

## DAFTAR PUSTAKA

- Abimantrahita, 2014, Sintesis 1,5-Bis-(4'-triflorometilfenil)-penta-3-on dari Starting Material 1,5-Bis-(4'-triflorometilfenil)-penta-1,4-dien-3-on Melalui Reaksi Hidrogenasi dengan Katalis Paladium Karbon, *skripsi*, Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.
- Aggarwal, B. B., Sundaram, C., and Malani, N., 2006, *Curcumin: The Indian Solid Gold*, [www.charakinternational.com/pdfs/Aggarwal-Curcumin-Ch-1.pdf](http://www.charakinternational.com/pdfs/Aggarwal-Curcumin-Ch-1.pdf), 15 Maret 2015.
- Amic, D., Amic D. D., Beslo D., and Trinajatic, N., 2003, Structure Radical Scavenging Activity Relationship of Flavonoids, *Croat.Chem. ACTA.*, **76** (1), 55-61.
- Antolovich, M., Prenzeler, P. D., Patsalides, E., McDonald, S., and Robards, K., 2002, Methods for testing antioxidant activity, *Analyt.*, **127**, 183-198.
- Ardinova, S. E. S., 2010, Reduksi Senyawa Analog Siklovalon : 2,6-Bis(4'-metoksibenzilidin)sikloheksanon, 2,6-bis(4'-tersierbutilbenzildin) - sikloheksanon, dan 2,6-bis(3',4'-diklorobenzilidin)sikloheksanon, *Skripsi*, Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.
- Chattopadhyay, I., Biswas, K., Bandyopadhyay, U., and Banerjee, R. K., 2004, Turmeric and Curcumin: Biological Actions and Medicinal Applications, *Current Science*, **87** (1), 44-50.
- Cholisoh, Z., dan Utami, W., 2007, Uji Daya Reduksi Ekstrak Etanol 70% Biji Jengkol (*Pithecellobium jiringa*) Terhadap Ion Ferri, *Pharmakon*, **8** (2), 33-39.
- Church, W., H., 2005, Column Chromatography Analysis of Brain Tissue: An Advanced Laboratory Exercise for Neuroscience Majors, *The Journal of Undergraduate Neuroscience Education (JUNE)*, **3** (2), 36-41.
- Da'i, M., 1998, Pengaruh Gugus  $\beta$ -diketon terhadap Daya Reduksi Kurkumin dan Turunannya pada Ion Ferri, *Skripsi*, Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.
- Da'i, M., Meiyanto, E., dan Supardjan, A. M., 2004, Efek Antiproliferatif Pentagamavunon-0 (PGV-0) terhadap Sel Myeloma, *Sains Kesehatan*, **17**(1), 1-11.
- Dianawati, S., dan Sugiarto, R. D., 2013, Studi Gangguan Ag(I) dalam Analisa Besi dengan Pengompleks 1,10-Fenantrolin pada pH 4,5 secara Spektrofotometri UV-Vis, *Jurnal Sains dan Seni Pomits*, **2** (2), 29-32.

- Fessenden R. J., dan Fessenden, J. S., 1982, *Kimia Organik* Edisi III, Jilid I, Alih Bahasa oleh Pudjaatmaka, A.H., 146-153, Penerbit Erlangga, Jakarta.
- Firdaus, M. I., dan Utami, P. I., 2009, Analisis Kualitatif Parasetamol Pada Sediaan Jamu Serbuk Pegal Linu yang Beredar Di Purwokerto, *Pharmacy*, **6** (2), 1-6.
- Gocan, S., 2002, Stationary Phases for Thin-Layer Chromatography, *Journal of Chromatographic Science*, **40**, 1-12.
- Hahn, E., 2007, *Applied Thin Layer Chromatography : Best Practice and Avoidance of Mistakes*, Wiley-VCH Verlag GmbH&Co. KGaA, Weinheim.
- Hakim, R. A., Nugroho, A. E., dan Hakim, L., 2006, Profil Farmakokinetika Pentagamavunon-0 Setelah Pemberian Kalium Pentagamavunon-0 Secara Oral Pada Tikus, *Majalah Farmasi Indonesia*, **17** (4), 204-211.
- Handayani, S., Sunarto, dan Kristianingrum, S., 2005, Kromatografi Lapis Tipis Untuk Penentuan Kadar Hesperidin dalam Kulit Buah Jeruk, *Jurnal Penelitian Saintek*, **10** (1), 53-68.
- Hapsari, S. B., dan Siti, T., 2014, Pengaruh Cahaya dan Antioksidan TBHQ Terhadap Viskositas Biodiesel Minyak Biji Kapuk, *UNESA Journal of Chemistry*, **3** (1), 60-64.
- Hudlicky, M., 1996, *Reduction in Organic Chemistry*, 2<sup>nd</sup> Edition, 150-188, American Chemical Society, Washington, D.C.
- Ionita, P., 2005, Is DPPH Stable Free Radical a Good Scavenger for Oxygen Active Species?, *Chem. Pap.*, **59** (1), 11-16.
- Itokawa, H., Shi, Q., Akiyama, T., Morris-Natschke, S. L., & Lee, K., 2008, Recent Advances in The Investigation of Curcuminoids, Review, *Chin. Med.*, **3**, 11.
- Kaban, J., 2005, Sintesis Amida dari Asam Organik Alami dengan Amina Alami, *Jurnal Sains Kimia*, **9** (2), 77-81.
- Kataren, S., 2005, *Pengantar Teknologi Minyak dan Lemak Pangan*, 50-53, Universitas Indonesia Press, Jakarta.
- Kim, O. S., 2005, Radical Scavenging Capacity and Antioxidant Activity of the Vitamer Fraction in Rice Bran, *J. Food Sci.* **70** (3), 208-213.

