DAFTAR PUSTAKA

Admikowati, A. (2015). *Peningkatan Laju Disolusi Asam Mefenamat Dengan Pembentukan Kokristal Asam Mefenamat-Nikotinamid (Metode Penguapan Pelarut Dengan Rotavapor)*. Universitas Airlangga.

Al-Kazemi, R., Al-Basarah, Y., & Nada, A. (2019). Dissolution Enhancement Of Atorvastatin Calcium By Cocrystallization. *Advanced Pharmaceutical Bulletin*, *9*(4), 559–570. Https://Doi.Org/10.15171/Apb.2019.064

Al-Kazemi, R., Al-Basarah, Y., & Nada, A. (2020). Atorvastatin Cocrystals: Tablet Formulation And Stability. *Asian Journal Of Pharmaceutics*, *14*(4), 578.

Alatas, F., Ratih, H., Sutarna, T. H., Windu Wardhana, Y., Tereslina, D., & Soewandhi, S. N. (2020). Preparation And Characterization Of Fluconazole-Resorcinol Co-Crystal. *Jurnal Ilmu Kefarmasian Indonesia*, *18*(2), 177–183. Https://Doi.Org/Https://Doi.Org/10.35814/Jifi.V18i2.779

Alatas, F., Sutarna, T. H., Asilla, A. N., & Pratiwi, S. R. (2022). Identifikasi Pembentukan Ko-Kristal Triklabendazol-Asam Oksalat Dan Uji Kelarutannya. *Pharmacoscript*, *5*(1), 1–13.

Alatas, F., Sutarna, T. H., & Lestari, T. (2020). *Pembentukan Ko-Amorf Irbesartan-L-Arginin Dan Dampaknya Terhadap Kelarutan Dan Laju Disolusi Irbesartan*. *9*(2), 98–106. Https://Doi.Org/10.30644/Rik.V8i2.434

Ali, A. H., & Abd-Alhammid, S. N. (2019). Enhancement Of Solubility And Improvement Of Dissolution Rate Of Atorvastatin Calcium Prepared As Nanosuspension. *Iraqi Journal Of Pharmaceutical Sciences*, *28*(2), 46–57. Https://Doi.Org/10.31351/Vol28iss2pp46-57

Altaani, B., Obaidat, R., & Malkawi, W. (2020). Enhancement Of Dissolution Of Atorvastatin Through Preparation Of Polymeric Solid Dispersions Using Supercritical Fluid Technology. *Research In Pharmaceutical Sciences*, *15*(2),

123–136. Https://Doi.Org/10.4103/1735-5362.283812

Aprilyanti, R. F., Nisa, A. H., Agustiani, A. K., Rahmalia, N., Pahlevi, M. R., Jafar, G., & Sagita, N. D. (2025). Review: Karakterisasi Modifikasi Bahan Aktif Farmasi Menjadi Kokristal Menggunakan Instrument Ftir, Sem, Xrd, Dan Dsc. *Journal Sainsa Farmasi Dan Kesehatan*, *02*(03), 142–150.

Azzahra, N., Darusman, F., & Hidayat, A. F. (2024). Metode Kokristal, Koamorf, Kompleks Inklusi, Dan Dispersi Padat Dalam Upaya Modifikasi Sifat Fisikokimia Zat Aktif Farmasi. *Bandung Conference Series: Pharmacy*, *4*(2), 152–160.

Badan Pengawas Obat Dan Makanan. (2022). *Badan Pengawas Obat Dan Makanan Republik Indonesia*.

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

Chavan, D. D., Thorat, V. M., Shete, A. S., Bhosale, R. R., & Patil, S. J. (2024). *Current Perspectives On Development And Applications Of Cocrystals In The Pharmaceutical And Medical Domain*. *16*(9), 1–12. Https://Doi.Org/10.7759/Cureus.70328

Depkes Ri. (2020). *Farmakope Indonesia Edisi Vi* (Edisi Vi). Departemen Kesehatan Republik Indonesia.

Fadhila, M., Umar, S., & Zaini, E. (2020). Pembentukan Kokristal Asam Usnat – N-Methyl -D- Glucamine Dengan Metode Penguapan Pelarut Dan Pengaruhnya Terhadap Penurunan Interleukin-8 Pada Tikus Inflamasi. *Jurnal Sains Farmasi & Klinis*, *7*(April), 23–30. Https://Doi.Org/10.25077/Jsfk.7.1.23-30.2020

Fadilatusya'adah, Z., Afriyani, Ramdini, D. A., & Triyandi, R. (2024). *Literature Review: Modifikasi Bahan Aktif Farmasi (Baf) Dengan Metode Kokristal*. *3*(2), 73–79.

