

DAFTAR PUSTAKA

- Ahmed A. H. Abdellatif, Heba A. Abou-Taleb., 2016, A Novel Topical Spray Formulation for Ginkgo Biloba for Antifungal Activity, *J Nanomed Nanotechnol*, **7** (4), 1-6.
- Adi, A.C., Setiawaty, N., Anindya, A.L., Rachmawati, H., 2019, Formulasi dan Karakterisasi Sediaan Nanoemulsi Vitamin A, *Media Gizi Indonesia*, **14** (1), 1-13.
- Ali, S.M. dan Yosipovitch, G., 2013, Skin pH: From Basic Science to Basic Skin Care, *Acta Derm Venereol*, **93** (1), 261.
- Ariviani, S., Raharjo, S., Anggrahini S. dan Naruki, S., 2015, Formulasi dan Stabilitas Mikroemulsi O/W dengan Metode Emulsifikasi Spontan Menggunakan VCO dan Minyak Sawit Sebagai Fase Minyak: Pengaruh Rasio Surfaktan- Minyak, *Jurnal Teknologi Pertanian*, **35** (1), 27-33.
- Azeem, A., Rizwan, M., Ahmad, F. J., Iqbal, Z., Khar, R. K., Aqil, M., & Talegaonkar, S., 2009, Nanoemulsion Components Screening and Selection: a Technical Note, *AAPS PharmSciTech*, **10** (1), 69–76.
- Baboota, S., Shakeel, F., Ahuja, A., Ali, J. dan Shafiq, S., 2007, Design, Development and Evaluation of Novel Nanoemulsion Formulations for Transdermal Potential of Celecoxib, *Acta Pharmaceutical*, **57** (3) 315-332.
- Baffoni, M., Bessa, L.J., Grande, R., Giulio, M.D., Mongelli, M., Ciarelli, A. dan Cellini, L., 2011, Laser Irradiation Effect on *Staphylococcus aureus* and *Pseudomonas aeruginosa* Biofilms Isolated from Venous Leg Ulcer, *International Wound Journal*, 1-8.
- Baxter, C. S., 2012, Alicyclic Hydrocarbons, *Patty's Toxicology*, 1–50.
- Bessonneau, V., Clément, M. dan Thomas, O., 2010, Can Intensive Use of Alcohol-Based Hand Rubs Lead to Passive Alcoholization? *International Journal of Environmental Research and Public Health*, **7** (8), 3038–3050.
- Borgou, S., Rahali, F.Z., Ourghemmi, I. dan Tounsi, M.S., 2012, Changes of Peel Essential Oil Composition of Four Tunisian Citrus during Fruit Maturation, *The Scientific World Journal*, **10** (1), 1-10.
- Bouchemal, K., Briançon, S., Perrier, E. dan Fessi, H., 2004, Nano-emulsion Formulation Using Spontaneous Emulsification: Solvent, Oil and Surfactant Optimisation, *International Journal of Pharmaceutics*, **280** (1-2), 241–251.
- Brooks, G.F., Janet, S.B., Stephen A.M. 2004. *Jawetz, Melnick & Adelbergs, Mikrobiologi Kedokteran*, Edisi 23, 227-228, Alih Bahasa oleh Hartanto, H., Rachman, C., Dimanti, A., Diani, A., Penerbit Buku Kedokteran EGC, Jakarta.
- Cahyani, N. M. E., 2014, Daun Kemangi (*Ocimum cannum*) sebagai Alternatif Pembuatan Handsanitizer. *Jurnal Kesehatan Masyarakat*. **9** (2), 136-142.
- Chang, Y., McLandsborough, L., McClements, D.J., 2015, Fabrication, stability and efficacy of dual-component antimicrobial nanoemulsions: essential oil (thymeoil) and cationic surfactant (lauric arginate), *Food Chem.*, **172**, 298–304.

- Chaturvedi Dev, Shrivastava Rishi Raj Suhane Nidhi, 2016, Basketful Benefit of *Citrus limon*, *Int. Res. J. Pharm.*, **7** (6), 1-4.
