

DAFTAR PUSTAKA

- Alam, S., Patel, S., & Bansal, A. K. (2010). Effect of sample preparation method on quantification of polymorphs using PXRD. *Pharmaceutical Development and Technology*, 15(5), 452–459.
<https://doi.org/10.3109/10837450903286511>
- Alatas, F., Hermanto, F., & Hanako, F. (2020). Kelarutan dan Aktivitas Antimalaria Ko-Kristal Pirimetamin-Ibuprofen. *PHARMACY: Jurnal Farmasi Indonesia (Pharmaceutical Journal of Indonesia)*, 17(2), 415.
<https://doi.org/10.30595/pharmacy.v17i2.8577>
- Almansa, C., Mercè, R., Tesson, N., Farran, J., Tomàs, J., & Plata-Salamán, C. R. (2017). Co-crystal of Tramadol Hydrochloride-Celecoxib (ctc): A Novel API-API Co-crystal for the Treatment of Pain. *Crystal Growth and Design*, 17(4), 1884–1892. <https://doi.org/10.1021/acs.cgd.6b01848>
- Arslan, A., Yet, B., Nemutlu, E., Akdağ Çaylı, Y., Eroğlu, H., & Öner, L. (2023). Celecoxib Nanoformulations with Enhanced Solubility, Dissolution Rate, and Oral Bioavailability: Experimental Approaches over In Vitro/In Vivo Evaluation. *Pharmaceutics*, 15(2).
<https://doi.org/10.3390/pharmaceutics15020363>
- Babu, N. J., Sanphui, P., & Nangia, A. (2012). Crystal engineering of stable temozolomide cocrystals. *Chemistry - An Asian Journal*, 7(10), 2274–2285.
<https://doi.org/10.1002/asia.201200205>
- Bakhtiar, A., Rahmah, S., & Zaini, E. (2015). Pembentukan Kokristal Katekin dengan Nikotinamida Formation of Cocrystals of Catechin and Nicotinamide. *Jurnal Farmasi Sains Dan Terapan*, 2(2), 28–32.
- Barikah, K. Z., Nawatila, R., Winantari, A. N., Siswodihardjo, S., & Setyawan, D. (2020). Karakterisasi Kokristal Asiklovir-Nikotinamida yang Dibuat dengan Tiga Metode Kokristalisasi. *Scientia: Jurnal Farmasi Dan Kesehatan*, 10(2), 166. <https://doi.org/10.36434/scientia.v10i2.243>
- Biscaia, I. F. B., Oliveira, P. R., Gomes, S. N., & Bernardi, L. S. (2021). Obtaining cocrystals by reaction crystallization method: Pharmaceutical applications. *Pharmaceutics*, 13(6). <https://doi.org/10.3390/pharmaceutics13060898>

- Bolla, G., Mittapalli, S., & Nangia, A. (2013). Celecoxib cocrystal polymorphs with cyclic amides: Synthons of sulfonamide drug with carboxamide coformers, (207890). <https://doi.org/10.1039/b000000x>
- BPOM. (2014). *Pedoman Uji Disolusi*. Jakarta: Badan POM RI.
- BPOM. (2022). *Tatalaksana Uji Bioekivalensi*. Jakarta: BOPM RI.
- Buddhadev, S. S., & Garala, K. C. (2021). Pharmaceutical Cocrystals—A Review, 14. <https://doi.org/10.3390/proceedings2020062014>
- Budiman, A., Husni, P., Shafira, & Alfauziah, T. Q. (2019). The development of glibenclamide-saccharin cocrystal tablet formulations to increase the dissolution rate of the drug. *International Journal of Applied Pharmaceutics*, 11(4), 359–364. <https://doi.org/10.22159/ijap.2019v11i4.33802>
- Cebrecos, J., Carlson, J. D., Encina, G., Lahjou, M., Sans, A., Sust, M., ... Plata-Salamán, C. (2021). Celecoxib-tramadol co-crystal: A Randomized 4-Way Crossover Comparative Bioavailability Study. *Clinical Therapeutics*, 43(6), 1051–1065. <https://doi.org/10.1016/j.clinthera.2021.04.002>
- Chaves Júnior, J. V., dos Santos, J. A. B., Lins, T. B., de Araújo Batista, R. S., de Lima Neto, S. A., de Santana Oliveira, A., ... Aragão, C. F. S. (2020). A New Ferulic Acid–Nicotinamide Cocrystal With Improved Solubility and Dissolution Performance. *Journal of Pharmaceutical Sciences*, 109(3), 1330–1337. <https://doi.org/10.1016/j.xphs.2019.12.002>
- Chen, Y., Li, L., Yao, J., Ma, Y. Y., Chen, J. M., & Lu, T. B. (2016). Improving the solubility and bioavailability of apixaban via apixaban-oxalic acid cocrystal. *Crystal Growth and Design*, 16(5), 2923–2930.
<https://doi.org/10.1021/acs.cgd.6b00266>
- Chow, S. F., Chen, M., Shi, L., Chow, A. H. L., & Sun, C. C. (2012). Simultaneously Improving The Mechanical Properties, Dissolution Performance and Hygroscopicity of Ibuprofen and Flurbiprofen by Cocrystallization with Nicotinamide. *Pharmaceutical Research*, 29(7), 1854–1865. <https://doi.org/10.1007/s11095-012-0709-5>
- Cruz-Cabeza, A. J. (2012). Acid-Base Crystalline Complexes and The pKa Rule. *CrystEngComm*, 14(20), 6362–6365. <https://doi.org/10.1039/c2ce26055g>
- Depkes RI. (2014). *Farmakope Indonesia Edisi V*. Jakarta: Kementerian Kesehatan

