

DAFTAR PUSTAKA

- Adrianta, Ketut Agus, 2016, Identifikasi Senyawa Antosianin dan Metabolit Sekunder dari Ekstrak Etanol Beras Ketan Hitam (*Oryza sativa* L.) dalam Pemanfaatannya sebagai Alternatif Pengobatan Demam Berdarah Dengue, *Medicamento* **2**, 17-22.
- Aiyeloja, AA & Bello OA., 2006, Ethnobotanical Potentials of Common Herbs in Nigeria : A Case Study of Enugu State, *Educational Research and Review* (**1**), 16-22.
- Aja, P.M., E.U. Alum, N.N. Ezeani, B.U. Nwali, N. Edwin, 2015, Comparative Phytochemical Composition of *Cajanus cajan* Leaf and Seed, *International Journal of Microbiological Research* **6**, **1**, 42-46.
- Akhdiya, A., 2003, Isolasi Bakteri Penghasil Enzim Protease Alkalin Termotabil, *Buletin Plasma Nutfah* **9** (**2**), 38 - 44.
- Akpan, I., & Adelaja F.A., 2003, Production and Stabilization of Amylase Preparations from Rice Bran Solid Medium, *World Journal of Microbiology and Biotechnology*, **20**, 47-50.
- Aliyah, Nur, 2018, Analisis Kandungan Polifenol Total, Flavonoid Total, serta Aktivitas Antioksidan pada Biji Lebuli (*Cajanus cajan* L. Millsp.) Yang Berasal dari Provinsi Nusa Tenggara Barat dan Formula Beras Analog Fungsional, *Skripsi*, Universitas Gadjah Mada, Yogyakarta.
- Anonim, 1985, *Cara Pembuatan Simplisia*, 5-10, Direktorat Jendral Pengawasan Obat dan Makanan, Jakarta.
- Anonim, 1986, *Sediaan Galenik*, Departemen Kesehatan Republik Indonesia, Jakarta.
- Anonim, 1995, *Farmakope Indonesia*, Edisi IV, Departemen Kesehatan Republik Indonesia, Jakarta.
- Anonim, 2000, *Parameter Standar Umum Ekstrak*, Badan Pengawas Obat dan Makanan RI, Departemen Kesehatan Republik Indonesia, Jakarta.
- Anonim, 2005, *Pharmaceutical Care untuk Penyakit Diabetes Mellitus*, Ditjen Bina Kefarmasian dan Alat Kesehatan, Departemen Kesehatan Republik Indonesia, Jakarta.
- Anonim, 2008, *Farmakope Herbal Indonesia*, Edisi I, 165-166, Departemen Kesehatan RI, Jakarta.
- Anonim, 2013, *Riset Kesehatan Dasar : RISKESDAS 2013*, 88-90, Badan Penelitian dan Pengembangan Kesehatan KEMENKES RI, Jakarta.
- Banu, R. H., & Nagarajan, N., 2014, TLC and HPTLC fingerprinting of leaf extracts of *Wedelia chinensis* (Osbeck) Merrill, *Journal of Pharmacognosy and Phytochemistry*, **2** (**6**), 29-33.
- Berka, R. M., & J. R. Cherry, 2006, "Enzyme Biotechnology" in *Basic Biotechnology*, Chambridge University Press, Chambridge.
- Bhat, S. V., B. A. Nagasampagi, S. Meenakshi, 2009, *Natural Products : Chemistry and Application*, Narosa Publishing House, New Delhi, India.
- Bloch C, & Richardson M, 1991, A New Family of Small (5 kD) Protein Inhibitors of Insect α -Amylase from Seeds of Sorghum (*Shorghum bicolor* (L) Moench) Have Sequence Homologies with γ -Purothionin, *FEBS Lett* **279**, 101-104.

- Brahmachari, G., 2011, Bio-Flavonoids with Promising Antidiabetic Potentials: A Critical Survey, *Research Signpost*, 187-212.
- Brenfeld, Peter, 1995, Amylase, α and β , *Method in Enzymology*, **1**, 149-158.
- Bressani, R & L.G. Elias, 1980, *The Nutritional Role of Polyphenols in Beans dalam Hulse, JH. (ed.) Polyphenols in Cereals and Legumes*, IDRC, Ottawa, Canada.