- Chemical Entities of Biological Interest, 2017, CHEBI: 15384 – limonene, <https://www.ebi.ac.uk/chebi/searchId.do?chebiId=CHEBI:15384>, diakses 28 Oktober 2019.
- Chipley, J. R., 2005, Sodium Benzoate and Benzoic Acid, Di dalam P. M. Davidson, J. N. Sofos, dan A. L. Branen, *Antimicrobials in Food 3rd ed.*, 788-789, CRC Press Taylor&Francis Group, Boca Raton.
- Darmadi, 2008, *Infeksi Nosokomial, Problematika, dan Pengendaliannya*, 1-3, Salemba Medika, Jakarta.
- Date, A. A., Desai, N., Dixit, R. dan Nagarsenker, M., 2010, Self-nanoemulsifying Drug Delivery Systems: Formulation Insights, Applications and Advances. *Nanomedicine*, **5** (10), 1595–1616.
- Departemen Kesehatan RI, 1995, *Farmakope Indonesia*, 4th Ed., Departemen Kesehatan Republik Indonesia, Jakarta.
- Departemen Kesehatan RI, 2014, *Farmakope Indonesia*, 5th Ed., 56-57, Departemen Kesehatan Republik Indonesia, Jakarta.
- Diana, A. R., 2012, *Pengaruh Diseminasi Dokter Kecil tentang Penggunaan Hand Sanitizer Gel dan Spray terhadap Penurunan Angka Kuman tangan Siswa SDN Demak Ijo Gamping Sleman*, Karya Tulis Ilmiah tidak diterbitkan, Jurusan Kesehatan Lingkungan Poltekkes Kemenkes, Yogyakarta.
- Donsì, F., Annunziata, M., Vincensi, M., Ferrari, G., 2012, Design of nanoemulsion-based delivery systems of natural antimicrobials: effect of the emulsifier, *J. Biotechnol.*, **159**, 342–350.
- Donsì, F., & Ferrari, G., 2016, Essential oil nanoemulsions as antimicrobial agents in food, *Journal of Biotechnology*, **233**, 106–120.
- Espina, L., Somolinos, M., Lorán, S., Conchello, P., García, D., & Pagán, R., 2011, Chemical composition of commercial citrus fruit essential oils and evaluation of their antimicrobial activity acting alone or in combined processes, *Food Control*, **22** (6), 896–902.
- Fennema, O. R., 1996, *Food Chemistry*, 3rd Ed. 788-789, Marcel Dekker Inc., New York.
- Fisher, K., & Phillips, C. A., 2006, The effect of lemon, orange and bergamot essential oils and their components on the survival of *Campylobacter jejuni*, *Escherichia coli* O157, *Listeria monocytogenes*, *Bacillus cereus* and *Staphylococcus aureus* in vitro and in food systems, *Journal of Applied Microbiology*, **101** (6), 1232–1240.
- Guenther, E., 2006, *Minyak Atsiri*, Jilid I, Diterjemahkan oleh S. Ketaren, UI Press, Jakarta.
- Hapsari, D.N., 2015, Pemanfaatan Ekstrak Daun Sirih (*Piper Betle Linn*) sebagai Hand Sanitizer, *Jurnal Kesehatan Lingkungan*, **7** (2), 79-84.
- Harris, Ruslan., 1994, *Tanaman Minyak Atsiri*, Penebar Swadaya, Jakarta.
- Iswandana, Raditya., Sihombing, Lidya KM., 2017, Formulasi, Uji Stabilitas Fisik, dan Uji Aktivitas Secara In Vitro Sediaan Spray Antibau Kaki yang Mengandung Ekstrak Etanol Daun Sirih (*Piper betle L.*), *Pharm Sci Res*, **4** (3), 121-131.

- Jaiswal, M., Dudhe, R. & Sharma, P.K., 2015, Nanoemulsion: An Advanced Mode of Drug Delivery System, *3 Biotech* **5**, 123–127.