- Republik Indonesia.
- Depkes RI. (2020). *Farmakope Indonesia Edisi VI*. Jakarta: Kementerian Kesehatan Republik Indonesia.
- Erlanti, R., Darusman, F., & Herawati, D. (2015). Praperlakuan Bahan Baku Glimepirid Melalui Metode Kokristalisasi Untuk Meningkatkan Kelarutan dan Laju Disolusi. *Prosiding Penelitian SPeSIA Unisba 2015. ISSN 2460-6472*, 3, 671–680.
- Fadhila, M., Makmur, I., Viona, S. A., Sari, Y. N., & Wahyuni, S. (2022). Karakterisasi Sifat Fisikokimia Dispersi Padat Celecoxib–PEG 4000 dengan Perbandingan Tiga Formula menggunakan Metode Co-grinding. *Jurnal Farmasi Higea*, 14(1), 20. <https://doi.org/10.52689/higea.v14i1.433>
- Ferdiansyah, R., Ardiansyah, S. A., Rachmaniar, R., Tinggi, S., Indonesia, F., Soekarno-, J., ... Barat, J. (2021). Jurnal Ilmiah Farmako Bahari Review : *The Effect of Cocrystal Formation Using Carboxylic Acid Coformer with Solvent Evaporation and Solvent Drop Griding Methods on Bioavailability of Active Substances*. *Jurnal Ilmiah Farmako Bahari*, 12, 28–38.
- Gascon, N., Almansa, C., Merlos, M., Miguel Vela, J., Encina, G., Morte, A., ... Plata-Salamán, C. (2019). Co-crystal of tramadol-celecoxib: preclinical and clinical evaluation of a novel analgesic. *Expert Opinion on Investigational Drugs*, 28(5), 399–409. <https://doi.org/10.1080/13543784.2019.1612557>
- Gill, P., Moghadam, T., & Ranjbar, B. (2010). Differential Scanning Calorimetry Techniques: Applications in Biology and Nanoscience. *J Biomol Tech*, 21(4), 93–167.
- Gracesella, C., & Sopyan, I. (2014). Ko-Kristal di Bidang Farmasi : Review Jurnal. *Farmaka*, 14, 63–78. <https://doi.org/10.1021/cg500245e>
- Haeria, Tahar, N., & Zakir, A. (2018). Pembentukan, Karakterisasi, Dan Uji Disolusi Kokristal Meloksikam Dengan Asam Paraaminobenzoat. *Jf Fik Uinam*, 6(36), 17–24.
- Hairunnisa, H., Sopyan, I., & Gozali, D. (2019). Ko-Kristal: Nikotinamid Sebagai Koformer. *Jurnal Ilmiah Farmako Bahari*, 10(2), 113. <https://doi.org/10.52434/jfb.v10i2.652>
- Holder, C. F., & Schaak, R. E. (2019). Tutorial on Powder X-ray Diffraction for