Ferdiansyah, R., Ardiansyah, S. A., & Rachmaniar, R. (2021). Jurnal Ilmiah Farmako Bahari Review : The Effect Of Cocrystal Formation Using Carboxylic Acid Coformer With Solvent Evaporation And Solvent Drop Grinding Methods On Review : Pengaruh Pembentukan Kokristal Menggunakan Koformer Asam Karboksilat Dengan Metod. *Jurnal Ilmiah Farmako Bahari*, *12*, 28–38.

Fernandez, I., Elix, Mukhopadhyay, S., Isabel, V., Druz, K., Nockemann, P., Parker, S. F., Rudic, S., Stana, S., Tomkinson, J., Yeadon, D. J., Seddon, K. R., & Plechkova, N. V. (2021). *Spectroscopic Signatures Of Hydrogen-Bonding Motifs In Protonic Ionic Liquid Systems : Insights From Diethylammonium Nitrate In The Solid State*. Https://Doi.Org/10.1021/Acs.Jpcc.1c05137

Garbacz, P., Paukszta, D., & Sikorski, A. (2020). *Structural Characterization Of Co-Crystals Of Chlordiazepoxide With P -Aminobenzoic Acid And Lorazepam With Nicotinamide By Dsc , X-Ray Di Ff Raction , Ftir And Raman Spectroscopy*. 1–17.

Guo, J., Xu, L., You, W., & Ji, Y. (2025). A Novel Cocrystal Of Indole-3-Propionic Acid And Nicotinamide: Structure Design, Preparation, Characterization And Preliminary Physiochemical Properties Evaluation. *Journal Of Molecular Structure*, *1322*. Https://Doi.Org/Https://Doi.Org/10.1016/J.Molstruc.2024.140610

Guo, M., Sun, X., Chen, J., & Cai, T. (2021). Pharmaceutical Cocrystals: A Review Of Preparations, Physicochemical Properties And Applications. *Acta Pharmaceutica Sinica B*, *11*(8), 2537–2564. Https://Doi.Org/10.1016/J.Apsb.2021.03.030

Hairunnisa, Sopyan, I., & Gozali, D. (2019). *Cocrystal: Nicotinamide As The Coformer*. 113–122.

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.

Imanto, T., Pertiwi, H. K., & Wikantyasning, E. R. (2023). Pembentukan Dan Karakterisasi Fisika Kimia Ko-Kristal Piroxicam-Asam Tartrat-Sakarin Dengan Metode Solvent Drop Grinding. *Journal Of Islamic Pharmacy*, *8*(2), 89–95. Https://Doi.Org/10.18860/Jip.V8i2.24449

Indra, I., Aini, N., Yulianti, R., Wulandari, W. T., & Idacahyati, K. (2022). Kokristalisasi Aspirin Dan Asam Tartrat Dengan Metode Penguapan Pelarut. *Journal Of Pharmacopolium*, *4*(3), 152–161. Https://Doi.Org/10.36465/Jop.V4i3.793

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., Wulandari, W. T., & Alifiar, I. (2021). *Pembuatan Dan Karakterisasi Kokristal Kurkumin Dengan Asam Askorbat Sebagai Koformer*. *September*, 122–129.

Karagianni, A., Malamatari, M., & Kachrimanis, K. (2018). Pharmaceutical Cocrystals: New Solid Phase Modification Approaches For The Formulation Of Apis. *Pharmaceutics*, *10*(1), 1–30. Https://Doi.Org/10.3390/Pharmaceutics10010018

Karothu, D. P., Jahović, I., Jovanovski, G., Kaitner, B., & Naumov, P. (2017). Ionic Cocrystals Of Molecular Saccharin. *Crystengcomm*, *19*(30), 4338–4344. Https://Doi.Org/10.1039/C7ce00627f

Kim, D., Kim, Y., Tin, Y., Soe, M., Ko, B., Park, S., & Lee, J. (2021). *Recent Technologies For Amorphization Of Poorly Water-Soluble Drugs*.

