

DAFTAR PUSTAKA

- Abdel-Mohzen A.M, Aly A.S, Hrdina R, Montaser A.S, Hebeish A. 2011. Eco-Synthesis of PVA/Chitosan Hydrogels for Biomedical Application. *J Polym Environ*; 19, p1005-1012.
- Anderson, J. M. & Langone, J. J. 1999. Issues and perspectives on the biocompatibility and immunotoxicity evaluation of implanted controlled release systems. *Journal of Controlled Release* 57, 107-113.
- Annaidh, A.N. et al. 2011. *Characterization of the anisotropic mechanical properties of excised human skin*, Journal of The Mechanical Behavior of Biomedical Materials, University College Dublin, Ireland: Elsevier Science Ltd.
- Ansel H. 1989. Pengantar Bentuk Sediaan Farmasi. Edisi ke-4. Universitas Indonesia Press : Jakarta.
- Anwar, E. 2002. Eksipien dalam Sediaan Farmasi Karakterisasi dan Aplikasi. Dian Rakyat : Jakarta.
- Babensee, J. E.; Anderson, J. M.; McIntire, L. V.; Mikos, A. G. 1998. *Adv. Drug Deliv. Rev.*, 33, 111.
- Chang, C.H., Liu, H.C., Lin, C.C., Chou, C.H., Lin, F.H. 2003. Gelatin–chondroitin–hyaluronan tri-copolymer scaffold for cartilage tissue engineering, *Biomaterials* 24, p4853–4858.
- Chen, G.; Ushida, T. & Tateishi, T. 2002. Development of biodegradable porous scaffolds for tissue engineering. *J. Mater Sci Eng C*. 17, 63–69.
- Chiang H, Jiang CC. 2009. Repair of articular cartilage defect: Review and perspectives.J Formos Med Assoc.;108(2):87-101.
- Chiono V, Tonda-Turo C, Ciardelli G. 2009. Chapter 9: Artificial scaffolds for peripheral nerve reconstruction, 87, p173-98.
- Cima, L. G.; Vacanti, J. P.; Vacanti, C.; Ingber, D.; Mooney, D. & Langer, R. 1991. Tissue engineering by cell transplantation using degradable polymer substrates. *J. Biomechanical Engg.* 113, 143–151.
- Dalton P.D, Woodfield T, Hutmancher D.W, 2005. Porous Scaffold design for tissue engineering, p4.
- Dash, M; Chiellini, F; Ottenbrite, R.M; Chiellini, E. 2011. Chitosan- a versatile semi-synthetic polymer in biomedical applications.
- Dhirisma, F. 2014. *Formulasi membrane hydrogel berpori berbasis kombinasi HPMC (Hydroxy propyl methyl cellulose) dan gelatin dengan metode gas foaming serta penetapan karakteristik fisik-mekanik*. Universitas Muhammadiyah Yogyakarta : Yogyakarta.
- El Fray, M., Pilaszkiewicz, A., Swieszkowski, W. & Kurzydlowski, K. J. 2007. Morphology assessment of chemically modified cryostructured poly(vinyl alcohol) hydrogel. *European Polymer Journal* 43, 2035-2040.
- Elya, S. 2012. *Fosforilasi Gelatin dan Kitosan sebagai Eksipien Pembuatan Serat Nano Asiatikosida*. Universitas Indonesia : Depok.

