

DAFTAR PUSTAKA

- Alegre MR, Romero JE, and B.S., 2012. Is It Really Necessary to Validate an Analytical or Not? That is the Question. *Journal of Chromatography A*, **1232**: 101–109.
- Alhamdy, T. dan Al-sowayan, N.S., 2020. The effect of sunscreens on yeast to prevent ultraviolet damage. *Advances in Bioscience and Biotechnology*, **11**: 111–122.
- Altaie, A. dan Alkotaji, M., 2021. Nanoemulgel as a recent drug delivery system. *Mil. Med. Sci. Lett.*, **90**: 1–12.
- Amri, A., Le Clanche, S., Théron, P., Bonnefont-Rousselot, D., Borderie, D., Lai-Kuen, R., dkk., 2014. Resveratrol self-emulsifying system increases the uptake by endothelial cells and improves protection against oxidative stress-mediated death. *European Journal of Pharmaceutics and Biopharmaceutics*, **86** .
- Annisa, R., Mutiah, R., Yuwono, M., dan Hendradi, E., 2023. Review Article Nanotechnology Approach-Self Nanoemulsifying Drug Delivery System (SNEDDS) **15**: .
- Badarinath, A., Rao, K., Chetty, C., Ramkanth, S., Rajan, T., dan Gnanaprakash, K.A., 2010. Review on In-vitro Antioxidant Methods : Comparisons, Correlations, and Considerations. *International Journal of PharmTech Research*, 1276–1285.
- Baibhav, J., Gurpreet, S., Rana, A.C., Seema, S., dan Vikas, S., 2011. ISSN 2230 – 8407 Review Article Emulgel: A Comprehensive Review on The Recent Advances in Topical Drug Delivery **2**: 66–70.
- Baki, G. dan Alexander, K.S., 2016. *Formulasi Dan Teknologi Kosmetik*, 2nd ed. Buku Kedokteran ECG, Jakarta.
- Barel A.O., P.M. and M.H.I., 2009. *Handbook of Cosmetic Science and Technology*, 3rd Edition.
- Baytok, N. dan Saka, O.M., 2023. Self Emulsifying Drug Delivery Systems - an Overview. *Ankara Universitesi Eczacilik Fakultesi Dergisi*, **47**: 705–718.
- Bayu, A., Nandiyanto, D., Ragadhita, R., dan Aziz, M., 2023. How to calculate and measure solution concentration using UV-Vis spectrum analysis : Supporting measurement in the chemical decomposition , Photocatalysis , Phytoremediation , and Adsorption Process. *Indonesian Journal of Science & Technology*, **8**: 345–362.
- Bergfelt, D.R., 2008. Anatomy and Physiology of the Mare. *Equine Breeding Management and Artificial Insemination*, Second Edition, 113–131.
- Bhattacharya, S., & Sherje, A.P., 2020. Development of Resveratrol and Green Tea

- Sunscreen Formulation for Combined Photoprotective and Antioxidant Properties. ., *Journal of Drug Delivery Science and Technology*, .
- Bosch, R., Philips, N., Suárez-Pérez, J.A., Juarranz, A., Devmurari, A., Chalensouk-Khaosaat, J., dkk., 2015. Mechanisms of photoaging and cutaneous photocarcinogenesis, and photoprotective strategies with phytochemicals. *Antioxidants*, **4**: 248–268.
- Brenner, M. dan Hearing, V.J., 2008. The protective role of melanin against UV damage in human skin. *Photochemistry and Photobiology*, **84**: 539–549.
- Camont, L., Cottart, C.-H., Rhayem, Y., Nivet-Antoine, V., Djelidi, R., Collin, F., dkk., 2009. Simple spectrophotometric assessment of the trans-/cis-resveratrol ratio in aqueous solutions. *Analytica chimica acta*, **634**: 121–128.
