



DAFTAR PUSTAKA

- Abdassah, M., Aryani, R., Surachman, E., dan Muchtaridi, M., 2015. In-vitro Assessment of Effectiveness and Photostability Avobenzone in Cream Formulations by Combination Ethyl Ascorbic acid and alpha Tocopherol Acetate. *Journal of Applied Pharmaceutical Science*, **5**: 070–074.
- Anchal, S., Pandey, S., Arpita, S., Aqil, S., dan Nitish, P., 2021a. CREAM: A TOPICAL DRUG DELIVERY SYSTEM(TDDS).
- Anchal, S., Pandey, S., Arpita, S., Aqil, S., dan Nitish, P., 2021b. CREAM: A TOPICAL DRUG DELIVERY SYSTEM(TDDS).
- Arda, O., Göksügür, N., dan Tüzün, Y., 2014. Basic histological structure and functions of facial skin. *Clinics in Dermatology*, , Red Face Revisited: I **32**: 3–13.
- Asyary, A. dan Veruswati, M., 2020. Sunlight exposure increased Covid-19 recovery rates: A study in the central pandemic area of Indonesia. *The Science of the Total Environment*, **729**: 139016.
- Auchus, A., Brodell, R.T., Nahar, V.K., dan Ward, K.H., 2020. Avoiding the Hazards of Ultraviolet Light in the Adolescent Population. *SKIN The Journal of Cutaneous Medicine*, **4**: 189–199.
- Aulton, M.E., 2002. *Pharmaceutics: The Science of Dosage Form Design*, 2nd ed. ed. Churchill Livingstone, Edinburgh.
- Baker, J.G., 1877. 'Tropicos | Name - Aloe chinensis (Haw.) Baker', . URL: <http://legacy.tropicos.org/Name/18406438> (diakses tanggal 29/11/2022).
- Barolet, A., Litvinov, I., dan Barolet, D., 2021. Light-induced nitric oxide release in the skin beyond UVA and blue light: Red & near-infrared wavelengths. *Nitric Oxide*, **117**: .
- Baskara, I.B.B., Suhendra, L., dan Wrasiati, L.P., 2020. Pengaruh Suhu Pencampuran dan Lama Pengadukan terhadap Karakteristik Sediaan Krim. *JURNAL REKAYASA DAN MANAJEMEN AGROINDUSTRI*, **8**: 200.
- Blinkova, L.P., Gorobets, O.B., dan Baturo, A.P., 2001. [Biological activity of Spirulina]. *Zhurnal Mikrobiologii, Epidemiologii I Immunobiologii*, 114–118.
- Borowitzka, M.A., 2018. Chapter 3 - Biology of Microalgae, dalam: Levine, I.A. dan Fleurence, J. (Editor), *Microalgae in Health and Disease Prevention*. Academic Press, hal. 23–72.
- Bowe, W.P. dan Pugliese, S., 2014. Cosmetic Benefits of Natural Ingredients. *JDDonline - Journal of Drugs in Dermatology*, **13**: 1021–1025.
- Boyanova, P., Gradinarska, D., Dobrevska, V., Panayotov, P., Momchilova, M., dan Zsivanovits, G., 2022. Effect of Spirulina platensis on the quality and antioxidants characteristics of ice cream. *BIO Web of Conferences*, **45**: 01009.
- Cahyani, A.S. dan Erwiyan, A.R., 2022. Formulasi dan Uji Sun Protection Factor (SPF) SediaanKrim Ekstrak Etanol 70% Daging Buah Labu Kuning (Curcubita



- Maxima Durch) Secara In Vitro. *Jurnal Farmasi (Journal of Pharmacy)*, **2**: 1–11.
- Capelli, B. dan Cysewski, G., 2010. Potential health benefits of spirulina microalgae*. *Nutrafoods*, **9**: .
- Chauhan, L. dan Gupta, S., 2020. Creams: A Review on Classification, Preparation Methods, Evaluation and its Applications. *Journal of Drug Delivery and Therapeutics*, **10**: 281–289.
- Chen, L.L. dan Wang, S.Q., 2016. Nanotechnology in Photoprotection, dalam: *Nanoscience in Dermatology*. hal. 229–236.
- Chithra, P., Sajithlal, G.B., dan Chandrasekaran, G., 1998. Influence of Aloe vera on the glycosaminoglycans in the matrix of healing dermal wounds in rats. *Journal of Ethnopharmacology*, **59**: 179–186.