- Chambell, Neil A., Jane B. Reece, Martha R. Taylor, Eric J. Simon, & Jean L. Dickey, 2006, *Biology : Concepts & Connections*, The Benjamin/Cummings Publishing Company, California.
- Chaplin, M.F. & Bucke, 1990, *Enzyme Technology*, Cambridge University Press, Cambridge, Great Britain.
- Chisholm-Burns, M.A., Wells B.G., Schwinghammer T.L., Malone P.M., Kolesar J.M., 2008, *Pharmacotherapy Principle and Practice*, McGraw-Hill, New York.
- Chreighton, R., 1989, Protein Structure, *Elsevier Science Publishers*.
- Corwin, E.J., 2001, *Buku Saku Patofisiologi*, diterjemahkan oleh Brahm U. Pendit, 542-548, EGC, Jakarta.
- Corwin, E.J., 2008, *The Pancreas and Diabetes Mellitus. Dalam Handbok of Patophysiology*, Edisi 3, 550-570, Lippincott Willian dan Wilkins, Philadelphia.
- Crozier, A., Michael E. J. L., McDonald, M. S., & Black C., 1997, Quantitative Analysis of The Flavonoid Content of Commercial Tomatoes, Onions, Lettuce, and Celery, *J. Agric. Food. Chem.*, **45**, 590-595.
- Dalimartha, Setiawan, 1999, *Atlas Tumbuhan Obat Indonesia Jilid 1*, Trubus Agriwidya, Jakarta.
- Damaris, A.O., 2007, The Potential of Pigeonpea in Africa, *National Resource Forum* **31**, 297-305.
- De Sales, Paloma Michelle, Paula Monteiro de Souza, Luiz Alberto Simeoni, Perola de Oliveira Magalhaes, & Damaris Silveira, 2012, α -Amylase Inhibitors: A Review of Raw Material and Isolated Compound from Plant Source, *J. Pharm Pharmaceut Sci* **15**, **1**, 141-183.
- Dipiro, Joseph T., Robert L. Talbert, Hary C. Yee, Gary R. Matzke, Barbara G. Wells, & L. Michael Posey, 2005, *Pharmacotherapy A Pathophysiologic Approach*, 1333-1352, McGraw-Hill, New York.
- Fachruddin, Lisdiana, 2000, *Budidaya Kacang-kacangan*. Kanisius, Yogyakarta.
- Feng, GH, Richardson M, Chen MS, Kramer KJ, Morgan TD, & Reeck GR, 1996, α -Amylase Inhibitors from Wheat: A Sequences and Pattern of Inhibition of Insect and Human α -Amylase, *Insect. Biochem. Mol. Biol* **26**, 419-426.
- Feng, J., Yang X-V, & Wang R-F, 2011, Bio-assay Guided Isolation and Identification of α -Glucosidase Inhibitor from the Leaves of *Aquilaria sinensis*, *Phytochemistry*, **72**, 242-247.
- Fessenden, R.J. and Fessenden, J.S., 1992, *Kimia Organik*, Jilid II, 395-396, Erlangga, Jakarta.
- Fitrianingsih, Sri Peni, Indra Topik Maulana, Ratu Choerina, Desirian Dwiputri, & Ratih Aprilliani, 2016, *Uji Aktivitas Penghambatan Alfa Amilase Ekstrak Daun Tithonia diversifolia secara In Vitro*, Prosiding Seminar Nasional Penelitian dan PKM Kesehatan, Bandung.

- Franco OL, Rigden DJ, Melo FR, Bloch Jr.C, Silva CP, & Grosside-Sa DF, 2000, Activity of Wheat α -Amylase Inhibitors Toward Bruchid α -Amylase and Structural Explanation of Observed Specificities, *Eur. J Biochem* 269, 397-412.
- Giri AP, Manvendra Kachole, 1998, Amylase Inhibitors of Pigeonpea (*Cajanus cajan*) seeds, *Phytochemistry* 47, 197-202.
- Gross, J., 1987, *Pigment in Fruits*, Academic Press, London.
