

DAFTAR PUSTAKA

- Aburjai, T., & Tayseer, I. (2019). Green sunscreens. In *Sunscreens* (pp. 245–276). Health Awareness.
- Agustini, N. A. (2020). *Formulasi Sediaan Body Cream Dan Uji Aktivitas Antioksidan Ekstrak Etanol Beras Merah (Oryza nivara)*. Universitas Buana Perjuangan Karawang.
- Anggraeni, V. J., Ramdanawati, L., & Ayuantika, W. (2019). Optimization of Total Anthocyanin Extraction from Brown Rice (*Oryza nivara*). *Journal of Physics: Conference Series*, 1338(1), 6–11. <https://doi.org/10.1088/1742-6596/1338/1/012006>
- Anurukvorakun, O. (2016). *The Involvement of Antioxidant and Sun*. 149–162.
- Aprilia, A., & Putri, S. (2015). Uji Aktivitas Antioksidan Senyawa Fenolik Ekstrak Metanol Kulit Batang Tumbuhan Nyiri Batu (*Xylocarpus moluccensis*). *Unesa Journal of Chemistry*, 4(1), 1–6.
- Apriliyani, Y. P. (2017). *Hubungan Antara Pemakaian Tabir Surya Dengan Derajat Keparahan Melasma (Skor MASI) Pada Wanita di Kec. Grogol-Sukoharjo* [Universitas Muhammadiyah Surakarta]. <http://dx.doi.org/10.15171/jcvtr.2015.24>
- Ardhie, A. (2011). Radikal Bebas dan Peran Antioksidan dalam Mencegah Penuaan. *Medicinus*, 24(1), 4–9.
- Ashawat, M., Banchhor, M., Saraf, S., & Saraf, S. (2009). Herbal cosmetics: Trends in skin care formulation. *Pharmacognosy Reviews*, 3(5), 82–89.
- Avigail, Y., Yudiati, E., & Pringgenies, D. (2019). Aktivitas Antioksidan dan Kandungan Total Fenolik pada Ekstrak Teripang di. *Journal of Marine Research Vol.8*, 8(4), 346–354.
- Azis, A., Izzati, M., & Haryanti, S. (2015). Aktivitas Antioksidan Dan Nilai Gizi Dari Beberapa Jenis Beras Dan Millet Sebagai Bahan Pangan Fungsional Indonesia. *Jurnal Akademika Biologi*, 4(1), 45–61.
- Bahrudin, S. S. A. (2018). Fitokimia dan Antioksidan Pada Buah Tome-Tome (*Flacourtia inermis*). *Hospital Majapahit*, 10(1), 43–50.

- Caro, C. A. De. (2015). UV/VIS Spectrophotometry Fundamentals and Applications. In *Mettler-Toledo International* (Issue September 2015).
- D'Orazio, J., Jarrett, S., Amaro-Ortiz, A., & Scott, T. (2013). UV radiation and the skin. *International Journal of Molecular Sciences*, 14(6), 12222–12248. <https://doi.org/10.3390/ijms140612222>
- Depkes RI. (2000). Parameter Standar Umum Ekstrak Tanaman Obat. In *Departemen Kesehatan RI*. (Vol. 1, pp. 10–11).
- Depkes RI. (2020). Farmakope Indonesia edisi VI. In *Departemen Kesehatan Republik Indonesia*.
- Dermawati, D. (2016). *Pengaruh Penambahan Ekstrak Etanol Beras Ketan Hitam (Oryza sativa var. glutinosa (Lour) Korn) Terhadap Nilai Spf Krim Tabir Surya Kombinasi Avobenzone Dan Oktil Metoksisinamat Secara In Vitro*. Universitas Sumatera Utara.
- Desinta, T. (2015). Penentuan Jenis Tanin Secara Kualitatif dan Penetapan Kadar Tanin. *Jurnal Ilmiah Mahasiswa Universitas Surabaya*, 4(1), 1–10.
- Dewi, F. I. (2020). *Formulasi Dan Evaluasi Fisik Body Cream Ekstrak Ketan Hitam (Oryza sativa var. glutinosa) yang memiliki aktivitas antioksidan*. Universitas Buana Perjuangan Karawang.
- Donglikar, M. M., & Deore, S. L. (2016). Sunscreens: A review. *Pharmacognosy Journal*, 8(3), 171–179. <https://doi.org/10.5530/pj.2016.3.1>
- Dontha, S. (2016). A Review On Antioxidant Methods. *Asian Journal of Pharmaceutical and Clinical Research*, 9(2), 14–32.
- Dutra, E. A., Da Costa E Oliveira, D. A. G., Kedor-Hackmann, E. R. M., & Miritello Santoro, M. I. R. (2004). Determination of sun protection factor (SPF) of sunscreens by ultraviolet spectrophotometry. *Revista Brasileira de Ciencias Farmaceuticas/Brazilian Journal of Pharmaceutical Sciences*, 40(3), 381–385. <https://doi.org/10.1590/S1516-93322004000300014>
- Ebrahimzadeh, M. A., Enayatifard, R., Khalili, M., Ghaffarloo, M., Saeedi, M., & Charati, J. Y. (2014). Correlation between sun protection factor and antioxidant activity, phenol and flavonoid contents of some medicinal plants. *Iranian Journal of Pharmaceutical Research*, 13(3), 1041–1048.

