

DAFTAR PUSTAKA

- Aizo, A. I., Adnan, L. A., Ahmad, R., Shaffie, A. H., & Aziz, N. (2024). Screening of Active Compounds of *Baeckea frutescens* Using Attenuated Total Reflectance-Fourier Transform Infrared Spectroscopy (ATR-FTIR) and Its Saponification Process. *Malays. J. Chem.*, *26*(3), 56–61.
- Al-Salih, H., & Abu-Lebdeh, Y. (2024). Investigating the phase diagram-ionic conductivity isotherm relationship in aqueous solutions of common acids: hydrochloric, nitric, sulfuric and phosphoric acid. *Sci. Rep.*, *14*(1).
- Balabbib, A., El Omari, N., Hachlafi, N. EL, Lakhdar, F., El Menyiy, N., Salhi, N., Mrabti, H. N., Bakrim, S., Zengin, G., & Bouyahya, A. (2021). Health beneficial and pharmacological properties of p-cymene. *Food Chem. Toxicol.*, *153*, 112259.
- Barton, A. F. M., Tjandra, J., & Nicholas, P. G. (1989). Chemical Evaluation of Volatile Oils in Eucalyptus Species. *J. Agric. Food Chem.*, *37*(5), 1253–1257.
- Baser, K.H.C. and Buchbauer, G. (2009) *Handbook of Essential Oils: Science, Technology, and Applications*. Boca Raton: CRC Press.
- Be, N., Özkan, F., & Gündüz, G. (2002). Alpha-pinene isomerization on acid-treated clays. *Appl. Catal. A: Gen.*, *224*(1–2), 285–297.
- Borges, M. F. d. A., Lacerda, R. d. S., Correia, J. P. d. A., de Melo, T. R., & Ferreira, S. B. (2022). Potential Antibacterial Action of α -Pinene. *Medical Sciences Forum*, *12*(1), 11.
- Burt, S. (2004). Essential oils: their antibacterial properties and potential applications in foods—a review. *Int. J. Food Microbiol.*, *94*(3), 223–253.
- Comelli, N. A., Ponzi, E. N., & Ponzi, M. I. (2006). α -Pinene isomerization to camphene: Effect of thermal treatment on sulfated zirconia. *Chem. Eng. J.*, *117*(2), 93–99.
- Elicia, R., Roanisca, O., & Asriza, R. O. (2024). The Effect of Harvest Time of Sapu-Sapu Leaves (*Baeckea frutescens* L.) the Yield, Characteristics and Composition of Essential Oils Extached Using Steam-Hydro Distillation Method. *Indonesian Journal of Chemical Analysis (IJCA)*, *7*(2), 227–236.
- Flores-Holguín, N., Aguilar-Elguézabal, A., Rodríguez-Valdez, L. M., & Glossman-Mitnik, D. (2012). A theoretical study of the carbocation formation energy involved in the isomerization of α -pinene. *Chem. Phys. Lett.*, *546*, 168–170.
- Galgano, M., Capozza, P., Pellegrini, F., Cordisco, M., Sposato, A., Sblano, S., Camero, M., Lanave, G., Fracchiolla, G., Corrente, M., Cirone, F., Trotta, A., Tempesta, M., Buonavoglia, D., & Pratelli, A. (2022). Antimicrobial Activity of Essential Oils Evaluated In Vitro against *Escherichia coli* and *Staphylococcus aureus*. *Antibiotics*, *11*(7), 979.

