

DAFTAR PUSTAKA

- Adgaba, N.; Al-Ghamdi, A.; Tadesse, Y.; Getachew, A.; Awad, A. M.; Ansari, M. J.; Owayss, A. A.; Mohammed, S. E. A.; and Alqarni, A. S. 2017. Nectar Secretion Dynamics and Honey Production Potentials of Some Major Honey Plants in Saudi Arabia. *Saudi Journal of Biological Sciences* 24, 180–191.
- Aminah, Tomayahu, N, dan Abidin, Z. 2016. Penetapan Kadar Flavonoid Total Ekstrak Etanol Kulit Buah Alpukat (*Persea Americana* Mill.) dengan Metode Spektrofotometri UV-Vis. *Jurnal Fitofarmaka Indonesia* Vol. 4 No.2.
- Alotibi, I. A.; Harakeh, S. M.; Al-Mamary, M.; Mariod, A. A.; Al-Jaouni, S. K.; Al-Masaud, S.; Alharbi, M. G.; Al-Hindi, R. R. 2018. Floral Markers and Biological Activity of Saudi Honey. *Saudi Journal of Biological Sciences* 25, 1369–1374.
- Amiot, M.-J.; Fleuriot, A.; and Macheix, J.-J. 1989. Accumulation of Oleuropein Derivatives during Olive Maturation. *Phytochemistry* 28, 67–69.
- Anonim. 2009. Infrared Spectroscopy (IR). in: *Spectroscopy in a Suitcase*, (Ed.) R.S.o. Chemistry, Rosal Society of Chemistry.
- Anjos, O., Campos, M. G., Ruiz, P. C., and Antunes, P. 2015. Application of FTIR-ATR Spectroscopy to the Quantification of Sugar in Honey. *Food Chemistry* 169 (2015) 218–223.
- Aumeeruddy, M. Z.; Aumeeruddy-Elalfi, Z.; Neetoo, H.; Zengin, G.; Blom van Staden, A.; Fibrich, B.; Lambrechts, L. A.; Rademan, S.; Szuman, K. M.; Lall, N.; and Mahomoodally, F. 2019. Pharmacological Activities, Chemical Profile, and Physicochemical Properties of Raw and Commercial Honey. *Biocatalysis and Agricultural Biotechnology* 18, 101005.
- Ayestaran, A., Giurfa, M., de Brito Sanchez, M.G., 2010. Toxic but Drank: Gustatory Aversive Compounds Induce Post-ingestional Malaise in Harnessed Honeybees. *PLOS ONE* 5, e15000.
- Babu, R. H. and Savithramma, N. 2013. Phytochemical screening of underutilized species of Poaceae. *An International Journal*, 1 (10), 947-951.
- Badan Standardisasi Nasional (BSN). 2004. *Madu*. SNI 01-3545-2004.
- Barth, A. 2006. Protein Structures: Methods in Protein Structure and Stability Analysis. *Nova Science Publishers*.
- Barth, A. 2007. Infrared Spectroscopy of Proteins. *Biochimica et Biophysica Acta* 1767: 1073-1101.
- Boussaid, A.; Chouaibi, M.; Rezig, L.; Hellal, R.; Donsi, F.; Ferrari, G.; and Hamdi, S. 2018. Physicochemical and Bioactive Properties of Six Honey Samples from Various Floral Origins from Tunisia. *Arabian Journal of Chemistry*, 11, 265–274.

- Campos, M. G. R., Bogdanov, S., de Almeida-Muradian, L. B., Szczesna, T., Mancebo, Y., Frigerio, C., and Ferreira, F. 2008. Pollen Composition and Standardisation of Analytical Methods. *Journal of Apicultural Research and Bee World* 47(2):156-163.
- Chan, C. W.; Deadman, B. J.; Manley-Harris, M.; Wilkins, A. L.; Alber, D. G.; and Harry, E. 2013. Analysis of the Flavonoid Component of Bioactive New Zealand Mānuka (*Leptospermum scoparium*) Honey and the Isolation Characterisation and Synthesis of an Unusual Pyrrole. *Food Chemistry* 141 (2013) 1772–1781.
