

DAFTAR PUSTAKA

- Adewinogo, S.O. *et al.* (2021) 'Chemical Composition and Cosmeceutical Potential of the Essential Oil of *Oncosiphon suffruticosum* (L.) Källersjö'. Available at: <https://doi.org/10.3390/plants10071315>.
- Agnes Zapanta, S. *et al.* (2022) 'International Journal of Research Publication and Reviews Application of Nanotechnology in Hydration, Antioxidant, and Photoprotection Skincare-A Review', *International Journal of Research Publication and Reviews*, 3(5), pp. 2834–2846. Available at: www.ijrpr.com.
- Arianto, A. *et al.* (2022) 'THE USE OF CARROT SEED OIL (*DAUCUS CAROTA* L.) TO FORMULATE NANOEMULGELS AS AN EFFECTIVE NATURAL SUNSCREEN AND SKIN ANTI-AGING', *International Journal of Applied Pharmaceutics*, 14(1), pp. 124–129. Available at: <https://doi.org/10.22159/ijap.2022v14i1.43481>.
- Badawi, A.A. *et al.* (2014) *TOPICAL BENZOPHENONE-3 MICROEMULSION-BASED GELS: PREPARATION, EVALUATION AND DETERMINATION OF MICROBIOLOGICAL UV BLOCKING ACTIVITY*.
- Boo, Y.C. (2022) 'Ascorbic Acid (Vitamin C) as a Cosmeceutical to Increase Dermal Collagen for Skin Antiaging Purposes: Emerging Combination Therapies', *Antioxidants*. MDPI. Available at: <https://doi.org/10.3390/antiox11091663>.
- BPOM (2014) *PEDOMAN UJI TOKSISITAS NONKLINIK SECARA IN VIVO*. INDONESIA.
- Cassien, M. *et al.* (2021) 'Improving the antioxidant properties of *calophyllum inophyllum* seed oil from french polynesia: Development and biological applications of resinous ethanol-soluble extracts', *Antioxidants*, 10(2), pp. 1–23. Available at: <https://doi.org/10.3390/antiox10020199>.
- Chatzidaki, M.D. *et al.* (2022) 'Essential oil-in-water microemulsions for topical application: structural study, cytotoxic effect and insect repelling activity', *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 654. Available at: <https://doi.org/10.1016/j.colsurfa.2022.130159>.
- Cursino, A.C.T. *et al.* (2013) 'Layered double hydroxides intercalated with anionic surfactants/benzophenone as potential materials for sunscreens', *Journal of Colloid and Interface Science*, 397, pp. 88–95. Available at: <https://doi.org/10.1016/j.jcis.2013.01.059>.
- Danaei, M. *et al.* (2018) 'Impact of particle size and polydispersity index on the clinical applications of lipidic nanocarrier systems', *Pharmaceutics*. MDPI AG. Available at: <https://doi.org/10.3390/pharmaceutics10020057>.
- Dewi, C.C. and Saptarini, N.M. (2017) *REVIEW ARTIKEL: HIDROKSI PROPIL METIL SELULOSA DAN KARBOMER SERTA SIFAT FISIKOKIMIANYA SEBAGAI GELLING AGENT*.
- Elmataeshy, M.E. *et al.* (2018) 'Enhanced transdermal permeability of Terbinafine through novel nanoemulgel formulation; Development, in vitro and in vivo

- characterization', *Future Journal of Pharmaceutical Sciences*, 4(1), pp. 18–28. Available at: <https://doi.org/10.1016/j.fjps.2017.07.003>.
- Fitriani, E.W. *et al.* (2016) *Karakterisasi dan Stabilitas Fisik Mikroemulsi Tipe A/M dengan Berbagai Fase Minyak*.
- Gandhi, J. *et al.* (2019) 'Development and characterization of lemongrass oil loaded microemulsion based gel for treatment of superficial fungal infections', ~ 401 ~ *The Pharma Innovation Journal*, 8(12), pp. 401–410. Available at: <http://www.thepharmajournal.com>.
- Geoffrey, K., Mwangi, A.N. and Maru, S.M. (2019) 'Sunscreen products: Rationale for use, formulation development and regulatory considerations', *Saudi Pharmaceutical Journal*, 27, pp. 1009–1018. Available at: <https://doi.org/10.1016/j.jsps.2019.08.003>.
