

## DAFTAR PUSTAKA

- Aiache, J.M., Devissaguet, J., dan Hermann-Guyot, A.M., 1993. *Biopharmachie*. Diterjemahkan dari bahasa Italia oleh Soeratri, W. Airlangga University Press, Surabaya.
- Alverina, A.C., 2016. Formulasi SNEDDS (self-nanoemulsifying Drug Delivery System) Beta Karoten Menggunakan Minyak Zaitun (olea Europaea). *Skripsi*. Fakultas Farmasi Universitas Gadjah Mada, Yogyakarta.
- Angerhofer, C.K., Maes, D., Giacomoni, P.U., 2008. The use of natural compounds and botanicals in the development of anti-aging skin care products. In Dayan, N. *Skin Aging Handbook: an integrated Approach to Biochemistry and Product Development*. William Andrew Inc, New York, 205-63.
- Anonim, 2014. *Farmakope Indonesia Edisi V*. Departemen Kesehatan Republik Indonesia, Jakarta.
- Ansel, H.C., 2005. *Pengantar Bentuk Sediaan Farmasi*, Edisi keempat. UI Press, Jakarta, 217-218.
- Araujo, P., 2009. Key aspects of analytical method validation and linearity evaluation. *Journal of Chromatography B, Analytical Technologies in the Biomedical and Life Sciences*, **877**: 2224–2234.
- Ardhie, Ari M., 2011. Radikal Bebas dan Peran Antioksidan dalam Mencegah Penuaan. *Medicinus*, 24 (1):4-9.
- Azeem, A., Rizwan, M., Ahmad, F.J., Iqbal, Z., Khar, R.K., Aqil, M., dkk., 2009, Nanoemulsion Components Screening and Selection: a Technical Note, *AAPS PharmSciTech*, **10**: 69–76.
- Barry, B. W., 1983. *Dermatological formulaton : percutaneous absorptio*. Marcel Dekker Inc, New York.
- Basalious, E.B., Shawky, N., dan Badr-Eldin, S.M., 2010. SNEDDS containing bioenhancers for improvement of dissolution and oral absorption of lacidipine. I: development and optimization, *International Journal of Pharmaceutics*, **391**: 203–211.
- Basera, K., Kothiyal, P., Gupta, P., 2015. Nanoemulgel: a novel formulation approach for topical delivery of hydrophobic drugs. *World Journal of Pharmacy and Pharmaceutical Sciences*, **4**: 1871–86.

- Baumann L., 2006. Antioxidants. In: *Cosmetic Dermatology: Principles and Practice*. McGraw-Hill, Hongkong, 105-116.
- Bethune, S.J., Schultheiss, N., dan Henck, J.-O., 2011. Improving the Poor Aqueous Solubility of Nutraceutical Compound Pterostilbene through Cocystal Formation. *Crystal Growth & Design*, **11**: 2817–2823.
- Bio-Rad Laboratories, 2018. *Pterostilben*. Inc. SpectraBase. Inc., diakses pada 19 Juli 2018.  
[http://spectrabase.com/spectrum/DV0nKMKcKdo?a=SPECTRUM\\_DV0nKMKcKdo](http://spectrabase.com/spectrum/DV0nKMKcKdo?a=SPECTRUM_DV0nKMKcKdo).
- Blois, M.S., 1958. Antioxidant Determinations by The Use of A Stable Free Radical. *Nature*, **181**: 1199-1200.
- Chang, R. K., 2014. Effect of A Lipoidic Excipient on The Absorption Profile of Compound UK 81252 in Dogs After Oral Administration. *Journal of Pharmacy & Pharmaceutical Sciences*, **7(1)**:8-12.
- Chellapa, P., Mohamed, A.T., Keleb, E.I., Elmahgoubi, A., Eid, A.M., Issa, Y.S., Elmarzugi, N.A., 2015. Nanoemulsion and nanoemulgel as a topical formulation. *IOSR Journal of Pharmacy*, **5**: 2250–3013.
- Chichester, C. D. dan Feeters, Mc, 1970. Pigment Degeneration During Processing and Storage. In Ulme, A. C. *Biochemistry of Fruits and Vegetables, , Volume I*. Food Science and Tech, London.
- Costa, J., Lucas, E., Queiros, Y., dan Mansur, C., 2012. Evaluation of Nanoemulsions in the cleaning of polymeric resins. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **415**: 112-118.
- Cui, L., Jia, Y., Cheng, Z.-W., Gao, Y., Zhang, G.-L., Li, J.-Y., dkk., 2016. Advancements in the maintenance of skin barrier/skin lipid composition and the involvement of metabolic enzymes. *Journal of cosmetic dermatology*, **15**: 549–558.
- Date, A.A., Desai, N., Dixit, R., dan Nagarsenker, M., 2010. Self-Nanoemulsifying Drug Delivery Systems: Formulation Insights. *Applications and Advances Nanomedicine*, **5**: 1595–1616.
- DeBuys, H.V., Levy, S.B., Murray, J.C., Madey, D.L., Pinnel SR., 2000. Modern approach to photoprotection. *Dermatologic Clinics*, **18 (4)**: 577-90.
- Dixit, R. P., dan Nagarsenker, M. S., 2008. Formulation and in Vivo Evaluation of Self-Nanoemulsifying Granules for Oral Delivery of a Combination of