<https://doi.org/10.22037/ijpr.2014.1554>

- Elmarzugi, N. A., Keleb, E. I., Mohamed, A. T., Issa, Y. S., Hamza, A. M., Layla, A. A., Salama, M., & Bentaleb, A. M. (2013). The Relation between Sunscreen and Skin Pathochanges Mini Review. *International Journal of Pharmaceutical Science Invention*, 2(7), 43–52.
- EPA. (2006). How Does UV Radiation Affect My Skin? What Are the Risks? *United States Environmental Protection Agency*, 3(5), 1–6.
- Epstein, M., Emri, I., Hartemann, P., Hoet, P., Leitgeb, N., Luis, Martínez, M., Proykova, A., Rizzo, L., Rodriguez-Farré, E., Rushton, L., Rydzynski, K., Samaras, T., Testai, E., & Vermeire, T. (2015). *Biological effects of ultraviolet radiation relevant to health with particular reference to sunbeds for cosmetic purposes*. European Commission.
- Ergina, Nuryanti S, P., & Pursitasari, I. (2014). Uji kualitatif senyawa metabolit sekunder pada daun palado (*Agave angustifolia*) yang diekstraksi dengan pelarut air dan etanol. *Jurnal Akademika Kimia*, 3(3), 165–172.
- Ermawati, D. E., Yugatama, A., & Wulandari, W. (2020). Uji Sifat Fisik, Sun Protecting Factor, dan *In vivo* ZnO Terdispersi dalam Sediaan Nanoemulgel. *Journal of Pharmaceutical Science and Clinical Research*, 5(1), 49. <https://doi.org/10.20961/jpscr.v5i1.31660>
- Etika, S. B., & Iryani. (2019). Isolation and Characterization of Flavonoids from Black Glutinous Rice (*Oryza sativa* L. Var Glutinosa). *Eksakta*, 20(2), 6–16. <https://doi.org/10.24036/eksakta/vol20-iss02/186>
- Fadilla, D. (2016). *Pengganti Tepung Terigu Dalam Pembuatan Brownies Kukus*. Sekolah Tinggi Pariwisata Bandung.
- Fageon, L., Moyal, D., Coutet, J., & Candau, D. (2009). Importance of sunscreen products spreading protocol and substrate roughness for *in vitro* sun protection factor assessment. *International Journal of Cosmetic Science*, 31(6), 405–418. <https://doi.org/10.1111/j.1468-2494.2009.00524.x>
- Fatmawaty, Anggreni, N. G. M., Fadhil, N., & Prasasty, V. D. (2019). Potential *in vitro* and *in vivo* Antioxidant Activities from *Piper crocatum* and *Persea americana* Leaf Extracts. *Biomedical and Pharmacology Journal*, 12(2), 661–

