

DAFTAR PUSTAKA

- Anonim, 2021, *Profil Kesehatan Indonesia*, Kementerian Kesehatan Republik Indonesia, Jakarta.
- Anonim, 2021, *World Malaria Report 2021*, World Health Organization, Geneva.
- Basco, L.K., Mitaku, S., Skaltsounis, A.L., Ravelomanantsoa, N., Tillequin, F., Koch, M., and Bras, J.L., 1994, *In Vitro* Activities of Furoquinoline and Acridone Alkaloids Against *Plasmodium falciparum*, *Antimicrob. Agents Chemother.*, 38, 1169–1171.
- Batista, R., Júnior, A.J.S., and Oliveira, A.B., 2009, Plant-Derived Antimalarial Agents: New Leads and Efficient Phytomedicines. Part II. Non-Alkaloidal Natural Products, *Molecules*, 14, 3037–3072.
- Bekhit, A.A., Hymete, A., Damtew, A., Mohamed, A.M.I., and Bekhit, A.E.D.A., 2012, Synthesis and Biological Screening of Some Pyridine Derivatives as Anti-Malarial Agents, *J. Enzyme Inhib. Med. Chem.*, 27, 69–77.
- Bentzinger, G., Pair, E., Guillon, J., Marchivie, M., Mullié, C., Agnamey, P., Dassonville-Klimpt, A., and Sonnet, P., 2020, Enantiopure Substituted Pyridines as Promising Antimalarial Drug Candidates, *Tetrahedron*, 76, 1–10.
- Breitmaier, E., 2002, *Structure Elucidation by NMR in Organic Chemistry A Practical Guide*, 3rd Ed., John Wiley & Sons Ltd, Chichester.
- Chaubey, A., and Pandeya, S.N., 2011, Pyridine" a Versatile Nucleuse in Pharmaceutical Field, *Asian J. Pharm. Clin. Res.*, 4, 5–8.
- Congpuong, K., Sirtichaisinthop, J., Tippawangkosol, P., Suprakrob, K., Na-Bangchang, K., Tan-Ariya, P., and Karbwang, J., 1998, Incidence of Antimalarial Pretreatment and Drug Sensitivity *In Vitro* in Multidrug-Resistant *Plasmodium falciparum* Infection in Thailand, *Trans. R. Soc. Trop. Med. Hyg.*, 92, 84–86.
- Desjardins, R.E., Canfield, C.J., Haynes, J.D., and Chulay, J.D., 1979, Quantitative Assessment of Antimalarial Activity *In Vitro* by a Semiautomated Microdilution Technique, *Antimicrob. Agents Chemother.*, 16, 710–718.
- Garcia, T.R., de Freitas, T.S., dos Santos, H.S., Bandeira, P.N., Julião, M.S.S., Rocha, J.E., Nogueira, C.E.S., Pereira, R.L.S., Barreto, A.C.H., Freire, P.T.C., Coutinho, H.D.M., and Teixeira, A.M.R., 2020, Structural, Vibrational and Electrochemical Analysis and Antibiotic Activity Study of Chalcone (2E)-1-(3',-Methoxy-4',-Hydroxyphenyl)-3-(3-Nitrophenyl)Prop-2-En-1-One, *J. Mol. Struct.*, 1216, 1–10.

