

DAFTAR PUSTAKA

- Abdollahi, M. and Khaksar, M.R., 2014, Sodium Nitrite,. In, Wexler,P. (ed), *Encyclopedia of Toxicology (Third Edition)*. Academic Press, Oxford, pp. 334–337.
- Araujo, W.R. and Paixão, T.R.L.C., 2022, Chapter 1 - Introduction remarks for paper-based analytical devices and timeline,. In, de Araujo,W.R. and Paixão,T.R.L.C. (eds), *Paper-based Analytical Devices for Chemical Analysis and Diagnostics*. Elsevier, pp. 1–13.
- Association of Official Analytical Chemists, 2023, AF-1Guidelines for Standard Method Performance Requirements,. In, *Official Methods of Analysis of AOAC INTERNATIONAL*. Oxford University Press.
- Bhattacharya, S., Agarwal, A., Chanda, N., Pandey, A., and Sen, A., 2018, *Environmental, Chemical and Medical Sensors*, Springer, Singapore.
- Busch, C., Burkard, M., Leischner, C., Lauer, U.M., Frank, J., and Venturelli, S., 2015, Epigenetic activities of flavonoids in the prevention and treatment of cancer, *Clinical Epigenetics*, 7, 64.
- Cate, D.M., Adkins, J.A., Mettakoonpitak, J., and Henry, C.S., 2015, Recent Developments in Paper-Based Microfluidic Devices, *Anal Chem*, 87, 19–41.
- Chaudhary, A., Kumar, P., Jaswal, V.S., and Thakur, A., 2019, Analytical Techniques for the Identification and Quantification of Flavonoids,. In, Singh Tuli,H. (ed), *Current Aspects of Flavonoids: Their Role in Cancer Treatment*. Springer Singapore, Singapore, pp. 9–22.
- Chemical Abstracts Service Database, 2024, *Aluminium Chloride Hexahydrate*, https://www.chemicalbook.com/ChemicalProductProperty_EN_CB9196728.htm, diakses pada 15 Mei 2024.
- Chlopicka, J., Pasko, P., Gorinstein, S., Jedryas, A., and Zagrodzki, P., 2012, Total phenolic and total flavonoid content, antioxidant activity and sensory evaluation of pseudocereal breads, *LWT - Food Science and Technology*, 46, 548–555.
- Das, S., Gagandeep, and Bhatia, R., 2022, Paper-based microfluidic devices: Fabrication, detection, and significant applications in various fields, *Reviews in Analytical Chemistry*, 41: 112–136.
- Delage, B., 2015, *Flavonoids*, <https://lpi.oregonstate.edu/mic/dietary-factors/phytochemicals/flavonoids>, diakses pada 29 Oktober 2023.
- Dias, M.C., Pinto, D.C.G.A., and Silva, A.M.S., 2021, Plant flavonoids: Chemical characteristics and biological activity, *Molecules*, 26, 5377.
- Esmaeili Khorasani, A., Mat Taha, R., Mohajer, S., and Banisalam, B., 2015, Antioxidant activity and total phenolic and flavonoid content of various solvent extracts from in vivo and in vitro grown *Trifolium pratense* L. (red clover), *Biomed Res. Int.*, 2015, 643285.
- Fadillah, A., Rahmadani, A., and Rijai, L., 2017, Analisis Kadar Total Flavonoid dan Uji Aktivitas Antioksidan Ekstrak Daun Kelubut (*Passiflora foetida* L.), *Proceeding of Mulawarman Pharmaceuticals Conferences*, 5, 21–28.

- Fan, Y., Li, J., Guo, Y., Xie, L., and Zhang, G., 2021, Digital image colorimetry on smartphone for chemical analysis: A review, *Measurement*, 171, 108829.
- Fu, L.-M. and Wang, Y.-N., 2018, Detection Methods and Applications of Microfluidic Paper-Based Analytical Devices, *TrAC Trends in Analytical Chemistry*, 107, 196–211.
- Future Market Insights, 2022, *Flavonoids Market*, <https://www.futuremarketinsights.com/reports/flavonoid-market#:~:text=Demand%20for%20flavonoids%20is%20expected,boosting%20and%20anti%2Dinflammatory%20properties>, diakses pada 29 Oktober 2023.
- Gandjar, I.G. and Rohman, A., 2007, *Kimia Farmasi Analisis*, Pustaka Pelajar, Yogyakarta.
- Gilchrist, A. and Nobbs, J., 2017, Colorimetry, Theory,. In, Lindon,J.C., Tranter,G.E., and Koppenaal,D.W. (eds), *Encyclopedia of Spectroscopy and Spectrometry (Third Edition)*. Academic Press, Oxford, pp. 328–333.
- Gorinstein, S., Vargas, O., Jaramillo-Ocampo, N., Salas, I., Martinez-Ayala, A., Arancibia, P., Toledo, F., Katrich, E., and Trakhtenberg, S., 2007, The total polyphenols and the antioxidant potentials of some selected cereals and pseudocereals, *European Food Research and Technology*, 225, 321–328.
- Gutorova, S. V, Apyari, V. V, Kalinin, V.I., Furletov, A.A., Tolmacheva, V. V, Gorbunova, M. V, and Dmitrienko, S.G., 2021, Composable paper-based analytical devices for determination of flavonoids, *Sensors and Actuators B Chemical*, 331, 129398.
- Hasanah, E., Ayu, N.K., Puspita, D., and Sukarti, S., 2019, Analysis of Flavanioid Content From Extract Ethanol Bilajang Bulu Leaf (*Merremia vitifolia*), *Jurnal Akta Kimia Indonesia (Indonesia Chimica Acta)*, 12, 73–78.
- International Council for Harmonisation, 2022, *Validation of Analytical Procedures Q2(R2)*, Committee for Medicinal Products for Human Use, diakses pada 27 Oktober 2023.
- Kaneta, T., Alahmad, W., and Varanusupakul, P., 2019, Microfluidic paper-based analytical devices with instrument-free detection and miniaturized portable detectors, *Applied Spectroscopy Reviews*, 54, 117–141.
- Knowledge Based Value, 2022, *Global Flavonoids Market Size, Share & Industry Trends Analysis Report By Application, By Product (Functional Beverages, Functional Food, Dietary Supplements and Others)*, By Regional Outlook and Forecast, 2022 - 2028, diakses pada 29 Oktober 2023.
- Liu, H., Song, Y., and Zhang, X., 2017, Determination of Total Flavonoids in Leek by AlCl₃ Colorimetric Assay, *Chemical Engineering Transactions*, 59, 775–780.
- National Association of Testing Authorities, 2012, *Guidelines for the validation and verification of quantitative and qualitative test methods*, <https://www.demarcheisoi17025.com/document/Guidelines%20for%20the%20validation%20and%20verification%20of%20quantitative%20and%20qualitative%20test%20methods.pdf>, diakses pada 27 Oktober 2023.