- Handbook of Essential Oils: Science, Technology, and Applications. (2009). *Handbook of Essential Oils*.
- Handojo, L., Putra, I. A., Azis, M. M., Prakoso, T., Soerawidjaja, T. H., & Indarto, A. (2019). Isomerization of turpentine using various heterogeneous and homogeneous acid catalysts. *AIP Conf. Proc.*, 2085(1).
- Jun, Y., Lee, S. M., Ju, H. K., Lee, H. J., Choi, H. K., Jo, G. S., & Kim, Y. S. (2016). Comparison of the Profile and Composition of Volatiles in Coniferous Needles According to Extraction Methods. *Molecules* 2016, Vol. 21, Page 363, 21(3), 363.
- Lin, P. C., Lee, J. J., & Chang, I. J. (2016). Essential oils from Taiwan: Chemical composition and antibacterial activity against *Escherichia coli*. *J. Food Drug Anal.*, 24(3), 464–470.
- Ludwig, J., Curado-Carballada, C., Hammer, S. C., Schneider, A., Diether, S., Kress, N., Ruiz-Barragán, S., Osuna, S., & Hauer, B. (2024). Controlling Monoterpene Isomerization by Guiding Challenging Carbocation Rearrangement Reactions in Engineered Squalene-Hopene Cyclases. *Angew. Chem. - Int. Ed.*, 63(12).
- Marchese, A., Arciola, C. R., Barbieri, R., Silva, A. S., Nabavi, S. F., Sokeng, A. J. T., Izadi, M., Jafari, N. J., Suntar, I., Daglia, M., & Nabavi, S. M. (2017). Update on Monoterpenes as Antimicrobial Agents: A Particular Focus on p-Cymene. *Materials*, 10(8), 947.
- Masyita, A., Mustika Sari, R., Dwi Astuti, A., Yasir, B., Rahma Rumata, N., Emran, T. Bin, Nainu, F., & Simal-Gandara, J. (2022). Terpenes and terpenoids as main bioactive compounds of essential oils, their roles in human health and potential application as natural food preservatives. *Food Chem.: X*, 13, 100217.
- Meng, F., Li, Y., Liu, Z., Wang, X., Feng, Y., Zhang, W., & Zhang, X. (2020). Potential Molecular Mimicry Proteins Responsive to α -pinene in *Bursaphelenchus xylophilus*. *Int. J. Mol. Sci.*, 21(3), 982.
- Navanesan, S., Wahab, A. N., Manickam, S., & Sim, K. S. (2015). Evaluation of selected biological capacities of *Baekkea frutescens*. *BMC Complementary and Alternative Medicine*, 15(1), 186.
- Nazzaro, F., Fratianni, F., Coppola, R., & De Feo, V. (2017). Essential Oils and Antifungal Activity. *Pharmaceuticals*, 10(4), 86.
- Oliveira E Nogueira, J., Campolina, G. A., Batista, L. R., Alves, E., Caetano, A. R. S., Brandão, R. M., Nelson, D. L., & Cardoso, M. D. G. (2021). Mechanism of action of various terpenes and phenylpropanoids against *Escherichia coli* and *Staphylococcus aureus*. *FEMS Microbiol. Lett.*, 368(9).
- Pálvölgyi, Á. M., Scharinger, F., Schnürch, M., & Bica-Schröder, K. (2021). Chiral Phosphoric Acids as Versatile Tools for Organocatalytic Asymmetric Transfer Hydrogenations. *Eur. J. Org. Chem.*, 2021(38), 5367.

