

DAFTAR PUSTAKA

- Anggraeni, Y., Hendradi, E., Purwanti, T., 2012. Karakteristik sediaan dan pelepasan natrium diklofenak dalam sistem niosom dengan basis gel carbomer 940. *PharmaScientia*, Vol. 1 No.1.p. 1-15.
- Ali, S.S., Ahmed, S.I., Khan, M., Soomro, R.r., 2014. Comparing the effects of manual therapy versus electrophysical agents in the management of knee osteoarthritis. *Pak J Pharm Sci*, Vol 27 No. 27.p. 1103-1109.
- Altman, R.D., 1991. Criteria for classification of clinical osteoarthritis. *J Rheumatol Suppl*.p. 10-12.
- Azami, M., Rabiee, M., Moztarzadeh, F., 2010. Glutaraldehyde crosslinked gelatin/hydroxyapatite nanocomposite scaffold, engineered via compound techniques. *Polymer composites*, Vol. 31 No. 12.p. 2112-2120.
- Azizah, L., 2013. Perbedaan Tolerabilitas Meloxicam dengan Natrium Diklofenak terhadap Saluran Cerna pada Pasien Rawat Jalan di Poliklinik Penyakit Saraf Rumkital Dr. Mintohardjo Jakarta 2011. *Makara seri kesehatan*, Vol. 17 No. 1.p. 10-16.
- Barr, A.J., Pelletier, J.M., Cicuttini, F.M., Conaghan P.G., Cooper, C., Goldring, M.B., Goldring, S.R., Jones G., Teichtahl, A.J., Pelletier J.P., 2016. Osteoarthritis. *Nature Review Disease Primers*. 16072.
- Bradley, J.D., Katz, B.P., Brandt, K.D., 2001. Severity of knee pain does not predict a better response to an antiinflammatory dose of ibuprofen than to analgesic therapy in patients with osteoarthritis. *J Rheumatol*, Vol. 28 No. 5.p.1073-1079.
- Bradley, J.D., Heilman, D.K., Katz, B.P., Gsell, P., Wallick, J.E., Brandt, K.D., 2002. Tidal irrigation as treatment for knee osteoarthritis: a sham-controlled, randomized, double-blinded evaluation. *Arthritis Rheum*, Vol. 46 No. 1, p. 100-108.

- Brake, M.R., 2012. An Analytical elastic-perfectly plastic contact model. *International journal of solid and structures*, Vol. 49 No. 22p. 3129-3141.
- Budiatin, A.S., 2014. Pengaruh glutaraldehid sebagai crosslink agent gentamisin dengan gelatin terhadap peningkatan efektifitas bovine hydroxyapatite – gelatin sebagai sistem penghantaran obat dan pengisi tulang [Disertasi]. Surabaya: Universitas Airlangga.
- Bloomgarden, Z.T. 1999. American diabetes association annual meeting. *Diabetes care*. Vol. 23 No 1.p. 118-124.
- Callister, WDJr. 2004. Materials Science and Engineering- An introduction, sixth edition. John Wiley&Sons, Inc.
- Chan, B.P., Leong, K.W. 2008. Scaffolding in tissue engineering: general approaches and tissue-specific considerations. *Eur Spine J*, Vol. 17.p. 476-479.
- Croisier, F., Jerome, C., 2013. Chitosan-based biomaterials for tissue engineering. *European Polymer Journal*, Vol. 49 No. 4.p. 780-792.
- Chen, Z., Zhao, M., Liu, K., Wan, Y., Li, X., Feng, G., 2014. Novel chitosan hydrogel formed by ethylene glycol chitosan, 1,6-diisocyanatohexan and polyethylene glycol-400 for tissue engineering scaffold: in vitro and in vivo evaluation. *Journal of materials science*, Vol. 25 No. 8.p. 1903- 1916.
- Daryanto, A., 2007., Eksperimen dan Analisis Pemodelan Uji Tarik Plat Logam (*Sheet Metal*) dengan Standar ASTM E 8M [Thesis]. Surakarta : Universitas Muhammadiyah Surakarta.
- Dipiro.JT., 2008, *Pharmacoterapy Handbook 7th edition*, Mc Graw Hill, New York.p. 1519.
- Dhandayuthapani, B., Yoshida, Y., Maekawa, T., and Kumar, D.S., 2011. Polymeric Scaffolds in Tissue Engineering Application: A Review. *International Journal of Polymer Science*.p. 1-19.
- Egloff, C., Valderrabano, V., Hugle, T., 2012. Biomechanics and pathomechanism of osteoarthritis. *Swiss Med Wkly*.p. 1-14.

- Erizal., Dewi, S.P., Sudradjat. 2003. Pengaruh polietilen glikol terhadap sifat fisika kimia hidrogel polietilen glikol oksida-karaginan hasil iradiasi. *Jurnal sains da teknologi nuklir indonesia*, Vol. 4 No. 3. p. 95-104.
- Erggelet,C., Mandelbaum, B.R., Mrosek, E.H., Scopp, J.M. 2008. *Principles of cartilage repair*. Switzerland: Springer.
- Fergal, J., 2011. Biomaterials & scaffolds for tissue engineering. *Materials Today*, Vol. 14 No. 13.p. 88-95.
- Firestein, G.S., *et al.*, 2017. Kelley and Firestein's Textbook of Rheumatology 10^{ed}. Elsevier.
- Fuller, C.J., Blandon, B.M., Driver, A.J.,Barr, A.R.,F., 2006. The intra and inter assessor reliablity of measurement of functional outcome by lameness scoring in horse. *Veterinary journal*, Vol. 171 No.2.p. 281-286.
- American geriatrics society panel on exercise and OA., 2001. Exercise prescription for older adults with osteoarthritis pain: consensus practice recommendations. A supplement to the AGS Clinical Practice Guidelines on the management of chronic pain in older adults. *Journal of the american geriatrics society*, Vol 49 No 6.p. 808-831.
- Gibson, G., 2003. Apaptosis in cartilage and bone resorption. *Orthopaedics*, