

## DAFTAR PUSTAKA

- Albu, S., Joyce, L., Paniwnyk, Lorimer, J.P., Mason, T.J, 2004, Potential for the use of ultrasound in the extraction of antioxidants from *Rosmarinus officinalis* for the food and pharmaceutical industry, *Ultrasound Sonochemistry*, **11**: 261-265.
- Anonim., 2002, Isohexane: Likely Choice for Crushers Seeking to Replace n-hexane. *Inform*, 4, 282-286.
- Anonim, 2014, *Koleksi Foto Tumbuhan Obat*,  
<https://ipbiotics.apps.cs.ipb.ac.id/index.php/collection/971>, 27 Oktober 2019.
- Ajanal, M., Gundkalle, M.B., Nayak, S.U., 2012, *Estimation of Total Alkaloid in Chitrakadivati by UV-Spectrophotometer*, **31** : 198-200.
- Arminian, A., Kang, M.S., Kozak, M., Houshmand, S., Mathews, P., 2008, MULTIPATH: A Comprehensive Minitab Program for Computing Path Coefficients and Multiple Regression for Multivariate Analyses, *Journal of Crop Improvement*, (22) 82-120.
- Baby, A.R., Filho, C.A.H., Sarruf, F.D., Pinto, C.A., Kaneko, T.M., Velasco, M.V., 2008, Influence of Urea, Isopropanol, and Propylene Glycol on Rutin In Vitro Release from Cosmetic Semisolid Systems Estimated by Factorial Design, *Drug Development and Industrial Pharmacy*, 1-11.
- Box, G.E.P. & Draper, N.R., 1987, *Empirical Model-Building and Response Surface*, Wiley, <http://psycnet.apa.org/psycinfo/1987-97236-000>. 20 Desember 2019.
- Cacace, J.E., & Mazza, G. 2002. Extraction of Anthocyanins from Black Currants with Aqueous Ethanol. *Journal of Agricultural and Food Chemistry*, **50**: 5939-5946.
- Chemat, F., Huma, Z.E., Khan, M.K., 2011, Application of Ultrasound in Food Technology: Processing, Preservation, and Extraction, *Ultrasonics Sonochemistry*, **18** : 813-835.
- Chemler, R.S., 2009, Phenanthroindolizidine and Phenanthroquinolizidines: Promising Alkaloids for Anti-Cancer Therapy, *Current Bioactive Compunds*, **5** (1), 2-19.
- Colmenares, J.C., Chatel, G., 2017, *Sonochemistry: From Basic Principles to Innovative Application*, 374, Springer International Publishing, Switzerland.

- Cyriac, A., Thomas, T., Thomas, T.D., 2020, Tylophorine: Sources, Properties, Applications and Biotechnological Production, *Plant-derived Bioactives*, 167-176.
- Dary, C. Baghdikian, B., Kim, S., Mabrouki, F., Hul, S., Jabbour, F., Ollivier, E., Bun, S.S., 2017, Optimization of Ultrasound-assisted Extraction of Bioactive Alkaloids from *Stephania camobodica* using Factorial Design, *Comptes Rendus Chimie*, **20**: 996-1005.
- Denni, K. S., Dyah, H. W., & Aji, P., 2012, Pengujian Kandungan Fenol Kappahycus alvarezzi dengan Metode Ekstraksi Ultrasonik dengan Variasi Suhu dan Waktu. *Jurnal Teknik Kimia*, **3**(19): 38-43.
- Ebringeorva, A., Hromadkova, Z., 2002, Effect of ultasound on the extrability of corn bran hemicelluloses, *Ultrasound Sonochemistry*, **9**: 225-229.
- Ernawati, 2012, Identifikasi Pengaruh Variabel Proses dan Penentuan Kondisi Optimal Dekomposisi Katalitik Metana dengan Metode Respon Permukaan, *Skripsi*, Fakultas Teknik Program Studi Eksistensi Teknik Kimia, Universitas Indonesia, Depok.
- Evans, W.C., 2009, *Trease and Evans Pharmacognosy*, 16<sup>th</sup> Ed., 353, W.B. Saunders, Toronto.
- Gao, L., Mazza, G., 1996, Extraction of Anthocyanin Pigments from Purple Sunflower Hulls, *Journal of Food Science*, **61**: 600-603.
- Garcia, A., Alriols, M.G., Liaon-Ponte, R., Labidi, J., 2011, Ultrasound-assisted fractionation of the lignocellulosic material, *Biosource Technology*, **102**: 6326-6330.
- Handa, S.S., Khanuja S.P.S., Longo, G., Rakesh, D.D., 2008, *Extraction Technologies for Medicinal and Aromatic Plants*. International Centre for Science and High Technology, Trieste.
- Hikmah, N.N., 2017, Optimasi Ekstraksi Biji Kedelai (*Glycine max* (L.) Merr) Terhadap Kandungan Stigmasterol Menggunakan RSM, *Skripsi*, Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.
- Houghton, J.P., 2008, TLC of Indole Alkaloids, dalam Waksmundzka-Hajnos, M., Sherma, J. & Kowalska, T., (Eds.), *Thin Layer Chromatography in Photochemistry*, 624-638, CRC Press, Florida.
- Jacini, G., Fedeli, E, 1969, New Approaches to the Fractionation of Lipids, *Drugs Affecting Lipid Metabolism*, **4**: 639-650.
- Leong, T., Johansson, L., Mawson, R., McArthur, S.L., Manasseh, R., Juliano, P., 2016, Ultrasonically Enhanced Fractionation of Milk Fat in a Litre-Scale Prototype Vessel, *Ultrasound Sonochemistry*. **28**: 118-129.
- Liao, J.C., 1996., *Flora of Taiwan*. Editorial Committee of the Flora of Taiwan, **2** : 177-180.

