

DAFTAR PUSTAKA

- Abdel Ghafar M. T, El-Masry M. I. 2021. Verification of quantitative analytical methods in medical laboratories. *J. Med. Biochem*; 40 (3) : 225–236. doi: 10.5937/jomb0-24764.
- Abramson A, Caffarel-Salvador E, Soares V, Minahan D, Tian R. Y, Lu X, et al. 2019. A luminal unfolding *Microneedle* injector for oral delivery of macromolecules. *Nat. Med*; 25 (10) : 1512–1518. doi: 10.1038/s41591-019-0598-9.
- Afika N, Saniy A. F, Darma A. A. F, Ko C. K, Kamran R, Permana A. D. 2024. Application of validated UV spectrophotometric and colorimetric method to quantify minoxidil in the development of trilayer dissolving *Microneedle*: Proof of concept in ex vivo and in vivo studies in rats. *Ann. Pharm. Fr*; xxxx: 1-14. doi: 10.1016/j.pharma.2023.12.006.
- Ashok C. V, Sailaja B. K, Praveen A. 2016. Method development and validation of ultraviolet-visible spectroscopic method for the estimation of hepatitis-C drugs - daclatasvir and sofosbuvir in active pharmaceutical ingredient form. *Asian J. Pharm. Clin. Res*; 9: 61–66. doi: 10.22159/ajpcr.2016.v9s3.14616.
- Asis M. A, Purnawansyah, Manga A. R. 2020. Penerapan System Development Life Cycle pada Sistem Validasi Metode Analisis Sediaan Farmasi. *Buletin Sistem Informasi dan Teknologi Islam*. 1 (3): 145 – 149.
- Avcil M, Çelik A. 2022. *Microneedles* in drug delivery: Progress and challenges. *Micromachines*; 12 (11) : 1–15. doi: 10.3390/mi12111321.
- Azis S. B. A, Syafika N, Qonita H. A, Mahmud T. R. A, Abizart A, Permana A. D. 2022. Application of validated spectrophotometric method to quantify metformin in the development of glucose-responsive microparticles loaded dissolving *Microneedles*. *Microchem. J*; 183: 108051. doi: 10.1016/j.microc.2022.108051.
- Aziz A. Y. R, Hasir N. A, Imran N. B. P, Hamdan M. F, Mahfufah U, Wafiah N, et al. 2023. Development of hydrogel-forming *Microneedles* for transdermal delivery of albendazole from liquid reservoir. *J. Biomater. Sci. Polym. Ed*; 34 (8) : 1101–1120. doi: 10.1080/09205063.2022.2157671.
- De Nicolò A, Ianniello A, Ferrara M, Avataneo V, Cusato J, Antonucci M, et al. 2021. Validation of a UHPLC-MS/MS method to quantify twelve antiretroviral drugs within peripheral blood mononuclear cells from people living with HIV. *Pharmaceuticals*; 14 (1) : 1–16. doi: 10.3390/ph14010012.
- Djajapranata K. M, Maimunah U. 2023. The Role of Histopathology in Patients with Hepatitis C Leading to Hepatocellular Carcinoma. *J. Med. Heal. Stud*; 4 (3) : 09–17. doi: 10.32996/jmhs.2023.4.3.2.
- Elim D, Fitri A. M. N, Mahfud M. A. S, Afika N, Sultan N. A. F, Hijrah, et al. 2022. Hydrogel forming *Microneedle*-mediated transdermal delivery of sildenafil citrate from polyethylene glycol reservoir: An ex vivo proof of concept study. *Colloids Surfaces B Biointerfaces*; 222: 113018. doi: 10.1016/j.colsurfb.2022.113018.
- El-Yazbi A. F, Elashkar N. E, Abdel-Hay K. M, Ahmed H. M, Talaat W. 2021. Eco-analytical methods for the determination of compounds with disparate overlapping: application to antiviral formulation of sofosbuvir and simeprevir. *J. Anal. Sci. Technol*; 12 (1) : 1-19. doi: 10.1186/s40543-021-00332-0.
