

DAFTAR PUSTAKA

- Adhau, A. dan Pardeshi, D., 2020, Bakuchiol: A Retinol like Structure in the Field of Cosmetics, *International Journal of Advance Study and Research Work*.
- Adhikari, S., Joshi, R., Patro, B.S., Ghanty, T.K., Chintalwar, G.J., Sharma, A., dkk., 2003, Antioxidant activity of bakuchiol: Experimental evidences and theoretical treatments on the possible involvement of the terpenoid chain, *Chemical Research in Toxicology*, **16**: 1062–1069.
- Afornali, A., de Vecchi, R., Stuart, R.M., Dieamant, G., de Oliveira, L.L., Brohem, C.A., dkk., 2013, Tripla nanoemulsão potencializa os efeitos do tratamento tópico com retinol microencapsulado e modula processos biológicos relacionados ao envelhecimento da pele, *Anais Brasileiros de Dermatologia*, **88**: 930–936.
- Alam, F., Khan, G.N., dan Asad, M.H.H. Bin, 2018. Psoralea corylifolia L: Ethnobotanical, biological, and chemical aspects: A review. *Phytotherapy Research*.
- Bacqueville, D., Maret, A., Noizet, M., Duprat, L., Coutanceau, C., Georgescu, V., dkk., 2020, Efficacy of a dermocosmetic serum combining bakuchiol and vanilla tahitensis extract to prevent skin photoaging in vitro and to improve clinical outcomes for naturally aged skin, *Clinical, Cosmetic and Investigational Dermatology*, **13**: 359–370.
- Banerji, A. dan Chintalwar J.G., 1983, Biosynthesis of bakuchiol, a meroterpene from *Psoralea corylifolia*, *Phytochemistry*, **22(9)**:1945–7.
- Barbieri, J.S., Wanat, K., Seykora, J., 2014, Skin: Basic Structure and Function, *Pathobiology of Human Disease*, Academic Press, 1134-1144.
- Blomhoff, R. dan Blomhoff H.K., 2005, Overview of retinoid metabolism and function, *J Neurobiol*, 606-30.
- BPOM RI, 2019, *Peraturan Kepala Badan Pengawas Obat dan Makanan Republik Indonesia Nomor 23 Tahun 2019 Tentang Persyaratan Teknis Bahan Kosmetika*, BPOM RI, Jakarta.
- BPOM RI, 2019, *Peraturan Kepala Badan Pengawas Obat dan Makanan Republik Indonesia Nomor 25 Tahun 2019 Tentang Pedoman Cara Pembuatan Kosmetika yang Baik*, BPOM RI, Jakarta.
- Brodell, L.A., Å, B., dan Rosenthal, K.S., 2008, Skin Structure and Function The Body's Primary Defense Against Infection, *Infectious Diseases in Clinical Practice*, **16(2)**:113-117.
- Budiasih, S., Masyitah, I., Jiyauddin, K., Kaleemullah, M., Samer, A.D., Fadli, A.M., dkk., 2019, *Formulation and Characterization of Cosmetic Serum Containing Argan Oil as Moisturizing Agent*, Scitepress, 297–304.
- Carli, B., 2020, *Cosmetic Formulations: A Beginners Guide*, *Institute of Personal Care Science*, Australia.
- Chaudhuri, R.K. dan Marchio, F., 2011, Bakuchiol in the Management of Acne-affected Skin, *Cosmetics and toiletries*, **126**: 502–510.
- Chaudhuri, R.K. dan Bojanowski, K., 2014, Bakuchiol: A retinol-like functional

- compound revealed by gene expression profiling and clinically proven to have anti-aging effects, *International Journal of Cosmetic Science*, **36**: 221–230.
- Chaudhuri, R.K., 2015, Bakuchiol: A retinol-Like functional compound, modulating multiple retinol and non-retinol targets, in *Cosmeceuticals and Active Cosmetics*, 3rd Edition, Sivamani, R.K., Elsner, P, dan Maibach H.I., eds, Taylor and Francis, Boca Raton.
- Chaudhuri, R.K. dan Ou, B., 2015, Bakuchiol to stabilize retinol and polyunsaturated lipids, *Cosm & Toil*, **130**:64-75.