- Ezetimibe and Simvastatin. *Drug Development and Industrial Pharmacy*, **34**: 1285-1296.
- Donatus, L.A., 1994. Antaraksi Kurkumin dengan Parasetamol: Kajian Terhadap Aspek Farmakologi Perubahan Hayati. *Disertasi*. Fakultas Farmasi UGM, Yogyakarta.
- D’Orazio, J., Jarrett, S., Amaro-Ortiz, A., dan Scott, T., 2013. UV Radiation and the Skin. *International Journal of Molecular Sciences*, **14**: 12222–12248.
- Eid, A. M., El-Enhassy, H. A., Aziz, R., dan Elmarzugi, N. A., 2014. The Preparation and Evaluation of Self-Nanoemulsifying Systems Containing Swietenia Oil and an Examination of its Anti-Inflammatory Effects. *International Journal of Nanomedicine*, **9**: 4685-4695.
- Elder, D.J., dan Kelly, D.J., 1994. The bacterial degradation of benzoic acid and benzenoid compounds under anaerobic conditions: unifying trend and new perspectives. *FEMS microbiology review*, **13**: 44-468.
- Erdő, F., Hashimoto, N., Karvaly, G., Nakamichi, N., dan Kato, Y., 2016. Critical evaluation and methodological positioning of the transdermal microdialysis technique. *A review: Journal of Controlled Release*, **233**: 147–161.
- Fisher, G.J., Datta, S.C., Talwar, H.S., Wang, Z.-Q., Varani, J., Kang, S., Voorhees, J.J., 1996. Molecular basis of sun-induced premature skin ageing and retinoid antagonism. *Nature*, 335-379.
- Fudholi, A., 2013. *Disolusi dan Pelepasan Obat In-vitro*. Pustaka Pelajar, Yogyakarta.
- Garg, A., Aggarwal, D., Garg, S., dan Singla, A.K., 2002. Spreading of semisolid formulations: An update. *Pharmaceutical technology*, **26**: 84-105.
- Gershanik, T., Benita, S., 2000. Self-dispersing Lipid Formulations for Improving Oral Absorption of Lipophilic Drugs. *European Journal of Pharmaceutics and Biopharmaceutics*, **50** (1): 179-188.
- Gupta, A., Eral, H.B., Hatton, T.A., Doyle, P.S., 2010. Nanoemulsions: formation, properties and application. *Soft Matter*, **12**(11): 2826-2841.
- Gupta, S., Chavan, S., Sawant, K.K., 2011. Self-Nanoemulsifying Drug Delivery Systems for Adefovir Dipivoxil: Design, Characterization, in vitro and ex vivo Evaluation, Colloids and Surfaces A: Physicochemical and Engineering Aspects. *International Journal of Pharmaceutics*, **392**(10): 145-155.