- Charde MS, AS Welankiwar, J.K., 2014. Methode Developmen by Liquid Chromatography with Validation,I. *International Jurnal of Pharmaceutical Chemistry*, **4**: 57–61.
- D’Orazio, J., Jarrett, S., Amaro-Ortiz, A., dan Scott, T., 2013. UV radiation and the skin. *International Journal of Molecular Sciences*, **14**: 12222–12248.
- Date, A.A., Dixit, R., dan Nagarsenker, M., 2010. Self-nanoemulsifying drug delivery systems : formulation insights , applications and advances R review **5**: 1595–1616.
- Deore, N.B. dan Bakliwal, A.A., 2019. Optimization and Validation of Resveratrol Using Analytical UV Method Development. *J. Pharm. Sci. & Res.*, **11**: 2024–2027.
- Donglikar, M.M. dan Deore, S.L., 2016. Sunscreens: A review. *Pharmacognosy Journal*, **8**: 171–179.
- Eka Puspita, O.; S. dan ; Kharis Nugroho, A., 2016. Optimization of Self-nanoemulsifying Drug Delivery System for Pterostilbene. *J.Food Pharm.Sci*, **4**: 18–24.
- Faizin, M.A. dan Purwanto, P., 2024. Sun Protection Factor (Spf) Value and Physical Properties of Purified Gambier Gel Preparation. *Jurnal Farmasi Sains dan Praktis*, **10**: 52–60.
- FDA., 2022. 'Tips to Stay Safe in the Sun: From Sunscreen to Sunglasses. U.S Food & Drug Administration.'
- Fessenden, R.J., 1982. *Kimia Organik*, II. ed. Erlangga, Jakarta.
- Fossati, N., Karnes, R.J., Cozzarini, C., Fiorino, C., Gandaglia, G., Joniau, S., dkk., 2016. Assessing the optimal timing for early salvage radiation therapy in patients with prostate-specific antigen rise after radical prostatectomy. *European Urology*, **69**: .

- Gaikwad Ankita R., Shelar Madhuri U., Kadam Jyoti N., Andhale Ganesh S., S.S., 2022. Development And Validation Of Simultaneous Uv- Spectrophotometric Method For The Determination Of Resveratrol And Piperine In Pharmaceutical Dosage Form. *Journal of Pharmaceutical Negative Results* , **13**: 4141–4150.
- Gardiner J, Bailey P, Makino T, H.B., 2006. Colipa guidelines: International sun protection factor (SPF) Test method. *European Cosmetics Association, Brussels*, .
- Garg, A., Aggarwal, D., Gang, S., Sigala, A.K., 2002. Spreading of Semisolid Formulation : An Update *Pharmaceutical Technology* **9** 84–102.
- Genaro, R.A., 1990. *Rhemingtons Pharmaceutical Science, 18th Printing, Mack Company, Easton, Pennsylvania, USA*, .
- Ghaly, E. dan Quinones, D., 2008. Formulation and Characterization of Nistatin Gel. *Puerto Rico Health Sciences Jornal*, **27**: 61–67.
- Ghosh, S., Ray, A., dan Pramanik, N., 2020. Self-assembly of surfactants: An overview on general aspects of amphiphiles. *Biophysical Chemistry*, **265**: 106429.
- Gonzales, A.G., Herador, M.A., 2007. *A Practical Guide to Analytical Method Validation, Including Measurementuncertainly and Accuracy Profile. TrAc Trends in Analytical Chemistry*, .
- Goufo, P., Singh, R.K., dan Cortez, I., 2020. A reference list of phenolic compounds (Including stilbenes) in grapevine (vitis vinifera l.) roots, woods, canes, stems, and leaves. *Antioxidants*, **9**: 9–13.
- Gromkowska-, K.J., Puścion-, K.A., Markiewicz-, R., dan Gromkowska-, K.J., 2021. The impact of ultraviolet radiation on skin photoaging — - review of in vitro studies. *Journal of Cosmetic Dermatology*, 3427–3431.
