

DAFTAR PUSTAKA

- Aberg, J., Lacy, C., Amstrong, L., Goldman, M., dan Lance, L., 2009. *Drug Information Handbook*, 17th Edition. Lexi-Comp for the American Pharmacists Association.
- Alves, T.F.R., das Neves Lopes, F.C.C., Rebelo, M.A., Souza, J.F., da Silva Pontes, K., Santos, C., dkk., 2018. Crystalline Ethylene Oxide and Propylene Oxide Triblock Copolymer Solid Dispersion Enhance Solubility, Stability and Promoting Time- Controllable Release of Curcumin. *Recent Patents on Drug Delivery & Formulation*, **12**: 65–74.
- Alwan, R.M.D., 2016. 'Preparation and Characterization of Doxorubicin Loaded Tri-Block Copolymer (PCL-PEG-PCL) and its Cytotoxic Effect on Breast Cancer Cell Line MCF-7', *Disertasi, Ph.D. (Biotechnology)*., Fakultas Sains, Universitas Al-Nahrain, Iraq.
- AOAC, 1998. *Peer Verified Methods Program, Manual on Policies and Procedures*. Arlington. VA.
- Azouz, L., Dahmoune, F., Rezgui, F., dan G'Sell, C., 2016. Full Factorial Design Optimization of Anti-Inflammatory Drug Release by PCL–PEG–PCL Microspheres. *Materials Science and Engineering*: **58**: 412–419.
- Barrios, V.A.E., Méndez, J.R.R., Aguilar, N.V.P., dan Rodríguez, G.A.E., 2012. 'FTIR - An Essential Characterization Technique for Polymeric Materials', in Theophile. T (ed)., *Infrared Spectroscopy - Materials Science, Engineering and Technology*., Intech, hal. 195-212.
- Cavazzuti, M., 2013. 'Design of Experiments', in *Optimization Methods*. Springer Berlin Heidelberg, Berlin, Heidelberg, hal. 13–42.
- Chakraborty, T., Chakraborty, I., dan Ghosh, S., 2011. The Methods of Determination of Critical Micellar Concentrations of The Amphiphilic Systems in Aqueous Medium. *Arabian Journal of Chemistry*, **4**: 265–270.
- Cho, H.K., Cheong, I.W., Lee, J.M., dan Kim, J.H., 2010. Polymeric Nanoparticles, Micelles and Polymersomes from Amphiphilic Block Copolymer. *Korean Journal of Chemical Engineering*, **27**: 731–740.
- Cholkar, K., Patel, A., Dutt Vadlapudi, A., dan Mitra, A., 2012. Novel Nanomicellar Formulation Approaches for Anterior and Posterior Segment Ocular Drug Delivery. *Recent Patents on Nanomedicine*, **2**: 82–95.
- Colzani, B., Speranza, G., Dorati, R., Conti, B., Modena, T., Bruni, G., dkk., 2016. Design of Smart GE11-PLGA/PEG-PLGA Blend Nanoparticulate

Platforms For Parenteral Administration Of Hydrophilic Macromolecular Drugs: Synthesis, Preparation And In Vitro/Ex Vivo Characterization. *International Journal of Pharmaceutics*, **511**: 1112–1123.

- Cuong, N.V., Hsieh, M.F., Chen, Y.T., dan Liao, I., 2010. Synthesis and Characterization of PEG-PCL-PEG Triblock Copolymers as Carriers of Doxorubicin for The Treatment of Breast Cancer. *Journal of Applied Polymer Science*, **117**: 3694–3703.
- Danafar, H., Rostamizadeh, K., dan Hamidi, M., 2018. Polylactide/Poly(ethylene glycol)/Polylactide Triblock Copolymer Micelles as Carrier for Delivery of Hydrophilic and Hydrophobic Drugs: A Comparison Study. *Journal of Pharmaceutical Investigation*, **48**: 381–391.
- El-Houssiny, A.S., Ward, A.A., Mostafa, D.M., Abd-El-Messieh, S.L., Abdel-Nour, K.N., Darwish, M.M., dkk., 2016. Drug–polymer interaction between glucosamine sulfate and alginate nanoparticles: FTIR, DSC and dielectric spectroscopy studies. *Advances in Natural Sciences: Nanoscience and Nanotechnology*, **7**: 025014.
- Fares, A.R., El Meshad, A.N., dan Kassem, M.A.A., 2018. Enhancement of Dissolution and Oral Bioavailability of Lacidipine Via Pluronic P123/F127 Mixed Polymeric Micelles: Formulation, Optimization Using Central Composite Design And In Vivo Bioavailability Study. *Drug Delivery*, **25**: 132–142.
- Gaisford, S., Kett, V., dan Haines, P., 2016. *Principles of Thermal Analysis and Calorimetry*: 2nd Edition. Royal Society of Chemistry, Aylesbury. UK, hal. 67-69.
- Gong, C., Shi, S., Dong, P., Kan, B., Gou, M., Wang, X., dkk., 2009^a. Synthesis and Characterization of PEG-PCL-PEG Thermosensitive Hydrogel. *International Journal of Pharmaceutics*, **365**: 89–99.
- Gong, C., Shi, S., Peng, X., Kan, B., Yang, L., Huang, M.J., dkk., 2009^b. Biodegradable Thermosensitive Injectable PEG-PCL-PEG Hydrogel for bFGF Antigen Delivery to Improve Humoral Immunity. *Growth Factors*, **27**: 377–383.
- Gou, M., Gong, C., Zhang, J., Wang, XiuHong, Wang, XianHuo, Gu, Y., dkk., 2009. Polymeric Matrix for Drug Delivery: Honokiol-loaded PCL-PEG-PCL Nanoparticles in PEG-PCL-PEG Thermosensitive Hydrogel. *Journal of Biomedical Materials Research Part A*, 219-226.
- Grossen, P., Witzigmann, D., Sieber, S., dan Huwyler, J., 2017. PEG-PCL-Based Nanomedicines: A Biodegradable Drug Delivery System and Its Application. *Journal of Controlled Release*, **260**: 46–60.