- Gursoy, R.N., dan Benita, S., 2004. Self-Emulsifying Drug Delivery System (SEDDS) for Improved Oral Delivery of Lipophilic Drugs. *Biomedicine & Pharmacotherapy*, **58**: 173-182.
- Gutierrez, J.M., Gonzales, C., Maestro, A., 2008. Nano-emulsions : new applications and optimization of their preparation. *Current Opinion in Colloid & Interface Science*, **13**:245-2451
- Hakozaki, T., Date, A., Yoshii, T., Toyokuni, S., Yasui, H., Sakurai, H., 2008. Visualization and characterization of UVB-induced reactive oxygen species in a human skin equivalent model. *Archives of Dermatological Research*, **300**: S51–S56.
- Hartanto, H., 2012. Identifikasi Potensi Antioksidan Minuman Cokelat dari Kakao Lindak (*Theobroma Cacao L.*) dengan Berbagai Cara Preparasi: Metode Radikal Bebas 1,1 Diphenyl-2-Picrylhydrazil (Dpph). *Skripsi*. Universitas Katolik Widya Mandala Surabaya, Surabaya.
- Huang, Y. H., Zhang, S. H., Zhen, R. X., Xu, X. D., dan Zhen, Y. S., 2004. Asiaticoside inducing Apoptosis of Tumor Cells and Enhancing Anti-Tumor Activity of Vincristine. *AiZheng*, **23**: 1599-1604.
- Huber, L., 2007. *Validation and Qualification in Analytical Laboratories*, 2nd ed. Informa Healthcare USA, Inc.
- Hudson, B. J. F., 1990. Food Antioxidant. *Elsevier Applied Science*, 1-8.
- ICH Harmonised Tripartite Guideline, 1996. Validation of Analytical Procedures: Text and Methodology Q2(R1).
- Ichihashi, M., Ueda, M., Budiyanto, A., Bito, T., Oka, M., Fukunaga, M., Tsuru, K., Horikawa, T., 2003. UV-induced skin damage. *Toxicology*, **189**: 21–39.
- Iwai, I., Han, H., Hollander, L. den., Svensson, S., Ofverstedt, L.-G., Anwar, J., dkk., 2012. The Human Skin Barrier Is Organized as Stacked Billayer of Fully Extended Ceramides with Cholesterol Molecules Associated with the Ceramide Sphingoid Moiety. *Journal of Investigative Dermatology*, **132** (9):2215-2225.
- Jelita , 2014. *Pengaruh Pemberian Minyak Zaitun (Olive Oil) Terhadap Derajat Ruam Popok Pada Anak Diare Penggunaan Diaper Usia 0-36 Bulan di RSUD Ungaran Semarang*. <http://Ejournal.stikestelogorejo.ac.id>, diakses pada 9 Mei 2018.
- Kalangi, Sonny J.R., 2013. Histofisiologi Kulit. *Junal Biomedik*, **5** (3):12-20.

- Kang, M.J., Jung, S.Y., Song, W.H., Park, J.S., Choi, S.U., Oh, K.T., Choi, H.K., Choi, Y.W., Lee, J., Lee, B.J., Chi, S.C., 2011. Immediate release of ibuprofen from Fujicalin-based fast-dissolving self-emulsifying tablets. *Drug Development and Industrial Pharmacy*, **37(1)**:1298–1305.
- Kapetanovic, I.M., Muzzio, M., Huang, Z., Thompson, T.N., McCormick, D.L., 2011. Pharmacokinetics, oral bioavailability, and metabolic profile of resveratrol and its dimethylether analog, pterostilbene, in rats. *Cancer Chemotherapy and Pharmacology*, **68 (3)**:593–601.
- Kobierski, S., Ofori-Kwakye, K., Müller, R.H., dan Keck, C.M., 2009. Resveratrol nanosuspensions for dermal application—production, characterization, and physical stability. *Die Pharmazie-An International Journal of Pharmaceutical Sciences*, **64**: 741–747.
- Kogan, A., and Garti, N., 2006. Microemulsions as Transdermal Drug Delivery Vehicles. *Advance in Colloid and Interface Science*, **123-126**: 369-386.
- Kumpugdee-Vollrath, M., Subongkot, T., Ngawhirunpat, T., 2013. Model Membrane from Shed Snake Skins. *International Journal of Medical, Health, Biomedical, Bioengineering and Pharmaceutical Engineering*, **7**: 357–364.
- Lachman, L., Lieberman, H., dan Kanig, J., 2007. *The Theory and Practice of Industrial Pharmacy*. Washington Square, Philadelphia, USA.
- Li, H., Jiang, N., Liang, B., Liu, Q., Zhang, E., Peng, L., Deng, H., Li, R., Li, Z., Zhu, H., 2017. Pterostilbene protects against UVB-induced photo-damage through a phosphatidylinositol-3-kinase-dependent Nrf2/ARE pathway in human keratinocytes. *Redox Report*, **22**: 501–507.
- Lipinski, C.A., Lombardo, F., Dominy, B.W., dan Feeney, P.J., 1997. In Vitro Models for Selection of Development Candidates Experimental and computational approaches to estimate solubility and permeability in drug discovery and development settings. *Advanced Drug Delivery Reviews*, **23**: 3–25.
- Magalhaes, L. M., Segundo, M. A., Reis, S., Lima, J. L. F., 2008. Methodological aspects about in vitro evaluation of antioxidant properties. *Analytica Chimica Acta*, **613 (1)**: 1–19.
- Makadia, H., Bhat, A., Parmar, R., Paun, J. dan Tank, H., 2013. Self-nano. Emulsifying Drug Delivery System (SNEDDS): Future Aspects. *Asian Journal of Pharmaceutical Research*, **3(1)**:21–27.