- Cole, C., Shyr, T., dan Ou-Yang, H., 2016. Metal oxide sunscreens protect skin by absorption, not by reflection or scattering. *Photodermatology, Photoimmunology & Photomedicine*, **32**: 5–10.
- Dale Wilson, B., Moon, S., dan Armstrong, F., 2012. Comprehensive Review of Ultraviolet Radiation and the Current Status on Sunscreens. *The Journal of Clinical and Aesthetic Dermatology*, **5**: 18–23.
- Delsin, S., Mercurio, M., Fossa, M., dan Campos PMBG, M., 2015. Clinical Efficacy of Dermocosmetic Formulations Containing Spirulina Extract on Young and Mature Skin: Effects on the Skin Hydrolipidic Barrier and Structural Properties. *Clinical Pharmacology & Biopharmaceutics*, **04**: .
- Dianursanti, Nugroho, P., dan Prakasa, M.B., 2020. 'Comparison of maceration and soxhletation method for flavonoid production from *Spirulina platensis* as a sunscreen's raw material', . Dipresentasikan pada INTERNATIONAL CONFERENCE ON EMERGING APPLICATIONS IN MATERIAL SCIENCE AND TECHNOLOGY: ICEAMST 2020, Namakkal, India, hal. 020006.
- Donglikar, M.M. dan Deore, S.L., 2016. Sunscreens: A review. *Pharmacognosy Journal*, **8**: 171–179.
- 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.
- Dupont, E., Gomez, J., dan Bilodeau, D., 2013. Beyond UV radiation: A skin under challenge. *International Journal of Cosmetic Science*, **35**: 224–232.
- Dutra, E.A., Oliveira, D.A.G. da C., Kedor-Hackmann, E.R.M., dan Santoro, M.I.R.M., 2004. Determination of sun protection factor (SPF) of sunscreens by ultraviolet spectrophotometry. *Revista Brasileira de Ciências Farmacêuticas*, **40**: 381–385.
- Emerald, M., Emerald, A., Emerald, L., dan Kumar, V., 2016. Perspective of natural products in skincare. *Pharmacy & Pharmacology International Journal, Volume 4*: .
- Gallagher, R.P. dan Lee, T.K., 2006. Adverse effects of ultraviolet radiation: A brief review. *Progress in Biophysics and Molecular Biology*, , UV exposure



- guidance: A balanced approach between health risks and health benefits of UV and Vitamin D. Proceedings of an International Workshop, International Commission on Non-ionizing Radiation Protection, Munich, Germany, 17-18 October, 2005 **92**: 119–131.
- Garg, T., Rath, G., dan Goyal, A.K., 2015. Comprehensive review on additives of topical dosage forms for drug delivery. *Drug Delivery*, **22**: 969–987.
- Geoffrey, K., Mwangi, A.N., dan Maru, S.M., 2019. Sunscreen products: Rationale for use, formulation development and regulatory considerations. *Saudi Pharmaceutical Journal*, **27**: 1009–1018.
- Giannakoudakis, D.A., Hosseini-Bandegharaei, A., Tsafrikidou, P., Triantafyllidis, K.S., Kornaros, M., dan Anastopoulos, I., 2018. Aloe vera waste biomass-based adsorbents for the removal of aquatic pollutants: A review. *Journal of Environmental Management*, **227**: 354–364.
- Gibson, M. (Editor), 2013. *Pharmaceutical Preformulation and Formulation: A Practical Guide from Candidate Drug Selection to Commercial Dosage Form*, 2nd ed. CRC Press, Boca Raton.
- Green, A.C., Williams, G.M., Logan, V., dan Strutton, G.M., 2011. Reduced melanoma after regular sunscreen use: randomized trial follow-up. *Journal of Clinical Oncology: Official Journal of the American Society of Clinical Oncology*, **29**: 257–263.
- Gurning, H.E.T., 2016. FORMULASI SEDIAAN LOSIO DARI EKSTRAK KULIT BUAH NANAS (*Ananas comosus L. (Merr)*) SEBAGAI TABIR SURYA. *PHARMACON*, **5**: .
- Harlev, E., Nevo, E., Lansky, E.P., Ofir, R., dan Bishayee, A., 2012. Anticancer potential of aloes: antioxidant, antiproliferative, and immunostimulatory attributes. *Planta Medica*, **78**: 843–852.
- Hashemi, S.A., Madani, S.A., dan Abediankenari, S., 2015. The Review on Properties of Aloe Vera in Healing of Cutaneous Wounds. *BioMed Research International*, **2015**: 714216.