667. <https://doi.org/10.13005/bpj/1686>
- Febrianti, D. R., Mahrita, M., Ariani, N., Putra, A. M. P., & Noorcahyati, N. (2019). Uji Kadar Sari Larut Air Dan Kadar Sari Larut Etanol Daun Kumpai Mahung (*Eupatorium inulifolium* H.B.&K). *Jurnal Pharmascience*, 6(2), 19. <https://doi.org/10.20527/jps.v6i2.7346>
- Fonseca, & Rafaela, N. (2013). Health Care : Current Reviews Determination of Sun Protection Factor by UV-Vis Spectrophotometry. *Health Care Current Reviews*, 1(1), 1–4.
- Gallagher, R. P., Lee, T. K., Bajdik, C. D., & Borugian, M. (2010). Ultraviolet radiation. *Chronic Diseases and Injuries in Canada*, 29(Supplement 1), 51–68. <https://doi.org/10.24095/hpcdp.29.S1.04>
- Garson, G. D. (2012). Testing statistical assumptions. In *Asheboro: Statistical Associate Publishing*.
- Glover, B. J., & Martin, C. (2012). Anthocyanins. *Current Biology*, 22(5), 147–150. <https://doi.org/10.1016/j.cub.2012.01.021>
- Godar, D. (2005). UV Doses Worldwide. *Photochemistry and Photobiology*, 81(September), 736–749. <https://doi.org/10.1562/2004-09-07-ir-308>
- González, S., Fernández-Lorente, M., & Gilaberte-Calzada, Y. (2008). The latest on skin photoprotection. *Clinics in Dermatology*, 26(6), 614–626. <https://doi.org/10.1016/j.clindermatol.2007.09.010>
- Gorham, E. D., Mohr, S. B., Garland, C. F., Chaplin, G., & Garland, F. C. (2007). Do Sunscreens Increase Risk of Melanoma in Populations Residing at Higher Latitudes? *Annals of Epidemiology*, 17(12), 956–963. <https://doi.org/10.1016/j.annepidem.2007.06.008>
- Greenstone, M., & Fan, Q. (2019). Indonesia's Worsening Air Quality and its Impact on Life Expectancy. *Air Quality Life Index*, March, 1–10.
- Gruber, F., Peharda, V., Kaštelan, M., & Brajac, I. (2007). Occupational skin diseases caused by UV radiation. *Acta Dermatovenerologica Croatica*, 15(3), 191–198.
- Gunarti, N. S. (2017). Uji Pendahuluan Dan Karakterisasi Buah Kawista (*Limonia accidisima*) Khas Karawang. *Pharma Xplore : Jurnal Ilmiah Farmasi*, 2(2),

- 136–144. <https://doi.org/10.36805/farmasi.v2i2.502>
- Haerani, A., Chaerunisa, A., Yohana, & Subarnas, A. (2018). Artikel Tinjauan: Antioksidan Untuk Kulit. *Farmaka, Universitas Padjadjaran, Bandung*, 16(2), 135–151.
- Hanif, N., Al-Shami, A. M. A., Khalid, K. A., & Hadi, H. A. (2020). Plant-based skin lightening agents: A review. *The Journal of Phytopharmacology*, 9(1), 54–60. <https://doi.org/10.31254/phyto.2020.9109>
- Harborne, J. b. (1987). *Metode Fitokimia, Penuntun Cara Modern Menganalisa Tumbuhan* (Ed 2). Institut Teknologi bandung.
- Hashemi, Z., Ebrahimzadeh, M. A., & Khalili, M. (2019). Sun protection factor, total phenol, flavonoid contents and antioxidant activity of medicinal plants from iran. *Tropical Journal of Pharmaceutical Research*, 18(7), 1443–1448. <https://doi.org/10.4314/tjpr.v18i7.11>
- Hendriawan, F., Akhir, N., & Yusniwati, Y. (2019). Exploration and Characterization of Local Glutinous Rice Germplasm (*Oryza sativa* L. Var. Glutinosa) three Regencies in west Sumatra. *International Journal of Environment, Agriculture and Biotechnology*, 4(5), 1499–1504. <https://doi.org/10.22161/ijeab.45.33>
- Hidayati, P. R. (2017). *Perbedaan Aktivitas Antioksidan Pada Perendaman 1 Jam dan 2 Jam Ekstraksi Air Jamur Tiram (Pleorarius ostreatus)*.
- Hughes, N. M. (2009). *The Photoprotective Role Of Anthocyanin Pigments In Leaf Tissues* [Wake Forest university]. <http://dx.doi.org/10.1016/B978-0-12-849873-6>.
- Indrasari, S. D., Wibowo, P., & Purwani, E. E. Y. (2010). Evaluasi Mutu Fisik, Mutu Giling, dan Kandungan Antosianin Kultivar Beras Merah. *Jurnal Penelitian Pertanian Tanaman Pangan*, 29(1), 56–62. <http://pangan.litbang.pertanian.go.id/files/09-pp012010.pdf>
- Irawan, A. (2019). Kalibrasi Spektrofotometer Sebagai Penjaminan Mutu Hasil Pengukuran Dalam Kegiatan Penelitian Dan Pengujian. *Indonesian Journal of Laboratory*, 1(2), 1–9.
- Isfardiyana, S. H., & Safitri, S. R. (2014). Pentingnya melindungi kulit dari sinar