- Kaushik, N.K., Kaushik, N., Attri, P., Kumar, N., Kim, C.H., Verma, A.K., & Choi., 2013, Biomedical Importance of Indoles, *Molecules*, **18**(6): 6620-6662.
- Khopkar, S.M., 1990., *Konsep Dasar Kimia Analitik*. Universitas Indonesia Press, Jakarta.
- Liu, F.F., Ang, C.Y., & Springer, D. 2000. Optimization of Extraction for Active Components in *Hypericum perforatum* using Factorial Design. *Journal of Agricultural and Food Chemistry*, **48**: 3364-3371.
- Mandal, S.C., Mandal, V., Das, A.K., 2015, Innovative Extraction Process Design and Optimization Using Design of Experiment Approach, *Essential of Botanical Extraction*, Academic Press, Cambridge.
- Mardisiswojo, S., Rajakmangunsudarso, H., 1985, *Cabe Puyang Warisan Nenek Moyang*, PN Balai Pustaka, Jakarta.
- Martelo-Vidal, M. J., dan Vasquez, A. 2016. Advances in Ultraviolet and Visible Light Spectroscopy for Food Authenticity Testing. *Advances in Food Authenticity Testing*, 35-70.
- McMahon, G., 2007, *Analytical Instrumentation: A Guide to Laboratory, Portable and Miniaturized Instruments*, John Wiley & Sons, New York.
- Montgomery, D.C., 2005, *Design and Analysis of Experiments*, John Wiley & Sons, New York.
- Mulja, M., Suharman., 1995, *Analisis Instrumen*. Airlangga University Press, Surabaya.
- Nurchaya, B.M., 2007, Efek Antiproliferatif Ekstrak Etanolik Daun Awar-awar (*Ficus septica* Burm F.) terhadap sel kanker payudara T47D, *Skripsi*, Yogyakarta: Fakultas Farmasi Universitas Gadjah Mada.
- Odugbemi, T., 2008, *A Textbook of Medicinal Plants in Nigeria*, Tolu press, Lagos.
- Ong, E.S., 2004, *Extraction Methods and Chemical Standarization of Botanicals and Herbal Preparasion*. Journal of Chromatography B, **812** : 23-25.
- Pratama, T., 2012, Pengaruh Fraksi Tak Larut n-Heksana Ekstrak Etanolik Daun Awar-awar (*Ficus septica* Burm.f.) terhadap Viabilitas Sel dan Daur Sel Kanker Payudara T47D, *Skripsi*, Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.
- Purwanti, E.P. & Pilarian F., 2013, Optimasi Parameter Proses Pemotongan Stainless Steel SUS 304 untuk Kekasaran Permukaan dengan Metode Response Surface, *Makalah*, Universitas Negeri Yogyakarta, Yogyakarta.
- Qarah, N., Basavaiah, K., Swamy, N., 2017, Sensitive and Selective Extraction-Free Sphectrophotometric Assay of Chloroquine Phosphate in Pharmaceuticals Based on Ion-Pair Reaction with Bromocresol Green and Bromocresol Purple, *Pharmaceutica Analytica Acta*, **8**(3) 1-9.

