

DAFTAR PUSTAKA

- Artanti, N., Ma'arifa, Y., and Hanafi, M. 2006. Isolation and identification of active antioxidant compound from star fruit (*Averhoa carambola*) mistletoe (*Dendrophthoe pentandra* (L.) Miq.) ethanol extract. *Journal of Applied Science*. 6(8): 1659–1663.
- Backer, A., and Van Den Brink B. 1965. Flora of Java (Spermatophytes Only). Volume 1. *The Netherlands: N.V.P Noordhoff-Groningen*.
- Bezerra, M.R., Santelli, E., and Oliveira. 2008. *Response surface methodology* (RSM) as a tool for optimization in analytical chemistry. *Talanta*, 76(5), pp. 965–977.
- Biancolillo, A., and Marini, F. 2018. Chemometric methods for spectroscopy-based pharmaceutical analysis. *Frontiers in Chemistry*. 6:576.
- Ćujić, N., Šavikin, K., Janković, T., Pljevljakušić, D., Zdunić, G., and Ibrić, S. 2016. Optimization of polyphenols extraction from dried chokeberry using maceration as traditional technique. *Food chemistry*, 194, 135-142.
- Dachriyanus. 2004. *Analisis Struktur Senyawa Organik Secara Spektroskopi*. Lembaga Pengembangan Teknologi Informasi dan Komunikasi. Andalas.
- Darusman, I. L. K., & Batubara, I. 2019. *Domestikasi Buah Merah*. PT Penerbit IPB Press. Bogor.
- Day, R. A., & Underwood, A. L. 2002. *Analisis Kimia Kuantitatif* Edisi Keenam. Jakarta: Erlangga.
- Dahlia, A. A., dan Ahmad, A. R. 2014. Penetapan kadar flavonoid total dari ekstrak etanolik daun mangga (*Dendrophthoe pentandra* L. Mic). *Jurnal Fitofarmaka Indonesia*, 1 (1)
- Diba, M.F., Salni and Subanddrate. 2019. Uji Sitotoksik Ekstrak dan Fraksi *Dendrophthoe pentandra* (L) Miq pada Sel T47D. *Jurnal Kimia Sains dan Aplikasi*. 22 (3) (2019):73-78
- Fitrilia T, Bintang M, Safithri M. 2017. Inhibisi Enzim A-Glukosidase Menggunakan Ekstrak Daun Benalu Cengkeh (*Dendrophthoe pentandra* (L.) Mic). *Jurnal Agroindustri Halal*. Apr 16;3(1):41–7.
- Hahn-Deinstrop, E. 2007. *Applied Thin-Layer Chromatography: Best Practice and Avoidance of Mistakes*. John Wiley & Sons.