- Kiswanto, 2005, *Perubahan kadar senyawa bioaktif Rimpang temulawak dalam penyimpanan (Curcuma xanthorrhiza Roxb)*, Fakultas Teknologi Pertanian Institut Pertanian (INTAN) Universitas Gadjah Mada, Yogyakarta.
- Lai, C. S., Wu, J. C., Yu, S. F., Badmaev, V., Nagabhusanam, K., Ho, C. T., and Pan, M. H., 2011, Tetrahydrocurcumin is More Effective Than Curcumin in Preventing Azoxymethane-induced Colon Carcinogenesis, *Molecular Nutrition & Food Research*, **55** (12), 1819-1828.
- Machlin, L. J., 1984, *Handbook of Vitamins: Nutritional, Biochemical, and Clinical Aspects*, Marcel Decker Inc, New York.
- Majeed, M., Badmev, V., Shivakumar, U., and Rajendran, R., 1995, *Curcuminoids Antioxidant Photonutrients*, 1-78, Nutriscience Publisher, Piscataway, New Jersey.
- Martha, S. A., Karwur, F. F., dan Rondonuwu, F. S., 2013, Mekanisme Kerja dan Fungsi Hayati Vitamin E Pada Tumbuhan dan Mamalia, *Seminar Nasional X*, Pendidikan Biologi FKIP UNS, Solo, **10** (1).
- Mimic-Oka, J., Simic, D. V., and Simic, T. P., 1999, Free Radicals in Cardiovascular Diseases, *Med. Boil.*, **6**, 11-22.
- Mishra, K., Ojha, H., and Chaudhury, N. K., 2012, Estimation of Antiradical Properties of Antioxidants Using DPPH Assay: A Critical Review and Results, *Food Chemistry*, **130** (2012), 1036-1043.
- Molyneux, P., 2004, The Use of The Stable Free Radical Diphenylpicryl-hydrazyl (DPPH) For Estimating Antioxidant Activity, *Songklanakarinn J. Sci. Technol.*, **26** (2), 211-219.
- Okada, K., Wangpoengtrakul, Tanaka, T., Toyokumi, S., Uchida, K., and Osawa, T., 2001, Curcumin and Especially Tetrahydrocurcumin Ameliorate Oxidative Stress-induced Renal Injury in Mice, *J. Nutr.*, **131**, 2090-2095.
- Pan, M. H., Huang, T. M., and Lin, J. K., 1999, Biotransformation of Curcumin Through Reduction and Glucuronidation in Mice, *Drug Metabolism and Disposition*, **27** (4), 486-494.
- Pramitasari, Y. N., 2013, Sintesis dan Karakterisasi Senyawa Kompleks dari  $Zn(NO_3)_2$  dan  $ZnSO_4$  dengan Ligan 2,2'-Bipiridina, *Skripsi*, Jurusan Kimia, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Negeri Malang, Malang.

- Pavia, D. L., Lampman, G. M., and Kriz Jr, G. S., 2001, *Introduction to Spectroscopy*, 14-428, W. B. Saunders Company, Philadelphia.
- Percival, M., 1996, Antioxidants, *Nutrition Publications*, **1**, 1-4.
- Praditya, I., 2014, Sintesis Senyawa Tetrahidroheksagamavunon-7 Melalui Reaksi Hidrogenasi Katalitik Dengan Katalis Paladium/Kabon, *Skripsi*, Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.
- Purba, E. R. dan Martono, M., 2009, Kurkumin Sebagai Senyawa Antioksidan, *Prosiding Seminar Nasional Sains dan Pendidikan Sains IV*, Fakultas Sains dan Matematika UKSW, Salatiga, **3**, 607-621.
- Ritmaleni, Lestari, P., and Yuliatun, 2013, Iron (III) Chloride, Aluminium Chloride and Zinc Chloride as Catalysts in The Synthesis of Tetrahydropentagamavunon-0, *Chemistry and Materials Research*, **3** (2), 32-29.
- Ritmaleni, Sardjiman, Widyastani, F. A., Ardinova, S. E. S., and Andhini, J. D., 2013, Identification of Side Products From The Hydrogenation Reaction of Bis(substitutedbenzylidene)cyclopentanone/-cyclohexanone by Using Palladium/Carbon Catalyst, *Chemistry and Materials Research*, **3** (8), 48-57.
- Ritmaleni dan Simbara, A., 2010, Sintesis Tetrahidro Pentagamavunon-0, *Majalah Farmasi Indonesia*, **21**, 3547-3549.
- Sardjiman, 2000, Synthesis of Some New Series of Curcumin Analogues, Anti – oxidative, Anti-inflammatory, Anti-bacterial Activities and Qualitative Structure-Activity-relationship, *Disertation*, Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.
- Sharp, J. T., Gosney, I., Rowley, A. G., 1989, *Practical Organik Chemistry: A Student Handbook of Techniques*, 86, Chapman and Hall, London.
- Silverstein, R. M., and Webster, F. X., 1998, *Spectrometric Identification of Organic Compounds*, 6th Ed., John Wiley & Sons Inc., New York.
- Simbara, A., 2009, Sintesis dan uji aktivitas antioksidan senyawa tetrahidropentagamavunon (THPGV-0), *Tesis*, Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.
- Singhal, M., Paul, A., Singh, H. P., Dubey, S. K., and Gaur K., 2011, Evaluation of Reducing Power Assay of Chalcone Semicarbazones, *J. Chem. Pharm. Res.*, **3** (3), 639-645.