- Robinson, J.W., Frame, E.M., Frame, G.M., 2005., *Undergraduate Instrumental Analysis*, Marcel Dekker, New York.
- Rodrigues, S., Fernandes, F.A.N., 2017, *Ultrasound: Advances in Food Processing and Preservation*. Academic Press, London.
- Saffarionpour, S., Jong, T.F., Wielen, L., Bouwer, E., 2019, Column chromatography for separation and fractionation of flavor-active esters on hydrophobic resins and simulation of breakthrough behavior. *Separation and Purification Technology*. **210** (2019) 304-319.
- Santosa, D., Haresmita, P.P., 2015, Penentuan Aktivitas Antioksidan *Garcinia dulcis* (Roxb.) Kurz, *Blumea mollis* (D.Don) Merr., *Siegesbeckia orientalis* L., dan *Salvia riparia* H.B.K yang Dikoleksi dari Taman Nasional Gunung Merapi dengan Metode DPPH (2,2-Difenil-1-Pikril-Hidrazil) serta Profil Kromatografi Lapis Tipisnya, *Traditional Medicine Journal*, **20**(1) 28-36.
- Sastrohamidjojo, H., 1991, *Kromatografi*, Liberty Press, Yogyakarta.
- Sekti, D.A., 2009, Aktivitas Sitotoksik, Induksi, Apoptosis, dan Modulasi Ekspresi Protein Bcl-2 ekstrak etanolik daun awar-awar (*Ficus septica* Burm F.) pada sel kanker payudara MCF7. *Skripsi*. Yogyakarta: Fakultas Farmasi Universitas Gadjah Mada.
- Shamsa, F., Monsef, H., Ghamooshi, R., Verdian-rizi, M., 2008, Spectrophotometric determination of total alkaloid in some Iranian medicinal plants. *Thai J. Pharm. Sci*, **32** : 17-20.
- Sherma, J., 2003, *Handbook of Thin-Layer Chromatography*, Marcel Dekker, New York.
- Soebagio, 2005, *Kimia Analitik II*, Penerbit Universitas Negeri Malang, Malang.
- Staerk D, Lykkeberg AK, Christensen J, Budnik BA, Abe F, dan Jaroszewski JW., 2002, *In Vitro Cytotoxic Activity of Phenanthroindolizidine Alkaloids from Cynanchum vincetoxicum and Tylophora tanakae Against Drug-Sensitive and Multidrug resistant cancer cells*, *J Nat Prod*, 65: 1299-1302.
- Syamsuhidayat, S.S., Hutapea, J.R. 1991. *Inventaris Tanaman Obat Indonesia I*, hal 115, Departemen Kesehatan RI, Badan Litbang Kesehatan, Jakarta.
- Tao, Y., Wu, Y., Han, Y., Chemat, F., Li, D., Show, P. L., 2020, Insight into Mass Transfer during Ultrasound-Enhanced Adsorption/Desorption of Blueberry Anthocyanins on Macroporous Resins by Numerical Simulation Considering Ultrasonic Influence on Resin Properties, *Chemical Engineering Journal*, **380**: 1-13.
- Telliard, W.A, 1999, N-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-Polar Material) by Extraction and Gravimetry, *United States Environmental Protection Agency*, Washington.

- Venn., R.F., 2008, *Principles and Practices of Bioanalysis*, Taylor and Francis Group, Perancis.
- Wu, P.-L.V., Rao, K., Su, C.-H., Kuoh, C.-S., & Wu, T.S., 2002, Phenanthroindolizidine Alkaloids and Their Cytotoxicity from the Leaves of *Ficus septica*, *Heterocycles*, 57, 2401.
- Wulandari, S., 2017, Efek Fraksi Alkaloid Dari Ekstrak Daun Awar-awar (*Ficus septica* Burm.f.) dan Kombinasi dengan Doksorubisin terhadap Apoptosis, Siklus Sel, dan Ekspresi Protein Caspase-9 Pada Sel Kanker T47D. *Skripsi*. Yogyakarta: Fakultas Farmasi Universitas Gadjah Mada.
- Yang, C.W., Chen, W.L., Wu, P.L., Tseng, H.Y., & Lee, S.J., 2006, Anti-inflammatory Mechanism of Phenanthroindolizidine Alkaloid, *Molecular Pharmacology*, 69(3), 749-58.