- Kristiani, C., 2005, Efektivitas Antibakteri Ekstrak Kunyit (*Curcuma longa* Linn) Terhadap *Staphylococcus aureus* Daging Sapi, *Skripsi*, Universitas Katolik Soegijapranata, Semarang.
- Kurniawan, D.W., Wijayanto, B.A. dan Sobri, I., 2012, Formulation and Effectiveness of Antiseptic Hand Gel Preparations Essential Oil Galanga (*Alpinia galanga*), *Asian Journal Pharmaceutical and Biological Research*, **2** (4), 102-107.
- Kurniawati, A. F., Satyabakti, P., dan Arbianti, N., 2015, Perbedaan Risiko Multidrug Resistance Organism (MDROS) Menurut Faktor Risiko dan Kepatuhan Hand Hygiene, *Jurnal Berkala Epidemiologi*, **3**(3), 277–289.
- Li, W., Chen, H., He, Z., Han, C., Liu, S., Li, Y., 2015, Influence of surfactant and oilcomposition on the stability and antibacterial activity of eugenolnanoemulsions, *LWT: Food Sci. Technol.*, **62**, 39–47.
- Lina, N. W. M., Maharani, T. Sutharini, M. R., Wijayanti, N. P. A. D., Astuti, K. W., 2017, Karakteristik Nanoemulsi Ekstrak Kulit Buah Manggis (*Garcinia mangostana* L.), *Jurnal Farmasi UDAYANA*, **6** (1), 6-10.
- Madigan, M.T., Martinko, J.M. dan J. Parker, 2019, 253-254, *Biology of Microorganisms*. 15th Ed., Pearson, New York.
- Majeed, H., Liu, F., Hategekimana, J., Sharif, H.R., Qi, J., Ali, B., Bian, Y.Y., Ma, J., Yokoyama, W., Zhong, F., 2016, Bactericidal action mechanism of negatively charged food grade clove oil nanoemulsions, *Food Chem.*, **197**, 75–83.
- Mardikasari, S.A., Mallarangeng, A.N.T.A., Zubaydah, W.O.S. dan Juswita, E., 2017, Formulasi dan Uji Stabilitas Lotion dari Ekstrak Etanol Daun Jambu Biji (*Psidium guajava* L.) sebagai Antioksidan, *Jurnal Farmasi, Sains, dan Kesehatan*, **3** (2), 28–32.
- McCaig L.F., McDonald L.C., Mandal S. dan Jernigan D.B., 2006, *Staphylococcus Aureus-associated Skin and Soft Tissue Infections in Ambulatory Care*, *Emerging Infectious Diseases*, **12** (11), 1715–1723.
- Moghimi, R., Ghaderi, L., Rafati, H., Aliahmadi, A., McClements, D.J., 2016, Superior antibacterial activity of nanoemulsion of *Thymus daenensis* essential oil against *E. coli*, *Food Chem*, **194**, 410–415.
- Mohanapriya, M., Ramaswamy, L., dan Rajendran, R., 2013, Health and Medicinal Properties of Lemon (*Citrus limonim*), *International Journal of Ayurvedic and Herbal Medicine*, **3** (1), 1095-1100.
- Moosavy, M. H., Hassanzadeh, P., Mohammadzadeh, E., Mahmoudi R., Khatibi, S. A., Mardani, K., 2017, Antioxidant and Antimicrobial Activities of Essential Oil of Lemon (*Citrus limon*) Peel *in Vitro* and in a Food Model, *Journal of Food Quality and Hazards Control*, **4**, 42-48.
- Muaris, H.J., 2013, *Khasiat Lemon untuk Kestabilan Kesehatan*, PT. Gramedia Pustaka Utama, Jakarta, 4-8.
- Myers, D., 2006, *Surfactant Science and Technology*, 3rd Ed., 28-30, John Wiley and Sons, Inc., New Jersey.

- Nogata, Y., Sakamoto, K., Shiratsuci, H., Ishii, T., Yano, M. dan Ohta, H., 2006, Flavonoid Composition of Fruit Tissues of Citrus Species, *Bioscience, Biotechnology, and Biochemistry*, **70** (1), 178–192.