- Halliwell, B and J.M.C. Gutteridge. 1984. Oxygen toxicity, oxygen radicals, transition metals and disease. *Biochem. J.*, 219 : 1-4
- Hanani, Endang. 2015. *Analisis Fitokimia*. EGC. Jakarta.
- Hardiyanti, R., Marpaung, L., Adnyana, I.K., dan Simanjuntak, P. 2019. Isolation of quarcitrin from *Dendrophthoe pentandra* (L.) Miq Leaves and it's Antioxidant and Antibacterial Activities. *Rayasan J. Chem.* 12 (4) 1822-1827.
- Ikawati, M., Wibowo, A.E., Octa, N.S. Adelina, R. 2008. Pemanfaatan benalu sebagai agen antikanker. *In International Seminar of Indonesia-Malaysia Update*.
- Kementrian Kesehatan RI. 2017. *Farmakope Herbal Indonesian*. Edisi 2. Kemenkes RI. Jakarta.
- Kristiningrum, Nia., Ridlo, Muhammad., and Pratoko, Dwi Koko. 2020. Phytochemical screening and determination of total phenolic content of *Dendrophthoe pentandra* L. leaves ethanolic extract on mango host. *Ann Trop & Public Health*; S468 Vol. 23 Issue 3(A): 98–107
- Kurniasari, I. 2006. Metode Cepat Penentuan Flavonoid Total Meniran (*Phyllanthus Niruri* L.) Berbasis Teknik Spektrofotometri Inframerah dan Kemometrik. Skripsi Program Studi Kimia, Institut Pertanian Bogor. Bogor.
- Lazuardi, M., and Hermanto, B. 2016. LC ESI-MS and FT-IR Analysis of *Dendrophthoe pentandra* L. Miq Leaf Methanolic Extracts to Identify Compound with Progesterone-Like Effects. *Journal of Nutrition.* 15 (3) : 174-282
- Liu, Z., Li, H., Qi, Y., Zhu, Z., Huang, D., Zhang, K., Pan, J., Wen, L., dan Zou, Z. 2021. Cinnamomum camphora leaves as a source of proanthocyanidins separated using microwave-assisted extraction method and evaluation of their antioxidant activity in vitro. *Arabian Journal of Chemistry*, 1-12.
- Maulida, R., Kartika, R., dan Simanjuntak, P. 2016. Isolasi dan identifikasi senyawa kimia dari ekstrak n-heksan batang benalu tanaman jeruk (*Dendrophthoe Pentandra* L. Miq). *Jurnal kimia Mulawarman.* 14(1).
- Mulia, H.M. 2006. *Teknik Kromatografi (KLT, GC, KCKT, GC-MS, LC-MS, ICP-MS, GC/FT-IR/MS)*. Pusat Laboratorium Forensik Mabes Polri. Hal. 4,11
- Muti'ah, R., Burhan, M.Z.A., Bhagawan, W.S. & Amalia, O.M. 2017. Toxicity Test of Ethanol Extract 96% Malayan Mistletoe Leaf (*Dendrophthoe*

- pentandra*) from Various Regions in Indonesia Against Vero Cells. *Proceeding of International Conference on Green Technology*, 8(1), 358-362.
- Mukhtarini, 2011. Ekstraksi, pemisahan senyawa, dan identifikasi senyawa aktif. *J. Pharm.* VII, 361.
- Mochamad, L., Hermanto, B., Hestianah, E.P., Determination of progesterone compounds in the crude methanol extract of benalu duku leaves. *Veterinary World*. 2019; 12(3): 358–366.
- Najib, A. 2018. *Ekstraksi Senyawa Bahan Alam*. Penerbit Deepublish. Yogyakarta
- Nirwana, A.P., Astirin, O.P., dan Widiyani, T. 2015. Skrining Fitokimia Ekstrak Etanol Daun Benalu Kersen (*Dendrophthoe pentandra* L. Miq.). *EL-VIVO*. 3(2):9 – 15.
- Nurfaat, D. & Indriyanti, W. 2016. Uji Toksisitas Akut Ekstrak Etanol Benalu Mangga (*Dendrophthoe pentandra*) Terhadap Mencit Swiss Webster. *Indonesian Journal of Pharmaceutical Science & Toxicology (IJPST)*, Vol. 3(2).
- Nuhidayat & Saati, E.A. 2006. Membuat pewarna alami. *Trubus agrisarana*. Surabaya
- Paiman. 2019. *Teknik Analisis Korelasi dan Regresi Ilmu-Ilmu Pertanian*. Penerbit UPY Press. Yogyakarta.
- Pinzon, I. A., Razal, R., and Mendosa, R. 2020. Parametric study on microwave-assisted extraction of runo (*Miscanthus sinensis* Andersson) dye and its application to paper and cotton fabric. *Biotechnology Reports*, 1-8.
- Pourmortazavi, S.M., Nasrabadi, M.R., Hajimirsadeghi, S.S. 2014. Supercritical Fluid Technology in Analytical Chemistry-Review. *Current Analytical Chemistry*, 10(1), 3 – 28.
- Prayoga, T., & Lisnawati, N. 2020. *Ekstrak Etanol Daun Iler (Coleus atropurpureus [L.] Benth)*. Jakad Media Publishing. Surabaya.
- Reveny, J. 2011. Daya Antimikroba Ekstrak dan Fraksi Daun Sirih Merah (*Piper betle* L.). Fakultas Farmasi Universitas Sumatra Utara. *Jurnal Ilmu Dasar* .Vol.12 No.1. hal 6-12.
- Rohman, A. 2009. *Kromatografi Untuk Analisis Obat*. Graha Ilmu. Yogyakarta. Hal. 112-120