- Gupta, V., Ajay DKJ., NS Gill, Kapil, G., 2012. Development and Validation of HPLC Method: A Review., *Int. Res. J. Pharm.*, 2012; 2(4), PP.17 – 25, **2**: 17–25.
- Hani, R.C. dan Milanda, T., 2021. Review : manfaat antioksidan pada tanaman buah di indonesia. *Farmaka*, **18**: 53–59.
- Hawilla, A., Zulkarnain, A.K., Lukitaningsih, E., Farmasi, M.I., Farmasi, F., Mada, U.G., dkk., 2023. Stabilitas dan Sifat Fisik Sediaan Mikroemulgel Resveratrol Sebagai Tabir Surya dan Antiaging Secara In Vitro. *Majalah Farmasetik Universitas Gadjah Mada*, **19**: 155–163.
- Hennessy, A., 2005. Eumelanin and pheomelanin concentrations in human epidermis before and after UVB irradiation. *Pigmen Cell Resolution* **18**: 220–223.
- ICH, 2005. Harmonised Tripartite Guideline: Validation of Analytical Procedures: Text and Methodology Q2 (R1).

- Infante, V.H.P., Maia Campos, P.M.B.G., Calixto, L.S., Darvin, M.E., Kröger, M., Schanzer, S., dkk., 2021. Influence of physical–mechanical properties on SPF in sunscreen formulations on ex vivo and in vivo skin. *International Journal of Pharmaceutics*, .
- Jensen, J.S., Wertz, C.F., dan O’Neill, V.A., 2010. Preformulation stability of trans-resveratrol and trans-resveratrol glucoside (piceid). *Journal of Agricultural and Food Chemistry*, **58**: 1685–1690.
- Jeon, S., Kim, E., Lee, J., dan Lee, S., 2016. Potential risks of TiO₂ and ZnO nanoparticles released from sunscreens into outdoor swimming pools. *Journal of Hazardous Materials*, **317**: 312–318.
- Kalangi, S.J.R., 2014. Histofisiologi Kulit. *Jurnal Biomedik (Jbm)*, **5**: 12–20.
- Kanitakis, J., 2002. Anatomy, histology and immunohistochemistry of normal human skin. *European Journal of Dermatology*, **12**: 390–401.
- Kazi, M., Al-Swairi, M., Ahmad, A., Raish, M., Alanazi, F.K., Badran, M.M., dkk., 2019. Evaluation of self-nanoemulsifying drug delivery systems (SNEDDS) for poorly water-soluble talinolol: Preparation, in vitro and in vivo Assessment. *Frontiers in Pharmacology*, **10**: 1–13.
- Khurana, S., Jain, N.K., dan Bedi, P.M.S., 2013. Nanoemulsion based gel for transdermal delivery of meloxicam: Physico-chemical , mechanistic investigation. *Life Sciences*, **92**: 383–392.
- Kim, B., Cho, H.-E., Moon, S.H., Ahn, H.-J., Bae, S., Cho, H.-D., dkk., 2020. Transdermal delivery systems in cosmetics. *Biomedical Dermatology*, **4**: 1–12.
- Kiyani, M.M., Sohail, M.F., Shahnaz, G., dan Rehman, H., 2019. Evaluation of Turmeric Nanoparticles as Anti-Gout Agent: Modernization of a Traditional Drug. *Medicina*, 1–11.
- Kolouchová-Hanzlíková, I., Melzoch, K., Filip, V., dan Šmidrkal, J., 2004. Rapid method for resveratrol determination by HPLC with electrochemical and UV detections in wines. *Food Chemistry*, **87**: 151–158.
- Krstić, M., Medarević, Đ., Đuriš, J., dan Ibrić, S., 2018. *Self-Nanoemulsifying Drug Delivery Systems (SNEDDS) and Self-Microemulsifying Drug Delivery Systems (SMEDDS) as Lipid Nanocarriers for Improving Dissolution Rate and Bioavailability of Poorly Soluble Drugs*, Lipid Nanocarriers for Drug Targeting.