- Piggot, T. J., Holdbrook, D. A., & Khalid, S. (2011). Electroporation of the *E. coli* and *S. aureus* Membranes: Molecular Dynamics Simulations of Complex Bacterial Membranes. *J. Phys. Chem. B*, *115*(45), 13381–13388.
- Pires, M., Meloni, E., Skov, I. R., Vilardi, G., Zuurro, A., Belikov, J., Perea-Moreno, A.-J., Lapuerta, M., Tobío-Pérez, I., Ortiz-Alvarez, M., Donoso, D., Canoira, L., & Piloto-Rodríguez, R. (2023). Heterogeneous Catalytic Conversion of Terpenes into Biofuels: An Open Pathway to Sustainable Fuels. *Energies*, *16*(6), 2526.
- Prakoso, T., Putra, I. A., Handojo, L., Soerawidjaja, T. H., Winoto, H. P., & Indarto, A. (2020). A method to control terpineol production from turpentine by acid catalysts mixing. *Heliyon*, *6*(10), e04984.
- Putra, I. A., Azis, M. M., Soerawidjaja, T. H., & Indarto, A. (2019). Synthesis of cineole from raw turpentine. *AIP Conf. Proc.*, *2085*(1).
- Pyo, Y., & Jung, Y. J. (2024). Microbial Fermentation and Therapeutic Potential of p-Cymene: Insights into Biosynthesis and Antimicrobial Bioactivity. *Fermentation*, *10*(9), 488.
- Ranjan Maji, S., Roy, C., & Sinha, S. K. (2023). Gas chromatography–mass spectrometry (GC-MS): a comprehensive review of synergistic combinations and their applications in the past two decades. *Journal of Analytical Sciences and Applied Biotechnology*, *5*(2), 72–85.
- Razmavar, S., Abdulla, M. A., Ismail, S. B., & Hassandarvish, P. (2014). Antibacterial activity of leaf extracts of *Baekkea frutescens* against methicillin-resistant *Staphylococcus aureus*. *BioMed research international*, *2014*(1), 52128
- Rider, C. V., Herbert, R. A., Blystone, C. R., Cora, M. C., Foster, P. M., Hooth, M. J., King-Herbert, A. P., Kissling, G. E., Malarkey, D. E., Smith-Roe, S. L., Stout, M. D., Travlos, G. S., Waidyanatha, S., Walker, N. J., Witt, K. L., Dill, J. A., Grumbein, S. L., Harbo, S. J., Hayden, B. K., ... Serbus, D. C. (2016). Introduction. *NTP Tech. Rep. Toxic. Stud. Ser.*, *TOX-81*, 1–116.
- Safwan Kamarazaman, I., Sui Kiong, L., Nik Hasan, M. K., Basherudin, N., Mohd Kasim, N. A., Ali, A. A., Ramli, S., Maniam, S., Johari James, R., Rojsitthisak, P., & Halim, H. (2024). *Baekkea frutescens* L. Promotes wound healing by upregulating expression of TGF- β , IL-1 β , VEGF and MMP-2. *Saudi Pharm. J.*, *32*(7).
- Sánchez-Velandia, J. E., Gallego-Villada, L. A., Mäki-Arvela, P., Sidorenko, A., & Yu. Murzin, D. (2025). Upgrading biomass to high-added value chemicals: synthesis of monoterpenes-based compounds using catalytic green chemical pathways. *Catal. Rev. - Sci. Eng.*, *67*(2), 371–496.
- Soendjoto, M. A., Riefani, M. K., & Diana, S. (2023). Floristic diversity and composition of Kuala Tambangan heath forest in Tanah Laut district, South Kalimantan, Indonesia. *Biodiversitas*, *24*(10), 5418-5427.

- Ünveren, E., Günüz, G., & Cakicioğlu-Özkan, F. (2005). Isomerization of alpha-pinene over acid treated natural zeolite. *Chem. Eng. Commun.*, 192(1–3), 386–404.
- Valenzuela, A., Gan, C., Ferrando, N., Langa, E., Ballester, D., & Pino-Otín, M. R. (2025). Terpeneol enhances antibiotic effectiveness and reduces resistance in clinically relevant bacteria. *Heliyon*, 11(15).
- Wahyuni, E., Wibowo, M. A., & Sapat, A. (2022). Identifikasi Komponen Utama Minyak Atsiri Daun Ujung Atap (*Baeckea frutescens* L.) dan Uji Aktivitas Antibakteri Terhadap Bakteri *Escherichia coli*. *Indonesian Journal of Pure and Applied Chemistry*, 5(2), 80.
- Wijayati, N., Dwi Pranowo, H., Jumina, & Triyono. (2013). The acid catalyzed reaction of α -pinene over Y-zeolite. *Indones. J. Chem.*, 13(1), 59–65.