- ultraviolet dan cara melindungi kulit dengan sunblock buatan sendiri. *Jurnal Inovasi Dan Kewirausahaan*, 3(2), 126–133.
<https://journal.uui.ac.id/ajie/article/view/7819>
- Ismail, I. (2013). Potensi Bahan Alam sebagai Bahan Aktif Kosmetik Tabir Surya. *Jf Uinam*, 1(1), 45–55.
- Istyastono, E. P. (2016). Uji Statistik di Ilmu Farmasi dengan Program Statistika Komputasional R. In *Sanata Dharma University Press*.
- Katuuk, R. H., Wanget, S. A., & Tumewu, P. (2019). Pengaruh Perbedaan Ketinggian Tempat Terhadap Kandungan Metabolit Sekunder Pada Gulma Babadotan (*Ageratum Conyzoides* L.). *Cocos*, 1(4), 1–6.
- Kim, Y. J., & Cribbie, R. A. (2018). ANOVA and the variance homogeneity assumption: Exploring a better gatekeeper. *British Journal of Mathematical and Statistical Psychology*, 71(1), 1–12. <https://doi.org/10.1111/bmsp.12103>
- Kiswandono, A. A. (2017). Perbandingan Dua Ekstraksi Yang Berbeda Pada Daun Kelor (*Moringa Oleifera*, Lamk) Terhadap Rendemen Ekstrak Dan Senyawa Bioaktif Yang Dihasilkan. *Jurnal Sains Natural*, 1(1), 53.
<https://doi.org/10.31938/jsn.v1i1.13>
- Korać, R. R., & Khambholja, K. M. (2011). Potential of herbs in skin protection from ultraviolet radiation. *Pharmacognosy Reviews*, 5(10), 164–173.
<https://doi.org/10.4103/0973-7847.91114>
- Latha, M. S., Martis, J., Shobha, V., Shinde, R. S., Bangera, S., Krishnankutty, B., Bellary, S., Varughese, S., Rao, P., & Kumar, B. R. N. (2013). Sunscreening agents: A review. *Journal of Clinical and Aesthetic Dermatology*, 6(1), 16–26.
- Li, X., Wu, X., & Huang, L. (2009). Correlation between antioxidant activities and phenolic contents of *Radix Angelicae Sinensis* (Danggui). *Molecules*, 14(12), 5349–5361. <https://doi.org/10.3390/molecules14125349>
- Li, Y. W., & Chu, C. Y. (2007). The minimal erythema dose of broadband ultraviolet B in Taiwanese. *Journal of the Formosan Medical Association*, 106(11), 975–978. [https://doi.org/10.1016/S0929-6646\(08\)60071-6](https://doi.org/10.1016/S0929-6646(08)60071-6)
- Lourenço, S. C., Moldão-Martins, M., & Alves, V. D. (2019). Antioxidants of

- natural plant origins: From sources to food industry applications. *Molecules*, 24(22), 14–16. <https://doi.org/10.3390/molecules24224132>
- Mackie, R. M. (2000). Effects of ultraviolet radiation on human health. *Radiation Protection Dosimetry*, 91(1–3), 15–18. <https://doi.org/10.1093/oxfordjournals.rpd.a033186>
- Maulani, R. R., Sumardi, D., & Pancoro, A. (2019). Total flavonoids and anthocyanins content of pigmented rice. *Drug Invention Today* |, 12(2), 369–374.
- Mbanga, L., Mulenga, M., Mpiana, P. T., Bokolo, K., Mumbwa, M., & Mvingu, K. (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 (IJARCS)*, 1(8), 7–13. www.arcjournals.org
- Minerva, P. (2018). Hiperpigmentasi Kulit. *INA-Rxiv*, 68–70. <https://doi.org/https://osf.io/preprints/inarxiv/9awq6/>
- Mithal, A., Wahl, D. A., Bonjour, J.-P., Burckhardt, P., Dawson-Hughes, B., Eisman, J. A., El-Hajj Fuleihan, G., Josse, R. G., Lips, P., & Morales-Torres, J. (2009). Global vitamin D status and determinants of hypovitaminosis D. *Osteoporosis International*, 20(11), 1807–1820. <https://doi.org/10.1007/s00198-009-0954-6>
- Mohd Razali, N., & Bee Wah, Y. (2011). Power comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors and Anderson-Darling tests. *Journal of Statistical Modeling and Analytics*, 2(November), 21–33.
- Muchlisyyah, J., Prasmita, H. S., Estiasih, T., & Laeliocattleya, R. A. (2016). Sifat Fungsional Tepung Ketan Merah Prigelatinisasi. *Jurnal TEknologi Pertanian*, 17(3), 195–202.
- Mukhriani. (2014). Ekstraksi, Pemisahan senyawa, dan Identifikasi senyawa aktif. *Jurnal Kesehatan*, 7(2), 361–367. <https://doi.org/10.17969/agripet.v16i2.4142>
- Mumpuni, P. D., & Ayustaningwarno, F. (2014). Analisis Kadar Tokoferol, γ -Oryzanol Dan B-Karoten Serta Aktivitas Antioksidan Minyak Bekatul Kasar.