- Kumar, S., Lather, V., dan Pandita, D., 2016. Stability indicating simplified HPLC method for simultaneous analysis of resveratrol and quercetin in nanoparticles and human plasma. *Food Chemistry*, **197**: 959–964.
- Kumpugdee-Vollrath M., Tabatabaeifar M., H.M., 2014. New coating materials based on mixtures of shellac and pectin for pharmaceutical products. *International*

- journal of pharmacological and pharmaceutical sciencee*, **8**: 21–29.
- Lai-Cheong, J.E. dan McGrath, J.A., 2017. Structure and function of skin, hair and nails. *Medicine (United Kingdom)*, **45**: 347–351.
- Latha, M.S., Martis, J., Shobha, V., Shinde, R.S., Bangera, S., Krishnankutty, B., dkk., 2013. Sunscreening agents: A review. *Journal of Clinical and Aesthetic Dermatology*, **6**: 16–26.
- Lavi, N.N., 2012. Tabir Surya Bagi Pelaku Wisata. *e-Jurnal Medika Udayana*, **2**: 1–10.
- Lee, T.H., Kang, J.H., Seo, J.O., Baek, S., Moh, S.H., Chae, J.K., dkk., 2016. Anti-Melanogenic Potentials of Nanoparticles from Calli of Resveratrol-Enriched Rice against UVB-Induced Hyperpigmentation in Guinea Pig Skin. *Biomolecules & Therapeutics*, **24**: 85–93.
- Leis, K., Pisanko, K., Jundziłł, A., Mazur, E., Męcińska-jundziłł, K., dan Witmanowski, H., 2022. Resveratrol as a factor preventing skin aging and affecting its regeneration 439–445.
- Lu, F., Wang, C., Zhao, R., Du, L., Fang, Z., Guo, X., dkk., 2018. Review of stratum corneum impedance measurement in non-invasive penetration application. *Biosensors*, **8**: .
- M. Anief, 2008. *Ilmu Meracik Obat*, Gadjah Mada University Press Yogyakarta.
- Makadia, H.A., Bhatt, A.Y., Parmar, R.B., Paun, J.S., dan Tank, H.M., 2013. Selfnano Emulsifying Drug Delivery System (SNEDDS): Future Aspects. *Asian J. Pharm*, **3**: 21–27.
- Manca, M.L., Mir-Palomo, S., Caddeo, C., Nacher, A., Díez-Sales, O., Peris, J.E., dkk., 2019. Sorbitol-penetration enhancer containing vesicles loaded with baicalin for the protection and regeneration of skin injured by oxidative stress and UV radiation. *International Journal of Pharmaceutics*, **555**: 175–183.
- Mansur JS, Breder MN, Mansur MCA, A.R., 1986. *Determination of Sun Protection Factor (SPF) of Sunscreens by Ultraviolet Spectrophotometry. An Bras Dermatol*.
- Mansuri, R., Diwan, A., Kumar, H., Dangwal, K., Yadav, D., Mansuri, R., dkk., 2021. Potential of Natural Compounds as Sunscreen Agents. *Advance In Bioscience and Technology*, **15**: 47–56.
- Mappamasing, F., Anwar, E., dan Im, A.M.U.N., 2015. Formulasi , Karakterisasi dan Uji Penetrasi In Vitro Resveratrol Solid Lipid Nanopartikel dalam Krim Topikal (Formulation , Characterization and In Vitro Penetration Study of Resveratrol Solid Lipid Nanoparticles in Topical Cream) **13**: 137–144.
- Marionnet, C., Tricaud, C., dan Bernerd, F., 2015. Exposure to non-extreme solar UV daylight: Spectral characterization, effects on skin and photoprotection.

