

DAFTAR PUSTAKA

- A.O.A.C. 2000. *Official methods of analysis of the association of official chemists international*, 17thed. The Association of Official Chemists International, Gaithersburg, USA
- Al-Hashimi, AG. 2012. Antioxidant and antibacterial activities of *Hibiscus sabdariffa* l extract. *African Journal of Food Sci* 6(21):506-511
- Amir, A., A. Wiraningtyas., Ruslan., dan N. Annafi. 2016. Perbandingan metode ekstraksi natrium alginat: metode konvensional dan *microwave assisted extraction* (MAE). *Jurnal Food Technology* 1(2): 9-10.
- Bas, D. dan I.H. Boyaci. 2007. Modeling and optimization: usability of response surface methodology. *Journal Food Eng* 78-836-845
- Blois, M.S. 1958. Antioxidant determination by the use of a stable free radical. *Nature* 181:1199-1200
- Box, N.E.P. and N.R. Draper. 2007. *Response surfaces, mixture and ridge analyses*. Wiley-Interscience
- Bradley. and Nuran. 2007. *The response surface methodology*. South Bend, USA: Indiana University of South Bend
- Bueno., J. M., P.S. Plaza., F.R. Escudero., A.M. Jiménez., R. Fett, and A.G. Asuero. 2012. Analysis and antioxidant capacity of anthocyanin pigments. part ii: chemical structures, color and intake of anthocyanins. *Journal Analytical Chemistry*. 42:126-151.
- Calinescu, I., C. Ciuculescu., M. Popescu., Bajenaru S, and G. Epure. 2001. Microwave assisted extraction of active principles from vegetal material. *Romanian International Conference on Chemistry and Chemical Engineering*. 12:1-6.
- Chan, C., G. Yusoff., G. Ngoh., and F. W. Kung. 2011. Microwave assisted extraction of active ingredients from plants. *Journal Of Chromatography A*. 1218: 6213-6225. *Conference on Chemistry and Chemical Engineering*, 12: 1-6.
- Chew, YL., JK. Goh., and YY. Lim. 2009. Assessment of *in vitro* antioxidant capacity and polyphenolic composition of selected medicinal herbs from leguminosae family in peninsular malaysia. *Food Chem*. 116: 13-18.

- Cowan, M.M. 1999. Plants product as antimicrobial agents. *Clinical Microbiology Reviews*. 12(4): 564-581.
- Daryanto. 2008. Rosela merah berkhasiat. <http://www.agrina-online.com>. Diakses pada tanggal 6 Januari 2017
- Ditjen POM. 2000. *Parameter standar umum ekstrak tumbuhan obat*. Departemen Kesehatan RI. Jakarta. 3-5, 34-35
- Doughari, JH. 2006. Antimicrobial activity of *Tamarindus indica* Linn. *Tropical J Pharmaceutical Research* 5:597-603
- Farida, R. dan F. C. Nisa. 2015. Ekstraksi antosianin limbah kulit manggis metode *microwave assisted extraction* (lama ekstraksi dan rasio bahan : pelarut). *Jurnal Pangan dan Agroindustri*. 3(2):362-373.
- Fernandes, A.E., Z.S. Ferrera, dan J. J. S. Rodriquez. 2001. MAE of organochlorine compounds in marine sediments with organized molecular systems. *Journal Chromatography*. 53:357-379.
- Fuleki, T. and F.J. Francis. 1968. Quantitative methods for anthocyanins, 1. extraction and determination of total anthocyanin in cranberries. *Journal Food Sci*. 33(1); 72-77
- Gao, M., B. Song, and C. Lin. 2006. Dynamic microwave assisted extraction of flavonoids from *Saussurea medusa* maxim culture cells. *Journal Biochemical Engineering*. 332:79-83
- Harborne, J.B. 1987. *Metode fitokimia*. ITB. Bandung
- Hemwimon, S., P. Pavant, and A. Shotipru. 2007. Microwave assisted extraction of antioxidative anthraquinones from roots of *Morinda citrifolia*. *separat. puri. Technol*, 54:44-50
- Hidayat, N. dan E.A. Saati. 2006. *Membuat pewarna alami*. Cetakan Pertama. Trubus Agrisarana. Surabaya
- Houghthon, PJ. and Raman. 1998. *Laboratory handbook for the fractination of natural extract. chapmant and hall*. London
- Jain, T., V. Jain., R. Pandey., A. Vyas, and S. Shukla. 2009. Microwave assisted extraction for *Phytoconstituents-* an overvie. *Asian Journal Research Chemical*. 2(1) 19-25
- Jawetz, E., J. Melnick, and L. Adelberg. 1998. *Medical microbiology*. 21th Ed. Appleton & Lange. Connecticut