- Dachriyanus. 2004. *Analisis Struktur Senyawa Organik secara Spektroskopi*. Lembaga Pengembangan Teknologi Informasi dan Komunikasi (LPTIK) Universitas Andalas. Padang.
- Davis, O. K. 1999. Pollen and Other Microfossils in Pleistocene Speleothems, Kartchner Caverns, Arizona. *Journal of Cave and Karst Studies* 61 (2): 89-92.
- de Brito Sanchez, M.G., et al. 2015. Learning context modulates aversive taste strength in honey bees. *The Journal of Experimental Biology*, 218(6): p. 949-959.
- Demske, D., Tarsov, P. E., Nakagawa, T., and Suigetsu 2006 Projects Members. 2013. Atlas of Pollen, Spores, and Futher Non-Pollen Palynomorphs Recorded in the Glacial-Interglacial Late Quaternary Sediments of Lake Suigetsu, Central Japan. *Quaternary International* 290-291: 164-238.
- Devi, A., Jangir, J., and K. A., A. 2018. Chemical Characterization Complemented with Chemometrics for the Botanical Origin Identification of Unifloral and Multifloral Honeys from India. *Food Research International* 107: p. 216–226.
- Donarski, J.A., et al., 2010. Identification of botanical biomarkers found in Corsican honey. *Food Chemistry*. Vol. 118(4): p. 987-994.
- Erdtman, G. 1952. *Pollen Morphology and Plant Taxonomy Angiospermae (An Introduction to Palinology I)*. The Chronica Botanica Co. Waltham. Mass. USA.
- Esau, K. 1953. *Plant Anatomy*. 2nd Edition. John Willey and Sons Inc., New York, London, Sydney.
- Escuredo, O., Míguez, M., Fernández-González, M., Carmen Seijo, M., 2013. Nutritional value and antioxidant activity of honeys produced in a European Atlantic area. *Food Chem.* 138, 851-856.
- Faegri, K and J. Iversen. 1989. *Textbook of Pollen Analysis*. 4th Edition (revised by Faegri, K., K. Kaland and P.E. Krzywinski) John Wiley & Sons Ltd Chichester.
- Fahn, A. 1991. *Anatomi Tumbuhan* (Diterjemahkan oleh Ahmad Soedarto, Trenggono Koesoemaningrat, dll). Gadjah Mada University Press, Yogyakarta.
- Fourier, A. J. 2007. *Avec l'aimable autorisation de Rolland Douzet*, dalam <http://orchidees-alsace.hautetfort.com/lexique-de-botanique.html> diakses pada 2 Desember 2015 pukul 10.49 WIB

- Garwood, N. C. dan C. C. Horvits. 1985. Factors Limiting Fruits dan Seed Production of a Temperate Shrub, *Staphylea Trifolia* L. (Staphyleaceae). *Amer. J. Scien.* 50: 91-96.
- Gosling, W. D., Charlotte, S. M., and Daniel, A. L. 2013. Atlas of the Tropical West African Pollen Flora. *Review of Paleobotany and Palynology* 199:1-135.
- Guo, P., Q. Deng, and Q. Lu. 2019. Anti-alcoholic effects of honeys from different floral origins and their correlation with honey chemical compositions. *Food Chemistry*, Vol 286 p. 608-615.
- Hasanuddin. 2011. *Penentuan Viabilitas Polen dan Reseptif Stigma pada Melon (Cucumis melo L.) serta Hubungannya dengan Penyerbukan dan Produksi Buah*. Biologi FKIP. Aceh.
- Herminingsih, A. 2010. *Manfaat Serat dalam Menu Makanan*. Universitas Mercu Buana, Jakarta.