- Characterizing Nanoscale Materials. *ACS Nano*, 13(7), 7359–7365. <https://doi.org/10.1021/acsnano.9b05157>
- Isnaeni, N. L., Trisna Wulandari, W., & Alifiar, I. (2021). Pembuatan dan Karakterisasi Kokristal Kurkumin dengan Asam Askorbat Sebagai Koformer. *Prosiding Seminar Nasional Diseminasi Penelitian*, 1(1), 122–129.
- Issa, M. G., & Ferraz, H. G. (2011). Intrinsic dissolution as a tool for evaluating drug solubility in accordance with the biopharmaceutics classification system. *Dissolution Technologies*, 18(3), 6–13. <https://doi.org/10.14227/DT180311P6>
- KEMENKES RI. (2020). *Farmakope Indonesia* (VI). Jakarta: Kementerian Kesehatan Republik Indonesia.
- Kumar, A., Singh, P., & Nanda, A. (2020). Hot stage microscopy and its applications in pharmaceutical characterization. *Applied Microscopy*, 50(1). <https://doi.org/10.1186/s42649-020-00032-9>
- Lekšić, E., Pavlović, G., & Meštrović, E. (2012). Cocrystals of Lamotrigine Based on Coformers Involving Carbonyl Group Discovered by Hot-Stage Microscopy and DSC screening. *Crystal Growth and Design*, 12(4), 1847–1858. <https://doi.org/10.1021/cg201426z>
- Leon, L., Liebermen, H., & Kanic, J. (1987). The Theory and Practice Industrial Pharmacy. In *Preformulation* (3rd ed., p. 179). Philadelphia: Verghese Publishing House.
- Lu, G. W. E. I., Hawley, M., Smith, M., Geiger, B. M., & Pfund, W. (2005). Characterization of a Novel Polymorphic Form of Celecoxib. *Journal of Pharmaceutical Sciences*, 95(2), 305–317. <https://doi.org/10.1002/jps.20522>
- Madusanka, N., Eddleston, M. D., Arhangelskis, M., & Jones, W. (2014). Polymorphs, hydrates and solvates of a co-crystal of caffeine with anthranilic acid. *Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials*, 70(1), 72–80. <https://doi.org/10.1107/S2052520613033167>
- Najih, Y. A., Widjaja, B., Rakhma, D. N., & Satrio, A. (2022). Uji Disolusi Kokristal Meloksikam dan Asam Malonat Sebagai Koformer Dibuat dengan Metode Slurry. *Journal of Pharmaceutical Care Anwar Medika*, 5(1), 25–36.
- Nguyen, H. Van, Park, C., Oh, E., & Lee, B. J. (2016). Improving the dissolution

- rate of a poorly water-soluble drug via adsorption onto pharmaceutical diluents. *Journal of Drug Delivery Science and Technology*, 35, 146–154. <https://doi.org/10.1016/j.jddst.2016.05.008>
- Nicholet, T. (2001). *Introduction to Fourier Transform Infrared Spectrometry*. USA.
- Ohannesian, L., & J. Streeter, A. (2002). *Hanbook Of Pharmaceutical Analysis* (Volume 117). New York.
- Permatasari, D., Ramadhani, S., & Sopyan, I. (2016). Ko-Kristal: Teknik Pembuatan Ko-Kristal. *Farmaka*, 14(4), 98–115. Retrieved from <http://jurnal.unpad.ac.id/farmaka/article/view/10461/5073>
- Pubchem. (2023a). 4-Aminobenzoic acid. Retrieved November 20, 2023, from <https://pubchem.ncbi.nlm.nih.gov/compound/4-Aminobenzoic-acid>.
- Pubchem. (2023b). Celecoxib. Retrieved November 19, 2023, from <https://pubchem.ncbi.nlm.nih.gov/compound/Celecoxib>.
- Putri, S. S., Darusman, F., & Hidayat, A. F. (2023). Pembentukan Kokristal Sebagai Upaya Peningkatan Kelarutan dan Laju Disolusi Obat BCS Kelas II. *Bandung Conference Series: Pharmacy*, 63–71. <https://doi.org/10.29313/bcsp.v3i2.7497>
- Remenar, J. F., Peterson, M. L., Stephens, P. W., Zhang, Z., Zimenkov, Y., & Hickey, M. B. (2007). Celecoxib:nicotinamide dissociation: Using excipients to capture the cocrystal's potential. *Molecular Pharmaceutics*, 4(3), 386–400. <https://doi.org/10.1021/mp0700108>
- Sami, H., Akhtar, N., Jain, A., & Singhai, A. K. (2023). Cocrystals in Pharmaceutical Science: An Updated Review, 10(2).
- Savjani, K. T., Gajjar, A. K., & Savjani, J. K. (2012). Drug Solubility: Importance and Enhancement Techniques. *ISRN Pharmaceutics*, 2012(100 mL), 1–10. <https://doi.org/10.5402/2012/195727>
- Schultheiss, N., & Newman, A. (2009). Pharmaceutical Cocrystals and Their Physicochemical Properties. *Crystal Growth &Design*, 9(6), 2950–2967.
- Setiawan, A. K. R., Iswandi, I., & Marlina, D. (2022). Karakterisasi Cocrystal Glibenklamida Dengan Variasi Pelarut dan Uji Stabilitas Termal. *JPSCR: Journal of Pharmaceutical Science and Clinical Research*, 7(3), 268.