- Chaudhuri, R., 2017, Modulating Antioxidant Defenses to Enhance Skin Benefits, *Euro Cosmetics*.
- Cheng, Z.W., Cai, X.F., Dat, N.T., Hong, S.S., Han, A.R., Seo, E.K., dkk., 2007, Bisbakuchiols A and B, novel dimeric meroterpenoids from *Psoralea corylifolia*, *Tetrahedron Lett*, **48**:8861–4.
- Chintalwar, G.J., Ramakrishnan, V., Luthria, D.L., Banerji, A., 1992, Insect antifeedants from the roots of *Psoralea corylifolia* Linn, *Indian J Exp Biol*, **30**(9): 858–9.
- Choi, S.Y., Lee, S., Choi, W.H., Lee, Y., Jo, Y.O., dan Ha, T.Y., 2010, Isolation and anti-inflammatory activity of bakuchiol from *Ulmus davidiana* var. *japonica*, *Journal of Medicinal Food*, **13**: 1019–1023.
- Chopra, B., Dhingra, A.K., dan Dhar, K.L., 2013, *Psoralea corylifolia* L. (Buguchi) - Folklore to modern evidence: Review, *Fitoterapia*, **90**: 44–56.
- Chu, D.H., 2008, Overview of biology, development, and structure of skin, dalam Wolff, K., Goldsmith, L.A., Katz, S.I., Gilchrest, B.A., Paller, A.S., dan Leffell, D.J., (Eds.), *Fitzpatrick's dermatology in general medicine* (7th ed.), McGraw-Hill, New York, 57–73.
- Cosing Cosmetics, 2020, *Ingredient:Retinol*, *European Commission*. URL: https://ec.europa.eu/growth/tools-databases/cosing/index.cfm?fuseaction=search.details_v2&id=37479 (diakses tanggal 18/05/2021).
- Cosing Cosmetics, 2020, *Ingredient:Bakuxhiol*, *European Commission*. URL: https://ec.europa.eu/growth/tools-databases/cosing/index.cfm?fuseaction=search.details_v2&id=32053(diakses tanggal 17/12/2021).
- Cosing Cosmetics, 2020, *Ingredient: Retinoic Acid*, *European Commision*. URL: https://ec.europa.eu/growth/tools-databases/cosing/index.cfm?fuseaction=search.details_v2&id=85067(diakses tanggal 10/01/2022).
- Crank, G dan Pardijanto, MS., 1995, Photooxidations and photosensitized oxidations of vitamin A and its palmitate ester, *J Photochem Photobiol A*, **85**: 93–100.
- Dash, Alekha, Singh, Somnath, dan Tolman, Justin, 2013, *Pharmaceutics:Basic Principles and Application to Pharmacy Practice*, Academic Press, Chapter 11, Semi-solid dosage forms. ISBN 0123868912,9780123868916.
- Dhaliwal, S., Rybak, I., Ellis, S.R., Notay, M., Trivedi, M., Burney, W., Sivamani, R.K., 2019, Prospective, randomized, double-blind assessment of topical

- bakuchiol and retinol for facial photoageing, *The British Journal of Dermatology*, 180(2), 289–296, <https://doi.org/10.1111/bjd.16918>.
- Dev, S, Nayak, U.R., Mehta, G., 1973, Monoterpenoids-I, *Psoralea corylifolia* Linn. —Bakuchiol, a novel monoterpene phenol, *Tetrahedron*, 29:1119–25.
- Draelos, Z.D., Gunt, H., Zeichner, J., dan Levy, S., 2020, Clinical Evaluation of a Nature-Based Bakuchiol Anti-Aging Moisturizer for Sensitive Skin, *Journal of drugs in dermatology : JDD*, **19**: 1181–1183.
- Elias, P.M, 1983, Epidermal lipids, barrier function and desquamation, *J Invest Dermatol* 80(suppl): 44-49.
- Epharmacognosy, 2012, *Psoralea fruit (Buguzhi)-Psoralea corylifolia-Fructus Psoraleae*. URL: <http://www.epharmacognosy.com/2012/06/psoralea-fruit-buguzhi-psoralea.html> (diakses tanggal 26/05/2021).
- Epstein, J.H., 1983. Phototoxicity and photoallergy in man. *Journal of the American Academy of Dermatology*, **8**: 141–147.
