

DAFTAR PUSTAKA

- Abdullah Dan Imtihani, 2022. Formulasi Dan Evaluasi Granul Dispersi padat amorf Ekstrak Kitosan Cangkang Kepiting Bakau (*Scylla Serrate*) Dengan Perbandingan Kitosan PVP K30 K-30 1:2. *Jurnal Kefarmasian Akfarindo*. 45-51
- Baghel, S., Cathcart, H., & O'Reilly, N. J. (2016). Polymeric Amorphous Solid Dispersions: A Review of Amorphization, Crystallization, Stabilization, Solid-State Characterization, and Aqueous Solubilization of Biopharmaceutical Classification System Class II Drugs. In *Journal of Pharmaceutical Sciences* (Vol. 105, Issue 9, pp. 2527–2544). Elsevier B.V.
- Bagchi, A. (2012). Extraction of Curcumin. *IOSR Journal of Environmental Science, Toxicology and Food Technology*, 1(3), 01–16. <https://doi.org/10.9790/2402-0130116>
- Baghel S, Cathcart H, O'Reilly NJ., 2016. Polymeric Amorphous Solid Dispersions: A Review of Amorphization, Crystallization, Stabilization, Solid-State Characterization, and Aqueous Solubilization of Biopharmaceutical Classification System Class II Drugs, *Journal of Pharmaceutical Sciences*, 105(9): 2527-2544. DOI: 10.1016/j.xphs.2015.10.008
- Bangun, H., Arianto, A., Bangun, Y. S., & Nainggolan, M. (2019). Antibacterial activity of mucoadhesive gastroretentive drug delivery system of alginate beads containing turmeric extract-PVP K30 solid dispersion. *Open Access Macedonian Journal of Medical Sciences*, 7(22), 3868–3873. <https://doi.org/10.3889/oamjms.2019.522>
- Bethlehem. (2011). Biopharmaceutical Classification System and Formulation Development. *Particle Sciences*, 9, 1–4.
- Bhujbal, S. v., Mitra, B., Jain, U., Gong, Y., Agrawal, A., Karki, S., Taylor, L. S., Kumar, S., & (Tony) Zhou, Q. (2021). Pharmaceutical amorphous solid dispersion: A review of manufacturing strategies. In *Acta Pharmaceutica Sinica B* (Vol. 11, Issue 8, pp. 2505–2536). Chinese Academy of Medical Sciences. <https://doi.org/10.1016/j.apsb.2021.05.014>
- Budiman,, Arif., Iyan Sopyan., Denia Septy Riyandi. 2019. Enhancement Of Glibenclamide Dissolution Rate By Solid Dispersion Method Using HMC And PVP K30 . *International Journal of Applied Pharmaceutics* ISSN-0975-7058 Vol 11, Issue 5, 2019
- Cao, A., & Galanello, R. (2021). Beta-thalassemia. *Genetics in Medicine*, 23(5), 858-876. <https://doi.org/10.1038/s41436-021-01073-x>
- Cappellini, M. D., Cohen, A., Porter, J., Taher, A., Viprakasit, V., & editors. (2018). Guidelines for the Management of Transfusion Dependent Thalassaemia (TDT). Nicosia (CY): Thalassaemia International Federation.
- Coltescu, A. R., Butnariu, M., dan Sarac, I. (2020). The importance of solubility for new drug molecules. *Biomedical and Pharmacology Journal*, 13(2), 577–583. <https://doi.org/10.13005/BPJ/1920>

- Cao, A., & Galanello, R. (2021). Beta-thalassemia. *Genetics in Medicine*, 23(5), 858-876.