- Gilaberte, Y. and González, S. (2010) 'ACTAS Dermo-Sifiliográficas ACTAS Dermo-Sifiliográficas Update on Photoprotection', *Actas Dermosifiliogr*, 101(8), pp. 659–672. Available at: www.elsevier.es/adwww.elsevier.es/ad.
- Guan, L.L., Lim, H.W. and Mohammad, T.F. (2021) 'Sunscreens and Photoaging: A Review of Current Literature', *American Journal of Clinical Dermatology*. Adis, pp. 819–828. Available at: <https://doi.org/10.1007/s40257-021-00632-5>.
- Gunawan, Y., Pangkahila, A. and Darwinata, A.E. (2021) 'Topical administration of Tamanu Oil (*Calophyllum inophyllum*) inhibited the increase of matrix metalloproteinase-1 (MMP-1) expressions and decrease of collagen dermis amount in male wistar rats exposed to ultraviolet B', *Neurologico Spinale Medico Chirurgico*, 4(3). Available at: <https://doi.org/10.36444/nsmc.v4i3.186>.
- Handayani, I.A., Purba, A.V. and Rahmat, D. (2020) 'Nilai Antioksidan dan SPF dari Kombinasi Minyak Biji Nyamplung (*Calophyllum inophyllum* L) dan Minyak Kelapa Sawit (*Elaeis guineensis*)', *Majalah Farmaseutik*, 16(2), p. 176. Available at: <https://doi.org/10.22146/farmaseutik.v16i2.52244>.
- He, hailun *et al.* (2021) 'Natural components in sunscreens: Topical formulations with sun protection factor (SPF)', *Biomedicine and Pharmacotherapy*. Elsevier Masson s.r.l. Available at: <https://doi.org/10.1016/j.biopha.2020.111161>.
- Hu, Q. *et al.* (2021) 'Design, optimization and evaluation of a microemulsion-based hydrogel with high malleability for enhanced transdermal delivery of levamisole', *International Journal of Pharmaceutics*, 605. Available at: <https://doi.org/10.1016/j.ijpharm.2021.120829>.
- Juanita, RR.A. and Juliadi, D. (2020) 'PENETAPAN POTENSI TABIR SURYA KRIM EKSTRAK ETANOL DAUN CEREMAI (*Phyllanthus acidus* L.) DENGAN SPEKTROFOTOMETRI UV-VIS', *Jurnal Farmagazine*, 7(1), p. 51. Available at: <https://doi.org/10.47653/farm.v7i1.154>.
- Kendre, P. *et al.* (2020) 'A facile approach to fabrication and characterization of novel herbal microemulsion-based UV shielding cream Anticancer activity View project A facile approach to fabrication and characterization of novel herbal microemulsion-based UV shielding cream', *Article in Future Journal*

- of *Pharmaceutical Sciences* [Preprint]. Available at: <https://doi.org/10.1186/s43094-020-00075-5>.
- Kim, K.T. *et al.* (2018) 'Microemulsion-based hydrogels for enhancing epidermal/dermal deposition of topically administered 20(S)-protopanaxadiol: in vitro and in vivo evaluation studies', *Journal of Ginseng Research*, 42(4), pp. 512–523. Available at: <https://doi.org/10.1016/j.jgr.2017.07.005>.
- Kockler, J. *et al.* (2012) 'Photostability of sunscreens', *Journal of Photochemistry and Photobiology C: Photochemistry Reviews*, pp. 91–110. Available at: <https://doi.org/10.1016/j.jphotochemrev.2011.12.001>.
- Kotia, A. *et al.* (2021) 'Rheological Analysis on Kusum Oil for Sustainable Bolubricant in Electric Vehicle Application', *IOP Conference Series: Materials Science and Engineering*, 1116(1), p. 012065. Available at: <https://doi.org/10.1088/1757-899x/1116/1/012065>.
- Kulkarni, N.S. *et al.* (2019) *Characterization of Self-Microemulsifying Dosage Form: Special Emphasis on Zeta Potential Measurement*, *International Journal of Pharmaceutical & Biological Archives*. Available at: www.ijpba.info.
- Kushwah, P. *et al.* (2021) 'Microemulgel: a novel approach for topical drug delivery', *Journal of Applied Pharmaceutical Research*, 9(3), pp. 14–20. Available at: <https://doi.org/10.18231/j.joapr.2021.v9.i3.14-20>.
