

DAFTAR PUSTAKA

- Ahmed, W., 2016, Monitoring antioxidant and antityrosinase activity of clove aromatic flower buds. *Journal of Medicinal Plants Studies*, 4, 163-169.
- Al-Maskery., Garrido J., Khazraei H., Borges F., and Firuzi O., 2013, Antioxidant Properties of Hydroxycinnamic Acids: A Review of Structure- Activity Relationships. *J. Med. Chem.*, 20,3711-3732
- Anny, F.T., Fatimah, dan Feti, 2002, Isolasi dan Identifikasi Eugenol dari Tangkai Cengkeh Jenis Zanzibar (*Eugenia caryophyllita*, Thumb), *J. Entropi.*, 6, 23-31.
- Arango, V., Domínguez, J.J., Cardona, W., Robledo, S.M., Muñoz, D.L., Figadere, B., and Sáez, J., 2012, Synthesis and leishmanicidal activity of quinoline- triclosan and quinoline-eugenol hybrids, *Med. Chem. Res.*, 21, 3445–3454.
- Brotzel, F., Mayr, H. and Baidya, M., 2008, Nucleophilicities of Amines, Amino Acids and Pyridines, *Org. Biomol. Chem.*, 8, 1929–1935.
- Busroni, 2000, Sintesis 1-(3,4 Dimetoksi Fenil)-2-Propanon Turunan Eugenol Melalui Pembentukan Senyawa 1-(3,4 Dimetoksi Fenil)-2-Propanil Format pada Suhu 250-300 °C, *Jurnal Ilmu Dasar*, 1, 35-46.
- Budavri, P., 2001, Tumbuhan Sebagai Sumber Zat Aktif Antimalaria, *Bul. Penelit. Kesehat.*, 23, 1-11.
- Caron, S. and McInturff, E., 2020, Nucleophilic Aromatic Substitution. In Caron, S. (ed.), *Practical Synthetic Organic Chemistry*, Wiley, Hoboken, 231–246.
- da Silva, F.F.M., Monte, F.J.Q., de Lemos, T.L.G., do Nascimento, P.G.G., de Medeiros Costa, A.K., and de Paiva, L.M.M., 2018, Eugenol derivatives: synthesis, characterization, and evaluation of antibacterial and antioxidant activities, *Chem. Cent. J.*, 12, 1–9.
- Dahham, S.S., Tabana, Y.M., Iqbal, M.A., Ahamed, M.B.K., Ezzat, M.O., Majid, A.S.A., and Majid, A.M.S.A., 2015, The anticancer, antioxidant and antimicrobial properties of the sesquiterpene β -Caryophyllene from the essential oil of *Aquilaria crassna*. *Molecules*, 20, 11808-11829.
- Kouznetsov, V.V. and Gómez-Barrio, A., 2009, Recent developments in the design and synthesis of hybrid molecules based on aminoquinoline ring and their antiplasmodial evaluation, *Eur. J. Med. Chem.*, 44, 3091–3113.
- Luna, M., S.D., Mathur, R.K., and Siddhanta, N.N., 2018, Synthesis of New Derivatives of Eugenol and Isoeugenol, *J. Chem. Eng. Data*, 27, 209–210.