- Heslop-Harrison, J. dan Y. Heslop-Harrison. 1970. Evaluation of Pollen Viability by Enzymatically Induced Fluorescence; Intracellular Hydrolysis of Florescein Diacetate. *Stain Technology*. 45 (1): 115-120.
- Kafelas, P., Gotsiou, P., dan Chougou, N. 2001. Contribution to the identification of Greek honey, in International Honey Commission: Athens.
- Kapp, R. O. 1969. *How to Know Pollen and Spores*. W. M. C. Brown Company Publishers Dubuque. Lowa.
- Kasprzyk, I., Depciuch, J., Grabek-Lejko, D., and Parlinska-Wojtan. 2018. FTIR ATR DIAMOND-ATR Spectroscopy of Pollen and Honey as a Tool for Unifloral Honey Authentication. The Case Study of Rape Honey. *Food Control* 84: 33-40.
- Kavanagh, S., Gunnoo, J., Marques Passos, T., Stout, J.C., White, B. 2019. Physicochemical properties and phenolic content of honey from different floral origins and from rural versus urban landscapes. *Food Chemistry*, 272, 66-75.
- Kilkuskie, R.E., Kashiwada, Y., Nonaka, G.-i., Nishioka, I., Bodner, A.J., Cheng, Y.-C., Lee, K.-H., 1992. HIV and reverse transcriptase inhibition by tannins. *Bioorg. Med. Chem. Lett.* 2, 1529-1534.
- Khanbabaee, K., van Ree, T., 2001. Tannins: Classification and Definition. *Natural Product Reports* 18, 641-649.
- Kharazian, N. and Rahiminejad, M. R. 2009. Study of Phenolic Constituents of *Triticum* L. (Poaceae) Species in Iran. *Iranian Journal of Science & Technology*, Transaction A, Vol. 33, No. A4.
- Koetz, A. 2013. *The Asian Honey Bee (Apis cerana) and Its Strains-with Special Focus on Apis cerana Java Genotype*. The Asian honey bee Transition to Management Program, Department of Agriculture, Fisheries and Forestry. Queensland.
- Kolayli, S., Sahin, H., Can, Z., Yildiz, O., Sahin, K., 2016. Honey shows potent inhibitory activity against the bovine testes hyaluronidase. *Journal of Enzyme Inhibition and Medicinal Chemistry* 31, 599-602.

- Li, Y., Kong, D., and Wu, H. 2018. Comprehensive Chemical Analysis of the Flower Buds of Five *Lonicera* Species by ATR-FTIR, HPLC-DAD, and Chemometric Methods. *Brazilian Journal of Pharmacognosy* 28: 533-541.
- Liao, L.-H., Wu, W.-Y., Berenbaum, M.R., 2017. Behavioral responses of honey bees (*Apis mellifera*) to natural and synthetic xenobiotics in food. *Scientific Reports* 7, 15924.
- Malacarne, M., Antonioli, G., Bertoldi, D., Nardin, T., and Larcher, R. 2017. Botanical Origin Characterisation of Tannins Using Infrared Spectroscopy. *Food Chemistry* 267 (2018) 204–209.
- Mashwani, Z., Khan, M. A., Khan, T., and Nadhman, A. 2016. Applications of Plant Terpenoids in the Synthesis of Colloidal Silver Nanoparticles. *Advances in Colloid and Interface Science* 234 (2016) 132–141.
- Meda, A., et al. 2005. Determination of the total phenolic, flavonoid and proline contents in Burkina Fasan honey, as well as their radical scavenging activity. *Food Chemistry*, Vol 91(3): p. 571-577.
- Mollet, J., Leroux, C., Dardelle, F., dan Lehner A. 2013. Cell Wall Composition, Biosynthesis and Remodeling during Pollen Tube Growth. *Plants* 2:107-147.
- Monfreda, M.; Francesco Varani, Fabrizio Cattaruzza, Simona Ciambrone, Alessandro Proposito. 2015. Fast profiling of cocaine seizures by FTIR spectroscopy and GC-MS analysis of minor alkaloids and residual solvents. *Science and Justice* 55 (2015) 456–466.