Kumar, S., & Nanda, A. (2017). Pharmaceutical Cocrystals: An Overview. *Indian Journal Of Pharmaceutical Sciences*, *79*(6), 858–871. Https://Doi.Org/10.4172/Pharmaceutical-Sciences.1000302

Kwon, J., Giri, B. R., Song, E. S., Bae, J., & Lee, J. (2019). *Spray-Dried Amorphous Solid Dispersions Of Atorvastatin Calcium For Improved Supersaturation And Oral Bioavailability*.

Mane, T., & Mohite, M. (2020). Design, Formulation, And Characterization Of Apremilast-Saccharin Cocrystals Loaded With Topical Gel. *Asian Journal Of Pharmaceutical And Clinical Research*, *13*(7), 60–67. Https://Doi.Org/10.22159/Ajpcr.2020.V13i7.37693

Muttaqin, F. Z., Ramdanawati, L., & Ilham, S. (2021). Deteksi Adulteran Pada Bahan Baku Sediaan Kopi Instan Secara Ft-Ir Fingerprint Analysis. *Jurnal Farmasi Galenika*, *8*(2), 70–75.

Najih, Y. A., Widjaja, B., Rakhma, D. N., & Satrio, A. (2022). Uji Disolusi Kokristal Meloksikam Dan Asam Malonat Sebagai Koformerdibuat Dengan Metode Slurry. *Journal Of Pharmaceutical Care Anwar Medika*, *5*(1), 25–36.

Nasution, A. A., Siregar, P. P., & Nasution, Y. A. (2022). Laporan Kunjungan Rumah Kasus Dislipidemia : Pengalaman Mahasiswa Kedokteran Stase Kesehatan Komunitas E-Issn : 2722-0877. *Jurnal Implementa Husada*, *2*(3), 266–272.

Newman, A., Reutzel-Edens, S. M., & Zografi, G. (2018). Coamorphous Active Pharmaceutical Ingredient–Small Molecule Mixtures: Considerations In The Choice Of Coformers For Enhancing Dissolution And Oral Bioavailability. *Journal Of Pharmaceutical Sciences*, *107*(1), 5–17. Https://Doi.Org/10.1016/J.Xphs.2017.09.024

Nguyen, H. V, Nguyen, N. T., Tran, H. K., & Huynh, T. T. (2025). Improved Dissolution Of Poorly Water-Soluble Rutin Via Solid Dispersion Prepared Using A Fluid-Bed Coating System. *Pharmaceutics*, *17*(1599), 1–19.

Omori, M., Uekusa, T., Oki, J., Inoue, D., & Sugano, K. (2020). Journal Of Drug Delivery Science And Technology Solution-Mediated Phase Transformation At Particle Surface During Cocrystal Dissolution. *Journal Of Drug Delivery Science*

And Technology, *56*(February), 101566. Https://Doi.Org/10.1016/J.Jddst.2020.101566

Permatasari, A. E. O., Binarjo, A., & Setianto, A. B. (2024). *Potential Cocrystallization Method: The Formation Of Cocrystals As An Attempt To Increase The Solubility Of A Drug*. 118–124.

Prihandini, K., Wisudyaningsih, B., & Wicaksono, Y. (2025). *Original Article Solid-State Interactions And Eutectic Formation In Gemfibrozil-Nicotinamide Binary Mixtures Interaksi Padatan Dan Pembentukan Eutektik Dalam Campuran Biner Gemfibrozil- Nikotinamida Abstrak*. 1674–1681.

Pujiono, F. E., Ekowati, J., Amrillah, T., & Setyawan, D. (2025). *Ferulic Acid-Nicotinamide Cocrystal : Synthesis , Experimental , And Computation Study*. *10*(2).

Rachmaniar, R., Tristiyanti, D., & Sari, D. Y. (2020). [Review] Pengaruh Koformer Nikotinamid Dan Metode Pembentukan Kokristal Terhadap Kelarutan Zat. *Jurnal Sains Dan Teknologi Farmasi Indonesia*, *Ix*(1).