- Luu, G.D., Kumbhar, R.P., and Helder, S., 2009, A Facile Solvent-Free Skraup Cyclization Reaction for Synthesis of 2,2,4-trimethyl-1,2-dihydroquinoline, *Int. Rev. Chem. Eng.*, 4, 597–607.
- Manohar, S., Tripathi, M., and Rawat, D.S., 2014, 4-Aminoquinoline based molecular hybrids as antimalarials: An Overview, *Curr. Top. Med. Chem.*, 14, 1706–1733.
- Maurya, S.S., Khan, S.I., Bahuguna, A., Kumar, D. and Rawat, D.S., 2017, Synthesis, Antimalarial Activity, Heme Binding and Docking Studies of N-Substituted 4-Aminoquinoline-Pyrimidine Molecular Hybrids, *Eur. J. Med. Chem.*, 129, 175–185.
- Mulyono, R.L., Hidayat, N., and Rahmah, N.L., 2006, Eugenol purification from clove leaf oil with strong alkaline reactants of KOH and Ba(OH)₂ (study on the concentration of the reactants), *J. Teknologi dan Manajemen Agroindustri*, 3, 1–12.
- Musonda, C.C., Ncokazi, K., Egan, T.J., Yardley, V., Carvalho, R.C. and Chibale, K., 2008, Application of Multicomponent Reactions to Antimalarial Drug Discovery. Part 4: Antiplasmodial, β -Hematin Inhibition, Antitrypanosomal and Cytotoxic Activity of Novel 4-Aminoquinoline 2- Imidazolines, *Chem. Med. Chem.*, 10, 2099-2110.
- Nam, H., and Kim, M.M., 2013, Eugenol with antioxidant activity inhibits MMP-9 related to metastasis in human fibrosarcoma cells. *Food Chem. Toxicol.* 55, 106–111
- Nasseri, M.A., Zakerinasab, B., and Kamayestani, S., 2015, Proficient Procedure for Preparation of Quinoline Derivatives Catalyzed by NbCl₅ in Glycerol as Green Solvent, *J. Appl. Chem.*, 2015, 1–7.
- Nejad, A.E., Kornaukhova, L.M., Rodionov, V.I., Pankrushina, N.A., Shults, E.E., Fabiano-Tixier, A.S., 2017, Selecting a Green Strategy on Extraction of Birch Bark and Isolation of Pure Betulin Using Monoterpenes, *ACS Sustain. Chem. Eng.*, 6, 6281–6288.
- Nurdin, Amiriani, Ria, P., dan Rita Y., 2007, Isolasi Eugenol dalam Minyak Cengkeh Dengan Proses Distilasi Fraksional Tekanan Rendah, *J. Industri Teknologi Pertanian.*, 5, 235-242.
- Nurhadianty, V., Cahyani, C., Nirwana, W.O.C., Dewi, L.K., Abdillah, G., and Pratama, A.R., 2017, Peningkatan Yield Minyak Daun Cengkeh (*Syzygium aromaticum*) Dengan Fermentasi Selulotik Menggunakan *Trichoderma harzianum*, *J. Rekayasa Bahan Alam dan Energi Berkelanjutan*, 1, 36–41.

- Ouellette, R.J. and Rawn, J.D., 2015, *Nucleophilic Substitution and Elimination Reaction. Organic Chemistry Study Guide*, Elsevier Inc, Atlanta.
- Reddy, A., Primasari, dan Widiarti N., 2008, Penerapan Teknologi Pemurnian Minyak Cengkeh Sebagai Upaya Peningkatan Kesejahteraan Pengrajin di Kecamatan Ungaran Barat, *J. Med. Plants Stud.*, 4, 112-121.
- Riyanto, A., Yunilawati, R., Rahmi, D., Aidha, N.N., and Ratnawati, E., 2015, Isomerisasi Eugenol Menjadi Isoeugenol Dengan Metode Sonikasi, *J. Kim. dan Kemasan*, 37, 37.
- Sadowsky, D., McNeill, K., and Cramer, C.J., 2014, Dehalogenation of aromatics by nucleophilic aromatic substitution, *Environ. Sci. Technol.*, 48, 10904–10911.
- Sharma, R.Y., Prianto, Henny, Retnowati, Rurini dan Juswono, 2006, Isolasi dan Karakterisasi dari Minyak Bunga Cengkeh (*Syzygium aromaticum*) Kering Hasil Distilasi Uap, *J. Ilmu Kimia.*, 8, 22-29.
- Sirait, A.R., Rinardry, S.M., Iriany dan Bangkit, 2012, Penentuan Kondisi Keseimbangan Unit Leaching Pada Produksi Eugenol dari Daun Cengkeh, *J. Kim. dan Kemasan*, 37, 39.
- Somaatmadja, S., Rajesh, U.C., Khan, S.I., Tekwani, B.L., and Rawat, D.S., 2001, Novel 4- Aminoquinoline-Pyrimidine Based Hybrids with Improved in Vitro and in Vivo Antimalarial Activity. *ACS Med. Chem. Lett.* ,3, 555–559.
- Valdivieso, E., Mejías, F., Torrealba, C., Benaim, G., Kouznetsov, V. V., Sojo, F., 2018, In vitro 4-Aryloxy-7-chloroquinoline derivatives are effective in mono- and combined therapy against *Leishmania donovani* and induce mitochondrial membrane potential disruption, *Acta Trop.*, 183, 36–42.
- Zhu, M., Fu, W., Xun, C., and Zou, G., 2012, An efficient synthesis of substituted quinolines via indium(III) chloride catalyzed reaction of imines with alkynes, *Bull. Korean Chem. Soc.*, 33, 43–47.