

DAFTAR PUSTAKA

- AOAC - Association of Official Analytical Chemists, 2011. '**Annex I : Validation Study Protocols**', pp. 1–27.
- Asif, H.M., Akram, M., Saeed, T., Khan, M.I., Akhtar, N., Rehman, R.U., Shah, S.M.A., Ahmed, K., and Shaheen, G., 2011. 'Carbohydrates', 1(vitamin C), **International Research Journal of Biochemistry and Bioinformatics**, pp. 1–5.
- Barlina, R., 2015. 'EKSTRAK GALAKTOMANAN PADA DAGING BUAH KELAPA DAN AMPASNYA SERTA MANFAATNYA UNTUK PANGAN', **Indonesian Palm Crops Research Institute**, 14(1), pp. 37–50.
- Bhatt, R.K., Jukanti, A.K. and Roy, M.M., 2015. 'Cluster bean [*Cyamopsis tetragonoloba* (L.) Taub.], an important industrial arid legume: A review', *Legume Research*, **AGRICULTURAL RESEARCH COMMUNICATION CENTRE**, 40(2), pp. 207–214. doi: 10.18805/lr.v0iOF.11188.
- Busch, V.M., Kolender, A.A., Santagapita, P.R., and Buera, M.P., 2015. 'Vinal gum, a galactomannan from *Prosopis ruscifolia* seeds: Physicochemical characterization', *Food Hydrocolloids*, **Elsevier**, 51, pp. 495–502. doi: 10.1016/j.foodhyd.2015.04.035
- Chua, M., Chan, K., Hocking, T.J., Williams, P.A., Perry, C.J., and Baldwin, T.C., 2012. 'Methodologies for the extraction and analysis of konjac glucomannan from corms of *Amorphophallus konjac* K. Koch', *Carbohydrate Polymers*. **Elsevier Ltd.**, 87(3), pp. 2202–2210. doi: 10.1016/j.carbpol.2011.10.053.
- Cui, S. and Brummer, Y., 2005. *Understanding Carbohydrate Analysis, Food Carbohydrates*. **Taylor & Francis Group LLC**, doi: 10.1201/9780203485286.ch2.
- De Caro, C., 2015. 'UV / VIS Spectrophotometry', *Mettler-Toledo International*, **METTLER-TOLEDO International**, (September 2015), pp. 4–14.

- Dhawan, S. and Kaur, J., 2007. 'Microbial mannanases: An overview of production and applications', *Critical Reviews in Biotechnology*, **Informa Healthcare USA, Inc.** 27(4), pp. 197–216. doi: 10.1080/07388550701775919.
- Ditjen POM., 2000. 'Parameter standar umum ekstrak tumbuhan obat, Jakarta: **Departement Kesehatan Republik Indonesia**', *Edisi IV*, pp. 9–11, 16. doi: 615.32.
- Dubois, M., Gilles, K.A., Hamilton, J.K., Rebers, P.A., and Smith, F. 1956., Colorimetric method for determination of sugar and related substances. *Anal.Chem. Division of Biochemistry, University of Minnesota*, 28:350-356.
- Evans, L., 2018. 'UV-VIS Spectrophotometry A Brief Background to Spectrophotometry', **Biochrom**, (1), pp. 1–15. Available at: https://biochromspectros.com/media/wysiwyg/support_page/UV-Visible_Spectrophotometry.pdf.
- Fu, X., Wei, X., Xiao, M., Han, Z., Secundo, F., and Mou, H., 2020. 'Properties of hydrolyzed guar gum fermented in vitro with pig fecal inocula and its favorable impacts on microbiota', *Carbohydrate Polymers*, 237(November 2019). doi: 10.1016/j.carbpol.2020.116116
- Gadkari, P.V., Tu, S., Chiyarda, K., Reaney, M.J.T., and Ghosh, S., 2018. 'Rheological characterization of fenugreek gum and comparison with other galactomannans', *International Journal of Biological Macromolecules. Elsevier B.V*, 119, pp. 486–495. doi: 10.1016/j.ijbiomac.2018.07.108
- Garcia, P.L., Buffoni, E., Gomes, F.P., and Quero, J.L.V., 2011. 'Analytical Method Validation', *Wide Spectra of Quality Control*, (July). doi: 10.5772/21187.
- Gupta, S. C., Hooda, K.S., Mathur, N.K., and Gupta, S., 2009. 'Tailoring of Guar gum for desert sand stabilization', *Indian Journal of Chemical Technology, Indian Patent Office*, 16(6), pp. 507–512.
- Harris, D.C., 2010. *Cuantitative Chemical Analysis* eighth edition. New York : **W. H. Freeman and Company**.
- Harvey, D., 2000. *Modern Analytical Chemistry*. Greencastle, Indiana, U.S: Copyright © 2000 by **The McGraw-Hill Companies, Inc.**

- Hirjani, H., Mudasir, M., and Pranowo, H. D., 2018. 'Prediction of High Performance Liquid Chromatography Retention Time for Some Organic Compounds Based on Ab initio QSPR Study', *Acta Chimica Asiana*, 1(1), p. 24. doi: 10.29303/aca.v1i1.6.
- Hu, B., Lu, Q., Jiang, X., Dong, X., Cui, M., Dong, C., and Yang, Y., 2018. 'Pyrolysis mechanism of glucose and mannose: The formation of 5-hydroxymethyl furfural and furfural', *Journal of Energy Chemistry, National Engineering Laboratory for Biomass Power Generation Equipment*, 27(2), pp. 486–501. doi: 10.1016/j.jechem.2017.11.013.
- Hu, X., Shi, Y., Zhang, P., Miao, M., Zhang, T., and Jiang, B., 2016. 'd-Mannose: Properties, Production, and Applications: An Overview', *Comprehensive Reviews in Food Science and Food Safety, Institute of Food Technologists* 15(4), pp. 773–785. doi: 10.1111/1541-4337.12211.
- Kementrian Kesehatan RI., 2014. Farmakope Indonesia Edisi V, **Direktorat Jendral Bina Kefarmasian dan Alat Kesehatan**.
- Kobeasy, I., Fatah, M.A., Salam, S.M.A.E., and Mohammed, Z.E.O.M., 2011. 'Biochemical studies on *Plantago major* L. and *Cyamopsis tetragonoloba* L', **International Journal of Biodiversity and Conservation**, 3(3), pp. 83–91. Available at: <http://www.academicjournals.org/ijbc>.
- Kristianingrum, S., 2014. *HANDOUT SPEKTROSKOPI ULTRA VIOLET DAN SINAR TAMPAK (SPEKTROSKOPI UV-VIS)*. Yogyakarta : **Universitas Negeri Yogyakarta**.
- Kumar., 2015. *GUAR STATUS, POTENTIAL, PROSPECTS, CHALLENGES AND R&D ROAD MAP*, India : **Technology Information, Forecasting And Assessment Council**.
- Kuravadi, N.A., Verma, S., Pareek, S., Gahlot, P., Kumari, S., Tawar, U.K., Tanwar, Bhatele, P., Choudhary, M., Gill, K.S., Pruthi, V., Tripathi, S.K., Dhugga, K.S., and Randhawa, G.S., 2013. *Guar: an industrial crop from marginal farms, Agricultural Sustainability*. **Elsevier Inc**. doi: 10.1016/B978-0-12-404560-6.00003-4.
- Lesnichaya, M.V., Aleksandrova, G.P., Sukhov, B.G. and Rokhin, A.V., 2013. 'Molecular-weight characteristics of galactomannan and carrageenan', *Chemistry of Natural Compounds*, **Springer Science and Business Media New York**, 49(3), pp. 405–410. doi: 10.1007/s10600-013-0625-x.

