

DAFTAR PUSTAKA

- Aditya, R., Sihombing, N., Wijaksana, H., & Astawa, K. (2022). Studi Eksperimental Karakteristik Tekanan Kapiler Pada Material Pad Hasil Aktivasi Bambu Betung Tanpa Holding Time. *Jurnal Ilmiah Teknik Desain Mekanika*, 11(1), 1650–1655.
- Ainurofiq, A., Putro, D. S., Ramadhani, D. A., Putra, G. M., & Do Espirito Santo, L. D. C. (2021). A review on solubility enhancement methods for poorly water-soluble drugs. *Journal of Reports in Pharmaceutical Sciences*, 10(1), 137–147. https://doi.org/10.4103/jrptps.JRPTPS_134_19
- Akash, & R. (2020). Essentials of Pharmaceutical Analysis. In Essentials of Pharmaceutical Analysis. In *Thermal Analysis in Practice*. <https://doi.org/10.3139/9781569906446.001>
- Al-Amin, K., Kawsar, M., Mamun, M. T. R. B., & Sahadat Hossain, M. (2025). Fourier transform infrared spectroscopic technique for analysis of inorganic materials: a review. *Nanoscale Advances*, 6677–6702. <https://doi.org/10.1039/d5na00522a>
- Al-Kelani, M., & Buthelezi, N. (2024). Advancements in medical research: Exploring Fourier Transform Infrared (FTIR) spectroscopy for tissue, cell, and hair sample analysis. *Skin Research and Technology*, 30(6), 1–13. <https://doi.org/10.1111/srt.13733>
- Apsari, K., Chaerunisa, A. Y., Farmasi, F., & Padjadjaran, U. (2020). *Upaya Peningkatan Kelarutan Obat*. 18, 56–68.
- Bunaciu, A. A., Udriștioiu, E. gabriela, & Aboul-Enein, H. Y. (2015). X-Ray Diffraction: Instrumentation and Applications. *Critical Reviews in Analytical Chemistry*, 45(4), 289–299. <https://doi.org/10.1080/10408347.2014.949616>
- Chettri, A., Subba, A., & Govind, P. (2024). *Pharmaceutical co-crystals : A green way to enhance drug stability and solubility for improved therapeutic efficacy*. November 2023, 1–12.
- Dachriyanus. (2004). *Analisis Struktur Senyawa Organik Secara Spektroskopi (Multimedia LPTIK. Lemabag Pengembangan Teknologi Informasi dan Komunikasi (LPTIK) Universitas Andalas*.
- Dwiputra, R. R., Saputri, J. R., & Utami, M. R. (2024). Applications and Future Potential of X-ray Diffraction in Pharmaceutical Polymorphism: A Literature Review. *Indonesian Journal of Chemistry and Environment*, 7(2), 93–103. <https://doi.org/10.21831/ijoce.v7i2.79071>
- Faturachman, G. F., Ramanda, A. A., Maharani, S., Latif, L. A., Belo, G. A. G., & Ayubi, S. G. Al. (2025). Application of Fourier Transform Infrared Spectroscopy (FTIR) for Quantitative Analysis of Pharmaceutical Compounds.

Indonesian Journal of Pharmaceutical Education, 5(1), 27–33.
<https://doi.org/10.37311/ijpe.v5i1.23309>