- Nurnasari, E. dan Khuluq, A. D. 2017. Potensi Diversifikasi Rosela Herbal (*Hibiscus Sabdariffa* L.) untuk Pangan dan Kesehatan. *Buletin Tanaman Tembakau, Serat & Minyak Industri* Vol. 9 (2):82–92.
- Pasaribu, B.; Chen, C.; Liao, Y. K.; Jiang, P.; dan Tzen, J. T. C. 2017. Identification of Caleosin and Oleosin in Oil Bodies of Pine Pollen. *Plant Physiology and Biochemistry* 111:20-29.
- Ponnuchamy, R., Bonhomme, V., Prasad, S., Das, L., Patel, P., Gaucherel, C., Pragasa, A., and Anupama, K. 2014. Honey Pollen: Using Melissopalynology to Understand Foraging Preferences of Bees in Tropical South India. *Melissopalynology*. Vol. 9, Issue 7.
- Porgali, E. and Büyüktuncel, E. 2012. Determination of Phenolic Composition and Antioxidant Capacity of Native Red Wines by High Performance Liquid Chromatography and Spectrophotometric Methods. *Food Research International* 45:145–154.
- Robinson, T. 1995. *Kandungan Organik Tumbuhan Tinggi*, Edisi VI, Hal 191-216. Diterjemahkan oleh Kosasih Padmawinata. ITB: Bandung.
- Roubik DW, Patiño JEM. How to Be a Bee-Botanist Using Pollen Spectra. In: Vit P, Pedro SRM, Roubik D, editors. *Pot-Honey: A legacy of stingless bees*. New York, NY: Springer New York; 2013, p. 295-314.
- Salaheldin, M., Abdelkader, A., Orabi, M. A. A., Shama, S. M., and Assaf, M. H. 2015. Chemical Constituents and Biological Activities of the Aerial Parts of *Stipagrostis plumosa* (L) Munro ex T.Anderson. *J. Pharm. Sci & Res.* Vol. 8(8), 801-812.

- Se, k. w., Ghoshal, S. K., Wahab, R. A., Ibrahim, R. K. R., and Lani, M. N. 2018. A Simple Approach for Rapid Detection and Quantification of Adulterants in Stingless Bees (*Heterotrigona itama*) Honey. *Food Research International* 105 (2018) 453–460.
- Shanthi, K. and Gowri, P. 2012. Pharamacognosy analysis of bioactive compounds of *Indigofera tinctoria* linn. (Fabaceae) by using GC-MS. *INT J CURR SCI* 2012, 4: 72-74.
- Silva, S.D., Feliciano, R.P., Boas, L.V., and Bronze, M.R. 2014. Application of FTIR-ATR to Moscatel dessert wines for prediction of total phenolic and flavonoid contents and antioxidant capacity. *Food Chemistry*, 150, 489-493.
- Singh, B. R., DeOliveira, D. B., Fu, F., and Fuller, M. 1993. Fourier Transform Infrared Analysis of Amide III Bands of Proteins for the Secondary Structure Estimation. The International Society for Optical Engineering. Vol 1890.
- Soepadmo, E. 1989. *Contribution of Reproductive Biological Studies Towards the Conservation dan Development of Malaysian Plant Genetic Resources*. dalam A.H. zakri (ed.) Genetic Resources of Underutilized Plants in Malaysia.
- Stankovičová, Z., Dekýš, V., Novák, P., and Strnadel, B. 2017. Detection of Natural Frequencies Using IR Camera. *Procedia Engineering*, 192, 830-833.
- Svečnjak, L., Prdun, S., Rogina, J., Bubalo, D., and Jerković, I. 2017. Characterization of Satsuma mandarin (*Citrus unshiu* Marc.) nectar-to-honey transformation pathway using FTIR ATR *DIAMOND*-ATR spectroscopy. *Food Chem.*232:286-94.