- Chen, B., Wang, X., Lin, D., Xu, D., Li, S., Huang, J., Weng, S., Lin, Z., Zheng, Y., Yao, H., & Lin, X. (2019). Proliposomes for oral delivery of total biflavonoids extract from *Selaginella doederleinii*: Formulation development, optimization, and in vitro-in vivo characterization. *International Journal of Nanomedicine*, 14, 6691–6706. <https://doi.org/10.2147/IJN.S214686>
- Chen, B., Wang, X., Zhang, Y., Huang, K., Liu, H., Xu, D., Li, S., Liu, Q., Huang, J., Yao, H., & Lin, X. (2020). Improved solubility, dissolution rate, and oral bioavailability of main biflavonoids from *Selaginella doederleinii* extract by amorphous solid dispersion. *Drug Delivery*, 27(1), 309–322. <https://doi.org/10.1080/10717544.2020.1716876>
- Chen, W., Yuan, X., Li, Z., Lu, Z., Kong, S., Jiang, H., Du, H., Pan, X., Nandi, M., Kong, X., Brown, K., Liu, Z., Zhang, G., Hider, R. C., & Yu, Y. (2020). CN128: A New Orally Active Hydroxypyridinone Iron Chelator. *Journal of Medicinal Chemistry*, 63(8), 4215–4226. <https://doi.org/10.1021/acs.jmedchem.0c00137>
- Dev, S., & Babitt, J. L. (2017). Overview of iron metabolism in health and disease. *Hemodialysis International*, 21, S6–S20. <https://doi.org/10.1111/hdi.12542>
- Departement Kesehatan RI. 2014. *Farmakope Indonesia Ed. V*. Jakarta: Depkes RI
- De Mohac LM, Raimi-Abraham B, Caruana R, Gaetano G, Licciardi M., 2020. Multicomponent Solid Dispersion a New Generation of Solid Dispersion Produced by Spray-drying, *Journal of Drug Delivery Science and Technology*, 57: DOI: 10.1016/j.jddst.2020.101750
- Desai, R. (2020). Safety of deferasirox in iron overload: an update. *Expert Opinion on Drug Safety*, 19(6), 689-698.
- Elsayed, A. M., Zaitone, S. A., & Farrag, A. R. H. (2021). Iron chelators-induced hearing loss: Mechanisms and therapeutic interventions. *European Journal of Medicinal Chemistry*, 225, 113847. <https://doi.org/10.1016/j.ejmech.2021.113847>
- Fajeriyyati, N., Muchtaridi, M., & Sopyan, I. (2021). Methods for improving alpha-mangostin solubility: A review. In *International Journal of Applied Pharmaceutics* (Vol. 13, Issue 4, pp. 47–54). Innovare Academics Sciences Pvt. Ltd. <https://doi.org/10.22159/ijap.2021v13i4.39065>
- Gharehkhani, S., Sanati, M., Koohestani, B., & Mahjoub, A. R. (2021). Direct evidence for the existence of V2O5 nanoribbons through synchrotron X-ray powder diffraction and first-principles calculations. *Journal of Solid State Chemistry*, 301, 122447.
- Gao, D., Tang, S., & Tong, Q. (2012). Oleonic acid liposomes with polyethylene glycol modification: Promising antitumor drug delivery. *International Journal of Nanomedicine*, 7, 3517–3526. <https://doi.org/10.2147/IJN.S31725>
- Gurunath, S., Pradeep Kumar, S., Basavaraj, N. K., & Patil, P. A. (2013). Amorphous solid dispersion method for improving oral bioavailability of

- poorly water-soluble drugs. *Journal of Pharmacy Research*, 6(4), 476–480.
<https://doi.org/10.1016/j.jopr.2013.04.008>
- Hayakawa, H., Minaniya, Y., Ito, K., Yamamoto, Y., & Fukuda, T. (2011). Difference of Curcumin Content in *Curcuma longa* L. (Zingiberaceae) Caused by Hybridization with Other *Curcuma* Species. *American Journal of Plant Sciences*, 02(02), 111–119.
<https://doi.org/10.4236/ajps.2011.22013>
- Hidayat, M. A., Mawaddah, F. A., & Widayanti, N. (2021). Analisis Kadar Antioksidan pada Ekstrak Etanol Daun Mengkudu dengan Metode DPPH (2,2-difenil-1-pikrilhidrazil). *Jurnal Ilmiah Farmasi & Farmasi Klinik*, 3(2), 101-107.
- Iyer, R., Jovanovska, V. P., Berginc, K., Jaklič, M., Fabiani, F., Harlacher, C., Huzjak, T., & Sanchez-Felix, M. V. (2021). Amorphous solid dispersions (ASDs): The influence of material properties, manufacturing processes and analytical technologies in drug product development. *Pharmaceutics*, 13(10). <https://doi.org/10.3390/pharmaceutics13101682>
- John, Mathew K. Huan Xie, Edward C. Bell And Dong Liang. 2013. Development and Pharmacokinetic Evaluation of a Curcumin Co-solvent Formulation. *Anticancer Research* 33: 4285-4292 (2013)
- Kemenkes RI. 2017. Keputusan Menteri Kesehatan Republik Indonesia Nomor Hk.01.07/Menkes/187/2017 tentang Formularium Ramuan Obat Tradisional Indonesia. Jakarta: Kemenkes RI
- Gupta, Jyoti & Devi, Anjana. (2019). Solubility Enhancement Techniques for Poorly Soluble Pharmaceuticals: A Review. *Indian Journal of Pharmaceutical and Biological Research*. 7. 09-16. [10.30750/ijpbr.7.2.2](https://doi.org/10.30750/ijpbr.7.2.2).