- Jawetz, E., J. Melnick, and L. Adelberg. 2005. *Microbiology untuk profesi kesehatan*. Penerbit Buku Kedokteran EGC. Jakarta
- Kurniasari, L., I. Hartati, dan R.D. Ratnani. 2008. Kajian ekstraksi minyak jahe menggunakan *microwave assisted extraction* (MAE). *Jurnal Kimia*. 4:2
- Laleh, G.H., H. Frydoonfar., R. Heidary., R. Jameei, and S. Zare. 2006. The effect of light, temperature, pH and species on stability of anthocyanin pigments in four *Berberis* species. *Pakistan Journal of Nutrition*. 5(1):90-92
- Li, C., H. Du., L. Wang., Q. Shu., Y. Zheng., Y. Xu., J. Zhang., R. Yang, and Y. Ge. 2009. Flavonoid composition and antioxidant activity of tree peony (*Paeonia section moutan*) yellow flowers. *Journal of Agricultural and Food Chemistry*. 57:8496-8503
- Lidya, S., S. Chairina, dan Fatimah. 2014. Ekstraksi pigmen antosianin dari kulit buah naga merah (*Hylocereus polyrhizus*). *Jurnal Teknik Kimia*. Vol. 3.2
- Lopez, C.M., N. Sune., W. Penkhae, and P. Ngamtip. 2003. Antimicrobial activity of medicinal plant extracts against foodborne spoilage and pathogenic microorganism. *Journal Kasetsart (Nat. Sci)* 37:460-467
- Magdalena, N.V. dan J. Kusnadi. 2015. Antibakteri dari ekstrak kasar daun gambir (*Uncaria gambir*) cubadak metode *microwave assisted extraction* terhadap bakteri patogen. *Jurnal Pangan dan Agroindustri*. 3(1): 124-135.
- Mandal, V., Y. Mohan, and Hemalatha S. 2007. Microwave assisted extraction an innovative and promising extraction tool of medicinal plant research. *Pharmacognosy Review* 1:7-18
- Mardiah. 2009. *Budidaya dan pengolahan rosela si merah segudang manfaat*. Agro Media Pustaka. Jakarta
- Margo, P.H., M.A.B. Levi., I.S. Carminio., R.J. Poppi, and Trevian M.G. 2005. Exploratory analysis of simultaneous degradation of anthocyanin in the calyces of flower of the *Hibiscus sabdariffa* species by parfac model. *Nalytical Science*. 2:1
- Markakis, P. 1982. *Anthocyanin as food additives*. Academic Press. New York
- Maryani, H. dan L. Kristiana. 2005. *Khasiat dan manfaat rosela*. Agromedia Pustaka. Jakarta
- Mattjik, A.A. dan Sumertajaya. 2002. *Perancangan percobaan*. jilid 1 edisi ke-2. IPB Press. Bogor.

- Moein, M.R., V.O. Dehghani., N. Tabibnejad, and S. Vahidi. 2007. Reactive oxygen species (ROS) level in seminal plasma of infertile men and healthy donors. *Iranian Journal of Reproductive Medicine*. 5(2): 51-55
- Molyneux, P. 2004. The use of the stable free radical diphenylpicryl-hydrazyl (DPPH) for estimating antioxidant activity, songklanakar. *Journal Science Technology*. 26(2), 211-219.
- Montgomery, C.D. 2001. *Design and analysis of experiment*, 5th edition. Arizona State University. Amerika Serikat
- Mourtzinou I., DP. Makris., K. Yannakopoulou., N. Klogeropoulos., I. Michali, and V.T. Karathsnos. 2008. Thermal stability of anthocyanin extract of *Hibiscus sabdariffa l.* in the presence of β -cyclodextrin. *Journal Agric Food Chem*. 56:10303-10310
- Myers, R.H., D.C. Montgomery, and C.M. Anderson-cook. 2009. *Respon surface methodology: process and product optimization using designed experiments*. 4th ed. New Jersey: John Wiley & Sons, Inc
- Nograpy, T. 1992. *Kimia medicinal*. Penerbit ITB. Bandung
- Ozela, E.F., P.C. Stringheta, and M.C. Chauca. 2007. Stability of anthocyanin in spinach fine *Basella rubra* fruit. *Ciencia Investigacion Agraria* 34:115-120.
- Purbowati, I.S. 2014. Nanoenkapsulasi ekstrak kelopak bunga rosela (*Hibiscus sabdariffa l*) hasil optimasi ekstraksi berbantu gelombang sebagai bahan antibakteri dan antioksidasi. *Disertasi*. Sekolah Pascasarjana. IPB. Bogor
- Richa. Y. 2009. Uji aktivitas penangkap radikal dari ekstrak petroleum eter, etil asetat, dan etanol rhizoma binahong (*Anredera cordifolia (Tenore Steen)*) dengan metode DPPH (2,2-difenil-1-pikrilhidrazil). *Skripsi*. UMS. Surakarta.
- Saefudin, A., V. Rahayu, dan H.Y. Teruna. 2011. *Standarisasi bahan obat alam*. Graha Ilmu. Yogyakarta
- Salni, H.M. dan W.M. Ratna. 2011. Isolasi senyawa antibakteri dari daun jengkol (*Pithecolobium lobatum benth*) dan penentuan nilai KHM-nya. *Jurnal Penelitian Sains*. 14(1): 38-41.
- Sharma, M, M. Vimal., A. Maneesha., P.J. Joshy, and K.R. Drishya. 2011. Antimicrobial screening of different extracts of south indian medicinal plants of meliaceae. *Journal Medicinal Plants Research* 5:688-695.
- Shu, YY., MY. Ko, and YS. Chang. 2003. Microwave assisted extraction of ginsenosides from ginseng root. *Journal Microchem*. 74:131-139