- Fauzia, Dina, 2017, Aspek Farmakologi Retinoid pada Kosmeseutikal, *Jurnal Kesehatan Melayu*, 1. 35. 10.26891/jkm.v1i1.24.
- Firafiroh, Aulia, 2021, *6 Rekomendasi Skincare yang Mengandung Bakuchiol, Si Anti Aging Alami*. URL: <https://www.parapuan.co/read/532634908/6-rekomendasi-skincare-yang-mengandung-bakuchiol-si-anti-aging-alami> (diakses tanggal 08/06/2021).
- Fu, P.P., Cheng, SH, Coop, L, Xia, Q., Culp, S.J., Tolleson, W.H., Wamer W.G., Howard, P.C., 2003, Photoreaction, phototoxicity, and photocarcinogenicity of retinoids, *J Environ Sci Health C Environ Carcinog Ecotoxicol Rev*, **21**(2):165-97.
- Gasparyan, A.Y., Ayvazyan, L., Blackmore, H., dan Kitas, G.D., 2011, Writing a narrative biomedical review: Considerations for authors, peer reviewers, and editors, *Rheumatology International*, **31**: 1409–1417.
- Gilbert, S.B. dan Christopher R.T., 2002, *Modern pharmaceuticals* (Edn 4), CRC Press, London, UK, **260**: 265-268.
- Goldberg, D.J., Robinson, D.M., dan Granger, C., 2019, Clinical evidence of the efficacy and safety of a new 3-in-1 anti-aging topical night serum-in-oil containing melatonin, bakuchiol, and ascorbyl tetraisopalmitate: 103 females treated from 28 to 84 days, *Journal of Cosmetic Dermatology*, **18**: 806–814.
- Goldberg, D.J., Mraz-Robinson, D., dan Granger, C., 2020, Efficacy and safety of a 3-in-1 antiaging night facial serum containing melatonin, bakuchiol, and ascorbyl tetraisopalmitate through clinical and histological analysis, *Journal of Cosmetic Dermatology*, **19**: 884–890.
- González-Minero, F.J. dan Bravo-Díaz, L., 2019, The use of plants in skin-care products, cosmetics and fragrances: Past and present, *Cosmetics*.
- Haake, A.R., dan Hollbrook, K., 1999, The structure and development of skin. In I. Freedberg, A. Eisen, K. Wolff, K. Austen, L. Goldsmith, S. Katz, dkk. (Eds.), *Fitzpatrick's dermatology in general medicine* (5th ed.), McGraw- Hill, New York, 70–111.
- Haraguchi, H., Inoue, J., Tamura, Y., dan Mizutani, K., 2000, Inhibition of mitochondrial lipid peroxidation by bakuchiol, a meroterpene from *Psoralea corylifolia*, *Planta Medica*, **66**: 569–571.

- Haraguchi, H, Inoue, J., Tamura, Y., Mizutani, K., 2002, Antioxidative components of *Psoralea corylifolia* (Leguminosae), *Phytother Res*, **16**: 539–44.
- Hsu, P.J., Miller, J.S., dan Berger, J.M., 2009, Bakuchiol, an antibacterial component of *Psoraleidium tenuiflorum*, *Natural Product Research*, **23**: 781–788.
- Jaferník, K., Halina, E., Ercisli, S., dan Szopa, A., 2020, Characteristics of bakuchiol - the compound with high biological activity and the main source of its acquisition - *Cullen corylifolium* (L.) Medik, *Natural Product Research*, **0**: 1–15.
- James, W.D., Berger, T.G., dan Elston, D.M., 2006, *Andrews' diseases of the skin: Clinical dermatology* (10th ed.), Elsevier Saunders, Philadelphia.
- Jia, Qi dan Hong, Mei-Feng, 2006, Compositions Of Bakuchiol And Methods Of Making The Same, UNIGEN PHARMACEUTICALS INC. URL: <https://pubchem.ncbi.nlm.nih.gov/patent/US2006251749> (diakses tanggal 03/11/2021).
- Jiangning, G, Xinchu, W, Hou, W, Qinghua, L, Kaishun, B., 2005, Antioxidants from a Chinese medicinal herb — *Psoralea corylifolia*, *Food Chem*, **91**:287–92.