- Mladěnka, P., MacÁková, K., Filipický, T., Zatloukalová, L., Jahodář, L., Bovicelli, P., Silvestri, I. P., Hrdina, R., & Saso, L. (2018). In vitro analysis of iron chelating activity of flavonoids. *Journal of Inorganic Biochemistry*, 105(5), 693–701. <https://doi.org/10.1016/j.jinorgbio.2011.02.003>
- Murtini, G., 2016. *Farmestika Dasar (Bahan Ajar Cetak Kebidanan)*. Kementerian Kesehatan Republik Indonesia, 168
- Nuñez, M. T., & Chana-Cuevas, P. (2018). New perspectives in iron chelation therapy for the treatment of neurodegenerative diseases. *Pharmaceutics*, 11(4), 5–9. <https://doi.org/10.3390/ph11040109>
- Nuzzi, R., Geronazzo, G., Tridico, F., Nuzzi, A., Caselgrandi, P., & Piga, A. G. (2021). Long-term effects of iron chelating agents on ocular function in patients with thalassemia major. *Clinical Ophthalmology*, 15, 2099–2109. <https://doi.org/10.2147/OPHTH.S300974>
- Rainey NE, Moustapha A, Saric A, Nicolas G, Sureau F, Petit PX. Iron chelation by curcumin suppresses both curcumin-induced autophagy and cell death together with iron overload neoplastic transformation. *Cell Death Discov*. 2019 Dec 9;5:150. doi: 10.1038/s41420-019-0234-y. PMID: 31839992; PMCID: PMC6901436.
- Saeidnia M, Fazeli P, Erfani M, Nowrouzi-Sohrabi P, Tamaddon G, Karimi M. The Effect of Curcumin on Iron Overload in Patients with Beta-Thalassemia

- Intermedia. Clin Lab. 2022 Mar 1;68(3). doi: 10.7754/Clin.Lab.2021.210629. PMID: 35254032.
- Setiawan H, Angela IL, Rohmah N, Wijaya O, Mun'im A. Application of Natural Deep Eutectic Solvents (NADES) for Sappan Wood (*Caesalpinia sappan* L.) extraction to test for inhibition of DPP IV activity. *J Res Pharm.* 2020; 24(3): 380-388.
- Meere M, Pontrelli G, McGinty S., 2019. Modelling Phase Separation in Amorphous Solid Dispersions, *Acta Biomaterialia*, 94:
- Nagapudi, K., dan Jona, J. (2008). Amorphous Active Pharmaceutical Ingredients in Preclinical Studies: Preparation, Characterization, and Formulation. *Current Bioactive Compounds*, 4(4), 213–224. <https://doi.org/10.2174/157340708786847852>
- Qayoom, A., Kazmi, S. A., & Ali, S. N. (2017). Turmeric powder as a natural heavy metal chelating agent: Surface characterisation. *Pakistan Journal of Scientific and Industrial Research Series A: Physical Sciences*, 60(1), 1–8. <https://doi.org/10.52763/pjsir.phys.sci.60.1.2017.1.8>
- Rainey, N. E., Moustapha, A., Saric, A., Nicolas, G., Sureau, F., & Petit, P. X. (2019). Iron chelation by curcumin suppresses both curcumin-induced autophagy and cell death together with iron overload neoplastic transformation. *Cell Death Discovery*, 5(1). <https://doi.org/10.1038/s41420-019-0234-y>
- Rawat, T., & Pandey, I. P. (2015). Biopharmaceutics classification system-basis for waiver of in-vivo bioavailability and bioequivalence studies. Available Online [Www.Jocpr.Com](http://www.jocpr.com) *Journal of Chemical and Pharmaceutical Research*, 7(10), 555–558. www.jocpr.com
- Safitri, R., Maskoen, A. M., Syamsunarno, M. R. A. A., Ghozali, M., & Panigoro, R. (2018). Iron chelating activity of *Caesalpinia sappan* L. extract on iron status in iron overload rats (*Rattus norvegicus* L.). *AIP Conference Proceedings*, 2002(August). <https://doi.org/10.1063/1.5050146>
- Safitri, R., Prahmanti, K., Maskoen, A. M., Syamsunarno, M. R. A. A., & Panigoro, R. (2021.). OP-21 The effect of Brazilin compound to circulated iron level in rat iron overload model. 98.