- Journal of Nutrition College*, 3(1), 90–97.
- Myllyvirta, L., Suarez, I., Uusivuori, E., Thieriot, H., & Data, K. (2020). *Pencemaran Udara Lintas Batas di provinsi Jakarta , Pencemaran Udara Lintas Batas*.
- Najib, A., Malik, A., Ahmad, A. R., Handayani, V., Syarif, R. A., & Waris, R. (2017). Standarisasi Ekstrak Air Daun Jati Belanda Dan Teh Hijau. *Jurnal Fitofarmaka Indonesia*, 4(2), 241–245. <https://doi.org/10.33096/jffi.v4i2.268>
- Nash, J. F., & Tanner, P. R. (2006). Sunscreens. In *Cosmetic Formulation of Skin Care Products* (Vol. 30, Issue 1, p. 136).
- Noer, S., & Pratiwi, R. D. (2016). Uji Kualitatif Fitokimia Daun Ruta angustifolia. *Faktor Exacta*, 9(3), 200–206.
- Noviyanty, Y., Hepiyansori, & Agustian, Y. (2020). Identifikasi dan penetapan kadar senyawa tanin pada kstrak daun biduri (*Calotropis gigantea*) metode spekktofotometri UV-Vis. *Jurnal Ilmiah Manuntung*, 6(1), 57–64.
- Nuramalina, P. W., Y, K. M., & Kodir, R. A. (2016). Karakterisasi Akar Wangi (*Vetiveria zizanioides* (L .) Nash) yang Ditanam di Dua Daerah Berbeda di Kawasan Kabupaten Garut. *Prosiding Farmasi*, 2(2), 393–399.
- Nyamai, D. W., Arika, W., Ogola, P. E., Njagi, E. N. M., & Ngugi, M. P. (2016). Medicinally Important Phytochemicals: An Untapped Research Avenue. *Research & Reviews: Journal of Pharmacognosy and Phytochemistry*, 4(1), 35–49. http://www.rroij.com/abstract.php?abstract_id=67696
- Ostertagová, E., & Ostertag, O. (2013). Methodology and Application of Oneway ANOVA. *American Journal of Mechanical Engineering*, 1(7), 256–261. <https://doi.org/10.12691/ajme-1-7-21>
- Pawar, R. K., Bhagure, G. R., & Chavan, R. P. (2016). Antioxidants and their role in nurture human life and industry: A review. *International Journal of Chemical Studies*, 4(3), 22–26.
- Perdani, A. Y., Mulyaningsih, E. S., & Paradisa, Y. B. (2018). Diversity of some Indonesia local glutinous rice (*Oryza sativa* l. var. glutinous) based on agromorphological and rapd markers. *Sabrao Journal of Breeding and Genetics*, 50(2), 85–100.