- Kim, B.-H., Lee, Y.-S., dan Kang, K.-S., 2003, The mechanism of retinol-induced irritation and its application to anti-irritant development, *Toxicology Letters*, **146**(1), 65–73. URL: <https://www.ncbi.nlm.nih.gov/pubmed/14615068> (diakses tanggal 21/05/2021).
- Krenisky JM, Luo J, Reed MJ, Carney JR., 1999, Isolation and antihyperglycemic activity of bakuchiol from *Otholobium pubescens* (Fabaceae), a Peruvian medicinal plant used for the treatment of diabetes, *Biol Pharm Bull*, **22**(10):1137–1140.
- Kroshinsky, D., Shalita, A.R., 2007, Topical retinoids, dalam Webster, G.F., Rawlings, A.V. (ed), *Acne and It's Therapy*, Informa healthcare, New York, 103-12.
- Kuenzil, S dan Saurat, JH., 2006, Retinoids, dalam Bolognia, J.L., Jorizzo, J.L., Rapini, R.P., *Dermatology*, Edisi ke-4, Elsevier Limited, London, 2056-67.
- Labbé, C., Faini, F., Coll, J., dan Connolly, J.D., 1996, Bakuchiol derivatives from the leaves of *Psoralea glandulosa*, *Phytochemistry*, **42**: 1299–1303.
- Lystvan, K., Belokurova, V., Sheludko, Y., Ingham, J.L., Prykhodko, V., Kishchenko, O., dkk., 2010, Production of bakuchiol by in vitro systems of *Psoralea drupacea* Bge, *Plant Cell, Tissue and Organ Culture*, **101**: 99–103.
- Maksimovic, S., Nakatani, M., Baba, Y., Nelson, A.M., Marshall, K.L., Wellnitz, S.A., dkk., 2014, Epidermal Merkel cells are mechanosensory cells that tune mammalian touch receptors, *Nature*, **509**:617–21.
- Manohar, B. dan Sankar, U.K., 2009, Enrichment of bakuchiol in supercritical carbon dioxide extracts of chiba seed (*Psoralea corylifolia* L.) using molecular distillation-Response surface methodology, *Biotechnology and Bioprocess Engineering*, **14**: 112–117.
- Martin, A, Bustamante, P, Chun, A.H.C., 1993, *Physical Pharmacy*, Philadelphia: Lea & Febiger, 234.
- Mehta, G., Nayak, U.R., dan Dev, S., 1966, Bakuchiol, a novel monoterpenoid,

- Tetrahedron Letters*, **7**: 4561–4567.
- Mehta, G., Nayak, U.R., dan Dev, S., 1973, Meroterpenoids-I. *Psoralea corylifolia* Linn.-1. Bakuchiol, a novel monoterpene phenol, *Tetrahedron*, **29**: 1119–1125.
- Mescher, Anthony L., 2010, *Junqueira's Basic Histology*. 12th ed., McGraw-Hill, United States.
- Mescher, A. L., 2013, *Histologi Dasar Junqueira Teks & Atlas*, Buku Kedokteran EGC, Jakarta.
- Mukherjee, S., Date, A., Patravale, V., dkk., 2006, Retinoids in The Treatment of Skin Aging: An Overview of Clinical Efficacy and Safety, *Clinical Interventions in Aging*, **1(4)**:327-348. DOI: 10.2147/ciia.2006.1.4.327.
- Mukhopadhyay, P., 2011, Cleansers and their role in various dermatological disorders, *Indian journal of dermatology*, **56(1)**, 2–6. <https://doi.org/10.4103/0019-5154.77542>.
- Murniarti, E., Nainggolan, B., Panjaitan, H., Pandiangan, L.E.AM., Widayani, I. D. A. dan Dakhi, S., 2018, Writing Matrix and Assessing Literature Review: A Methodological Elements of a Scientific project, *Journal of Asian Development*, **4(2)**: 133-146. <http://jad.macrothink.org>
- Narda, M., Brown, A., Muscatelli-Groux, B., Grimaud, J.A., dan Granger, C., 2020, Epidermal and Dermal Hallmarks of Photoaging are Prevented by Treatment with Night Serum Containing Melatonin, Bakuchiol, and Ascorbyl Tetraisopalmitate: In Vitro and Ex Vivo Studies, *Dermatology and Therapy*, **10**: 191–202.