- <https://doi.org/10.20961/jpscr.v7i3.59893>
- Singh, M., Barua, H., Jyothi, V. G. S. S., Dhondale, M. R., Nambiar, A. G., Agrawal, A. K., ... Kumar, D. (2023). Cocrystals by Design: A Rational Coformer Selection Approach for Tackling the API Problems. *Pharmaceutics*, 15(4). <https://doi.org/10.3390/pharmaceutics15041161>
- Skinner, M., & Kanfer, I. (1992). Intrinsic dissolution rate and solubility studies on josamycin, a macrolide antibiotic. *International Journal of Pharmaceutics*, 88(1–3), 151–158. [https://doi.org/10.1016/0378-5173\(92\)90311-O](https://doi.org/10.1016/0378-5173(92)90311-O)
- Stark, W., & Bohmeyer, W. (2013). Non-destructive evaluation (NDE) of composites: Using ultrasound to monitor the curing of composites. In *Non-Destructive Evaluation (NDE) of Polymer Matrix Composites: Techniques and Applications* (pp. 136–181).
- <https://doi.org/10.1533/9780857093554.1.136>
- Sulistyani, M., & Huda, N. (2018). Perbandingan Metode Transmisi dan Reflektansi Pada Pengukuran Polistirena Menggunakan Instrumentasi Spektroskopi Fourier Transform Infra Red. *Indonesian Journal of Chemical Science*, 7(2), 195–198.
- Trianggani, D. F., & Sulistiyaningsih. (2018). Artikel Tinjauan: Dispersi Padat. *Farmaka*, 16(1), 93–102.
- Triyana, R., Nurhabibah, & Sopyan, I. (2021). Artikel Review : Kokristal, Kokristal Ibuprofen dengan Berbagai Koformer, 6(1), 23–37.
- Wicaksono, Y., Setyawan, D., & Siswandono. (2017). Formation of ketoprofen-malonic acid cocrystal by solvent evaporation method. *Indonesian Journal of Chemistry*, 17(2), 161–166. <https://doi.org/10.22146/ijc.24884>
- Yadav, A. V., Shete, A. S., Dabke, A. P., Kulkarni, P. V., & Sakhare, S. S. (2009). Co-Crystals : A Novel Approach to Modify Physicochemical Properties of Active Pharmaceutical Ingredients. *Indian Journal of Pharmaceutical Sciences*, 359–370.
- Zapała, L., Woźnicka, E., & Kalembkiewicz, J. (2014). Tautomeric and microscopic protonation equilibria of anthranilic acid and its derivatives. *Journal of Solution Chemistry*, 43(6), 1167–1183.
- <https://doi.org/10.1007/s10953-014-0190-3>

Zhang, S. W., Brunskill, A. P. J., Schwartz, E., & Sun, S. (2017). Celecoxib-Nicotinamide Cocrystal Revisited: Can Entropy Control Cocrystal Formation? *Crystal Growth and Design, 17*(5), 2836–2843.
<https://doi.org/10.1021/acs.cgd.7b00308>