- Masaki H., 2010. Role of antioxidants in the skin: Anti-aging effects. *Journal of Dermatological Science*, **58**:85–90.
- Matos, M., Gutiérrez, G., Coca, J., dan Pazos, C., 2014. Preparation of water-in-oil-in-water (W1/O/W2) double emulsions containing trans-resveratrol. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **442**: 69–79.
- McCormack, D., McFadden, D., 2013. A Review of Pterostilbene Antioxidant Activity and Disease Modification. *Oxidative Medicine and Cellular Longevity*, 1–15.
- McGrath, J. A., Eady, R.a.J., dan Pope, F.M., 2008. Anatomy and Organization of Human Skin, Dalam Burns, T., Breathnach, S., Cox, N., Griffiths, C. *Rook's Textbook of Dermatology*, Blackwell Publishing, Inc.
- Miller, J.N., dan Miller, J.C., 2010. *Statistic and Chemometrics for Analytical Chemistry*, 6th ed. Pearson Education Limited.
- Mohammed, F.A., 2001. Topical Permeation Characteristics of Diclofenac Sodium from NaCMC Gels in Comparison with Conventional Gel Formulations. *Drug Development and Industrial Pharmacy*, 27 (**10**): 1083-1097.
- Moini H, Packer L, Saris N-E L., 2002. Antioxidant and Prooxidant Activities of A Lipoic Acid and Dihydrolipoic Acid. *Toxicology and Applied Pharmacology*, **182**: 84-90.
- Molyneux, P., 2004. The Use of The Stable Free Radical Diphenylpicryl-hidrazyl (DPPH) for Estimating Antioxidant Activity. *Songklanakarin Journal of Science and Technology*, 26(**2**): 211-219.
- Ndiaye, M., Philippe, C., Mukhtar, H., dan Ahmad, N., 2011. The grape antioxidant resveratrol for skin disorders: Promise, prospects, and challenges. *Archives of Biochemistry and Biophysics*, **508**: 164–170.
- Ngawhirunpat, T., Panomsuk, S., Opanasopit, P., Rojanarata, T., dan Hatanaka, T., 2006. Comparison of the percutaneous absorption of hydrophilic and lipophilic compounds in shed snake skin and human skin. *Die Pharmazie*, **61**: 331–335.
- Ng, S.-F., Rouse, J. J., Sanderson, F. D., Meidan, V., dan Eccleston, G. M., 2010. Validation of a Static Franz Diffusion Cell System for In Vitro Permeation Studies. *AAPS PharmSciTech*, 11(**3**) : 1432–1441.

- Niki, E., Noguchi, N., Iwatsuki, M., dan Kato, Y., 1995. Dynamis of Antioxidants: Physicochemical Issues. In Packer, L., Traber, M.M., & Xin, C.W. *Proceedings of The International Symposium on Natural Antioxidants, Molecular Mechanisms and Health Effects*. AOAC Press, Illionis.
- Nugroho, A.K., 2013. *Sediaan Transdermal : Solusi Masalah Terapi Obat*. Pustaka Pelajar, Yogyakarta.
- Obitte, N. C., Ofokansi, K. C., Nzekwe, I. T., Esimone, C. O., dan Okoye, I. E., 2011. Self-Nanoemulsifying Drug Delivery Systems Based on Melon Oil and its Admixture with a Homolipid from *Bos indicus* for the Delivery of Indomethacin. *Tropical Journal of Pharmaceutical Research*, 10 (3):300.
- Patel, J., Kevin, G., Patel, A., Raval, M., dan Sheth, N., 2011. Design and Development of A Self-Nanoemulsifying Drug Delivery System for Telmisartan for Oral Drug Delivery. *International Journal of Pharmaceutical Investigation*, 1: 112–118.
- Patel, J., Patel, A., Raval, M., dan Sheth, N., 2011. Formulation and Development of A Self-Nanoemulsifying Drug Delivery System of Irbesartan. *Journal of Advanced Pharmaceutical Technology and Research*, 2: 9–16.
- Pinnell SR., 2003. Cutaneous photodamage, oxidative stress, and topical antioxidant protection. *Journal of the American Academy of Dermatology*, 48: 1-19.
- Pokorny, J., Yanishlieva, N., dan Gordon, M., 2001. *Antioxidants in Food: Practical Application*. CRC Press, New York.
- Puspita, O. E., Martodihardjo, S., Nugroho, A.K., 2016. Optimasi Formula Self-nanoemulsifying Drug Delivery System Pterostilben. *Tesis*. M.Sc. Universitas Gadjah Mada, Yogyakarta.
- Puspita, O.E., 2017. Self-Nanoemulsifying Drug Delivery System Of Pterostilbene: Optimization and In Vitro Assessment For Potential Transdermal Administration. *The 2nd International Seminar and Expo on Jamu*, 1: 22–22.
- Prahl, S., Kueper, T., Biernoth, T., Wöhrmann, Y., Münster, A., Fürstenau, M., et al., 2008. Aging skin is functionally anaerobic: Importance of coenzyme Q10 for anti aging skin care. *Bio Factors*, 32:245–55.