- Pietta, P. G. (2000). Flavonoids as antioxidants. *Journal of Natural Products*, 63(7), 1035–1042. <https://doi.org/10.1021/np9904509>
- Pirotta, G. (2016). An overview of sunscreen regulations in the world. *Household and Personal Care Today*, 10(August), 17–22.
- Poljšak, B., Jamnik, P., Raspor, P., & Pesti, M. (2019). Oxidation-antioxidation-reduction processes in the cell: Impacts of environmental pollution. *Encyclopedia of Environmental Health*, January 2016, 831–837. <https://doi.org/10.1016/B978-0-12-409548-9.11733-6>
- Pratama, W. A., & Zulkarnain, A. K. (2015). Uji Spf *In vitro* dan Sifat Fisik Beberapa Produk Tabir Surya Yang Beredar Di Pasaran. *Majalah Farmaseutik*, 11(1), 275–283.
- Prayoga, D. G. E., Nocianitri, K. A., & Puspawati, N. N. (2019). Identifikasi senyawa fitokimia dan aktivitas antioksidan ekstrak kasar daun pepe (*Gymnema reticulatum* Br.) pada berbagai jenis pelarut. *Junal Ilmu Dan Teknologi Pangan*, 8(2), 111–121.
- Prayudo, A. N., Novian, O., & Antaresti. (2015). Koefisien Transfer Massa Kurkumin dari Temulawak. *Jurnal Ilmiah Widya Teknik*, 14(1), 26–31.
- Puri, P., Nandar, S. K., Kathuria, S., & Ramesh, V. (2017). Effects of air pollution on the skin: A review. *Indian Journal of Dermatology, Venereology and Leprology*, 83(4), 415–423. <https://doi.org/10.4103/0378-6323.199579>
- Puspitasari, D. (2018). Pengaruh Metode Perebusan Terhadap Uji Fitokimia Daun Mangrove *Excoecaria agallocha*. *Jurnal Penelitian Pendidikan Sosial Humaniora*, 3(2), 423–428. <https://doi.org/10.29103/aa.v6i1.1046>
- Qu, X., Zhao, X., & Chen, Z. (2016). A new *in vitro* method to determine sun protection factor. *Journal of Cosmetic Science*, 67(2), 101–108.
- Rahim, A., Arjuna, A., Pakki, E., Syaiful, S. A., Rewa, A. M., Alam, G., & Murdifin, M. (2016). Antioxidant and HPTLC study of black glutinous rice extract from south Sulawesi Indonesia. *International Journal of Pharmacognosy and Phytochemical Research*, 8(5), 771–776.
- Rantika, N., Sriarumtias, F. F., Amalia, N., & Nurhabibah. (2019). Formulation and physical stability test of peel-off gel mask from sticky rice (*Oryza sativa* L.

- glutinosa) as antioxidant. *Jurnal Ilmiah Farmako Bahari*, 10(1), 65–75.
- Rasyda, R. Z., Muhandri, T., & Budijanto, S. (2020). Profil Gelatinisasi Dan Komponen Antioksidan Tepung Ketan Hitam Termodifikasi Dengan Annealing. *Jurnal Teknologi Dan Industri Pangan*, 31(2), 164–170. <https://doi.org/10.6066/jtip.2020.31.2.164>
- Ratnani, R. D., Hartati, I., Anas, Y., Endah, D., & Khilyati, D. D. D. (2015). Standardisasi Spesifik dan Non Spesifik Ekstraksi Hidrotropi Andrographiloid dari Sambiloto (*Andrographis paniculata*). *Prosiding Farmasi*, 10(2), 3.
- Ria, P., & Aminin, A. L. N. (2018). Jurnal Kimia Sains dan Aplikasi Antioxidant from Turmeric Fermentation Products (*Curcuma longa*) by *Aspergillus Oryzae*. *Jurnal Kimia Sains Dan Aplikasi*, 21(1), 13–18.
- Ridho, E. Al. (2014). Uji Aktivitas Antioksidan Ekstrak Metanol Buah Lakum Dengan Metode Dpph (2,2-Difenil-1-Pikrilhidrazil). *Jurnal Mahasiswa Farmasi Fakultas Kedokteran UNTAN*, 1(1), 1–10.
- Rohaeni, W. R., & Hastini, T. (2015). *Inventarisasi padi lokal di Kawasan Ciater, Subang, Provinsi Jawa Barat*. 1(April), 189–193. <https://doi.org/10.13057/psnmbi/m010204>
- Rompas, R. A., Edy, H. J., & Yudistira, A. (2012). Isolasi Dan Identifikasi Flavonoid Dalam Daun Lamun (*Syringodium Isoetifolium*). *Pharmacon*, 1(2), 59–63. <https://doi.org/10.1088/1751-8113/44/8/085201>
- Rosidah, & Tjitraresmi, A. (2017). Potensi Tanaman Melastomataceae Sebagai Antioksidan : Review. *Farmaka*, 16(1), 24–33.
- Sadeli, R. A. (2016). *Uji Aktivitas Antioksidan Dengan Metode DPPH (1,1-diphenyl-2-picrylhydrazyl) Ekstrak Bromelain Buah Nanas (Ananas comosus (L.) Merr.)*. Universitas Sanata Dharma.
- Saewan, N., & Jimtaisong, A. (2013). Photoprotection of natural flavonoids. *Journal of Applied Pharmaceutical Science*, 3(9), 129–141. <https://doi.org/10.7324/JAPS.2013.3923>
- Salehi, B., Martorell, M., Arbiser, J. L., Sureda, A., Martins, N., Maurya, P. K., Sharifi-Rad, M., Kumar, P., & Sharifi-Rad, J. (2018). Antioxidants: Positive