- He, hailun, Li, anqi, Li, shiqin, Tang, jie, Li, li, dan Xiong, lidan, 2021. Natural components in sunscreens: Topical formulations with sun protection factor (SPF). *Biomedicine & Pharmacotherapy*, **134**: 111161.
- Hendrawati, T., Ambarwati, H., Nugrahani, R., Susanty, S., dan Habibah, U., 2020. The Effects of Aloe Vera Gel Addition on the Effectiveness of Sunscreen Lotion. *Jurnal Rekayasa Proses*, **14**: .
- Hendrawati, T.Y., Ambarwati, H., Nugrahani, R.A., Susanty, S., dan Hasyim, U.H., 2020. The Effects of Aloe Vera Gel Addition on the Effectiveness of Sunscreen Lotion. *Jurnal Rekayasa Proses*, **14**: 101–107.
- Heś, M., Dziedzic, K., Górecka, D., Jędrusek-Golińska, A., dan Gujska, E., 2019. Aloe vera (L.) Webb.: Natural Sources of Antioxidants – A Review. *Plant Foods for Human Nutrition (Dordrecht, Netherlands)*, **74**: 255–265.
- Hirahashi, T., Matsumoto, M., Hazeki, K., Saeki, Y., Ui, M., dan Seya, T., 2002. Activation of the human innate immune system by Spirulina: augmentation of



- interferon production and NK cytotoxicity by oral administration of hot water extract of *Spirulina platensis*. *International Immunopharmacology*, **2**: 423–434.
- Hughes, M.C.B., Williams, G.M., Baker, P., dan Green, A.C., 2013. Sunscreen and prevention of skin aging: a randomized trial. *Annals of Internal Medicine*, **158**: 781–790.
- Jou, P.C. dan Tomecki, K.J., 2014. Sunscreens in the United States: current status and future outlook. *Advances in Experimental Medicine and Biology*, **810**: 464–484.
- Khare, S., Abhyankar, S., Kuchekar, A., dan Gawade, A., 2021. A Mini Review - Pharmaceutical Creams. *Scholars Academic Journal of Pharmacy*, **10**: 60–62.
- Lambers, H., Piessens, S., Bloem, A., Pronk, H., dan Finkel, P., 2006. Natural skin surface pH is on average below 5, which is beneficial for its resident flora. *International Journal of Cosmetic Science*, **28**: 359–370.
- Li, B., Gao, M.-H., Zhang, X.-C., dan Chu, X.-M., 2006. Molecular immune mechanism of C-phycocyanin from *Spirulina platensis* induces apoptosis in HeLa cells in vitro. *Biotechnology and Applied Biochemistry*, **43**: 155–164.
- Li, B., Zhang, X., Gao, M., dan Chu, X., 2005. Effects of CD59 on antitumoral activities of phycocyanin from *Spirulina platensis*. *Biomedicine & Pharmacotherapy = Biomedecine & Pharmacotherapie*, **59**: 551–560.
- Lim, K.-M., 2021. Skin Epidermis and Barrier Function. *International Journal of Molecular Sciences*, **22**:
- Manaia, E.B., Kaminski, R., Corrêa, M., dan Chiavacci, L., 2013. Inorganic UV filters. *Brazilian Journal of Pharmaceutical Sciences*, **49**: 201–209.
- Mansur, J. de S., Breder, M.N.R., Mansur, M.C. d'Ascençao, dan Azulay, R.D., 1986. Determinação do fator de proteção solar por espectrofotometria. *An. bras. dermatol*, 121–4.
- Mao, T.K., VAN DE Water, J., dan Gershwin, M.E., 2000. Effect of spirulina on the secretion of cytokines from peripheral blood mononuclear cells. *Journal of Medicinal Food*, **3**: 135–140.
- Mapoung, S., Arjsri, P., Thipraphan, P., Semmarath, W., Yodkeeree, S., Chiewchanvit, S., dkk., 2020. Photochemoprotective effects of *Spirulina platensis* extract against UVB irradiated human skin fibroblasts. *South African Journal of Botany*, **130**: 198–207.
- McClements, D.J. dan Jafari, S.M., 2018. Improving emulsion formation, stability and performance using mixed emulsifiers: A review. *Advances in Colloid and Interface Science*, **251**: 55–79.
- Moore, C., Cevikbas, F., Pasolli, H.A., Chen, Y., Kong, W., Kempkes, C., dkk., 2013. UVB radiation generates sunburn pain and affects skin by activating epidermal TRPV4 ion channels and triggering endothelin-1 signaling. *Proceedings of the National Academy of Sciences of the United States of America*, **110**: E3225–3234.