- Siregar, P. H., 2005, Isolasi Senyawa Alkaloid dari Ekstrak Metanol Daun Tumbuhan Jambu Keling, *Jurnal Sains Kimia*, **9** (2), 82-84.
- Sneharani, A. H., Singh, S. A., Srinivas, P., & Rao, A. A., 2011, Inhibition of Lipoxygenase-1 by Tetrahydrocurcumin, *European Food Research and Technology*, **233** (4), 561-568.
- Solomons, T. W. G., 1990, Fundamentals of Organic Chemistry, 3<sup>rd</sup> Edition, John Wiley & Sons, New York, 243- 246 *cit* Ritmaleni dan Simbara, A., 2010, Sintesis Tetrahidro Pentagamavunon-0, *Majalah Farmasi Indonesia*, **21**, 3547-3549.
- Sugiyama, Y., Kawakishi, S., and Osawa, T., 1996, Involvement of the  $\beta$ -diketone Moiety in The Oxidative Mechanism of Tetrahydrocurcumin. *Biochem. Pharmacol.*, **52**,519-525.
- Tonnesen, H., and Karlsen, J., 1985, Studies on Curcuminoid and Curcuminoids: VI. Alkaline Degradation of Curcumin. *Z. Lebensm. Unters Forsch.* 180 : 132-134 *cit*. Kiswanto, 2005, *Perubahan kadar senyawa bioaktif Rimpang temulawak dalam penyimpanan ( Curcuma xanthorrhiza Roxb)*, Fakultas Teknologi Pertanian Institut Pertanian (INTAN) Universitas Gadjah Mada, Yogyakarta.
- Trilaksani, W., 2003, Antioksidan: Jenis, Sumber, Mekanisme Kerja, dan Peran Terhadap Kesehatan, <http://www.wini.trilaks@plasa.com>, 09 Maret 2015.
- Tsuji, J., 2003, *Palladium Reagents and Catalyst: New Perspectives for the 21<sup>st</sup> Century*, 656, John Wiley and Sons, Inc., New York.
- Utama, D. G. A., 2012, Uji Daya Tangkap Radikal 2,2-difenil-1-pikrilhidrazil dan Daya Reduksi Senyawa Tetrahidropantagamavunon-1 (THPGV-1), *Skripsi*, Fakultas Farmasi Universitas Gadjah Mada Yogyakarta.
- Venkatesan, P., and Rao, M. N. A., 2000, Structure-Activity Relationship for The Inhibition Peroxidation and The Scavenging of Free Radical by Synthetic Symmetrical Curcumin Analogues, *J. Pharm. Pharmacol.*, **52**, 1123-1128.
- Wibowo, H., 2013, Sintesis Tetrahidroheksagamavunon-5 dari Starting Material Heksagamavunon-5 dengan Katalis Paladium Karbon Melalui Reaksi Hidrogenasi, *Skripsi*, Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.
- Widada, B. 2000. Pengenalan Alat Kromatografi Gas. *Urania*, No.23-24. ISSN 0852-4777.

- Wuryantoko, T., dan Margono, S. A., 1997, Daya Reduksi Kurkumin dan Turunannya (4-Alkil-Kurkumin) Terhadap Ion Ferri yang Diuji Dengan Metode Ortho-Fenantrolin Kompleks, *Majalah Farmasi Indonesia*, **8** (4), 171-178.
- Xie, J., and Schaich, K. M., 2014, Re-evaluation of the 2,-Diphenyl-1-picrylhydrazyl Free Radical (DPPH) Assay for Antioxidant Activity, *J. Agric. Food Chem.*, **62**, 4251-4260.
- Yongson, R., 2005, *Antioksidan: Manfaat Vitamin C dan E bagi Kesehatan*, 15-21, Arcan, Jakarta.
- Zangger, K., 2015, Progress in Nuclear Magnetic Resonance Spectroscopy, *Elsevier B.V.*, **86-87**, 1-20.