- Ferdiansyah, R., Ardiansyah, S. A., Rachmaniar, R., Tinggi, S., Indonesia, F., Soekarno-, J., No, H., Bandung, K., Barat, J., Farmakologi, D., Tinggi, S., Indonesia, F., Soekarno-, J., No, H., Bandung, K., & Barat, J. (2021). REVIEW : The effect Of Cocystal Formation Using carboxylic Acid Coformer With Solvent Evaporation And Solvent Drop Grinding Methods On Bioavailability Of Active Substances. *Jurnal Ilmiah Farmako Bahari*, 12(1), 28–38.
- Gao, H., Su, Y., Wang, W., Xiong, W., Sun, X., Ji, Y., Yu, H., Li, H., & Ouyang, D. (2021). Integrated computer-aided formulation design: A case study of andrographolide/ cyclodextrin ternary formulation. *Asian Journal of Pharmaceutical Sciences*, 16(4), 494–507.
<https://doi.org/10.1016/j.ajps.2021.03.006>
- Ghobadi, R., & Divsalar, A. (2020). Enzymatic behavior of bovine liver catalase in aqueous medium of sugar based deep eutectic solvents. *Journal of Molecular Liquids*, 113207. <https://doi.org/10.1016/j.molliq.2020.113207>
- Gracesella, C., & Sopyan, I. (2019). Ko-Kristal Di Bidang Farmasi : Review Jurnal. *Crystal Growth and Design*, 14(5), 2542–2556.
- Guo, M., Wang, K., Qiao, N., Fabian, L., Sadiq, G., & Li, M. (2017). *Insight into Flufenamic Acid Cocystal Dissolution in the Presence of a Polymer in Solution : from Single Crystal to Powder Dissolution Insight into Flufenamic Acid Cocystal Dissolution in the Presence of a Polymer in Solution : from Single Crystal to Powder Dissolution*.
<https://doi.org/10.1021/acs.molpharmaceut.7b00712>
- Hasna, & Hermanto, F. (2024). Review Artikel: Peningkatan Kelarutan Senyawa Obat Antimalaria Menggunakan Metode Modifikasi Ko-Kristal. *Jurnal Buana Farma*, 4(3), 294–305. <https://doi.org/10.36805/jbf.v4i3.1134>
- Hsu, C., Hung, C., Lin, Y., Tsai, H., Hu, P., Lin, Y., Chen, J., Hsu, S., & Hsieh, H. (2024). *Preparation of Indomethacin Co-Crystals ; Comparison of XRD , THz , and FT-IR Spectral Analyses ; and Enhancement of Solubility*. 2–17.
- Ismail, T., Putra, A. P., Puspaningrat, L. P. D., & Sulaiman Qoudry, M. B. (2023). Perbandingan Kadar Disolusi Tablet Allopurinol Generik Berlogo Dan Generik Bermerek Yang Beredar Dikota Kupang Provinsi Ntt. *Jurnal Farmasi Kryonaut*, 2(2), 139–147. <https://doi.org/10.59969/jfk.v2i2.38>
- 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.
- Kiland, K. J., Marroquin, K. L., Smith, N. R., Xu, S., Nizkorodov, S. A., & Bertram,