- Goyal, K., Kaur, R., Goyal, A., and Awasthi, R., 2021, Chalcones: A Review on Synthesis and Pharmacological Activities, *J. Appl. Pharm. Sci.*, 11, 1–14.
- Hughes, J.P., Rees, S.S., Kalindjian, S.B., and Philpott, K.L., 2011, Principles of Early Drug Discovery, *Br. J. Pharmacol.*, 162, 1239–1249.
- Jain, S., Kumar, S., Lamba, B.Y., Patra, J., and Mahindroo, N., 2021, Nanocatalysts: Applications in Synthesis of Chalcones—a Review, *Synth. Commun.*, 51, 1–12.
- Joseph, L., Arunsasi, B.S., Sajan, D., and Shettigar, V., 2014, Synthesis, Crystal Growth, Thermal, Electronic and Vibrational Spectral Studies of 1-(4-Bromophenyl)-3-(3,4-Dimethoxy-Phenyl)Prop-2-En-1-One: A Density Functional Theory Study, *J. Mol. Struct.*, 1076, 687–697.
- Kim, J., Tan, Y.Z., Wicht, K.J., Erramilli, S.K., Dhingra, S.K., Okombo, J., Vendome, J., Hagenah, L.M., Giacometti, S.I., Warren, A.L., Nosol, K., Roepe, P.D., Potter, C.S., Carragher, B., Kossiakoff, A.A., Quick, M., Fidock, D.A., and Mancina, F., 2019, Structure and Drug Resistance of the *Plasmodium falciparum* Transporter PfCRT, *Nature*, 576, 315–320.
- Kłósek, M., Kuropatnicki, A.K., Szliszka, E., Korzonek-Szlacheta, I., and Król, W., 2017, *Chalcones Target the Tumor Necrosis Factor-Related Apoptosis-Inducing Ligand (TRAIL) Signaling Pathway for Cancer Chemoprevention.*, In: Watson, R.R., *Nutrition and Functional Foods for Healthy Aging*. Academic Press, London.
- Kohler, E.P., and Chadwell, H.M., 1922, Benzalacetophenone, *Org. Synth.*, 1, 78–79.
- Kumar, R., Mohanakrishnan, D., Sharma, A., Kaushik, N.K., Kalia, K., Sinha, A.K., and Sahal, D., 2010, Reinvestigation of Structure-Activity Relationship of Methoxylated Chalcones as Antimalarials: Synthesis and Evaluation of 2,4,5-Trimethoxy Substituted Patterns as Lead Candidates Derived from Abundantly Available Natural β -Asarone, *Eur. J. Med. Chem.*, 45, 5292–5301.
- Ling, Y., Hao, Z.Y., Liang, D., Zhang, C.L., Liu, Y.F., and Wang, Y., 2021, The Expanding Role of Pyridine and Dihydropyridine Scaffolds in Drug Design, *Drug Des. Devel. Ther.*, 15, 4289–4338.
- Marcovicz, C., Camargo, G. dos A., Scharr, B., Sens, L., Levandowski, M.N., Rozada, T. de C., Castellen, P., Inaba, J., de Oliveira, R.N., Miné, J.C., Corrêa, S. de A.P., Allegratti, S.M., and Fiorin, B.C., 2022, Schistosomicidal Evaluation of Synthesized Bromo and Nitro Chalcone Derivatives, *J. Mol. Struct.*, 1258, 1–10.

- Marvel, C.S., Coleman, L.E., and Scott, G.P., 1955, Pyridine Analog of Chalcone and Their Polymerization Reaction, *J. Org. Chem.*, 20, 1785–1792.
- Murphy, S.C., Shott, J.P., Parikh, S., Etter, P., Prescott, W.R., and Stewart, V.A., 2013, Review Article: Malaria Diagnostics in Clinical Trials, *Am. J. Trop. Med. Hyg.*, 89, 824–839.
- Nzila, A., and Mwai, L., 2009, *In Vitro* Selection of *Plasmodium falciparum* Drug-Resistant Parasite Lines, *J. Antimicrob. Chemother.*, 65, 390–398.
- Okolo, C., Eban, L., Amazu, L., Chukwu, L., Ohadoma, S., and Osuala, F., 2020, *In-Vitro* Anti-Malarial Activity of Chikadoma Plant from the Rainforest of Southern Nigeria, *J. Drug Deliv. Ther.*, 10, 251–254.
- Osman, M.S., Awad, T.A., Shantier, S.W., Garelnabi, E.A., Osman, W., Mothana, R.A., Nasr, F.A., and Elhag, R.I., 2022, Identification of Some Chalcone Analogues as Potential Antileishmanial Agents: An Integrated *In Vitro* and *In Silico* Evaluation, *Arab. J. Chem.*, 15, 1–10.
- Pandey, P.P., 2018, Introductory Chapter: Pyridine,. In, Pandey, P.P., *Pyridine*. IntechOpen, London.
- Pannu, A.K., 2019, Malaria Today: Advances in Management and Control, *Trop. Doct.*, 49, 160–164.
- Pavia, D.L., Lampman, G.M., Kriz, G.S., and Vyvyan, J.R., 2015, *Introduction to Spectroscopy*, 5th Ed., Cengage Learning, Stamford.
- Ramesh, D., Joji, A., Vijayakumar, B.G., Sethumadhavan, A., Mani, M., and Kannan, T., 2020, Indole Chalcones: Design, Synthesis, *In Vitro* and *In Silico* Evaluation against *Mycobacterium Tuberculosis*, *Eur. J. Med. Chem.*, 198, 1–15.
- Richards, S.A., and Hollerton, J.C., 2010, *Essential Practical NMR for Organic Chemistry*, 1st Ed., John Wiley & Sons, Ltd, Chichester.
- Rieckmann, K.H., McNamara, J. V., Frischer, H., Stockert, T.A., Carson, P.E., and Powell, R.D., 1968, Effects of Chloroquine, Quinine, and Cycloguanil upon The Maturation of Asexual Erythrocytic Forms of Two Strains of *Plasmodium falciparum* *In Vitro.*, *Am. J. Trop. Med. Hyg.*, 17, 661–671.
- Sahu, N.K., Balbhadra, S.S., Choudhary, J., and Kohli, D.V., 2012, Exploring Pharmacological Significance of Chalcone Scaffold: A Review, *Curr. Med. Chem.*, 19, 209–225.