- Pyrzynska, K., Pękal, A., 2013. Application of free radical diphenylpicrylhydrazyl (DPPH) to estimate the antioxidant capacity of food samples. *Analytical Methods*, **5**: 4288.
- Rabe, JH., Mamelak, AJ., McElgunn, PJS., Morison, WL., Sauder, DN., 2006. Photoaging: Mechanism and repair. *Journal of the American Academy of Dermatology*, **55**: 1-19.
- Rathod, D., Chaudhari, B., Patel, R., Vasava, A., 2013. Development and validation of spectrophotometric method for simultaneous estimation of ibuprofen and chlorzoxazone. *Pharmagene*, **1(2)**:65-68
- Riad, HMA., 2001. The role of antioxidants in dermatology. *The Gulf Journal of Dermatology and venereology*, **8 (2)**: 1-14.
- Rowe, R.C., Sheskey, P.J., and Quinn, M.E., 2009. *Handbook of Pharmaceutical Exipients. Sixth*. Pharmaceutical Press, London.
- Kedare, S. B. dan Singh, R. P., 2011. Genesis and development of DPPH method of antioxidant assay. *Journal of Food Science and Technology*, **48**: 412–422.
- Sadurní, N., Solans, C., Azemar, N. dan García-Celma, M.J., 2005. Studies on The Formation of O/W Nano-Emulsions, by Low-Energy Emulsification Methods, Suitable for Pharmaceutical Applications. *European Journal of Pharmaceutical Sciences*, **26(5)**:438–445.
- Salager , J.L., 2002. Surfactants Types and Uses. Los Andes: Laboratory of Formulation, Interfaces Rheology and Processes. *Journal of the American Oil Chemists' Society*, **65(6)**: 1000-1006.
- Sapra, K., Sapra, A., Singh, S.K., Kakkar, S., 2012. Self -Emulsifying Drug Delivery System: A Tool in Solubility Enhancement of Poorly Soluble Drugs. *International Journal of Pharmacy and Pharmaceutical Sciences*, **2(3)**:314-320.
- Schulz-Aellen, M. F., 1997. *Aging and Humus Longevity*. Birkhauser, Cambridge.
- Sen, S., Chakraborty, R., Sridhar, C., Reddy, Y.S.R., De, B., 2010. Free radicals, antioxidants, diseases and phytomedicines: current status and future prospect. *International Journal of Pharmaceutical Sciences Review and Research*, **3**: 91–100.
- Seneviratnhe, CJ., Zhang, CF., Samaranayake, LP., 2006. Dental Plaque Biofilm In Oral Health and Disease. *Chinese Journal of Dental Research*, **14(2)**.