- Olii, A. T., Pamudji, J. S., Mudhakir, D., Iwo, M.I., 2014, Pengembangan, Evaluasi, dan Uji Aktivitas Antiinflamasi Akut Sediaan Nanoemulsi Spontan Minyak Jinten Hitam, *Jurnal Farmasi Indonesia*, **7** (2), 77-83.
- Patel, J., Kevin, G., Patel, A., Raval, M., Sheth, N., 2011, Design and development of a self-nanoemulsifying drug delivery system for telmisartan for oral drug delivery, *Int. J. Pharm. Investig.*, **1** (2), 112-118.
- Pelczar, M. J. dan Chan, E. C. S., 1988, *Dasar-Dasar Mikrobiologi*, diterjemahkan oleh Hadioetomo, R. S., Penerbit Universitas Indonesia, Jakarta.
- Pratiwi, L., Fudholi, A., Martien, R., dan Pramono, S., 2017, Self-nanoemulsifying Drug Delivery System (SNEDDS) for Topical Delivery of Mangosteen Peels (*Garcinia mangostana* L.): Formulation Design and In Vitro Studies, *J Young Pharm*, **9** (3), 341-346.
- Prayoga, E., 2013, Perbandingan Efek Ekstrak Daun Sirih Hijau (*Piper betle* L.) dengan Metode Difusi Disk dan Sumuran Terhadap Pertumbuhan Bakteri *Staphylococcus aureus*, *Skripsi*, UIN Syarif Hidayatullah, Jakarta.
- Priambodo, O. S., Cahyono, E., dan Kusuma, S. B. W., 2017, Enkapsulasi Minyak Lemon (*Citrus limon*) Menggunakan Penyalut β -Siklodekstrin Terasetilasi, *Jurnal MIPA*, **40** (2), 111-117.
- Purnomo A, Hartatik, Khusnan, Salasia S.I.O. dan Soegiyono, 2006, Isolasi dan karakterisasi *Staphylococcus aureus* asal susu kambing Peranakan Ettawa, *Media Kedokteran Hewan*, **22**, 142-147.
- Ramayanti, Sri., 2015, Pengaruh Konsentrasi Ekstrak Etanol Buah Naga Merah (*Hylocereus polyrhizus*) dan Buah Naga Putih (*Hylocereus undatus*) terhadap Daya Hambat Pertumbuhan dan Perlekatan Bakteri *Streptococcus mutans* Isolasi Rongga Mulut Anak Kajian In Vitro, *Tesis*, Universitas Gadjah Mada, Yogyakarta.
- Rollando, R., Prasetyo, Y. S. A., Sitepu, R., 2019, Uji Antimikroba Minyak Atsiri Masoyi (*Massoia aromatica*) terhadap Bakteri *Streptococcus aureus*, *Majalah Farmasi dan Farmakologi*, **23** (2), 52-57.
- Rowe, R.C., Shesky, P.J. dan Quinn, M.E., 2009, *Handbook of Pharmaceutical Excipient*, 6th Ed., 549-553, Pharmaceutical Press and American Pharmacists Association, London.
- Roy, S. D., Bania, R., Chakraborty, J., Goswami, R., Laila, R., Ahmed, S. A., 2012, Pharmacognostic, Phytochemical, Physicochemical Property and Antimicrobial Activity Studies of Lemon Peel Oil, *J. Nat. Prod. Plant Resour.*, **2** (3), 431-435.
- Salvia-Trujillo, L., Rojas-Grau, M.A., Soliva-Fortuny, R., Martin-Belloso, O., 2015, Use of antimicrobial nanoemulsions as edible coatings: impact on safety and quality attributes of fresh-cut fuji apples, *Postharvest Biol. Technol.*, **105**, 8–16.
- Sari, L., Lesmana, D., Taharuddin, 2018, Ekstraksi Minyak Atsiri Dari Daging Buah Pala (Tinjauan Pengaruh Metode Destilasi dan Kadar Air Bahan), *Prosiding Semnastek*.