- Guarino, V., Gentile, G., Sorrentino, L., dan Ambrosio, L., 2017. Polycaprolactone: Synthesis, Properties, and Applications, dalam: John Wiley & Sons, Inc. (Editor), *Encyclopedia of Polymer Science and Technology*. John Wiley & Sons, Inc., Hoboken, NJ, USA, hal. 1–36.
- He, G., Ma, L., Pan, J., dan Venkatraman, S., 2007. ABA and BAB Type Triblock Copolymers of PEG and PLA: A Comparative Study of Drug Release Properties and “Stealth” Particle Characteristics. *International Journal of Pharmaceutics*, **334**: 48–55.
- Hoang, N.H., Lim, C., Sim, T., dan Oh, K.T., 2017. Triblock Copolymers for Nano-sized Drug Delivery Systems. *Journal of Pharmaceutical Investigation*, **47**: 27–35.
- Honary, S. dan Zahir, F., 2013. Effect of Zeta Potential on the Properties of Nano-Drug Delivery Systems - A Review (Part 2). *Tropical Journal of Pharmaceutical Research*, **12**: 265–273.
- Kedar, U., Phutane, P., Shidhaye, S., dan Kadam, V., 2010. Advances in Polymeric Micelles for Drug Delivery and Tumor Targeting. *Nanomedicine: Nanotechnology, Biology and Medicine*, **6**: 714–729.
- Kulthe, S.S., Inamdar, N.N., Choudhari, Y.M., Shirolkar, S.M., Borde, L.C., dan Mourya, V.K., 2011. Mixed Micelle Formation with Hydrophobic And Hydrophilic Pluronic Block Copolymers: Implications For Controlled And Targeted Drug Delivery. *Colloids and Surfaces B: Biointerfaces*, **88**: 691–696.
- Lee, E.S., Kim, J.H., Yun, J.M., Lee, K.S., Park, G.Y., Lee, B.J., dkk., 2010. Functional Polymers for Drug Delivery Systems in Nanomedicines. *Journal of Pharmaceutical Investigation*, **40**: 45–61.
- Menczel, J.D. dan Prime, R.B. (Editor), 2009. *Thermal Analysis of Polymers: Fundamentals and Applications*. Wiley, Hoboken, NJ.
- Miyata, K., Christie, R.J., dan Kataoka, K., 2011. Polymeric Micelles for Nano-scale Drug Delivery. *Reactive and Functional Polymers*, **71**: 227–234.
- Moffat, C., Osselton, M., dan Widdop, B., 2005. *Clarke’s Analysis of Drug and Poisons*, 3rd ed. Pharmaceutical Press.
- Montgomery, D.C., 2017. *Design and Analysis of Experiments*. John Wiley & Sons.
- Mu, C.-F., Balakrishnan, P., Cui, F.-D., Yin, Y.-M., Lee, Y.-B., Choi, H.-G., dkk., 2010. The Effects of Mixed MPEG–PLA/Pluronic® Copolymer Micelles On The Bioavailability And Multidrug Resistance Of Docetaxel. *Biomaterials*, **31**: 2371–2379.