- Lopes, L.B. (2014) 'Overcoming the cutaneous barrier with microemulsions', *Pharmaceutics*. MDPI AG, pp. 52–77. Available at: <https://doi.org/10.3390/pharmaceutics6010052>.
- Lv, X. *et al.* (2018) 'Improvement of the solubility, photostability, antioxidant activity and UVB photoprotection of trans-resveratrol by essential oil based microemulsions for topical application', *Journal of Drug Delivery Science and Technology*, 48, pp. 346–354. Available at: <https://doi.org/10.1016/j.jddst.2018.10.017>.
- Madan, K. and Nanda, S. (2018) 'In-vitro evaluation of antioxidant, anti-elastase, anti-collagenase, anti-hyaluronidase activities of safranal and determination of its sun protection factor in skin photoaging', *Bioorganic Chemistry*, 77, pp. 159–167. Available at: <https://doi.org/10.1016/j.bioorg.2017.12.030>.
- Maulana, R. (2021) *STABILITAS SEDIAAN MIKROEMULGEL SENYAWA 3,4-DIMETOKSIKALKON DAN UJI AKTIVITASNYA SEBAGAI PELINDUNG SINAR UV-A SECARA IN VITRO*. Universitas Gadjah Mada.
- Mishra, A., Mishra, A. and Chattopadhyay, P. (2012) 'Assessment of in vitro sun protection factor of *Calendula officinalis* L. (asteraceae) essential oil formulation', *Journal of Young Pharmacists*, 4(1), pp. 17–21. Available at: <https://doi.org/10.4103/0975-1483.93575>.
- Mosa, F.A. and Makhlof, R.O. (2019) *Sunscreen Cream Formulation with Natural Ingredients, including Arabic gum and Beeswax Foundation Determination of Sun Protection Factor (SPF) of Some Botanical Oils by Ultraviolet Spectrophotometry View project perfumes View project Sunscreen Cream Formulation with Natural Ingredients, including Arabic gum and Beeswax*

- Foundation, Sirte University Scientific Journal(Applied Sciences)*. Available at: <https://www.researchgate.net/publication/337656050>.
- Nastiti, C.M.R.R. *et al.* (2017) 'Topical nano and microemulsions for skin delivery', *Pharmaceutics*. MDPI AG. Available at: <https://doi.org/10.3390/pharmaceutics9040037>.
- Ningsi, S. (2014) *PENENTUAN POTENSI TABIR SURYA EKSTRAK KLIKA ANAK DARA (Croton oblongus Burm F.)*.
- Nur, S., Rumiati, R. and Lukitaningsih, E. (2017) 'SCREENING OF ANTIOXIDANTS, ANTI-AGING AND TYROSINASE INHIBITORY ACTIVITIES OF ETHANOLIC AND ETHYL ACETATE EXTRACTS OF FRUIT FLESH AND FRUIT PEEL LANGSAT (*Lansium domesticum* Corr) IN VITRO', *Majalah Obat Tradisional*, 22(1), p. 63. Available at: <https://doi.org/10.22146/tradmedj.24342>.
- Pham, D.H. and Nguyen, T.T. (2020) 'Preparation of tamanu oil nanoemulsions by phase inversion temperature', in *IOP Conference Series: Materials Science and Engineering*. IOP Publishing Ltd. Available at: <https://doi.org/10.1088/1757-899X/991/1/012116>.
- Priani, S.E., Dewi, W.K. and Gadri, A. (2019) 'Formulasi Sediaan Mikroemulsi Gel Anti Jerawat Mengandung Kombinasi Minyak Jinten Hitam (*Nigella sativa* L.) dan Minyak Zaitun (*Olea europaea* L.)', *Kartika : Jurnal Ilmiah Farmasi*, 6(2), p. 57. Available at: <https://doi.org/10.26874/kjif.v6i2.143>.
- R, D.G. and B, M. v (2015) 'MICROEMULSIONS: PLATFORM FOR IMPROVEMENT OF SOLUBILITY AND DISSOLUTION OF POORLY SOLUBLE DRUGS', 8.
- Raharivelomanana, P. *et al.* (2018) 'Tamanu oil and skin active properties: From traditional to modern cosmetic uses', *OCL - Oilseeds and fats, Crops and Lipids*, 25(5). Available at: <https://doi.org/10.1051/ocl/2018048>.