- A. K. (2022). A new hot-stage microscopy technique for measuring temperature-dependent viscosities of aerosol particles and its application to farnesene secondary organic aerosol. *Atmospheric Measurement Techniques*, 15(19), 5545–5561. <https://doi.org/10.5194/amt-15-5545-2022>
- 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>
- Li, Y., Li, S. Y., Dai, X. L., Lu, T. B., & Chen, J. M. (2023). Cocrystal formation by anti-solvent slurry. *CrystEngComm*, 25(42), 5882–5886. <https://doi.org/10.1039/d3ce00486d>
- Mallet, C., Desmeules, J., Pegahi, R., & Eschali r, A. (2023). An Updated Review on the Metabolite (AM404)-Mediated Central Mechanism of Action of Paracetamol (Acetaminophen): Experimental Evidence and Potential Clinical Impact. *Journal of Pain Research*, 16(March), 1081–1094. <https://doi.org/10.2147/JPR.S393809>
- Oktavian, D., Teknik, D., Teknik, F., Mada, U. G., Teknik, D., Teknik, F., Mada, U. G., Teknik, D., Teknik, F., & Mada, U. G. (2021). *Ekstruksi dan Karakterisasi Filamen Komposit Polylactid Acid (PLA) / Carbon Nano Tube (CNT)*. 2(2). <https://doi.org/10.22146/jmtp.70481>
- Pasieczna-Patkowska, S., Cichy, M., & Flieger, J. (2025). Application of Fourier Transform Infrared (FTIR) Spectroscopy in Characterization of Green Synthesized Nanoparticles. *Molecules*, 30(3), 1–36. <https://doi.org/10.3390/molecules30030684>
- Prakash, C. G. J., & Prasanth, R. (2021). *Approaches to design a surface with tunable wettability : a review on surface properties*. 108–135.
- Prihatini, E., Ismail, R., Rahayu, I. S., & Saputri, E. D. (2024). Pengembangan Sistem Alat Ukur Sudut Kontak dengan Metode Optical Contact Angle. *Jurnal Pengelolaan Laboratorium Pendidikan*, 6(1), 8–16. <https://doi.org/10.14710/jplp.6.1.8-16>
- Qiao, N., Li, M., Schlindwein, W., Malek, N., Davies, A., & Trappitt, G. (2020). Pharmaceutical cocrystals: An overview. *International Journal of Pharmaceutics*, 419(1–2), 1–11. <https://doi.org/10.1016/j.ijpharm.2011.07.037>
- Racioppi, S., Otero-De-la-Roza, A., Hajinazar, S., & Zurek, E. (2024). Powder X-ray diffraction assisted evolutionary algorithm for crystal structure prediction. *Digital Discovery*, 4(1), 73–83. <https://doi.org/10.1039/d4dd00269e>
- Rathi, R. (2023). *Journal of Pharmaceutical Technology Research and Management*. 11(1), 49–60. <https://doi.org/10.15415/jptrm.2023.111005>

- RI, D. (2020). Pharmacopoeias and formularies. In *British Medical Journal* (Vol. 2, Issue 5096). <https://doi.org/10.1136/bmj.2.5096.601>
- Rizka Maulida, V., Khairani, D., Diannurjanah, S., Az-Zahra Hartantri, F., Reza Pahlevi, M., Jafar, G., & Devianti Sagita, N. (2025). Analisis Metode Inovatif Dalam Formulasi Obat. *Jurnal Kesehatan Unggul Gemilang*, 9(1), 88–99.
- Sakhiya, D. C., & Borkhataria, C. H. (2024). A review on advancement of cocrystallization approach and a brief on screening, formulation and characterization of the same. *Heliyon*, 10(7), e29057. <https://doi.org/10.1016/j.heliyon.2024.e29057>
- Setiati, R., Siregar, S., Marhaendrajana, T., & Wahyuningrum, D. (2018). Pengaruh Wettability Surfaktan NaLS Ampas Tebu Pada Batuan Sandstone Dalam Proses Enhanced Oil Recovery (EOR). Prosiding Seminar Nasional Pakar, 1-8. <https://doi.org/10.25105/pakar.v0i0.2596>. Prosiding Seminar Nasional Pakar, 1–8. <https://doi.org/10.25105/pakar.v0i0.2596>
- Shekunov, B., & Montgomery, E. R. (2016). Theoretical Analysis of Drug Dissolution: I. Solubility and Intrinsic Dissolution Rate. *Journal of Pharmaceutical Sciences*, 105(9), 2685–2697. <https://doi.org/10.1016/j.xphs.2015.12.006>
- Shelke, P. S., U, W., RK, S., Pawar, T. B., Bhingar, H. R., & Narode, P. A. (2024). A review on solubility enhancement technique. *International Journal of Pharmacy and Pharmaceutical Science*, 6(1), 144–148. <https://doi.org/10.33545/26647222.2024.v6.i1b.113>
- Sperandeo, N. R., Bueno, M. S., & Garnero, C. (2026). *Pharmaceutical Cocrystals in Drug-Delivery Technologies: Advances from Rational Design to Therapeutic Applications*. 1–27.
- Srivastava, K., Khan, E., Shimpi, M. R., & Tandon, P. (2017). † Electronic Supplementary Information Molecular structure and hydrogen bond interactions and chemical reactivity analysis of Paracetamol – 4 , 4 □ bipyridine Paracetamol-4 , 4 □ bipyridine cocrystal studied using vibrational spectroscopic and quantum. 2.
- Stampf, J. L., Ciotu, C. I., Heber, S., Boehm, S., Fischer, M. J. M., & Salzer, I. (2023). Analgesic Action of Acetaminophen via Kv7 Channels. *International Journal of Molecular Sciences*, 24(1). <https://doi.org/10.3390/ijms24010650>
- Varia, U., Patel, A., Katariya, H., & Detholia, K. (2022). Formulation and optimization of polymeric agglomerates of Bosentan monohydrate by crystallo-co-agglomeration technique. *Bulletin of the National Research Centre*, 46(1). <https://doi.org/10.1186/s42269-022-00837-6>
- Vemuri, V. D., & Lankalapalli, S. (2021). Cocrystal Construction Between Rosuvastatin Calcium and L-asparagine with Enhanced Solubility and