- National Toxicology Program., 2012, *NTP Technical Report on The Photocarcinogenesis Study of Retinoic Acid and Retinyl Palmitate*, retrieved from National Institutes of Health. URL: https://ntp.niehs.nih.gov/ntp/htdocs/lt_rpts/tr568_508.pdf (diakses tanggal 21/05/2021).
- O'Byrne, S. M., dan Blaner, W. S., 2013, Retinol and retinyl esters: biochemistry and physiology, *Journal of Lipid Research*, **54(7)**, 1731–1743. doi:10.1194/jlr.r037648.
- Ohno, O., Watabe, T., Nakamura, K., Kawagoshi, M., Uotsu, N., Chiba, T., dkk., 2010, Inhibitory effects of bakuchiol, bavachin, and isobavachalcone isolated from piper longum on melanin production in b16 mouse melanoma cells, *Bioscience, Biotechnology and Biochemistry*, **74**: 1504–1506.
- Peng, G, Wu, P, Chen D, Li, H., 1996, *Neo psoralen isolated from Psoralea corylifolia* Linn, **8**. Tianran Chanwu Yanjiu Yu Kaifa, 31–4.
- Poláková, K., Fauger, A., Sayag, M., dan Jourdan, E., 2015, Adermocosmetic containing bakuchiol, Ginkgo biloba extract and mannitol improves the efficacy of adapalene in patients with acne vulgaris: Result from a controlled randomized trial, *Clinical, Cosmetic and Investigational Dermatology*, **8**: 187–191.
- Purnamawati, S., Indrastuti, N., Danarti, R., dan Saefudin, T., 2017, The role of moisturizers in addressing various kinds of dermatitis: A review, *Clinical Medicine and Research*.
- Ramasubramania, R.R., Sreenivasulu, M., Reddy, S.R., Kavitha Indra, C., Reddy,

- K.S., Royal, P.T., dkk., 2016, Synthetic Cosmetics-An Overview, *RA Journal of Applied Research*.
- Rao, A.S.C.P., Bhalla, V.K., Nayak, U.R., dan Dev, S., 1973, Meroterpenoids-II. *Psoralea corylifolia* Linn.-2. Absolute configuration of (+)-bakuchiol, *Tetrahedron*, **29**: 1127–1130.
- Rawlings, A.V. dan Harding, C.R., 2004, Moisturization and skin barrier function, *Dermatol Ther*, **17**:43–8.
- Rosen, M.R., 2005, *Delivery System Handbook for Personal Care and Cosmetic Products : Technology, Applications, and Formulations*, William Andrew Pub, New York.
- Rousselle, C., 2017, Opinion of The Scientific Committee on Consumer Safety (SCCS) e Final version of the Opinion on Vitamin A (Retinol, Retinyl Acetate and Retinyl Palmitate) in Cosmetic Products, *Regul Toxicol Pharmacol*, **84**:102–4.
- Ruan, B., Kong, L.Y., Takaya, Y., Niwa, M., 2007, Studies on the chemical constituents of *Psoralea corylifolia* L, *J Asian Nat Prod Res*, **9**(1):41–4.
- Salavkar, S.M., Tamaneekar, R.A., dan Athawale, R.B., 2011, Antioxidants in skin ageing - Future of dermatology, *International Journal of Green Pharmacy*.
- Sandilands, A., 2007, Filagrin's fuller figure: a glimpse into the genetic architecture of atopic dermatitis, *J Investigative Derm*, **127**:1282Y1284.
- Scott, D.W., Miller, W.H., 2011, *Structure and Function of the Skin*, Equine Dermatology (Second Edition), W.B. Saunders, New York, **1**:1-34.
- Seo, E., Oh, Y.S., Kim, D., Lee, M.Y., Chae, S., dan Jun, H.S., 2013, Protective role of *psoralea corylifolia* L. Seed extract against hepatic mitochondrial dysfunction induced by oxidative stress or aging, *Evidence-based Complementary and Alternative Medicine*, **2013**
- Simon, M., Bernard, D., Minondo, A-M, Camus, C, Fiat, F., Corcuff, P., dkk., 2001, Persistence of both peripheral and non-peripheral corneodesmosomes in the upper stratum corneum of winter xerosis skin versus only peripheral normal skin, *J Invest Dermatol*, **116**:23–30.