- Grossi de Sa MF, Mirkov TE, Ishimoto M, Colucci G, Bateman KS, & Chrispeels MJ, 1997, Molecular Characterization of A Bean α -Amylase Inhibitor that Inhibits The α -Amylase of the Mexican Bean Weevil *Zabrotes subfasciatus*, *Planta* 203, 295-303.
- Grotewold, Erich, 2006, *The Science of Flavonoids*, Springer, New York.
- Hansawasdi, C., Kawabata J., & Kasai T., 2000, Alpha-amylase Inhibitors from roselle (*Hibiscus sabdariffa* Linn) tea, *Biosci Biotechnol Biochem*, 65 (9), 2087-2089.
- Harborne, J.B., 1987, *Metode Fitokimia. Penuntun Cara Modern Mengekstraksi Tumbuhan*, diterjemahkan oleh Kosasih Padmawinata dan Iwang Soediro, Penerbit ITB, Bandung.
- Hartika, R., 2009, Aktivitas Inhibisi α -Glukosidase Ekstrak Senyawa Golongan Flavonoid Buah Mahkota Dewa, *Skripsi*, Departemen Kimia Fakultas Matematika dan Ilmu Pengetahuan Alam Institut Pertanian Bogor, Bogor.
- IDF Atlas, 2015, *IDF Diabetes Atlas*, 7th Edition, International Diabetes Federation.
- Jabir, Abdulwahid Sh., & Iraby, Asma G., 2014, Studying The Effect of Anti-Amylase Inhibitor Extracted from White Kidney Bean (*Phaseolus vulgaris*) in Treat Diabetes and Obesity in An Affected Mice, *Int.J.Curr.Microbiol.App.Sci* 3, 10, 97-106.
- Jayaprakasam, B., S. K. Vareed, & L. K. Olson, 2005, Insulin Secretion by Bioactive Antocyanins and Antcyanidins Present in Fruits, *Journal of Agriculture in Food Chemistry*, 53, 28-31.
- Johnson, E.L., dan Stevenson, R., 1991, *Dasar Kromatografi Cair Kinerja Tinggi*, Penerbit ITB Bandung.
- Julkunen-Tiito, R., 1985, Phenolic Constituent in Leaves of Northern Willows: Methods for Analysis of Certain Phenolics, *J. Agric. Food Chem.*, 33, 213-217.
- Kant, Ravi, 2005, Sweet Proteins – Potential Replacement for Artificial Low Calorie Sweeteners, *Nutrition Journal*, 4, 5.
- Kotowaroo, MI, Mahomoodally MF, Gurib-Fakim A, & Subratty AH, 2006, Screening of Traditional Antidiabetic Medicinal Plants of Mauritius for Possible α Amylase Inhibitory Effect in Vitro, *Phytother Res*, 20, 228-231.
- Krause, D.O., Smith, W.J.M., Brooker, J.D. & McSweeney, C.S., 2005, Tolerance Mechanisms of Streptococci to Hydrolysable and Condensed Tannins, *Anim. Feed Sci. Technol.*, 121, 59-75.
- Krisnawati, Ayda, 2005, Prospek Serta Pencandraan Sifat Kualitatif dan Kuantitatif Kacang Gude (*Cajanus cajan* L. Millsp.), *Bul. Palawija*, 9, 1-10.
- Lehninger, A.L., 1995, *Dasar-dasar Biokimia*, Jilid 1, Erlangga, Jakarta.
- Lidya & Djenar, 2000, *Dasar Bioproses*, Direktorat Pembinaan Penelitian dan Pengabdian pada Masyarakat, Direktorat Jendral Pendidikan Tinggi Departemen Pendidikan Nasional, Jakarta.

- Linn, W.D., Wofford M.M., O'Keefe M.E., Posey L.M., 2009, *Pharmacotherapy in Primary Care*, McGraw-Hill, New York.
- Mabry, T.J., Markham, K.R. & Thomas, M.B., 1970, *The Systematic Identification of Flavonoid*, Springer-Verlag, Berlin.
- Maintang, Arini Putri Hanifa, & Rivana Agustin, 2014, *Potensi Kacang Gude Sebagai Komponen Diversifikasi Pangan*, Prosiding Seminar Hasil Penelitian Tanaman Aneka Kacang dan Umbi, Makasar.