- Silva, M., F. Gomes., F. Oliveira., S. Morais, and C.D. Matos. 2015. Microwave-assisted alginate extraction from portuguese saccorhiza polyschides - influence of acid pretreatment. *International Journal of Chemical, Nuclear, Materials and Metallurgical Engineering*. 9(1): 30-33.
- Siswandono dan B. Soekardjo. 1995. *Kimia medisinal*. Airlangga University Press. Surabaya
- Susanti, A. 2008. Daya antibakteri ekstrak etanol daun beluntas (*Pluchea indica Less*) terhadap *Escherichia coli* secara in vitro. *Sripsi*. Universitas Airlangga. Surabaya
- Song, J., D. Li., C. Liu, and Y. Zhang. 2011. Optimization of microwave-assisted extraction of total phenolics from *Ipomoea batatas* leaves and its antioxidant activity. *Journal Food Science and Emerging Technology*. 12:282-287.
- Tee. P.L., S. Yusof., S. Mohamed., N.A. Umar, and M.M. Noordin. 2002. Effect Roselle (*Hibiscus sabdariffa*) on serum lipid of sprague dawley rats. *Journal Nutrition and Food Science*. 32(5): 2-4
- Wang. and Chau-jong. 2008. *Hibiscus Anthocyanins for inhibiting cancers*. *United States Patent*. 20080113050
- Wang, Y.L., G.S. Xi., Y.C. Zheng, and F.S. Miao. 2010. Microwave assisted extraction from chinese herb *Radix puerariae*. *Journal of Medicinal Plant Research*. 4(4):304-308
- Widyanto, P.S. dan Nelistya, A. 2008. *Rosela*. Penebar Swadaya. Jakarta
- Widyanto., Poppy, dan A. Nelistya. 2009. *Rosela aneka olahan, khasiat dan ramuan*. Penebar Swadaya. Depok
- Wikanta, T., H.D. Januar, dan M. Nursed. 2005. Uji aktivitas antioksidan, toksisitas dan sitotoksitas ekstrak alga merah *Rhodymenia palmate*. *Jurnal Penelitian Perikanan Indonesia*. 11(4): 12-25.
- Winarno, F.G. 2004. *Kimia pangan dan gizi*. PT Gramedia Pustaka Utama. Jakarta
- Voigt, R. 1995. *Buku pelajaran teknologi farmasi*. UGM Press. Yogyakarta
- Volk and Wheeler. 1988. *Mikrobiologi dasar edisi kelima*. Erlangga. Jakarta
- Yu, L. 2008. *Wheat antioxidant*. United States of America. Wiley

- Zhang, F., B. Chen., S. Xiao, and S. Yao. 2005. Optimization and comparison of different extraction techniques for sanguinarine and chelerythrine in fruits of *Macleaya cordata* (Wild) R.Br. *Separat Purif.Technol.* 2: 283-290
- Zhang, H.F., X.H. Yang., and Y. Wang. 2011. Microwave assisted extraction of secondary metabolites from plants: current status and future directions. *Journal Food Science and Technology.* 22: 672-688.
- Zheng, X., B. Liu., L. Li, and X. Zhu. 2011. Microwave assisted extraction and antioxidant activity of total phenolic compounds from pomegranate peel. *Journal Med. Plant. Res.* 5(6): 1004-10