- Fernandes, L. L.; Cristiane X. R.; Debora S. T.; Gloria, A. S. 2011. Cytocompatibility of chitosan and collagen-chitosan scaffolds for tissue engineering.
- Fessenden dan Fessenden. 1982. Kimia Organik Edisi Ketiga Jilid 1. Penerbit Erlangga : Jakarta.
- Fujita, T *et al.* 1981. SEM Atlas of Cells and Tissues. Igaku-Shoin Medical Publishers, Inc. New York.
- Ganji F, Vasheghani-Farahani S dan Vasheghani-Farahani E. 2010. "Theoretical Description of Hydrogel Swelling: A Review", *Iranian Polymer Journal* 19 (5), p375-398.
- Gooch, Jan W. 2010. *Emulsification and Polymerization of alkyd Resins*, Georgia Institute of Technology,Atlanta Georgia.
- Gulrez Syed *et al.* 2011. Hydrogels : Methods of Preparation, Characterisation and Applications. Glyndwr University : United Kingdom.
- Haleem AM, Chu CR. 2010. Advances in tissue engineering techniques for articular cartilage repair. *Optechorthopaedics.*; 20 (2):76-89. doi: 10.1053/j.oto.2009.10.004.
- Hassan, C.M. and Peppas, N.A. 2000. Structure and Morphology of Freeze/Thawed PVA Hydrogels, *Macromolecules*, No. 33: 2427.
- Hoppe-Seiler F. 1994. Ber Dtsch Chem Ges.; 27:3329-3331.
- Hoffman AS. 2002. Hydrogels for biomedical applications, Advanced Drug Delivery Reviews; 54: 3-12.
- Hutmacher DW. 2001. Scaffold design and fabrication technologies for engineering tissues-state of the art and future perspectives. *J Biomat Sci-Polym E* 12: 107-124.
- Hafner, B. 2007. Scanning Electron Microscopy Primer. *Characterization Facility*, University of Minnesota, Twin Cities.
- Ikada, Y. 2006. Scope of tissue engineering In: *Tissue engineering: fundamental and applications*, Ikada Y. (Ed.). PP 29, Academic press, USA.
- Istiqomah, N. 2012. *Pembuatan Hidrogel Kitosan-Glutaraldehid untuk Aplikasi Penutup Luka secara In Vivo*, Skripsi, Teknobiomedik, FST UNAIR, Surabaya.
- Jacquemoud, C., Bruyere-Garnier, K. Dan Coret, M. 2007. Methodology to determine failure characteristics of planar soft tissues using a dynamic tensile test. *Journal of Biomechanics* 40(2), p468-475.
- Jayakumar R, Nwe N, Tokura S, Tamura H. 2007. Sulfated chitin and chitosan as novel biomaterials. *Int J Biol Macromol*;40:175–81.
- Jeong, B., Bae, Y. H., dan Kim, S. W. 1999. Thermoreversible gelation of PEG-PLGA-PEG triblock copolymer aqueous solutions, *Macromolecules*, vol. 32, no. 21, pp. 7064–7069.
- Kim, B. S.; Baez, C. E & Atala A. 2000. Biomaterials for tissue engineering, *World J. Urol.* 1, (18), 2–9.
- Krumeich F. 2015. Scanning Electron Microscopy. *Electron Microscopy*. ETH Zurich.