- Kadam A, Mashru R. 2022. New Smartphone Based Colorimetric



- Method Development and Validation of Drugs Containing Nitrogen, Phosphorus and Sulphur. *J. Drug Deliv. Ther.*; 12 (3) : 51–63. doi: 10.22270/jddt.v12i3-s.5503.
- Hamdan M. F, Ramadhani N. N, Aziz A. Y. R., Sahra M, Agrabudi A. I, Permana A. D. 2024. Development and validation of UV–Vis spectrophotometry-colorimetric method for the specific quantification of rivastigmine tartrate from separable effervescent Microneedles: Ex vivo and in vivo applications in complex biological matrices. *J. Mol. Struct.*; 1303: 137589. doi: 10.1016/j.molstruc.2024.137589.
- Hemdan A, Eissa M. S. 2019. Simultaneous chromatographic analysis of Sofosbuvir/Ledipasvir in their combined dosage form: an application to green analytical chemistry. *Journal of Analytical Science and Technology*, 10:39.
- Heredia N. S, Vizuete K, Flores-Calero M, Katherine Pazmiño V, Pilaquinga F, Kumar B, et al. 2022. Comparative statistical analysis of the release kinetics models for nanoprecipitated drug delivery systems based on poly(lactic-co-glycolic acid). *PLoS One*; 17 (3) : 1–28. doi: 10.1371/journal.pone.0264825.
- Hidayat M. T, Fitrayani N, Samma A. A, Anggriani A, Permana A. D. 2024. Validation of spectrophotometric and colorimetric methods for determination of efavirenz in various biological matrices : Application to the development of dissolvable Microneedle-based efavirenz complex inclusion for vaginal delivery. *Microchem. J*; 200: 110361. doi: 10.1016/j.microc.2024.110361.
- ICH. 2022. Validation of Analytical Procedures: ICH Guidelines Q2(R2). ICH Harmon. Guidel. Vol 2: 1 – 34.
- Isbaniah F, Burhan E, Sinaga B. Y. M, Yanifitri D. B, Handayani D, Harsini, et al. 2021. *Tuberkulosis Pedoman Diagnosis dan Penatalaksanaan di Indonesia. Perhimpunan Dokter Paru Indonesia*; 001 (2014) : 1-78.
- Islam R, Habib Nabilah F, Wakabayashi R, Kamiya N, Moniruzzaman M, Goto M. 2024. Ionic Liquid-Based patch formulation for enhanced transdermal delivery of sparingly soluble drug. *J. Mol. Liq.*, 397: 124184. doi: 10.1016/j.molliq.2024.124184.
- Khan M. U, Mahmoud M. I, Butt A. A. 2020. Hepatitis c virus and chronic kidney disease. *Expert Rev. Gastroenterol. Hepatol*; 14 (7) : 579–590. doi: 10.1080/17474124.2020.1776111.
- Lee J, Lee H, Hyun Kwon S, Park S. 2020. Active delivery of multi-layer drug-loaded Microneedle patches using magnetically driven capsule. *Med. Eng. Phys*; 85: 87–96. doi: 10.1016/j.medengphy.2020.09.012.
- Lee K. J, Goudie M. J, Tebon P, Sun W, Luo Z, Lee J, et al. 2020. Non-transdermal Microneedles for advanced drug delivery. *Adv. Drug Deliv. Rev*; 165: 41–59. doi: 10.1016/j.addr.2019.11.010.
- Liu S, Li Z, Yu B, Wang S, Shen Y, Cong, H. 2020. Recent Advances on Protein Separation and Purification Methods. *Advances in Colloid and Interface Science*. 284:102254.
- Llovet J. M, Kelley R. K, Villanueva A, Singal A. G, Pikarsky E, Roayaie S, et al. 2021. Hepatocellular carcinoma. *Nat. Rev. Dis. Prim.* 7 (1) : 1-28. doi: 3/s41572-020-00240-3.