- Morgan, H., 2021. 'Aloe vera Chinensis – Ultimate Guide - 【2022】 The Garden Style', *The Garden Style*. URL: <https://www.thegardenstyle.com/succulents/aloe-vera-chinensis-ultimate-guide/> (diakses tanggal 13/12/2022).
- Mpiana, P.T., 2014. Determination of Sun Protection Factor (SPF) of Some Body Creams and Lotions Marketed in Kinshasa by Ultraviolet Spectrophotometry. *International Journal of Advanced Research in Chemical Science*, **1**: 7–13.
- Mulyanita, Djali, M., dan Setiasih, I.S., 2019. TOTAL FENOL, FLAVONOID DAN AKTIVITAS ANTIMIKROBA EKSTRAK LIMBAH KULIT LIDAH BUAYA (ALOE CHINENSIS BAKER). *Jurnal Vokasi Kesehatan*, **8**.
- Narayanan, D.L., Saladi, R.N., dan Fox, J.L., 2010. Review: Ultraviolet radiation and skin cancer. *International Journal of Dermatology*, **49**: 978–986.
- Nege, A.S., Dewi Masithah, E., dan Khotib, J., 2020. Trends in the Uses of Spirulina Microalga: A mini-review. *Jurnal Ilmiah Perikanan dan Kelautan*, **12**: 149–166.
- Nesseem, D., 2011. Formulation of sunscreens with enhancement sun protection factor response based on solid lipid nanoparticles. *International Journal of Cosmetic Science*, **33**: 70–79.
- Nowak, D. dan Jakubczyk, E., 2020. The Freeze-Drying of Foods—The Characteristic of the Process Course and the Effect of Its Parameters on the Physical Properties of Food Materials. *Foods*, **9**: 1488.
- Osterwalder, U. dan Herzog, B., 2009. Sun protection factors: world wide confusion. *The British Journal of Dermatology*, **161 Suppl 3**: 13–24.
- Paudel, K.S., Milewski, M., Swadley, C.L., Brogden, N.K., Ghosh, P., dan Stinchcomb, A.L., 2010. Challenges and opportunities in dermal/transdermal delivery. *Therapeutic delivery*, **1**: 109–131.
- Pratama, G., Hartawan, I.G.N.B., Indriani, I., Yusrika, M.U., Suryantari, S., Satyarsa, A.B.S., dkk., 2020. Potensi Ekstrak Spirulina platensis sebagai Tabir Surya terhadap Paparan Ultraviolet B. *Journal Of Medicine & Health*, **2**: 205–17.
- Purnama, F., Agustini, T., dan Kurniasih, R., 2020. The effect of different temperature on the stability of phycocyanin on microcapsule Spirulina platensis. *IOP Conference Series: Earth and Environmental Science*, **530**: 012008.
- Puspitasari, A.D., Mulangsri, D.A.K., dan Herlina, H., 2018. Formulasi Krim Tabir Surya Ekstrak Etanol Daun Kersen (*Muntingia calabura* L.) untuk Kesehatan Kulit. *Media Penelitian dan Pengembangan Kesehatan*, **28**: 263–270.
- Ragusa, I., Nardone, G., Zanatta, S., Bertin, W., dan Amadio, E., 2021. Spirulina for Skin Care: A Bright Blue Future. *Cosmetics*, **8**: 7.
- Rodrigues, L.L.O., de Oliveira, A.C.L., Tabrez, S., Shakil, S., Khan, M.I., Asghar, M.N., dkk., 2018. Mutagenic, antioxidant and wound healing properties of Aloe vera. *Journal of Ethnopharmacology*, **227**: 191–197.
- Roosevelt, A., H. Ambo Lau, S., dan Syawal, H., 2019. Formulasi Dan Uji Stabilitas Krim Ekstrak Methanol Daun Beluntas (*Pluchea indica* L.) Dari Kota Benteng



- Kabupaten Kepulauan Selayar Provinsi Sulawesi Selatan. *Jurnal Farmasi Sandi Karsa*, **5**: 19–25.
- Roy, K.R., Arunasree, K.M., Reddy, N.P., Dheeraj, B., Reddy, G.V., dan Reddanna, P., 2007. Alteration of mitochondrial membrane potential by *Spirulina platensis* C-phycocyanin induces apoptosis in the doxorubicinresistant human hepatocellular-carcinoma cell line HepG2. *Biotechnology and Applied Biochemistry*, **47**: 159–167.