- Sivamani, R.K., Jagdeo, J.R., Elsner, P. and Maibach, H.I. eds., 2015. *Cosmeceuticals and Active Cosmetics*, CRC Press, USA.
- Svingen, B.A., Buege, J.A., O'Neal, F.O., dan Aust, S.D., 1979, The mechanism of NADPH-dependent lipid peroxidation, The propagation of lipid peroxidation. *Journal of Biological Chemistry*, **254**: 5892–5899.
- Sytheon Ltd, 2013, Formulation Guidelines for Sytenol® A. URL: <https://www.ulprospector.com/en/eu/PersonalCare/Detail/4724/220364/Sytenol-A> (diakses tanggal 02/11/2021).
- Tranggono, R.I., 2007, *Buku Pegangan Ilmu Pengetahuan Kosmetik*, PT. Gramedia, Pustaka Utama, Anggota IKAPI, Jakarta.
- Udey, M.C., 1997, Cadherins and Langerhans cell immunobiology, *Clinical and Experimental Immunology*, 107(Suppl. 1), 6–8.
- Uikey, S.K., Yadav, A.S., Sharma, A.K., Rai, A.K., Raghuwanshi, D.K., dan Badkhane, Y., 2010, The botany, chemistry, pharmacological and therapeutic application of *Psoralea corylifolia* L. - A review, *International Journal of Phytomedicine*.

- Ulrike, Bernauer, Laurent, Bodin, Leonardo, Celleno, Chaudhry, Qasim, Pieter-Jan, Coenraads, Dusinska, Maria, Janine, Ezendam, Gaffet, Eric, Lodovico, Galli, Granum, Berit, Panderi, Irene, Vera, Rogiers, Christophe, Rousselle, Maciej, Stępnik, Tamara, Vanhaecke, Wijnhoven, Susan., 2016, *SCCS OPINION ON Vitamin A (Retinol, Retinyl Acetate, Retinyl Palmitate*, 10.2875/642264.
- Van Scott E.J, Yu, R.J., 1989, Alpha hydroxy acids: procedures for use in clinical practice. *Cutis*, **43**:222–228.
- Varani, J., Warner, R.L., Gharaee-Kermani, M., dkk., 2000, Vitamin A Antagonizes Decreased Cell Growth and Elevated Collagen-Degrading Matrix Metalloproteinases and Stimulates Collagen Accumulation in Naturally Aged Human Skin, *J Invest Dermatol*, **114**:480–6.
- Venkateswara Rao, G., Kavitha, K., Gopalakrishnan, M., dan Mukhopadhyay, T., 2012, Isolation and characterization of a potent antimicrobial compound from *Aerva sanguinolenta* Blume.: An alternative source of Bakuchiol, *Journal of Pharmacy Research*, **5**: 174–176.
- West, B.J., Alabi, I., dan Deng, S., 2021, A Face Serum Containing Palmitoyl Tripeptide-38, Hydrolyzed Hyaluronic Acid, Bakuchiol and a Polyherbal and Vitamin Blend Improves Skin Quality, *Journal of Cosmetics, Dermatological Sciences and Applications*, **11**: 237–252.
- Yahlquist, A., Kuenzil, S., Saurat, J.H., 2008, Retinoids, dalam Eisen, A.Z., Wolff, K., Freedberg, I.M., Austen, K., *Fitzpatrick's dermatology in General Medicine*, Edisi ke-7, Mcgraw Hill, New York, 2181-6.
- Yin, S., Luo, J., Qian, A., Du, J., Yang, Q., Zhou, S., Hu, H., 2013, Retinoids activate the irritant receptor TRPV1 and produce sensory hypersensitivity, *The Journal of Clinical Investigation*, 123(9), 3941–3951, <https://doi.org/10.1172/JCI66413>.
- Zizola, C.F., Frey, S.K., Jitngarmkusol, S., dkk., 2010, Cellular Retinol-Binding Protein Type I (CRBP-I) Regulates Adipogenesis, *Mol Cell Biol*, **30**:3412–20.