synthesis of Vanillin-Based Novel Bischalcones Identifies One that Induces Apoptosis and Displays Synergy with Artemisinin in Killing Chloroquine Resistant *Plasmodium falciparum*, *Eur J Med Chem*, 155, 623-638.
- Siddiqui, F.A., Liang, X., dan Cui, L., 2021, *Plasmodium falciparum* Resistance to ACTs: Emergence, Mechanisms, and Outlook, *Int Parasitol Drugs Drug Resist*, 16, 102-118.
- Suhaenah, A., Pratama, M., dan Amir, A.H.W., 2021, Penetapan Kadar Flavonoid Fraksi Etil Asetat Daun Karet Kebo (*Ficus elastica*) dengan Metode Spektrofotometri UV-Vis, *As-Syifaa Jurnal Farmasi*, 13(1), 48-54.
- Susilorini, F., 2007, Sintesis Kopoli(asam eugenil oksiasetat-DVB) Terimpregnasi 5'-Kloro-2,4,2'-Trihidroksiazo Benzena, *Skripsi*, Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Sebelas Maret, Surakarta.
- Suwarso, W.P., Sukri, T., dan Wijaya, H., 2002, Reaksi Penataan Ulang Sigmatropik Hidrogen [1,3] secara Termal dan Reaksi Penataan Ulang Prototropik [1,3] yang Dikatalisis oleh Katalis Transfer Fase (Ptc) , [18]-Crown Ether-6: Semi-Sintesis Vanili dari Eugenol, *Makara Sains*, 1(6), 36-44.

- Syamsudin, 2006, Resistensi Obat Antimalaria, *JKM*, 2(5), 34-39.
- Trager, W., dan Jensen, J.B., 1967, Human Malaria Parasites in Continuous Culture, *Science*, 193(4254), 673-675.
- Ursache, O., Gaina, C., dan Gaina, V., 2012, High Performance Bismaleimide Resins Modified Allyl Compounds based on Polytriazoles, *J Polym Res*, 19, 1-9.
- Ursing, J., Johns, R., Aydin-Schmidt, B., Calçada, C., Kofoed, P., Ghanchi, N.L., Veiga, M.I., dan Romba, L., 2022, Chloroquine-Susceptible and -Resistant *Plasmodium falciparum* Strains Survive High Chloroquine Concentrations by becoming Dormant but are Eliminated by Prolonged Exposure, *J Antimicrob Chemother*, 77, 1005-1011.
- Utomo, S.B., dan Setiati, T., 2019, Aplikasi Kaliksarena sebagai Katalis Transfer Fasa dalam Sintesis Vanilin dari Eugenol, *JKPK*, 3(4), 179-188.
- Wang, X., Creek, D.J., Schiaffo, C.E., Dong, Y., Chollet, J., Scheurer, C., Wittlin, S., Charman, S.A., Dussault, P.H., Wood, J.K., Jonathan, I., dan Vennerstrom, 2009, Spiroadamantyl 1,2,4-Trioxolane, 1,2,4-Trioxane, and 1,2,4-Trioxepane Pairs: Relationship Between Peroxide Bond Iron(II) Reactivity, Heme Alkylation Efficiency, and Antimalaria Activity, *Bioorg Med Chem Lett*, 19, 4542-4545.
- Wicht, K.J., Mok, S., dan Fidock, D.A., 2020, Molecular Mechanisms of Drug Resistance in *Plasmodium falciparum* Malaria, *Annu Rev Microbiol.*, 74, 431-454.
- Wong, Z., Chen, K., dan Li, J., 2010, Formation of Vanillin and Syringaldehyde in An Oxygen Delignification Process, *BioResources*, 5(3), 1509-1516.
- Yuan, Z., Wang, L., Sun, M., Zhang, X., Derradji, M., Zhang, B., Li, J., Xue, G., Zhao, M., dan Liu, C., 2023, The Effect of The Vanillin-Derived Diene Compound on The Thermal, Dielectric, and Mechanical Properties of Epoxy Resins., *Mater. Today Commun*, 35, 1-9.