- Sulistiwati, Meidianto Asri R, Nainu F, Dian Permana A. 2023. On of spectrophotometric method to quantify chloramphenicol in fluid skin tissue mimicking infection environment: Application to in vitro and ex vivo dermatokinetic studies from dissolving Microneedle microparticle sensitive. *Spectrochim. Acta - Part A Mol. Biomol.*



- Spectrosc*; 291: 122374. doi: 10.1016/j.saa.2023.122374.
- Nagy T, Tóth J, Ladics T. 2020. Automatic kinetic model generation and selection based on concentration versus time curves. *Int. J. Chem. Kinet*; 52 (2) : 109–123. doi: 10.1002/kin.21335.
- Nguyen T. T. L, Duong V. A, Maeng H. J. 2021. Pharmaceutical formulations with p-glycoprotein inhibitory effect as promising approaches for enhancing oral drug absorption and bioavailability. *Pharmaceutics*; 13 (7) : 1–48. doi: 10.3390/pharmaceutics13071103.
- Omar R, Omar H, Salahuddin D. 2023. New spectrophotometric and smartphone-based colorimetric methods for determination of atenolol in pharmaceutical formulations. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*; 302: 1-8.
- Paredes A. J, Volpe-Zanutto F, Vora L. K, Tekko I. A, Permana A. D, Picco C. J, et al. 2021. Sistemic delivery of tenofovir alafenamide using dissolving and implantable Microneedle patches. *Mater. Today Bio*; 13: 100217. doi: 10.1016/j.mtbio.2022.100217.
- Patra C. N, Priya R, Swain S, Jena G. K, Panigrahi K. C, Ghose D. 2017. Pharmaceutical significance of Eudragit: A review. *Futur. J. Pharm. Sci*; 3 (1) : 33–45. doi: 10.1016/j.fjps.2017.02.001.
- Permania A. D, Aziz A. Y. R, Sam A, Djabir Y. Y, Arsyad M. A, Harahap Y, et al. 2023. Development of hyaluronic acid-based Microneedles for improved brain delivery of rivastigmine nanoparticles via mystacial pad region. *J. Drug Deliv. Sci. Technol*; 90: 105183. doi: 10.1016/j.jddst.2023.105183.
- Rabaan A. A, Al-Ahmed S. H, Bazzi A. M, Alfouzan W. A, Alsuliman S. A, Aldrazi F. A, et al. 2020. Overview of hepatitis C infection, molecular biology, and new treatment. *J. Infect. Public Health*. 13 (5) : 773–783. doi: 10.1016/j.jiph.2019.11.015.
- Sabri A. H, Kim Y, Marlow M, Scurr D. J, Segal J, Banga A. K, et al. 2020. Intradermal and transdermal drug delivery using *Microneedles* – Fabrication, performance evaluation and application to lymphatic delivery. *Adv. Drug Deliv. Rev*; 153: 195–215. doi: 10.1016/j.addr.2019.10.004.
- Sahloul L, dan Salami M. 2023. Development and Validation of a New Analytical Method for Determination of Linagliptin in Bluk by Visible Spectropotometer. *Scientific Reports*. 13(1): 4083.
- Sulistianiati, Enggi C. K, Isa H. T, Wijaya S, Ardika K. A. R, Asri R. M, et al. 2022. Validation of spectrophotometric method to quantify cabotegravir in simulated vaginal fluid and porcine vaginal tissue in ex vivo permeation and retention studies from thermosensitive and mucoadhesive gels. *Spectrochim. Acta - Part A Mol. Biomol. Spectrosc*; 267: 120600. doi: 10.1016/j.saa.2021.120600.
- Wang T, Babusis D, Park Y, Niu C, Kim C, Zhao X, et al. 2020. Species differences in liver accumulation and metabolism of nucleotide prodrug sofosbuvir. *Drug Metab. Pharmacokinet*, 35 (3) : 334–340. doi: 10.1016/j.dmpk.2020.04.333.
- Yang L, Yang X, Wang E, Lu B, Duan L. 2024. Development of CO₂-switchable deep eutectic solvent-based liquid-liquid microextraction approach: Application in excretion and tissue distribution studies. *Anal. Chim. Acta*; 1307: doi: 10.1016/j.aca.2024.342620.