- Safitri, I., Sulistiyarningsih, S., Chaerunisaa, A. Y., 2019. Review: Superdisintegran dalam Sediaan Oral. *Farmasetika.com* (Online), 4(3), 56.
- Shargel, L., Yu, A. B. 2016. *Applied Biopharmaceutics and Pharmacokinetics*. New York: Mc Graw-Hill Education. p. 425-437.
- Shrestha S, Sudheer P, Sogali BS, Soans D., 2017. A Review: Solid Dispersion, A Technique Of Solubility Enhancement, *Journal of Pharmaceutical Research*, 16(1): 25-31.
- Shi, Q.; Chen, H.; Wang, Y.; Wang, R.; Xu, J.; Zhang, C. 2022. Amorphous Solid Dispersions: Role of the Polymer and Its Importance in Physical Stability and In Vitro Performance. *Pharmaceutics* 14, 1747. <https://doi.org/10.3390/pharmaceutics14081747>
- Smith, T. J., & Ashar, B. H. (2019). Iron Deficiency Anemia Due to High-dose Turmeric. *Cureus*, 11(1), 2017–2020. <https://doi.org/10.7759/cureus.3858>

- Sridharan, K., & Sivaramakrishnan, G. (2018). Efficacy and safety of iron chelators in thalassemia and sickle cell disease: a multiple treatment comparison network meta-analysis and trial sequential analysis. *Expert Review of Clinical Pharmacology*, 11(6), 641–650. <https://doi.org/10.1080/17512433.2018.1473760>
- Suparman, Ansel., Diar Herawati., Zahra Firatul. T. 2019. Karakterisasi dan Formulasi Cangkang Kapsul dari Tepung Pektin Kulit Buah Coklat (*Theobroma cacao* L.). *JIF FARMASYIFA*, 2(2): 77-83
- Taher, A. T., Saliba, A. N., Kattamis, A., Cappellini, M. D., El-Beshlawy, A., Kannan, S. & Gomber, S. (2019). Iron overload in thalassemia: different organs at different rates. *Hematology/Oncology and Stem Cell Therapy*, 12(2), 87-93.
- Ueda, K., dan Taylor, L. S. (2020). Polymer Type Impacts Amorphous Solubility and Drug-Rich Phase Colloidal Stability: A Mechanistic Study Using Nuclear Magnetic Resonance Spectroscopy. *Molecular Pharmaceutics*, 17(4), 1352– 1362. <https://doi.org/10.1021/acs.molpharmaceut.0c00061>
- Ueda, K., Yamamoto, N., Higashi, K., dan Moribe, K. (2019). Molecular Mobility Suppression of Ibuprofen-Rich Amorphous Nanodroplets by HPMC Revealed by NMR Relaxometry and Its Significance with Respect to Crystallization Inhibition. *Molecular Pharmaceutics*, 16(12), 4968–4977.
- Verma, H. N., & Patel, J. R. (2021). Iron chelators and cardiovascular system: An update on the therapeutic potential and clinical implications. *European Journal of Medicinal Chemistry*, 214, 113219. <https://doi.org/10.1016/j.ejmech.2021.113219>
- Ye, Q., Wang, Y., Wu, Z., & Yang, M. (2020). Polymer-based amorphous solid dispersions: A review of preparation, stability, and application in drug delivery. *Journal of Pharmaceutical Analysis*, 10(5), 399-409. <https://doi.org/10.1016/j.jpha.2020.05.001>
- Yu JY, Kim JA, Joung HJ, Ko JA, Park HJ. Preparation and characterization of curcumin solid dispersion using HPMC. *J Food Sci*. 2020 Nov;85(11):3866-3873. doi: 10.1111/1750-3841.15489. Epub 2020 Oct 16. PMID: 33067846.
- Zainol, S., Ng, W. K., & Tan, R. B. (2021). Polymeric amorphous solid dispersions: A review of formulation strategies and stabilisation approaches. *Materials Science and Engineering: C*, 128, 112269. <https://doi.org/10.1016/j.msec.2021.112269>