Rachmaniar, R., Tristiyanti, D., & Triyadi, F. H. (2021). Peningkatan Kelarutan Etil P-Metoksisinamat Dengan Pembentukan Kokristal Menggunakan Metode Solvent Evaporation Dan Koformer Urea. *Jurnal Sains Dan Teknologi Farmasi Indonesia*, *9*(2), 1. Https://Doi.Org/10.58327/Jstfi.V9i2.142

Raheem, A., Id, T., Juturu, T., Id, S. N., & Kamath, S. (2020). Pharmaceutical Co-Crystallization : Regulatory Aspects , Design , Characterization , And Applications. *Tabriz University Of Medical Sciences*, *10*(2), 203–212. Https://Doi.Org/10.34172/Apb.2020.024

Saidah, N., Wardani, G. A., & Wulandari, W. T. (2024). *Pemanfaatan Arang Aktif Tempurung Kemiri (Aleurites Moluccanus L . Willd) Yang Dimodifikasi Dengan Cremophor Rh 40 Sebagai Adsorben Limbah Parasetamol*. *4*, 224–237.

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

Salma, U. K. (2021). Review Artikel: Peningkatan Kelarutan Atorvastatin Dengan Berbagai Metode Dispersi Padat. *Jurnal Ilmiah Farmasi Farmasyifa*, *4*(1), 6–16. Https://Doi.Org/10.29313/Jiff.V4i1.6768

Saputro, M. R., Pahlevi, M. R., Zaelani, D., Al-Ayubbi, D., & Hanif, S. (2025). Uji Kelarutan Ramipril Dengan Koformer Nicotinamide. *An-Najat: Jurnal Ilmu Farmasi Dan Kesehatan*, *3*, 2–7.

Sathisaran, I., & Dalvi, S. V. (2018). *Engineering Cocrystals Of Poorly Water-Soluble Drugs To Enhance Dissolution In Aqueous Medium*. *Figure 1*. Https://Doi.Org/10.3390/Pharmaceutics10030108

Savale, A., Mogal, R., Talele, S., Deore, S., & Borse, L. (2023). Pharmaceutical Cocrystals: A Novel Systematic Approach For The Administration Of Existing Drugs In New Crystalline Form. *Biosciences Biotechnology Research Asia*, *20*(4), 1195–1210. Https://Doi.Org/10.13005/Bbra/3168

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

Shi, K., & Li, M. (2023). Optimisation Of Pharmaceutical Cocrystal Dissolution Performance Through A Synergistic Precipitation Inhibition. *Pharmaceutical Research*, *40*(8), 2051–2069. Https://Doi.Org/10.1007/S11095-023-03532-X

Shi, Z., & Han, S. (2025). *Heliyon Personalized Statin Therapy : Targeting Metabolic Processes To Modulate The Therapeutic And Adverse Effects Of Statins*. *11*(January), 1–23.

Silvia, N., Rusdiana, T., Gozali, D., Husni, P., Padjadjaran, U., & Padjadjaran, U.

(2025). *Study Of Formulation, Characteristics, And Evaluation Of Self Nanoemulsifying Drug Delivery System (Snedds) For Atorvastatin Calcium*. *5*(2), 449–457.

Singh, M., Barua, H., Jyothi, V. G. S. S., Dhondale, M. R., Nambiar, A. G., Agrawal, A. K., Kumar, P., Shastri, N. R., & 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

Sopyan, I., Layyareza, R. T., Megantara, S., & Marvita, S. S. (2023). *Carvedilol Solubility Enhancement By Multicomponent Crystallization With Coformers Of Benzoic Acid , Isonicotinamide , And Saccharin*. *70*, 283–290. Https://Doi.Org/10.3897/Pharmacia.70.E98177

Tarivitla, L. P., & Reddy, M. S. (2021). *An Overview Of The Biopharmaceutics Classification System (Bcs)*. *14*(February), 217–221.

Thayyil, A. R., Juturu, T., Nayak, S., & Kamath, S. (2020). Pharmaceutical Co-Crystallization: Regulatory Aspects, Design, Characterization, And Applications. *Advance Pharmaceutical Bulletin*, *10*(2), 203–212. Https://Doi.Org/Doi: 10.34172/Apb.2020.024

Trivedi, H. R., Borkar, D. S., & Puranik, P. K. (2020). Experimental Design Approach For Development Of Cocrystals And Immediate Release Cocrystal Tablet Of Atorvastatin Calcium For Enhancement Of Solubility And Dissolution. *Journal Of Research In Pharmacy*, *24*(5), 720–737. Https://Doi.Org/10.35333/Jrp.2020.226

Triyana, R., Nurhabibah, N., & Sopyan, I. (2020). Artikel Review : Kokristal Ibuprofen Dengan Berbagai Koformer, Virtual Screening Tools. *Majalah Farmasetika*, *6*(1), 23. Https://Doi.Org/10.24198/Mfarmasetika.V6i1.27570

Tsaniyah, S. F. (2020). *Pengaruh Pembentukan Kokristal Atorvastatin-Asam Dipikolinat Dengan Metode Liquid Assisted Grinding Terhadap Kelarutan Dan*

Disolusi. Universitas Jember.