- or negative actors? *Biomolecules*, 8(4), 1–11. <https://doi.org/10.3390/biom8040124>
- Santos, E. P., Freitas, Z. M., Souza, K. R., Garcia, S., & Vergnanini, A. (1999). *In vitro* and *in vivo* determinations of sun protection factors of sunscreen lotions with octyl methoxycinnamate. *International Journal of Cosmetic Science*, 21(1), 1–5. <https://doi.org/10.1046/j.1467-2494.1999.181658.x>
- Sarker, S. D., Latif, Z., & Gray, A. I. (2006). Natural Products Isolation, 2nd Edition (Methods in Biotechnology, Vol. 20). In *Journal of Natural Products* (2nd ed., Vol. 70, Issue 4). Humana Press. <https://doi.org/10.1021/np078142v>
- Sayre, R. M., Agin, P. P., LeVee, G. J., & Marlowe, E. (1979). A Comparison Of *In vivo* And *In vitro* Testing Of Sunscreening Formulas. *Photochemistry and Photobiology*, 29(3), 559–566. <https://doi.org/10.1111/j.1751-1097.1979.tb07090.x>
- Sayuti, K., & Yenrina, R. (2015). *Antioksidan Alami dan Sintetik*.
- Schalka, S., Steiner, D., Ravelli, F. N., Steiner, T., Terena, A. C., Marçon, C. R., Ayres, E. L., Addor, F. A. S., Miot, H. A., Ponzio, H., Duarte, I., Neffá, J., da Cunha, J. A. J., Boza, J. C., Samorano, L. D. P., Corrêa, M. D. P., Maia, M., Nasser, N., Ribeiro Leite, O. M. R., de Almeida Rego, V. R. P. (2014). Brazilian consensus on photoprotection. *Anais Brasileiros de Dermatologia*, 89(6), 1–74. <https://doi.org/10.1590/abd1806-4841.20143971>
- Shanbhag, S., Nayak, A., Narayan, R., & Nayak, U. Y. (2019). Anti-aging and Sunscreens: Paradigm Shift in Cosmetics. *Advanced Pharmaceutical Bulletin*, 9(3), 348–359. <https://doi.org/10.15171/apb.2019.042>
- Simaremare, E. S. (2014). Skrining Fitokimia Ekstrak Etanol Daun Gatal (*Laportea decumana* (Roxb.) Wedd). *Pharmacy*, 11(01), 98–107.
- SNI. (1996). Sediaan Tabir Surya. In *Dewan Standardisasi Nasional* (Vol. 16, Issue 4399, pp. 1–3).
- So, V., Pocasap, P., Sutthanut, K., Sethabouppha, B., Thukhammee, W., Wattanathorn, J., & Weerapreeyakul, N. (2020). Effect of harvest age on total phenolic, total anthocyanin content, bioactive antioxidant capacity and antiproliferation of black and white glutinous rice sprouts. *Applied Sciences*

- (Switzerland), 10(20), 1–17. <https://doi.org/10.3390/app10207051>
- Sriningsih. (2008). Analisa Senyawa Golongan Flavonoid Herba Tempuyung (*Sonchus arvensis* L.). *Pusat P2 Teknologi Farmasi Dan Medika Deputi Bidang TAB BPPT. Fakultas Farmasi Universitas Pancasila*, 1, 4.
- Sudirman, A. (2013). *Uji Efek Gastroprotektif Ekstrak Beras Ketan Hitam (Oryza sativa Linn. var. glutinosa)*. Universitas Hasanuddin Makasar.
- Suhartatik, N., Nur Cahyanto, M., Raharjo, S., & S. Rahayu, E. (2013). Aktivitas Antioksidan Antosianin Beras ketan Hitam Selama Fermentasi. *Jurnal Teknologi Dan Industri Pangan*, 24(1), 115–119. <https://doi.org/10.6066/jtip.2013.24.1.115>
- Suharti, T. (2017). *Dasar-Dasar Spektrofotometri UV-VIS dan Spektrofotometri Massa Untuk Penentuan Struktur Senyawa Organik*. CV. Anugrah Utama Raharja.
- Suhery, W. N., Fernando, A., & Has, N. (2016). Uji Aktivitas Antioksidan Dari eksreak Bekatul Padi Ketan Merah dan Hitam (*Oryza sativa* var. *glutinosa*) dan Formulasinya Dalam Sediaan Krim. *Pharmacy*, 13(1), 1–8.
- Tjitraresmi, A., Moektiwardoyo, M., & Susilawati, Y. (2020). Inhibition of Heme Polymerization Invitro Assay Of Extract of Sirih Leaf (*Piper betle* Linn.) and Sun Flower Leaves (*Helianthus annuus* L.). *Indonesian Journal of Pharmaceutical Science and Technology*, 7(1), 22. <https://doi.org/10.24198/ijpst.v7i1.25319>
- Utami, Y. P., Umar, A. H., Syahrini, R., & Kadullah, I. (2017). Standardisasi Simplisia dan Ekstrak Etanol Daun Leilem (*Clerodendrum minahassae Teijsm. & Binn.*). *Journal of Pharmaceutical and Medicinal Sciences*, 2(1), 32–39.
- White, I. R., & Groot, A. C. de. (1992). Cosmetics and Skin Care Products. In *Textbook of Contact Dermatitis* (Textbook o, pp. 459–475). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-662-13119-0_23
- Widyasanti, A., Rohdiana, D., & Ekatama, N. (2016). Aktivitas Antioksidan Ekstrak Teh Putih (*Camellia sinensis*) dengan Metode DPPH (2,2 Difenil-1-Pikrilhidrazil). *Journal Fortech*, 1(1), 2016. <http://ejournal.upi.edu/index.php>