- Rakhmawati, R., Artanti, A.N. and Afifah, N. (2019) 'Pengaruh Variasi Konsentrasi Tamanu Oil terhadap Uji Stabilitas Fisik Sediaan Body Lotion', *Annual Pharmacy Conference*, 4(1), pp. 53–65.
- Rejeki, S. and Wahyuningsih, S.S. (2015) 'Formulasi Gel Tabir Surya Minyak Nyamplung (Tamanu Oil) Dan Uji Nilai SPF Secara In Vitro', *Jurnal Farmasi*, pp. 97–103.
- Rowe, R.C. *et al.* (2009) 'Handbook of pharmaceutical excipients', p. 888. Available at: https://books.google.com/books/about/Handbook_of_Pharmaceutical_Excipients.html?id=5IKzPAAACAAJ (Accessed: 14 February 2022).
- Sachs, D. (2008) *Article in Dermatology nursing / Dermatology Nurses' Association*. Available at: <https://www.researchgate.net/publication/51423323>.
- Saechan, C. *et al.* (2021) 'Antioxidant in cosmeceutical products containing *Calophyllum inophyllum* oil', *OCL - Oilseeds and fats, Crops and Lipids*, 28. Available at: <https://doi.org/10.1051/ocl/2021015>.
- Sayuti, N.A. (2015) *Formulasi dan Uji Stabilitas Fisik Sediaan Gel Ekstrak Daun Ketepeng Cina (Cassia alata L.) Formulation and Physical Stability of Cassia alata L. Leaf Extract Gel*.

- Shabrina, A. *et al.* (2022) ‘Chemical qualitative analysis and spf value stability of nutmeg seed oil in microemulsions with tween 80 and PEG 400 as surfactants and cosurfactants’, *Pharmaciana*, 12(1), p. 106. Available at: <https://doi.org/10.12928/pharmaciana.v12i1.21997>.
- Shanbhag, S. *et al.* (2019) ‘Anti-aging and sunscreens: Paradigm shift in cosmetics’, *Advanced Pharmaceutical Bulletin*. Tabriz University of Medical Sciences, pp. 348–359. Available at: <https://doi.org/10.15171/apb.2019.042>.
- Singh, S. *et al.* (2018) ‘Formulation and evaluation of carrot seed oil-based cosmetic emulsions’, <https://doi.org/10.1080/14764172.2018.1469769>, 21(2), pp. 99–107. Available at: <https://doi.org/10.1080/14764172.2018.1469769>.
- Syamsu Nur (2017) *PEMANFAATAN EKSTRAK ETANOLIK DAN ETIL ASETAT DAGING BUAH DAN KULIT BUAH LANGSAT (Lansium domesticum (Corr)) SEBAGAI BAHAN AKTIF KOSMETIK: UJI AKTIVITAS ANTIAGING DAN ANTI JERAWAT SECARA IN VITRO*.
- Tsabitah, A.F. *et al.* (2020) ‘Optimasi Carbomer, Propilen Glikol, dan Trietanolamin Dalam Formulasi Sediaan Gel Ekstrak Etanol Daun Kembang Bulan (*Tithonia diversifolia*)’, *Majalah Farmaseutik*, 16(2), p. 111. Available at: <https://doi.org/10.22146/farmaseutik.v16i2.45666>.
- Wulandari, W. *et al.* (2018) ‘Stabilitas Fisik dan Pengukuran Nilai Sun Protection Factor Sediaan Tabir Surya pada Kondisi Stress Penyimpanan dengan Spektrofotometri Physical Stability and Sun Protection Factors Measurement of Sunscreen Preparations in Stress Storage Conditions Using Spectrophotometry A’, *Maret*, 6(1), pp. 1–11. Available at: <https://doi.org/10.5281/zenodo.3703147>.
- Yarovaya, L. and Khunkitti, W. (2019) ‘Effect of grape seed extract as a sunscreen booster’, *Songklanakarin Journal of Science and Technology*, 41(3), pp. 708–715. Available at: <https://doi.org/10.14456/sjst-psu.2019.71>.
- Zainol, S. *et al.* (2012) ‘Formulation optimization of a palm-based nanoemulsion system containing levodopa’, *International Journal of Molecular Sciences*, 13(10), pp. 13049–13064. Available at: <https://doi.org/10.3390/ijms131013049>.