- Lucyszyn, N., Quoirin, M., Anjos, A., and Sierakowski, M.R., 2005. 'Agar / galactomannan Gelled Medium for Marubakaido Apple Rootstock Shoot Proliferation', **Ciência e Tecnologia**, pp. 296–300
- McMurry, J., 2008. *Organic Chemistry*, **Thomson Learning, Inc**
- Meftahizadeh, H., Ghorbanpour, M., and Asareh, M.H., 2019. 'Comparison of morphological and phytochemical characteristics in guar (*Cyamopsis tetragonoloba* L.) landraces and cultivars under different sowing dates in an arid environment', *Industrial Crops and Products*, **Elsevier B.V.**, 140(July). doi: 10.1016/j.indcrop.2019.111606
- Mudgil, D., Barak, S. and Khatkar, B.S., 2011. 'Guar gum: Processing, properties and food applications - A Review', *Journal of Food Science and Technology*, India : **Association of Food Scientists & Technologists**, 51(3), pp. 409–418. doi: 10.1007/s13197-011-0522-x.
- Munjanja, B., and Sanganyado, E., 2016. 'UV–Visible Absorption, Fluorescence, and Chemiluminescence Spectroscopy', *Handbook of Food Analysis Instruments*, **University of Cincinnati**, pp. 1–533. doi: 10.1201/9781420045673.
- Naik, C.S.R., Ankaiah, R., Sudhakar, R., Reddy, T.D., Murthy, V.R., Spandana, B., and Jatotu, J.L., 2013. 'Variation in the protein and galactomannan content in guar seeds of different genotypes', **Plant Archives**, 13(1), pp. 247–252
- National Center for Biotechnology Information., 2020. PubChem Compound Summary for CID 22138231, Phenol;sulfuric acid. Diakses dari <https://pubchem.ncbi.nlm.nih.gov/compound/22138231>., pada tanggal 6 Agustus 2020
- Nielsen, S.S., 2010. 'Phenol-Sulfuric Acid Method for Total Carbohydrates', **Food Science Texts Series**, pp. 39–44. doi: 10.1007/978-1-4757-5250-2_6.
- Notoatmodjo, S., 2010. *Metodologi Penelitian Kesehatan*. Jakarta : **Rineka Cipta**.
- Parvathy, K.S., Susheelamma, N.S. and Tharanathan, R.N., 2007. 'Hydration characteristics of guar gum samples and their fractions', *Food Hydrocolloids*, 21(4), **Elsevier Ltd.**, pp. 630–637. doi: 10.1016/j.foodhyd.2006.07.006

- Pathak, R., 2015. *Clusterbean: Physiology, genetics and cultivation, Clusterbean: Physiology, Genetics and Cultivation*, **Springer Science and Business Media Singapore**, doi: 10.1007/978-981-287-907-3.
- Pawar, H.A. and D'Mello, P.M., 2011. 'Spectrophotometric estimation of total polysaccharides in Cassia tora gum', **Journal of Applied Pharmaceutical Science**, 1(3), pp. 93–95.
- Prashanth, M.R.S., Parvathy, K.S., Susheelamma, N.S., Prashanth, K.V.H., Tharanathan, R.N., Chan, A., and Anilkumar, G., 2006. 'Galactomannan esters-A simple, cost-effective method of preparation and characterization', *Food Hydrocolloids*, 20(8), pp. 1198–1205. doi: 10.1016/j.foodhyd.2006.01.004
- Putri, A.H., Hawari, F.Y., Mudia, N.E., dan Hasibuan, N.H., 2019. *Preparasi Asam Sulfat Skala Industri di Indonesia*. **Universitas Negeri Padang**.
- Rao, P. and Pattabiraman, T. N., 1989. 'Reevaluation of the phenol-sulfuric acid reaction for the estimation of hexoses and pentoses', *Analytical Biochemistry*, India : **Departement of Biochemistry, Kasturba Medical Colledge**, 181(1), pp. 18–22. doi: 10.1016/0003-2697(89)90387-4
- Rao, T.N., 2018. 'Validation of Analytical Methods', *Analytical Chemistry*, **Licensee IntechOpen**. doi: 10.1021/ac00257a001.
- Ravichandran, V., Shalini, S., Sundram, K.M., and Rajak, H., 2010. 'Validation of analytical methods - Strategies & importance', **International Journal of Pharmacy and Pharmaceutical Sciences**, 2(3), pp. 18–22.
- Riyanto., 2014. 'VALIDASI & VERIVIKASI METODE UJI', **DEEPUBLISH**, 53(9), pp. 1689–1699. doi: 10.1017/CBO9781107415324.004.
- Sabahelkheir, M.K., Abdalla, A.H. and Nouri, S.H., 2012. 'Quality Assessment of Guar Gum (Endosperm) of Guar (Cyamopsis tetragonoloba)', *ISCA Journal of Biological Sciences*, 1(1), pp. 67–70. Available at: <http://www.isca.in/IJBS/Archive/v1i1/10.ISCA-JBS-2012-001.pdf>
- Shukla, A., Panchal, H., Mishra, M., Patel, P.R., Srivastava, H.S., and Patel, P., 2014. 'Soil Moisture Estimation using Gravimetric Technique and FDR Probe Technique: A Comparative Analysis', **AIJRFANS**, (July 2015), pp. 89–92