- Sessa, M., Tsao, R., Liu, R., Ferrari, G., Donsi, F., 2011. Evaluation of the Stability and Antioxidant Activity of Nanoencapsulated Resveratrol during in Vitro Digestion. *Journal of Agriculture and Food Chemistry*, **59** : 12352-12360.
- Shakeel, F., Baboota, S., Ahuja, A., Ali, J., dan shafiq, S., 2008. Skin Permeation mechanism and bioavailability enhancement of celecoxib from transdermally applied nanoemulsion. *Journal of Nanobiotechnology*, **6**:8-19.
- Sharma Bhavesh, R. dan Shah, C.N., 2016. Nanoemulgel: A Comprehensive Review On The Recent Advances In Topical Drug Delivery. *Pharma Science Monitor*, **7**(2).
- Sigma, 2014. *Tween 20 Product Information*. Diakses pada 15 Januari 2018, <http://www.sigmaaldrich.com/life-science.html>
- Sinko J, M.,2013. *Buku Martin Farmasi Fisika & Ilmu Farmasetika, Edisi 5*. Mabastore: Toko Buku Kedokteran, 391-394.
- Solans, C., Izquierdo, P., Nolla, J., Azemar, N., Garcia-celma, M.J., 2005. Nanoemulsions. *Current Opinion in Colloid & Interface Science*, **10**:102-110.
- Stamatas, G.N., Zvulunov, A., Horowitz, P., dan Grove, G.L., 2012. Skin Barrier Protection. *Dermatology Research and Practice*, 1–2.
- Tranggono, R.I. dan Latifah F, 2007. *Buku Pegangan Ilmu Pengetahuan Kosmetik*. PT. Gramedia Pustaka Utama, Jakarta.
- Trauer, S., Patzelt, A., Otberg, N., Knorr, F., Rozycki, C., Balizs, G., Lademann, J., 2009. Permeation of topically applied caffeine through human skin – a comparison of in vivo and in vitro data. *British Journal of Clinical Pharmacology*, **68**(2) : 181–186.
- Verschooten, L., Claerhout, S., Van Laethem, A., Agostinis, P., Garmyn, M., 2006. Invited Review. New strategies of photoprotection. *Photochemistry and Photobiology*, **82**:1016-23.
- Vieira, R.P., Fernandes, A.R., Kaneko, T.M., Consiglieri, V.O., Pinto, C.A.S. de O., Pereira, C.S.C., dkk., 2009. Physical and physicochemical stability evaluation of cosmetic formulations containing soybean extract fermented by *Bifidobacterium animalis*. *Brazilian Journal of Pharmaceutical Sciences*, **45**: 515–525.

- Wallick, D. Propylparaben and Methylparaben. In Rowe, R.C., Sheskey, P. J., Quinn, M. E., 2009. *Handbook of Pharmaceutical Excipients. Sixth Edition*. Pharmaceutical Press and American Pharmacists Association, United States of America, 441, 443, 596.
- Wang, SQ., Balagula, Y., Osterwalder, U., 2010. Photoprotection: a review of the current and future technologie. *Dermatologic Therapy* , **23**: 31–47.
- Wicaksono, D.R., 2016. Optimasi Rice Bran Oil, Tween 80-Propilen Glikol, dan Air dalam Formulasi Nanoemulsi Untuk Sediaan Nanoemulgel Ketoprofen Menggunakan CMC-Na. *Skripsi*. Universitas Gadjah Mada, Yogyakarta.
- Wilmsen, P. K., Spada, D. S., and Salvador, M., 2005. Antioxidant Activity of Flavonoid Hesperidin in Chemical and Biological Systems. *Journal of Agricultural and Food Chemistry*, **53**: 4757-4761.
- Wood, R. A. N., dan H. Wallin, 1998. *Quality in the Food Analysis Laboratory the Royal Society of Chemistry Cambridge*. London.
- Xiao, P., dan Imhof, R. E., 2012. Two dimensional finite element modelling for dynamic water diffusion through stratum corneum. *International Journal of Pharmacy*, 435 (1):88-92.
- Yaar M, Gilchrest BA., 2008. Aging of skin. In: Freedberg IM, Eisen AZ, Wolff K, Austen KF, Goldsmith LA, Katz SL, eds. Fitzpatrick's Dermatology. In *General Medicine*, 7th ed. McGraw-Hill, New York, 963-975.
- Yeo, S.C.M., Ho, P.C., dan Lin, H.-S., 2013. Pharmacokinetics of pterostilbene in Sprague-Dawley rats: the impacts of aqueous solubility, fasting, dose escalation, and dosing route on bioavailability. *Molecular Nutrition & Food Research*, **57**: 1015–1025.
- Zhang, Y., Shang, Z., Gao, C., Du, M., Xu, S., Song, H., Liu, T., 2014. Nanoemulsion for Solubilization, Stabilization, and In Vitro Release of Pterostilbene for Oral Delivery. *AAPS PharmSciTech*, **15**: 1000–1008.