- Mansjoer, A., 1999, *Kapita Selekta Kedokteran*, Media Aesculapius, Jakarta.
- Markakis, P., 1992, *Anthocyanins as Food Additives*, Academic Press, New York.
- Markham, K.R., 1988, *Cara Mengidentifikasi Flavonoid*, diterjemahkan oleh Kosasih Padmawinata, Penerbit ITB, Bandung.
- Marliana, S.D., Suryanti V., & Suyono, 2005, Skrinning Fitokimia dan Analisis Kromatografi Lapis Tipis Komponen Kimia Buah Labu Siam (*Sechium edule jacq. Swartz*) dalam Ekstrak Etanol, *Skripsi*, Universitas Sebelas Maret, Surakarta.
- McCue P., & Shetty K., 2004, Inhibitory Effects Of Rosmarinic Acid Extracts On Porcine Pancreatic Amylase In Vitro, *Asian Pac J Clin Nutr*, **13**, 101–106.
- Melo FR, Sales MP, Pereira LS, Bloch CJ, Franco OL, Ary MB, 1999, α -Amylase Inhibitors from Cowpea Seeds. *Protein and Peptide Letters* 6, 385-390.
- Mishra, BK, & Dadhich SK., 2010, Production of Amylase and Xylanase Enzymes from Soil Fungi of Rajasthan, *Journal Adv. Dev. Res.*, 1 (1), 21-23.
- Muchtadi, M., Palupi N.S., Astawan M., 1992, *Bahan Kuliah Enzim dalam Industri Pangan*. Departemen Pendidikan dan Kebudayaan, Institut Pertanian Bogor, Bogor.
- Mulyani, Anni, Dedi Nursyamsi, & Irsal Las, 2014, *Percepatan Pengembangan Pertanian Lahan Kering Iklim Kering di Nusa Tenggara*, Balai Besar Penelitian dan Pengembangan Sumberdaya Lahan Pertanian, Bogor.
- Nair, Sindhu S., Vaibhavi Kavrekar & Anshu Mishra, 2013, *In vitro* Studies on Alpha Amylase and Alpha Glucosidase Inhibitory Activities of Selected Plant Extracts, *European Journal of Experimental Biology* 3 (1), 128-132.
- Odhav, B., Kandasamy T., Khumalo N., Baijinath H., 2010, Screening of African Traditional Vegetable for Their Alpha-Amylase Inhibitory Effect, *Med Plants Res*, **4**, 1502-1507.
- Page, D.S., 1997, *Prinsip-Prinsip Biokimia*, Erlangga, Jakarta.
- Pekkarinen AI, Jones BL, 2003, Purification and Identification of Barley (*Hordeum vulgare* L) Proteins that Inhibit The Alkaline Serine Proteinase of *Fusarium culmorum*, *J Agric Food Chem* 51, 1710-1717.
- Pelczar, M. J. dan Chan, E. C. S., 2005, *Dasar-dasar Mikrobiologi 1*, diterjemahkan oleh Hadioetomo, R. S., Imas, T., Tjitrosomo, S.S. dan Angka, S. L., UI Press, Jakarta.
- Perkeni, 2011, *Konsensus Pengelolaan dan Pencegahan Diabetes Melitus Tipe 2 di Indonesia*, Perkumpulan Endokrinologi Indonesia, Jakarta.
- Poedjiadi, A., 1994, *Dasar-dasar Biokimia*, 155, 158-160, UI-Press, Jakarta.
- Prasetyo, & Entang Inorah, 2013, *Pengelolaan Budidaya Tanaman Obat-obatan (Bahan Simplisia)*, Badan Penerbitan Fakultas Pertanian UNIB, Bengkulu.

- Purwanto, Imam, 2007, *Mengenal Lebih Dekat Leguminosae*, Kanisius, Yogyakarta.
- Qian, M., Nahoum V., Bonicel J., Bishoff H., Henrissat B., Payan F., 2001, Enzyme-catalyzed Condensation Reaction in A Mammalian Alpha-amylase. High Resolution Structural Analysis of An Enzyme Inhibitor Complex, *Biochemistry*, **40**, 7700-7709.