- Noviana, E., Ozer, T., Carrell, C.S., Link, J.S., McMahon, C., Jang, I., and Henry, C.S., 2021, Microfluidic Paper-Based Analytical Devices: From Design to Applications, *Chemical Reviews*, 121, 11835–11885.
- Ozer, T., McMahon, C., and Henry, C.S., 2020, Advances in Paper-Based Analytical Devices, *Annual Review of Analytical Chemistry*, 13, 85–109.
- Paixão, T.R.L.C. and Garcia, C.D., 2022, Chapter 2 - Chemistry of paper—properties, modification strategies, and uses in bioanalytical chemistry,. In, de Araujo, W.R. and Paixão, T.R.L.C. (eds), *Paper-based Analytical Devices for Chemical Analysis and Diagnostics*. Elsevier, pp. 15–39.
- Panche, A.N., Diwan, A.D., and Chandra, S.R., 2016, Flavonoids: an overview, *Journal of Nutritional Science*, 5, e47.
- Pekal, A. and Pyrzynska, K., 2014, Evaluation of Aluminium Complexation Reaction for Flavonoid Content Assay, *Food Analytical Methods*, 7, 1776–1782.
- Pum, J.K.W., 2019, Evaluation of analytical performance of qualitative and semi-quantitative assays in the clinical laboratory, *Clinica Chimica Acta*, 497, 197–203.
- Ramis-Ramos, G., 2003, ANTIOXIDANTS | Synthetic Antioxidants,. In, Caballero, B. (ed), *Encyclopedia of Food Sciences and Nutrition (Second Edition)*. Academic Press, Oxford, pp. 265–275.
- Rijke, E., Out, P., Niessen, W., Ariese, F., Gooijer, C., and Brinkman, U., 2006, Analytical separation and detection methods for flavonoids, *J Chromatogr A*, 1112, 31–63.
- Saeed, N., Khan, M.R., and Shabbir, M., 2012, Antioxidant activity, total phenolic and total flavonoid contents of whole plant extracts *Torilis leptophylla* L, *BMC Complementary Alternative Medicine*, 12, 221.
- Sammani, M.S., Clavijo, S., and Cerdà, V., 2021, Recent, advanced sample pretreatments and analytical methods for flavonoids determination in different samples, *TrAC Trends in Analytical Chemistry*, 138, 116220.
- Shaghaghi, M., Manzouri, J.L., Afshar, D.J., & Jouyban, A., 2009, Determination of Flavonoid in Pharmaceutical Preparation Using Terbium Sensitized Fluorescence Method. *DARU J. Pharm. Sci.*, 17(4), 264-268. SID. <https://sid.ir/paper/275530/en>.
- Shraim, A.M., Ahmed, T.A., Rahman, M.M., and Hijji, Y.M., 2021, Determination of total flavonoid content by aluminum chloride assay: A critical evaluation, *LWT*, 150, 111932.
- Shrestha, Y.K. and Shrestha, S.K., 2023, Fundamentals of Colorimetry,. In, Samanta, Prof. A.K. (ed), *Advances in Colorimetry*. IntechOpen, Rijeka, p. Ch. 2.
- Silver, R.A., 2023, *Pengembangan Alat Uji Berbahan Kertas (Paper-Based Device) untuk Estimasi Kandungan Fenolik Total, (Skripsi)*, Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.
- Ullah, A., Munir, S., Badshah, S.L., Khan, N., Ghani, L., Poulson, B.G., Emwas, A.-H., and Jaremko, M., 2020, Important flavonoids and their role as a therapeutic agent, *Molecules*, 25, 5243.



- Wang, S.-P. and Huang, K.-J., 2004, Determination of flavonoids by high-performance liquid chromatography and capillary electrophoresis, *J Chromatogr A*, 1032, 273–279.
- Xia, Y., Si, J., and Li, Z., 2016, Fabrication techniques for microfluidic paper-based analytical devices and their applications for biological testing: A review, *Biosensors and Bioelectronics*, 77, 774–789.
- Ye, Q., Liu, K., Shen, Q., Li, Q., Hao, J., Han, F., and Jiang, R.-W., 2019, Reversal of multidrug resistance in cancer by multi-functional flavonoids, *Frontiers in Oncology*, 9, 487.