- Kumar R; Patil, M.B; Patil, R. S; Paschapur, M.S. 2009. Formulation and evaluation of effervescent floating tablet of famotidine. *Int J Pharmnt Res.* 1 (3): 754-763.
- Kweona, H. Y.; Yoo ,M. K.; Park, I. K.; Kim, T. H.; Lee, H. C.; Lee, H-S.; Oh, J-S.; Akaike, T.; Cho, C. S. 2003. A novel degradable polycaprolactone networks for tissue engineering. *Biomaterials*, 24, 801–808.
- Langer R, Vacanti JP. 1993. Tissue engineering. *Science*;260:920–926.
- Langer, R., dan Tirrel, D. A. 2004. Designing materials for biology and medicine, *Nature*, vol. 428, no. 6982, pp. 487-492.
- Li, W. J., Danielson, K. G., Alexander, P. G., dan Tuan, R. S., 2003, Biological response of chondrocytes cultured in three dimensional nanofibrous poly(ϵ -caprolactone) scaffolds, *Journal of Biomedical Materials Research A*, vol. 67, no. 4, pp.1105–1114.
- Ma, P. X. & Langer, R. 1999. Fabrication of biodegradable polymer foams for cell transplantation and tissue engineering. In *Tissue Engineering Methods and Protocols*, Morgan, J., and Yarmush, M. (eds.) Humana Press, NJ, 47
- Malafaya, P. B., Pedro, A. J., Peterbauer, A., Gabriel, C., Redl, H., dan Reis, R. L., 2005, Chitosan particles agglomerated scaffolds for cartilage and osteochondral tissue engineering approaches with adipose tissue derived stem cells, *Journal of Materials Science:Materials inMedicine*, vol. 16, no. 12, pp. 1077–1085.
- Martin A, et al. 2008. Farmasi Fisik Dasar-dasar Kimia Fisik dalam Ilmu Farmasetik Edisi Ketiga 2. Penerbit Universitas Indonesia : Jakarta.
- Meriatna, 2008, penggunaan membran kitosan untuk menurunkan kadar logam krom (Cr) dan nikel (Ni) dalam limbah cair industry pelapisan logam, Tesis, Progam Studi Teknik Kimia, Universitas Sumatera Utara, Medan.
- Mikos, A. G., Thorsen, A. J., Czerwonka, L. A. et al., 1994, Preparation and characterization of poly(l-lactic acid) foams, *Polymer*, vol. 35, no. 5, pp. 1068–1077.
- Mooney DJ, Mikos AG. 1999. Growing new organs. *Sci Am*;280:60–65.
- Mooney, D. J., Baldwin, D. F., Suh, N. P., Vacanti, J. P., dan Langer, R., 1996, Novel approach to fabricate porous sponges of poly(D,L-lactic-co-glycolic acid) without the use of organic solvents, *Biomaterials*, vol. 17, no. 14, pp. 1417–1422.
- Moore, William R et al. 2001. *Synthetic Bone Graft Substitutes*. ANZ J. Surg. 71, 354-361.
- Nagasawa, N., Yagi, T., Kume, T. & Yoshii, F. 2004. Radiation crosslinking of carboxymethyl starch. *Carbohydrate Polymers* 58, 109-113.
- Odelius, K., Plikk, P., dan Albertsson, A. C. 2008. The influence of composition of porous copolyester scaffolds on reactions induced by irradiation sterilization,” *Biomaterials*, vol. 29, no. 2, pp. 129–140.
- Pettersson, S., 2009, Biodegradable gelatin microcarriers in tissue engineering:In vitro studies on cartilage and bone, LiU-Tryck, Linköping, Sweden.
- Purwita D, Dhirisma F, Dlukha R. 2013. Fabrikasi dan Karakterisasi Membran Film Hidrogel menggunakan kombinasi HPMC (Hidroksi Propil Metil

- Selulosa) dan Gelatin sebagai Perancah dalam Pengembangan Rekayasa Jaringan Lunak. Universitas Muhammadiyah Yogyakarta : Yogyakarta.
- Rihova, B. *Adv. Drug Deliv. Rev.* 42, 65.
- Rinaudo M. 2008. Main properties and current applications of some polysaccharides as biomaterials. *Polym Int*;57:397–430.
- Roberts GAF. 1992. Solubility and solution behaviour of chitin and chitosan. In: Roberts GAF, ed. Chitin Chemistry. MacMillan, Hounds Mills.:274-329.
- Rohindra, D.R., Ashveen V. Nand., Jagjit R. Khurma, 2004, *Swelling properties of chitosan hydrogel*. The South Pacific Journal of Natural Science 22(1) 32-35.
- Shen F, YL Cui, LF Yang, KD Yao, et al. 2000. A study on the fabrication of porous chitosan/gelatin network scaffold for tissue engineering. *Polym int* 49:1596-1599.
- Solchaga, L. A.; Goldberg, V. M. & Caplan, A. I. 2001. Cartilage regeneration using principles of tissue engineering. *Clin. Orthop. Relat. Res.* 391, S, 161-170.
- Subia B; Kundu, J; Kundu S.C. 2010. Biomaterial scaffold fabrication techniques for potential tissue engineering applications. *Biotechnology*. 142.
- Yamamoto, M.; Tabata, Y.; Ikada, Y. 1999. *J. Bioact. Compat. Polym.*, 14, 474