International Journal of Molecular Sciences, .

- Martin, A., Swarbick, J., Cammarata, A., 1993. *Physical Pharmacy, 3rd Edition*.
- Miryala, V. dan Kurakula, M., 2013. Self-nano emulsifying drug delivery system (SNEDDS) for oral delivery of atorvastatin -formulation and bioavailability studies. *Journal of Drug Delivery and Therapeutics*, **3**: 131–40.
- Morakul, B., 2020. Self-nanoemulsifying drug delivery systems (SNEDDS): An advancement technology for oral drug delivery. *Pharmaceutical Sciences Asia*, **47**: 205–220.
- Nadia, M.A., Zulkarnain, A.K., dan Sulaiman, T.N.S., 2023. Determination of Photoprotective Capacity of Topical Gel Formulations Containing Bioactive Compound Rutin and Evaluation of Physicochemical Stability. *Tropical Journal of Natural Product Research*, **7**: 3923–3931.
- Nair, A.B., Singh, B., Shah, J., Jacob, S., Aldhubiab, B., Sreeharsha, N., dkk., 2022. Formulation and Evaluation of Self-Nanoemulsifying Drug Delivery System Derived Tablet Containing Sertraline. *Pharmaceutics*, **14**: 1–24.
- Nurkhasanah, Bachri, M.S., dan Yuliani, S., 2023. *Antioksidan Dan Stres Oksidatif*.
- P.J., S., 2006. No Title, dalam: *Physical Chemical and Biopharmaceutical Principles in the Pharmaceutical Sciences, Dalam Martin's Physical Pharmacy and 31 Pharmaceutical Sciences, Lippincott Williams & Wilkins, Philadelphia*.
- Patria, M.A.N., 2019. Optimasi Gel Ekstrak Daun Binahong (*Anredera cordifolia* (Ten.) Steenis) dengan Gelling Agent Kitosan dan Humektan Sorbitol Metode Simplex Lattice Design 1–14.
- Petro, A., 1981. Correlation of Spectrophotometric Data With Sunscreen Protection Factors. *International Journal. Cos. Sci. USA.*, .
- Pfeifer, G.P., 2020. Mechanisms of UV-induced mutations and skin cancer. *Genome Instability & Disease*, **1**: 99–113.
- Phaniendra, A., Jestadi, D.B., dan Periyasamy, L., 2015. Free Radicals: Properties, Sources, Targets, and Their Implication in Various Diseases. *Indian Journal of Clinical Biochemistry*, **30**: 11–26.
- Ponto, T., Latter, G., Luna, G., Leite-silva, V.R., Wright, A., dan Benson, H.A.E., 2021. Novel Self-Nano-Emulsifying Drug Delivery Systems Containing Astaxanthin for Topical Skin Delivery. *Pharmaceutics* **13**, **13**: 649.
- Pouton, C.W., 2000. Lipid Formulations for Oral Administration of Drugs: Non-Emulsifying, Self-Emulsifying and “Self-Microemulsifying” Drug Delivery Systems. *Eur. J. Pharm. Sci.*, **11**: 93–98.
- Preeti, Sambhakar, S., Saharan, R., Narwal, S., Malik, R., Gahlot, V., dkk., 2023.

- Exploring LIPIDS for their potential to improves bioavailability of lipophilic drugs candidates: A review. *Saudi Pharmaceutical Journal*, **31**: 101870.
- Putri K.N. Sari, Abdul K. Zulkarnain, E.L., 2023. Evaluation of the Physical Properties and Anti-aging Microemulgel Sunscreen. *Tropical Journal of Natural Product Researc*, **7**: 2414–2420.
- Ratz-lyko, A. dan Arct, J., 2018. Resveratrol as an active ingredient for cosmetic and dermatological applications : a review review. *Journal of Cosmetic and Laser Therapy*, **00**: 1–7.