- Widyawati, E., Ayuningtyas, N. D., & Pitarisa, A. P. (2019). Penentuan Nilai Spf Ekstrak Dan Losio Tabir Surya Ekstrak Etanol Daun Kersen (*Muntingia Calabura L.*) Dengan Metode Spektrofotometri Uv-Vis. *Jurnal Riset Kefarmasian Indonesia*, 1(3), 189–202. <https://doi.org/10.33759/jrki.v1i3.55>
- Wilson, B. D., Moon, S., & Armstrong, F. (2012). Comprehensive review of ultraviolet radiation and the current status on sunscreens. *The Journal of Clinical and Aesthetic Dermatology*, 5(9), 18–23. <http://www.ncbi.nlm.nih.gov/pubmed/23050030>
- Winarsi, H. (2007). *Antioksidan Alami dan Radikal Bebas*. Kanisius.
- Wulansari, A. N. (2018). Alternatif Cantigi Ungu (*Vaccinium varingiaefolium*) sebagai Antioksidan Alami: Review. *Farmaka*, 16(2), 419–429. <http://jurnal.unpad.ac.id/farmaka/article/view/17574>
- Yanlinastuti, & Fatimah, S. (2016). Pengaruh Konsentrasi Pelarut untuk Menentukan Kadar Zirkonium dalam Paduan U-Zr dengan Menggunakan Metode Spektrofotometri UV-VIS. *PIN Pengelolaan Instalasi Nuklir*, 1(17), 22–33.
- Yanti Eff, A. R., Rahayu, S. T., Saraswati, H., & Mumim, A. (2019). Formulation and Evaluation of Sunscreen Gels Containing Mangiferin Isolated from *Phaleria macrocarpa* Fruits. *International Journal of Pharmaceutical Investigation*, 9(3), 141–145. <https://doi.org/10.5530/ijpi.2019.3.26>
- Yudha, S. W. (2017). Air Pollution and Its Implications for Indonesia. *Air Quality Asia*, April, 1–17.
- Yuniar, M. I., Titik, L., & Indri, D. K. (2018). Identifikasi Kualitatif Senyawa Terpenoid Ekstrak N - Heksana Sediaan Losion Daun Jeruk Purut (*Citrus hystris DC*). *Jurnal Kebidanan Dan Kesehatan Tradisional*, 3(1), 40–32.
- Zainol, M. K. M., Abdul-Hamid, A., Bakar, F. A., & Dek, S. P. (2009). Effect of different drying methods on the degradation of selected flavonoids in *Centella asiatica*. *International Food Research Journal*, 16(4), 531–537.
- Zarkogianni, M., & Nikolaidis, N. (2016). Determination of Sun Protection Factor (SPF) and Stability of Oil-in-Water Emulsions Containing Greek Red Saffron (*Crocus Sativus L.*) as a Main Antisolar Agent. *International Journal of*

Advanced Research in Chemical Science, 3(7), 1–7.
<https://doi.org/10.20431/2349-0403.0307001>

Zheng, T., Javier, H., Cheng, J., & Hui, D. P. (2016). *Exploiting the photoprotection capabilities of anthocyanin for human use* (p. 4). NUS High School.
<https://doi.org/231631086>

Zulharmitta, Elrika, D., & Rivai, H. (2010). Penentuan Pengaruh Jenis Pelarut Ekstraksi Terhadap Perolehan Kadar Senyawa Fenolat Dan Daya Antioksidan Dari Herba Miniran (*Phyllanthus niruri* L.). *Jurnal Farmasi Higea*, 2(1), 37–45.