- Sudjarwo, G. Fransiska, A., and Prawita, A., 2019. 'Development and validation of visible spectrophotometric method for the determination of total D-glucose and D-mannose levels calculated as glucomannan in porang powder (*Amorphophallus oncophyllus*) and Konjac powder (*Amorphophallus konjac*) Sudjarwo', **International Journal of Green Pharmacy**, 13(1), pp. 65–71.
- Suhartati, T., 2017. *DASAR-DASAR SPEKTROFOTOMETRI UV-VIS DAN SPEKTROFOTOMETRI MASSA UNTUK PENENTUAN STRUKTUR SENYAWA ORGANIK, AURA CV. Anugrah Utama Raharja Anggota IKAPI No.003/LPU/2013.*
- Tarigan, J.B. and Purba, D., 2015. 'Karakterisasi Polisakarida Galaktomanan Kolang-kaling (*Arenga pinnata*) Terikat Silang Fosfat', **Majalah Polimer Indonesia**, 18(1), pp. 1–8.
- Torio, M.A.O., Saez, J. and Merca, F.F., 2006. 'Physicochemical Characterization of Galactomannan from Sugar Palm (*Arenga saccharifera* Labill.) Endosperm at Different Stages of Nut Maturity', *Philippine Journal of Science, Institute of Chemistry, College of Arts and Sciences University of the Philippines*, 135(1), pp. 19–30.
- Tripathi, P. and Pandey, R., 2016. 'Phytochemical screening of guar (*Cyamopsis tetragonoloba*) seed extract', *International journal of applied research*, **International Journal of Applied Research**, 2(10), pp. 98–100. Available at: www.allresearchjournal.com.
- Tripathy, S. and Das, M.K., 2013. 'Guar Gum: Present Status and Applications', *Journal of Pharmaceutical and Scientific Innovation*, **Moksha Publishing House**, 4(4), pp. 24–28. doi: 10.7897/2277-4572.02447.
- Tuteja, J., Nishimura, S. and Ebitani, K., 2012. 'One-pot synthesis of furans from various saccharides using a combination of solid acid and base catalysts', *Bulletin of the Chemical Society of Japan*, **The Chemical Society of Japan**, 85(3), pp. 275–281. doi: 10.1246/bcsj.20110287.
- Viandra, V., 2010. *STUDI REAKSI HIDROLISIS GALAKTOSA DAN FRUKTOSA UNTUK MENGHASILKAN SENYAWA ASAM LEVULINAT MENGGUNAKAN KATALIS HOMOGEN DAN HETEROGEN ASAM. Skripsi. Universitas Indonesia.*
- WHO., 2016. 'Guidelines on Validation – Appendix 4', **World Health Organization**, (June), pp. 1–11.

- Wibawa, P.P., 2017. 'Mata Kuliah Biokimia Karbohidrat', pp. 1–52. Available at: https://simdos.unud.ac.id/uploads/file_pendidikan_1_dir/7ef6b6bab5224263afe23dd81576408d.pdf.
- Wielinga, W.C. and Meyhall, A.G., 2009. 'Galactomannans', *Handbook of Hydrocolloids: Second Edition*, Danisco A/S, pp. 228–251. doi: 10.1533/9781845695873.228.
- Zulmi, R., Kaban, J. and Tarigan, J., 2018. 'INCORPORATION VITAMIN E FROM PFAD IN MATRIX OF MIXED GALAKTOMANAN KOLANG-KALING (*Arenga pinnata*) AND GUM ACASIA', *Jurnal Kimia Mulawarman, Departemen Kimia FMIPA USU*, 15(2), p. 87. doi: 10.30872/jkm.v15i2.608