- Szczesna, T., Rybak-Chmielewska, H., Was, E., Kachaniuk, K., and Teper, D. 2011. Characteristics of Polish Unifloral Honeys. 1. Rape Honey (*Brassica napus* L. *Var. Oleifera* Metzger). *Journal of Apicultural Science*. Vol. 55 No. 1.
- Sawyer, R. 1981. *Pollen Identification for Beekeepers*. University College Cardiff Press. UK.
- Silva, S.D., Feliciano, R.P., Boas, L.V., Bronze, M.R. (2014). Application of FTIR-ATR to Moscatel dessert wines for prediction of total phenolic and flavonoid contents and antioxidant capacity. *Food Chemistry*, 150, 489-493.
- Simpson BB, Neff JL. Floral Rewards: Alternatives to Pollen and Nectar. *Annals of the Missouri Botanical Garden* 1981;68(2):301-22.
- Stankovičová, Z., Dekýš, V., Novák, P., Strnadel, B. (2017). Detection of Natural Frequencies Using IR Camera. *Procedia Engineering*, 192, 830-833.
- Stuessy, T. F. 1990. *Plant Taxonomy the Systematic Evaluation of Comparatif Data*. Columbia University Press. New York.
- Tahir, H.E., Xiaobo, Z., Zhihua, L., Jiyong, S., Zhai, X., Wang, S., Mariod, A.A. (2017). Rapid prediction of phenolic compounds and antioxidant activity of Sudanese honey using Raman and Fourier transform infrared (FT-IR) spectroscopy. *Food Chemistry*, 226, 202-211.

- von Frisch, K., 1967. The Dance Language and Orientation of Bees. Harvard University Press.
- Walker, D. 1999. *Studying Pollen Available at* http://www.geo.arizona.edu/palynology/pol_pix.html diakses pada tanggal 5 Desember 2015 pada pukul 19.30 WIB.
- Willard, D. A., Bernhardt, C. E., Weimer, L., Cooper, S. R., Gamez, D., and Jensen, J. 2004. Atlas of Pollen and Spores of Florida Everglades. *Journal Palynology*, Vol. 28.
- Wulandari, L., Retnaningtyas, Y., Nuri, and Lukman, H. 2016. Analysis of Flavonoid in Medicinal Plant Extract Using Infrared Spectroscopy and Chemometrics. *Journal of Analytical Methods in Chemistry*: 1-6.
- Yefrida, Ulfaningsih, M., dan Loekman, U. 2014. Validasi Metoda Penentuan Antioksidan Total (Dihitung Sebagai Asam Sitrat) dalam Sampel Jeruk secara Spektrofotometri dengan Menggunakan Oksidator Fecl₃ dan Pengompleks Orto-Fenantrolin. *J. Ris. Kim.* Vol. 7, No. 2.
- Zarei, M.; Fazlara, A.; and Tulabifard, N. 2019. Effect of Thermal Treatment on Physicochemical and Antioxidant Properties of Honey. *Heliyon*, 5, e01894.
- Zhao, L.; Liang, X.; Wu, L.; Zhang, Z.; Cao, W.; and Xue, X. 2018. Use of Isoquinoline Alkaloids as Markers for Identification of Honey and Pollen from *Macleaya cordata* (Willd.) R. Br. *Journal of Food Composition and Analysis* 66, 237–243.
- Zhu, L.; Wang, Z.; Wong, L.; He, Y.; Zhao, Z.; Ye, Y.; Fu, P. P.; and Lin, G. 2018. Contamination of Hepatotoxic Pyrrolizidine Alkaloids in Retail Honey in China. *Food Control*, 85, 484-494.
- Zuraida, Sulistiyani, Sajuthi, D., dan Suparto, I. H. 2017. Fenol, Flavonoid, dan Aktivitas Antioksidan pada Ekstrak Kulit Batang Pulau (*Alstonia scholaris* R.Br). *Jurnal Penelitian Hasil Hutan* Vol. 35, No. 3: 211-219.