- Rais, Ichwan Ridwan, Agung Giri Samudra, Sitarina Widayarni, & Agung Endro Nugroho, 2013, Determination of Andrographolide Isolate Activity to α -Amylase and α -Glucosidase Using Apostolidis and Mayur Method, *Trad. Med. J.*, **18** (3), 162-166.
- Reddy, NS., A Nimmagadda, KR Rao, 2003, An Overview of Microbial α -Amylase Family, *Afr J Biotechnol*, **2**, 645-648.
- Richardson, M., 1990, Seed Storage Proteins: The Enzyme Inhibitors. In *Methods in Plant Biochemistry* (Rogers L. Ed) **5**, Academic Press, London, 261-307.
- Robinson, Trevor, 1995, *Kandungan Organik Tumbuhan Tinggi*, Penerbit ITB, Bandung.
- Sabirin, M. Hardjono S., & Respati S., 1994, *Pengantar Praktikum Kimia Organik II*, Universitas Gadjah Mada, Yogyakarta.
- Sales, P.M.D., Souza P.M.D., Simeoni L.A., Magalhaes P.D.O., Silveria D., 2012, α -Amylase Inhibitors: A Review of Raw Material and Isolated Compounds from Plant Source, *J. Pharm Pharmaceut Sci* **15**, **1**, 141-183.
- Samson, Z.M., 2010, Senyawa Golongan Alkaloid Ekstrak Buah Mahkota Dewa sebagai Inhibitor Alfa Glukosidase, *Skripsi*, Departemen Kimia Fakultas Matematika dan Ilmu Pengetahuan Alam Institut Pertanian Bogor, Bogor.
- Samudra, Agung Giri, Betna Dewi, Agung Endro Nugroho, Amir Husni, 2015, Aktivitas Inhibisi α -Amylase Ekstrak Alginat dan Senyawa Polifenol dari *Sargassum hystrix*, *Tesis*, Universitas Gadjah Mada, Yogyakarta.
- Samuelsson, G., 1999, *Drugs of Natural Origin A Textbook of Pharmacognosy*, Edisi 4, Apotekarsocieteten, Swedia, 46-47.
- Sangi, M., M. R. J. Runtuwene, H. E. I. Simbala, & V. M. A. Making, 2008, Analisis Fitokimia Tumbuhan Obat di Kabupaten Minahasa Utara, *Chem. Prog.*, **1** (1), 47-53.
- Sastrohamidjojo, H., 2002, *Kromatografi*, Edisi Kedua, Penerbit Liberty, Yogyakarta.
- Saxena, KB, Vijaya KR, & Sultana R., 2010, Quality Nutrition Through Pigeonpea : A Review, *Health*, **2**, 1335-1344.
- Sharifa, A. A., Jamaludin J., Kiong L. S., Chia L. A., & Osman K., 2012, Anti-Urolithiatic Terpenoid Compound from *Plantago Major* Linn (Ekor Anjing), *Sains Malaysiana*, **41** (1), 33-39.
- Sharma, S., N. Agarwal, P. Verma, 2011, *J. Of Functional and Environ, Bot* **1**(2), 91-101.
- Shipra, D., S. Surendra, S. Vinni., LS. Manohar, 2011, Biotechnological Applications of Industrially Important Amylase Enzyme, *International Journal Pharmaceutical Biology Science*. **2**(1), 486-496.
- Simm, E.L., & D.L. Taylor, 2002, Partner Choice in Nitrogen-Fixation Mutualisms of Legumes and Rhizobia. *Integ. Comp. Biol*, **42**, 369-380.

- Singh, F., & Oswald, D.L., 1984, *Pigeon Pea Botany and Production Practices*. ICRISAT Patancheru, Andhra Pradesh, India.
- Singleton, P. & Diana, S., 2006, *Dictionary of Microbiology and Molecular Biology*, Third Edition, John Wiley & Sons, United Kingdom.
- Sirait, M., 2007, *Penuntun Fitokimia dalam Farmasi*, Penerbit ITB, Bandung.
- Soedigdo, 1988, *Metode Penelitian Biokimia*, PAU Bioteknologi Institut Teknologi Bandung, Bandung.