- Santiago, R.N.S., Freire, P.T.C., Teixeira, A.M.R., Bandeira, P.N., Santos, H.S., Lemos, T.L.G., and Ferraz, C.A.N., 2018, FT-Raman and FT-IR Spectra and DFT Calculations of Chalcone (2E)-1-(4-Aminophenyl)-3-Phenyl-Prop-2-En-1-One, *Vib. Spectrosc.*, 97, 1–7.
- Sinha, S., Batovska, D.I., Medhi, B., Radotra, B.D., Bhalla, A., Markova, N., and Sehgal, R., 2019, *In Vitro* Anti-Malarial Efficacy of Chalcones: Cytotoxicity Profile, Mechanism of Action and Their Effect on Erythrocytes, *Malar. J.*, 18, 1–11.
- Sinha, S., Sarma, P., Sehgal, R., and Medhi, B., 2017, Development in Assay Methods for *In Vitro* Antimalarial Drug Efficacy Testing: A Systematic Review, *Front. Pharmacol.*, 8, 1–14.
- Suma, A.A.T., Wahyuningsih, T.D., and Mustofa, 2019, Efficient Synthesis of Chloro Chalcones Under Ultrasound Irradiation, Their Anticancer Activities and Molecular Docking Studies, *Rasayan J. Chem.*, 12, 502–510.
- Syahri, J., Yuanita, E., Nurohmah, B.A., Armunanto, R., and Purwono, B., 2017, Chalcone Analogue as Potent Anti-Malarial Compounds against *Plasmodium falciparum*: Synthesis, Biological Evaluation, and Docking Simulation Study, *Asian Pac. J. Trop. Biomed.*, 7, 675–679.
- Talapko, J., Škrlec, I., Alebić, T., Jukić, M., and Včev, A., 2019, Malaria: The Past and the Present, *Microorganisms*, 7, 1–17.
- Trampuz, A., Jereb, M., Muzlovic, I., and Prabhu, R.M., 2003, Clinical Review: Severe Malaria, *Crit. Care*, 7, 315–323.
- Tseha, S.T., 2021, *Plasmodium Species and Drug Resistance*,. In, Tyagi, R., (ed), *Plasmodium Species and Drug Resistance*. IntechOpen, London.
- Veiga, M.I., Dhingra, S.K., Henrich, P.P., Straimer, J., Gnädig, N., Uhlemann, A.C., Martin, R.E., Lehane, A.M., and Fidock, D.A., 2016, Globally Prevalent PfMDR1 Mutations Modulate *Plasmodium falciparum* Susceptibility to Artemisinin-Based Combination Therapies, *Nat. Commun.*, 7, 1–12.
- Wanare, G., Aher, R., Kawathekar, N., Ranjan, R., Kaushik, N.K., and Sahal, D., 2010, Synthesis of Novel α -Pyranochalcones and Pyrazoline Derivatives as *Plasmodium falciparum* Growth Inhibitors, *Bioorg. Med. Chem. Lett.*, 20, 4675–4678.

- Xavier, J. da C., de Almeida-Neto, F.W.Q., Rocha, J.E., Freitas, T.S., Freitas, P.R., de Araújo, A.C.J., da Silva, P.T., Nogueira, C.E.S., Bandeira, P.N., Marinho, M.M., Marinho, E.S., Kumar, N., Barreto, A.C.H., Coutinho, H.D.M., Julião, M.S.S., dos Santos, H.S., and Teixeira, A.M.R., 2021, Spectroscopic Analysis by NMR, FT-Raman, ATR-FTIR, and UV-Vis, Evaluation of Antimicrobial Activity, and *In Silico* Studies of Chalcones Derived from 2-Hydroxyacetophenone, *J. Mol. Struct.*, 1241, 1–13.
- Xue, J., Diao, J., Cai, G., Deng, L., Zheng, B., Yao, Y., and Song, Y., 2013, Antimalarial and Structural Studies of Pyridine-Containing Inhibitors of 1-Deoxyxylulose-5-Phosphate Reductoisomerase, *ACS Med. Chem. Lett.*, 4, 278–282.
- Zakiah, M., Syarif, R.A., Mustofa, M., Jumina, J., Fatmasari, N., and Sholikhah, E.N., 2021, *In Vitro* Antiplasmodial, Heme Polymerization, and Cytotoxicity of Hydroxyxanthone Derivatives, *J. Trop. Med.*, 2021, 1–11.
- Zhuang, C., Zhang, Wen, Sheng, C., Zhang, Wannian, Xing, C., and Miao, Z., 2017, Chalcone: A Privileged Structure in Medicinal Chemistry, *Chem. Rev.*, 117, 7762–7810.