- Ravisankar P, Navya CN, Pravallika D, and S. dan DN, 2015. A Review on Step-by-Step Of Method Validation. *IIOSR Journal Of Pharmacy*, **5**: 10.
- Regnier, 1983. Kromatografi cair kinerja tinggi untuk biopolimer. *Sains*. 52.
- Rigon, R.B., Fachinetti, N., Durazzo, A., Lucarini, M., Atanasov, A.G., Mamouni, S. El, dkk., 2019. applied sciences Quantification of Trans -Resveratrol-Loaded Solid Lipid Nanoparticles by a Validated Reverse-Phase HPLC Photodiode Array 1–15.
- Risuleo, G., 2016. *Resveratrol: Multiple Activities on the Biological Functionality of the Cell*, Nutraceuticals: Efficacy, Safety and Toxicity. Elsevier Inc.
- Riyanto, 2019. *Validasi Dan Verifikasi Metode Laboratorium, Sesuai Denga ISO/IEC17025 Deepublish, Pengujian Dan Kalibrasi. Sleman*.
- Robinson, K., Mock, C., dan Liang, D., 2015. Pre-formulation studies of resveratrol. *Drug Development and Industrial Pharmacy*, **41**: 1464–1469.
- Rowe, R.C., Sheskey, P.J., dan Owen, S.C., n.d. *Handbook of Pharmaceutical Excipients, Fifth Edition*.
- Rowe Raymond C, Sheskey Paul J, W.P., 2009. *Handbook of Pharmaceutical Excipients. Edisi VI. London: Publisher-Science and Practice Royal Pharmaceutical Society of Great Britain*.
- Safaya, M. dan Rotliwala, Y.C., 2020. Nanoemulsions: A review on low energy formulation methods, characterization, applications and optimization technique. *Materials Today: Proceedings*, **27**: 454–459.
- Salehi, B., Mishra, A.P., Nigam, M., Sener, B., Kilic, M., Sharifi-Rad, M., dkk., 2018. Resveratrol: A double-edged sword in health benefits. *Biomedicines*, **6**: 1–20.
- Sanches Silveira, J.E.P. dan Myaki Pedroso, D.M., 2014. UV light and skin aging. *Reviews on Environmental Health*, **29**: 243–254.
- Sari, N.W.P., Els, V., dan Indrayani, A.W., 2023. Nano Drug Delivery System with Resveratrol as Promising Novel Adjuvant Therapy for Diabetic Non-Healing Wounds: A Literature Review. *JURNAL MANAJEMEN DAN PELAYANAN*

- FARMASI (Journal of Management and Pharmacy Practice)*, **13**: 195–220.
- Sayre, R., dkk., 1979. *Comparison of In Vivo and In Vitro Testing of Sunscreening Formulas, Photochem. Photobiol.*
- Shakeel, F., Baboota, S., Ahuja, A. dan Ali, J., dan Shafiq, S., 2008. Accelerated Stability Testing Of Celecoxib Nan. *African J Of Pharmacology and Pharm*, **8**: 179–183.
- Shanmugam, S., Baskaran, R., Balakrishnan, P., Thapa, P., dan Yong, C.S., 2011. Solid self-nanoemulsifying drug delivery system (S-SNEDDS) containing phosphatidylcholine for enhanced bioavailability of highly lipophilic bioactive carotenoid lutein. *European Journal of Pharmaceutics and Biopharmaceutics*, **79**: 250–257.
- Sinaga, F., 2016. Stress Oksidatif dan Status Antioksidan pada Aktivitas Fisik Maksimal 176–189.
- Singh, G. dan Pai, R.S., 2014. Recent advances of resveratrol in nanostructured based delivery systems and in the management of HIV / AIDS. *Journal of Controlled Release*, **194**: 178–188.