- Dissolution Rate. *Turkish Journal of Pharmaceutical Sciences*, 18(6), 790–798. <https://doi.org/10.4274/tjps.galenos.2021.62333>
- Wei, Y., Zhang, L., Wang, N., Shen, P., Dou, H., Ma, K., Gao, Y., Zhang, J., & Qian, S. (n.d.). Mechanistic Study on Complexation-Induced Spring and Hover Dissolution Behavior of Ibuprofen-Nicotinamide Cocrystal. 2018. <https://doi.org/10.1021/acs.cgd.8b00978>
- Wei, Y., Zhang, L., Wang, N., Shen, P., Dou, H., Ma, K., Gao, Y., Zhang, J., & Qian, S. (2018). Mechanistic Study on Complexation-Induced Spring and Hover Dissolution Behavior of Ibuprofen-Nicotinamide Cocrystal. *Crystal Growth and Design*, 18(12), 7343–7355. <https://doi.org/10.1021/acs.cgd.8b00978>
- Yuliandra, Y., Zaini, E., Syofyan, S., Pratiwi, W., Putri, L. N., Pratiwi, Y. S., & Arifin, H. (2018). Cocrystal of ibuprofen–nicotinamide: Solid-state characterization and in vivo analgesic activity evaluation. *Scientia Pharmaceutica*, 86(2). <https://doi.org/10.3390/scipharm86020023>
- Zahra Fadilatusya'adah, Afriyani, et al. (2024). *Modifikasi Bahan Aktif Farmasi (BAF) Dengan Metode Kokristal*. 3(2), 73–79.
- Zapata, F., López-Fernández, A., Ortega-Ojeda, F., Quintanilla, G., García-Ruiz, C., & Montalvo, G. (2021). Introducing ATR-FTIR Spectroscopy through Analysis of Acetaminophen Drugs: Practical Lessons for Interdisciplinary and Progressive Learning for Undergraduate Students. *Journal of Chemical Education*, 98(8), 2675–2686. <https://doi.org/10.1021/acs.jchemed.0c01231>
- Zhang, X., Huang, Y., Li, J., Chen, Y., & Lian, J. (2025). Dissolution and Pharmacokinetic Studies of Paracetamol-4,4'-Bipyridine Cocrystals Obtained Using Four Methods. *Crystals*, 15(1). <https://doi.org/10.3390/cryst15010070>
- Zhao, J., Hermans, E., Sepassi, K., Tistaert, C., Bergström, C. A. S., Ahmad, M., & Larsson, P. (2025). Improved estimation of intrinsic solubility of drug-like molecules through multi-task graph transformer. *Journal of Cheminformatics*, 17(1). <https://doi.org/10.1186/s13321-025-01106-0>