Verma, P., Srivastava, A., Shukla, A., Tandon, P., & Shimpi, M. (2019). Vibrational Spectra, Hydrogen Bonding Interactions And Chemical Reactivity Analysis Of Nicotinamide-Citric Acid Cocrystal By An Experimental. *New Journal Of Chemistry*, 1–13. Https://Doi.Org/10.1039/C9nj03085a

Verma, P., Srivastava, A., Srivastava, K., & Tandon, P. (2021). *Molecular Structure , Spectral Investigations , Hydrogen Bonding Interactions And Reactivity-Property Relationship Of Caffeine-Citric Acid Cocrystal By Experimental And Dft Approach*. *9*(July), 1–13. Https://Doi.Org/10.3389/Fchem.2021.708538

Wang, L., Yan, Y., Zhang, X., & Zhou, X. (2022). Novel Pharmaceutical Cocrystal Of Lenalidomide With Nicotinamide : Structural Design , Evaluation , And Thermal Phase Transition Study. *International Journal Of Pharmaceutics*, *613*(December 2021), 121394. Https://Doi.Org/10.1016/J.Ijpharm.2021.121394

Wathoni, N., Sari, W. A., Elamin, K. M., Mohammed, A. F. A., & Suharyani, I. (2022). A Review Of Coformer Utilization In Multicomponent Crystal Formation. *Molecules*, *27*(24). Https://Doi.Org/10.3390/Molecules27248693

Wicaksono, Y., Al Amaliyah, S. I., Rahmayanti, F., Rosidi, V. A., Winarti, L., & Setyawan, D. (2022). Preparation And Evaluation Of Antihypercholesterolemic Activity Of Atorvastatin Calcium-Maleic Acid Co-Amorphous Solids. *Science And Technology Indonesia*, *7*(2), 202–207. Https://Doi.Org/10.26554/Sti.2022.7.2.202-207

Wicaksono, Y., Nugraha, A. S., Irawan, E. D., Nada, N., & Nurhansyah, S. D. (2023). A New Multi-Component Solid Of Atorvastatin Calcium With A Dipicolinic Acid Coformer For Improving The Water Solubility. *International Journal Of Technology*, *14*(3), 618–627. Https://Doi.Org/10.14716/Ijtech.V14i3.5088

Wicaksono, Y., Setyawan, D., Siswandono, & Siswoyo, T. A. (2019). Preparation And Characterization Of A Novel Cocrystal Of Atorvastatin Calcium With Succinic

Acid Coformer. *Indonesian Journal Of Chemistry*, *19*(3), 660–667. Https://Doi.Org/10.22146/Ijc.35801

Wichianphong, N., & Charoenchaitrakool, M. (2018). Statistical Optimization For Production Of Mefenamic Acid – Nicotinamide Cocrystals Using Gas Anti-Solvent (Gas) Process. *Journal Of Industrial And Engineering Chemistry*, *62*, 375–382. Https://Doi.Org/10.1016/J.Jiec.2018.01.017

Windriyati, Y. N., Rini, M. D. S., Anggara, D. A., & Fitriani, N. (2023). Liquisolid Tablets Formulation Of Atorvastatin Calcium Using Propylene Glycol As Solvent And Some Carrier Materials Formulasi Tablet Likuisolid Kalsium Atorvastatin Dengan Pelarut Propilenglikol Dan Beberapa Bahan Pembawa. *Jurnal Ilmiah Farmasi*, *19*(2), 169–181. Https://Doi.Org/10.20885/Jif.Vol19.Iss2.Art15

World Health Organization. (2025). *Cardiovascular Diseases (Cvds)*. Https://Www.Who.Int/News-Room/Fact-Sheets/Detail/Cardiovascular-Diseases-(Cvds)

Zaini, E., Riska, D., Oktavia, M. D., Ismed, F., & Fitriani, L. (2020). *Improving Dissolution Rate Of Piperine By Multicomponent Crystal Formation With Saccharin Abstract : 13*(April), 1926–1930. Https://Doi.Org/10.5958/0974-360x.2020.00347.9