- Singh, G. dan Pai, R.S., 2015. Trans-resveratrol self-nano-emulsifying drug delivery system (SNEDDS) with enhanced bioavailability potential: Optimization, pharmacokinetics and in situ single pass intestinal perfusion (SPIP) studies. *Drug Delivery*, **22**: 522–530.
- Sri Kuncari, E. dan Praptiwi, dan, 2014. Evaluasi, Uji Stabilitas Fisik Dan Sinersis Sediaan Gel Yang Mengandung Minoksidil, Apigenin Dan Perasan Herba Seledri (*Apium graveolens L.*) *Bul. Penelit. Kesehat*, **42**: 213–222.
- Summerlin, N., Qu, Z., Pujara, N., Sheng, Y., Jambhrunkar, S., McGuckin, M., dkk., 2016. Colloidal mesoporous silica nanoparticles enhance the biological activity of resveratrol. *Colloids and Surfaces B: Biointerfaces*, **144**: 1–7.
- Swasono, A.W.P., Sianturi, P.D.E., dan Masyithah, Z., 2012. Sintesis Surfaktan Alkil Poliglikosida Dari Glukosa Dan Dodekanol Dengan Katalis Asam. *Jurnal Teknik Kimia USU*, **1**: 5–9.
- Toche, V.R., Deshmukh, A.S., dan Rabade, A.J., 2021. Topical Gels as Drug Delivery System-A comprehensive review. *The International Journal of Analytical and Experimental Modal Analysis*, **13**: 664–681.
- Tsabitah, A.F., Zulkarnain, A.K., Wahyuningsih, M.S.H., dan Nugrahaningsih, D.A.A., 2020. Optimasi Carbomer, Propilen Glikol, dan Trietanolamin Dalam Formulasi Sediaan Gel Ekstrak Etanol Daun Kembang Bulan (*Tithonia diversifolia*). *Majalah Farmaseutik*, **16**: 111.
- Verma, A., Singh, S., Kaur, R., dan Jain, U.K., 2013. Topical gels as drug delivery

- systems: A review. *International Journal of Pharmaceutical Sciences Review and Research*, **23**: 374–382.
- Verma, A., Singh, S., Kaur, R., dan Jain, U.K., 2013. Topical gels as drug delivery systems: A review. *International Journal of Pharmaceutical Sciences Review and Research*, **23**: 374–382.
- Villa, A., Viera, M.H., Amini, S., Huo, R., Perez, O., Ruiz, P., dkk., 2010. Decrease of ultraviolet A light-induced “common deletion” in healthy volunteers after oral Polypodium leucotomos extract supplement in a randomized clinical trial. *Journal of the American Academy of Dermatology*, **62**: 511–513.
- Wertz, P.W., 2018. Lipids and the Permeability and Antimicrobial Barriers of the Skin. *Journal of Lipids*, **2018**: 1–7.
- Wulansari, A.N., 2018. Alternatif Cantigi Ungu (*Vaccinium Varingiaefolium*) Sebagai Antioksidan Alami : Review. *Farmaka*, **16**: 419–429.
- Yen, C.C., Chang, C.W., Hsu, M.C., dan Wu, Y.T., 2017. Self-Nanoemulsifying drug delivery system for resveratrol: Enhanced oral bioavailability and reduced physical fatigue in rats. *International Journal of Molecular Sciences*, **18**: .
- Zhang, L.X., Li, C.X., Kakar, M.U., Khan, M.S., Wu, P.F., Amir, R.M., dkk., 2021. Resveratrol (RV): A pharmacological review and call for further research. *Biomedicine and Pharmacotherapy*, **143**: 112164.
- Zupančič, Š., Lavrič, Z., dan Kristl, J., 2015. Stability and solubility of trans-resveratrol are strongly influenced by pH and temperature. *European Journal of Pharmaceutics and Biopharmaceutics*, **93**: 196–204.



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OPTIMASI FORMULA NANOEMULGEL RESVERATROL SEBAGAI SEDIAAN TABIR SURYA
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