- Pandey, S.K., Haldar, C., Patel, D.K., dan Maiti, P., 2013. 'Biodegradable Polymers for Potential Delivery Systems for Therapeutics', in Dutta, P.K. dan Dutta, J. (ed), *Multifaceted Development and Application of Biopolymers for Biology, Biomedicine and Nanotechnology*. Springer Berlin Heidelberg, Berlin, Heidelberg, hal. 169–202.
- Payyappilly, S., Dhara, S., dan Chattopadhyay, S., 2014. Thermoresponsive Biodegradable PEG-PCL-PEG Based Injectable Hydrogel for Pulsatile Insulin Delivery: PEG-PCL-PEG Based Injectable Hydrogel for Pulsatile Insulin Delivery. *Journal of Biomedical Materials Research Part A*, **102**: 1500–1509.
- Petrova, S., Miloshev, S., Mateva, R., dan Iliev, I., 2008. Synthesis of Amphiphilic PEG-PCL-PEG Triblock Copolymers. *Journal of the University of Chemical Technology and Metallurgy*, **43**: 199–204.
- Qiu, Y. dan Lee, P.I., 2017. 'Chapter 19 - Rational Design of Oral Modified-Release Drug Delivery Systems', in *Developing Solid Oral Dosage Forms. 2nd Edition*. Academic Press, Boston, hal. 519–554.
- Rachmaniar, R., Tristiyanti, D., Hamdani, S., dan Afifah, 2018. 'Solubility and dissolution improvement of ketoprofen by emulsification ionic gelation', . Dipresentasikan pada the 1st International Conference and Exhibition On Powder Technology Indonesia (Icepti) 2017, Jatinangor, Indonesia, hal. 030024.
- Rahul, S., Neetesh, J., Deepika, B., Gurdeep, S., dan Laxmi, V., 2018. Formulation of Fast Dissolving Ketoprofen Tablet by Solid Dispersion Technique. *Journal of Drug Delivery*, **8**: 85–92.
- Rivai, H., Novreza, dan Chandra, B., 2018. *Pengembangan dan Validasi Metode Analisis Ketoprofen Tablet dengan Metode Absorbansi dan Luas Daerah di Bawah Kurva Secara Spektrofotometri Ultraviolet*. Fakultas farmasi Universitas Andalas, Padang, hal. 1–12.
- Rowe, R.C., Sheskey, P.J., dan Quinn, M.E., 2009. *Handbook of Pharmaceutical Excipients*, 6th edition. Pharmaceutical Press, Chicago.
- Rupp, C., Steckel, H., dan Müller, B.W., 2010. Solubilization Of Poorly Water-Soluble Drugs by Mixed Micelles Based on Hydrogenated Phosphatidylcholine. *International Journal of Pharmaceutics*, **395**: 272–280.
- Sandri, G., Bonferoni, M.C., Ferrari, F., Rossi, S., dan Caramella, C.M., 2014. The Role of Particle Size in Drug Release and Absorption, dalam: Merkus, H.G. dan Meesters, G.M.H. (Editor), *Particulate Products*. Springer International Publishing, Cham, hal. 323–341.

- Sayed, S., Habib, B.A., dan Elsayed, G.M., 2017. Tri-block Co-polymer Nanocarriers for Enhancement of Oral Delivery of Felodipine: Preparation, Characterization and Permeation. *Journal of Liposome Research*, 1–11.
- Shohin, I.E., Kulinich, J.I., Ramenskaya, G.V., Abrahamsson, B., Kopp, S., Langguth, P., dkk., 2012. Biowaiver Monographs for Immediate-Release Solid Oral Dosage Forms: Ketoprofen. *Journal of Pharmaceutical Sciences*, **101**: 3593–3603.
- Shohin, I.E., Kulinich, J.I., Ramenskaya, G.V., dan Vasilenko, G.F., 2011. Evaluation of In Vitro Equivalence for Drugs Containing BCS Class II Compound Ketoprofen. *Dissolution Technologies*, **18**: 26–29.
- Stuart, B.H., 2004. Infrared Spectroscopy: Fundamentals and Applications. *John Wiley & Sons, London. UK*, 113–136.
- Tamboli, V., Mishra, G.P., dan Mitra, A.K., 2013. Novel Pentablock Copolymer (PLA–PCL–PEG–PCL–PLA)-Based Nanoparticles for Controlled Drug Delivery: Effect of Copolymer Compositions on The Crystallinity of Copolymers and In Vitro Drug Release Profile from Nanoparticles. *Colloid and Polymer Science*, **291**: 1235–1245.
- Tyrrell, Z.L., Shen, Y., dan Radosz, M., 2010. Fabrication of Micellar Nanoparticles for Drug Delivery Through the Self-assembly of Block Copolymers. *Progress in Polymer Science*, **35**: 1128–1143.
- Vroman, I. dan Tighzert, L., 2009. Biodegradable Polymers. *Materials*, **2**: 307–344.
- Wang, J., Ma, W., dan Tu, P., 2015. The Mechanism of Self-Assembled Mixed Micelles in Improving Curcumin Oral Absorption: In Vitro And In Vivo. *Colloids and Surfaces B: Biointerfaces*, **133**: 108–119.
- Wei, Z., Hao, J., Yuan, S., Li, Y., Juan, W., Sha, X., dkk., 2009. Paclitaxel-Loaded Pluronic P123/F127 Mixed Polymeric Micelles: Formulation, Optimization And In Vitro Characterization. *International Journal of Pharmaceutics*, **376**: 176–185.
- Xie, H., Bian, X., Liang, S., John, J., Hsiao, C.-H., Wei, X., dkk., 2013. Development Of PLGA-Based Itraconazole Injectable Nanospheres For Sustained Release. *International Journal of Nanomedicine*, 4521.
- Xu, W., Ling, P., dan Zhang, T., 2013. Polymeric Micelles, a Promising Drug Delivery System to Enhance Bioavailability of Poorly Water-Soluble Drugs. *Journal of Drug Delivery*, **2013**: 1–15.