- Soegondo, Sidartawan, Pradana Soewondo, Imam Subekti, 2004, *Penatalaksanaan Diabetes Melitus Terpadu*, Balai Penerbit FKUI, Jakarta.
- Souza, P.M., & Magalhaes P.O., 2010, *Application of Microbial α -Amilase in Industry*, Universidade de Brasilia, Brasil.
- Stahl, Egon, 1985, *Analisis Obat secara Kromatografi dan Mikroskopi*, ITB, Bandung.
- Sudha, P., Zinjarrde S. S., Shobha Y. B., Kumar A. R., 2011,
- Sukandar, D., S. Hermanto, & I. A. Maburur, 2009, *Aktivitas Senyawa Antidiabetes Ekstrak Etil Asetat Daun Pandan Wangi (Pandanus Amaryllifolius Roxb.)*, UIN Syarif Hidayatullah, Jakarta.
- Sumartono, Lilis Nuraida, & Dian Herawati, 2012, *Cara Produksi Simplisia yang Baik*, <http://seafast.ipb.ac.id/tpc-project/wp-content/uploads/2013/07/cara-produksi-simplisia-yg-baik.pdf>, diakses pada 1 April 2018.
- Sutardi, Tranggono & Hartuti, 1993, Aktivitas Fitase pada Tahap Pembuatan Tempe Kara Benguk, Kara Putih dan Gude Menggunakan Inokulum *Rhizopus oligospora*, *Agrotech 13*, **3**, 1-5.
- Suyono, Slamet, 2002, *Penatalaksanaan Diabetes Mellitus Terpadu*, Balai Penerbit FKUI, Jakarta.
- Taylor, Leslie, 2005, *Tropical Plant Database: GUANDU (Cajanus cajan)*, www.rain-tree.com/guandu.htm, 13 Oktober 2017.
- Tiwari AK, Abhinay B, Babu KS, Kumar DA, Zehra A, Madhusudana K, 2013, Pigeon Pea Seed Husks as Potent Natural Resource of Anti-Oxidant and Anti-Hyperglycemic Activity, *International Journal of Green Pharm* **7**, 252-257.
- Tjay, T.H., & Rahardja, K, 2002, *Obat-obat Penting*, Edisi kelima, 48, 702-703, PT. Elex Media Komputindo Kelompok Gramedia, Jakarta.
- Tipton, K., & Boyce, S., 2000, History of the enzyme nomenclature system. *Bioinformatics*, **16** (1), 34-40.
- Uchegbu, Nneka N., & Charles N. Ishiwu, 2016, Germinated Pigeon Pea (*Cajanus cajan*): A Novel Diet for Lowering Oxidative Stress and Hyperglycemia, *Food Science & Nutrition* **4**, **5**, 772-777.
- Wagner, H., & Bladt, S., 2001, *Phytochemical Screening "Plant Drug Analysis. A Thin Layer Chromatography Atlas*, Springer, Berlin.
- Winarno, 2010, *Enzim Pangan*, Gramedia Pustaka Utama, Jakarta.
- Wirakartakusumah, MA., Thenawidjaja M., Jennie BSL., Wardoyo R., Sastrodipuro D., Nuraida L., Nurtama B., 1986, *Isolasi dan Karakterisasi Enzim dari Aspergillus niger serta Pemanfaatan dalam Pembangunan Industri Gula Cair*. Direktorat Pembinaan Penelitian dan Pengabdian pada Masyarakat, Direktorat Jendral Pendidikan Tinggi, Departemen Pendidikan Kebudayaan.



- Yamagata H, Kunimatsu K, Kamasaka H, Kuramoto T, & Iwasaki T, 1998, Rice Bifunctional α -Amylase/Subtilisin Inhibitor: Characterization, Localization and Changes in Developing and Germinating Seeds, *Biosc. Biotechnol Biochem* 62, 978-985.
- Young Nm, Thibault P, Watson DC, & Chrispeels MJ, 1999, Post Translational Processing of Two α -Amylase Inhibitor and An Arcelin from The Common Bean *Phaseolus vulgaris*, *FEBS Lett* 446, 203-206.