- Sadiq, U., Gill, H., dan Chandrapala, J., 2022. Temperature and pH Stability of Anthraquinones from Native Aloe vera Gel, Spray-Dried and Freeze-Dried Aloe vera Powders during Storage. *Foods*, **11**: 1613.
- Sahu, T., Patel, T., Sahu, S., dan Gidwani, B., 2016. Skin Cream as Topical Drug Delivery System: A Review 149–154.
- Saleem, A., Naureen, I., Naeem, M., Murad, H.S., Maqsood, S., dan Tasleem, G., 2022. Aloe Vera Gel Effect on Skin and Pharmacological Properties. Citation: Aisha Saleem, Irum Naureen, Muhammad Naeem, Hafiza Safoora Murad, Samra Maqsood, Gulnaz Tasleem (2022). Aloe Vera Gel Effect on Skin and Pharmacological Properties. *Sch Int J Anat Physiol*, **5**(1): 1–8. 1 Scholars International Journal of Anatomy and Physiology, **5**: 1–8.
- Sayre, R.M., Agin, P.P., LeVee, G.J., dan Marlowe, E., 1979. A comparison of in vivo and in vitro testing of sunscreening formulas. *Photochemistry and Photobiology*, **29**: 559–566.
- Schalka, S., Steiner, D., Ravelli, F.N., Steiner, T., Terena, A.C., Marçon, C.R., dkk., 2014. Brazilian Consensus on Photoprotection. *Anais Brasileiros de Dermatologia*, **89**: 1–74.
- Schüz, N. dan Eid, M., 2015. Sun Exposure and Skin Cancer Prevention, dalam: *International Encyclopedia of the Social & Behavioral Sciences*. hal. 696–700.
- Simamora, V.Y.T.R., Mulyani, S., dan Harsojuwono, B.A., 2020. Pengaruh Konsentrasi Ekstrak Etanol Kunyit dan Daun Asam (*Curcuma domestica* Val.-*Tamarindus indica* L.) terhadap Karakteristik Krim. *JURNAL REKAYASA DAN MANAJEMEN AGROINDUSTRI*, **8**: 338.
- Smaoui, S., Ben Hlima, H., Ben Chobba, I., dan Kadri, A., 2017. Development and stability studies of sunscreen cream formulations containing three photoprotective filters. *Arabian Journal of Chemistry*, **10**: S1216–S1222.
- Subhashini, J., Mahipal, S.V.K., Reddy, M.C., Mallikarjuna Reddy, M., Rachamallu, A., dan Reddanna, P., 2004. Molecular mechanisms in C-Phycocyanin induced apoptosis in human chronic myeloid leukemia cell line-K562. *Biochemical Pharmacology*, **68**: 453–462.
- Surjushe, A., Vasani, R., dan Saple, D.G., 2008. ALOE VERA: A SHORT REVIEW. *Indian Journal of Dermatology*, **53**: 163–166.
- Tanner, P.R., 2006. Sunscreen product formulation. *Dermatologic Clinics*, **24**: 53–62.
- Tungadi, R., Pakaya, M.S., dan Ali, P.D.A., 2023. Formulasi dan Evaluasi Stabilitas Fisik Sediaan Krim Senyawa Astaxanthin. *Indonesian Journal of Pharmaceutical Education*, **3**: 117–124.



- Vifta, R.L., Rahayu, R.T., dan Luhurningtyas, F.P., 2019. Uji Aktivitas Antioksidan Kombinasi Ekstrak Buah Parijoto (*Medinilla speciosa* Blume) dan Rimpang Jahe Merah (*Zingiber officinale Roscoe* var *Rubrum*) dengan Metode ABTS (2,2-Azinobis (3-Etilbenzotiazolin)-6-Asam Sulfonat).
- Walters, C., Keeney, A., Wigal, C.T., Johnston, C.R., dan Cornelius, R.D., 1997. The Spectrophotometric Analysis and Modeling of Sunscreens. *Journal of Chemical Education*, 74: 99.
- Widyaningrum, N., Murrukmihadi, M., dan Ekawati, S.K., 2012. Pengaruh Konsentrasi Ekstrak Etanolik Daun Teh Hijau (*Camellia sinesis* L.) dalam Sediaan Krim terhadap Sifat Fisik dan Aktivitas Antibakteri. *Sains Medika : Jurnal Kedokteran dan Kesehatan*, 4: 147.
- Yousef, H., Alhajj, M., dan Sharma, S., 2022. Anatomy, Skin (Integument), Epidermis, dalam: *StatPearls*. StatPearls Publishing, Treasure Island (FL).