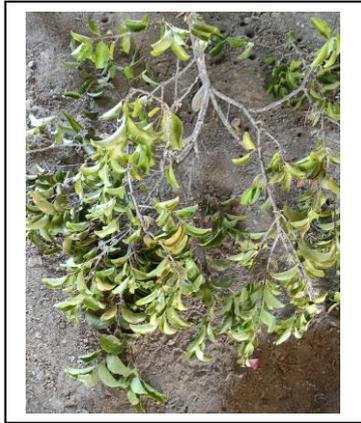
- Sandika, N. 2017. *Keanekaragaman Tumbuhan Benalu Pada Mangga Podang (Mangifera indica L) Di Kecamatan Mojo Kabupaten Kediri*. Universitas Nusantara PGRI Kediri. Kediri.
- Sinulingga, S., Subandrate, S., Safyudin, S. 2020. Uji Fitokimia dan Potensi Antidiabetes Fraksi Etanol Air Benalu Kersen (*Dendrophthoe pentandra* (L) Miq). *J. Kedokt. dan Kesehat.* 16, 76.
- Sherma, J., & Fried, B. (Eds.). 2003. *Handbook of Thin-Layer Chromatography*. CRC press.
- Sriwahyuni, I. 2010. Uji Fitokimia Ekstrak Tanaman Anting-Anting (*Acalypha Indica* Linn) dengan Variasi Pelarut dan Uji Toksisitas Menggunakan Brine Shrimp (*Artemia salina* Leach). *Fakultas Sains dan Teknologi Universitas Islam Negeri Maulana Malik Ibrahim Malang*.
- Salisova, M., Toma, S., dan Mason, T.J., 1997. *Comparison of conventional and ultrasonically assisted extractions of pharmaceutically active compounds from Salvia officinalis.*, 4(2), 131–134.
- Suhartati, T. 2017. *Dasar-Dasar Spektrofotometri UV-Vis dan Spektrometri Massa untuk Penentuan Struktur Senyawa Organik*. Anugrah Utama Raharja (AURA). Bandar Lampung.
- Sholihah, M., Ahmad, U., Budiastara, I.W., 2017. Aplikasi Gelombang Ultrasonik untuk Meningkatkan Rendemen Ekstraksi dan Efektivitas Antioksidan Kulit Manggis. *JTEP J. Keteknikaan Pertan.* 5, 161–168.
- Tarigan, J.B., C.F. Zuhra, and H. Sihotang. 2008. Skrining Fitokimia Tumbuhan Yang Digunakan Oleh Pedagang Jamu Gendong Untuk Merawat Kulit Wajah di Kecamatan Medan Baru. *Jurnal Biologi Sumatera.* 3 (1) : 1-6.
- Yasni, S. 2013. *Teknologi Pengolahan dan Pemanfaatan Produk Ekstraktif Rempah*. PT Penerbit IPB Press. Bogor
- Yee, L.S., Fauzi, N.F.M., Najihah, N.N., Daud, N.M., and Sulain, M.D. 2017. Study of *Dendrophthoe Pentandra* Ethyl Acetate Extract as Potential Anticancer Candidate on Safety and Toxicity Aspects. *J Anal Pharm Res* 6(1): 00167.
- Yulianti, R.R., Dahlia, A.A., Ahmad, A.R. 2016. Penetapan Kadar Flavonoid Total Dari Ekstrak Etanolik Daun Benalu Mangga (*Dendrophthoe pentandra* L. Miq). *J. Fitofarmaka Indones.* 1, 14–17.
- Zou, Tang-Bin., Xia, En-Qin., He, Tai-Ping., Huang, Ming-Yuan., Jia, Qing., and Li, Hua-Wen. 2014. Ultrasound-Assisted Extraction of

Mangiferin from Mango (*Mangifera indica* L.) Leaves Using Response Surface Methodology. *Molecules*, 19(2), 1411–1421.