- Setyawati, W. dan Supratman, 2008, Faktor-faktor yang Berhubungan dengan Perilaku Kepatuhan Perawat dalam Pencegahan Infeksi Luka Operasi di Ruang Rawat Inap RSUD Moewardi Surakarta. *Berita Ilmu Keperawatan*, **1** (2), 87-92.
- Settanni, L., Palazzolo, E., Guarrasi, V., Aleo, A., Mammìna, C., Moschetti, G., & Germanà, M. A., 2012, Inhibition of foodborne pathogen bacteria by essential oils extracted from citrus fruits cultivated in Sicily, *Food Control*, **26** (2), 326–330.
- Singh, P., Shukla, R., Prakash, B., Kumar, A., Singh, S., Mishra, P. K., & Dubey, N. K., 2010, Chemical profile, antifungal, antiaflatoxic and antioxidant activity of Citrus maxima Burm. and Citrus sinensis (L.) Osbeck essential oils and their cyclic monoterpene, dl-limonene, *Food and Chemical Toxicology*, **48** (6), 1734–1740.
- SNI 7381-2008, *Minyak Kelapa Virgin*, Dewan Standarisasi Nasional, Jakarta.
- FKUI, 1995, *Farmakologi dan Terapi*. 4th Ed., 571-572 Universitas Indonesia, Jakarta.
- Suyudi, Salsabiela Dwiudrisa., 2014, Formulasi Gel Semprot Menggunakan Kombinasi Karbopol 940 dan Hidroksipropil Metilselulosa (HPMC) sebagai Pembentuk Gel, *Skripsi*, UIN Syarif Hidayatullah Jakarta, Jakarta.
- Syukri, Y., Martien, R., Lukitaningsih, E., dan Nugroho, A.E., 2018, Novel Self-Nano Emulsifying Drug Delivery System (SNEDDS) of Andrographolide Isolated from Andrographis Paniculata Nees: Characterization, in-vitro and in-vivo Assessment, *Journal of Drug Delivery Science and Technology*, **47** (2018), 514-520.
- Troy, D. B., 2006, *Remington : The Science and Practice of Pharmacy*, 326, Lippincott Williams & Wilkins, Philadelphia.
- United States Department of Labor, 2018, Limonen, <https://www.osha.gov/chemicaldata/chemResult.html?RecNo=797>, diakses 28 Oktober 2019.
- Upadhyay, R.K., Dwivedi, P., dan Ahmad, S., 2010, Screening of Antibacterial Activity of Six Plant Essential Oils Against Pathogenic Bacterial Strains, *Asian Journal of Medical Sciences*, **2** (3), 152-158.
- Valizadeh, A., Shirzad, M., Esmaili, F., Amani, A., 2018, Increased Antibacterial Activity of Cinnamon Oil Microemulsion in Comparison with Cinnamon Oil Bulk and Nanoemulsion, *Nanomed Res. J.*, **3** (1), 37-43.
- Vekiari, S. A., Protopapadakis, E. E., Papadopoulou, P., Papanicolaou, D., Panou, C., & Vamvakias, M., (2002), Composition and Seasonal Variation of the Essential Oil from Leaves and Peel of a Cretan Lemon Variety, *Journal of Agricultural and Food Chemistry*, **50** (1), 147–153.
- Welsh, K. J., Abbott, A. N., Lewis, E. M., Gardiner, J. M., Kruzel, M. C., Lewis, C. T. dan Armitage, L. Y., 2010, Clinical Characteristics, Outcomes, and Microbiologic Features Associated with Methicillin-Resistant Staphylococcus aureus Bacteremia in Pediatric Patients Treated with Vancomycin. *Journal of Clinical Microbiology*, **48** (3), 894–899.
- Wright, J., 1991, *Essential Oils*, Di dalam Ashurst, P. R. *Food Flavouring*, 35-36, Blackie and Son Ltd, London.

Zhang, Z., Vriesekoop, F., Yuan, Q., Liang, H., 2014, Effects of nisin on the antimicrobial activity of d-limonene and its nanoemulsion, *Food Chem.*, **150**, 307–312.