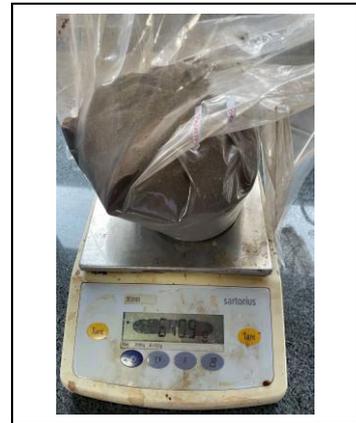
Zhang, Q. W., Lin, L. G., & Ye, W. C. 2018. Techniques for Extraction and Isolation of Natural Products: A Comprehensive Review. *Chinese medicine*, 13(1), 1-26.

LAMPIRAN

Lampiran 1. Dokumentasi Kegiatan



Gambar 1. Pengambilan Sampel



Gambar 2. Penimbangan Simplisia



Gambar 3. Pencucian Sampel



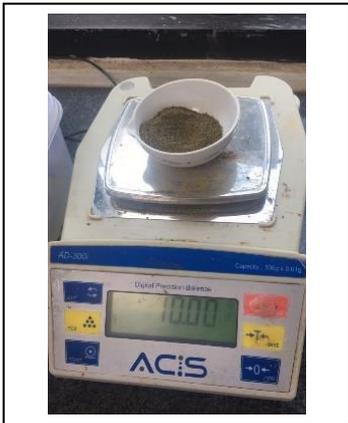
Gambar 4. Pengeringan Sampel



Gambar 5. Penghalusan Sampel



Gambar 6. Pengayakan Simplisia



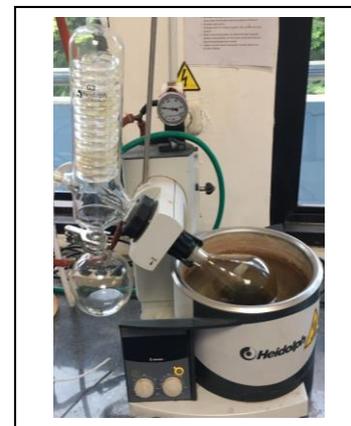
Gambar 7. 10 mg Simplisia



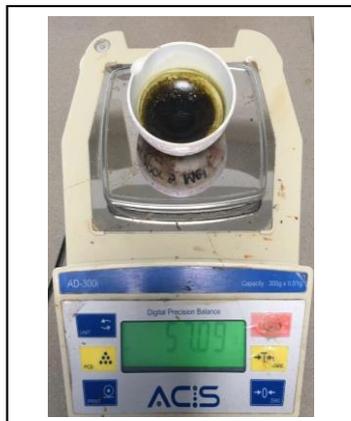
Gambar 8. Proses Ekstraksi UAE



Gambar 9. Penyaringan Hasil Ekstraksi



Gambar 10. Penguapan Ekstrak Cair Menggunakan rotary evaporator



**Gambar 11. Timbang
Bobot Ekstrak**



**Gambar 12. Analisis
Spektrofotometri UV-Vis**

Lampiran 2. Perhitungan

1. Rendemen hasil ekstraksi dengan UAE

$$\begin{aligned}\text{Rendemen (\%)} &= \frac{\text{Berat ekstrak (g)}}{\text{Berat Simplisia (g)}} \times 100 \% \\ &= \frac{0,89 \text{ g}}{10 \text{ g}} \times 100 \% \\ &= 8,9\%\end{aligned}$$

2. Kadar Flavonoid Total Spektrofotometri UV-Vis

$$\text{Kadar} = \frac{x.v.f.p}{g}$$

$$\text{Kadar} = \frac{4,589.0,005.10}{0.0102}$$

$$\text{Kadar} = 22,945 \mu\text{g/mg}$$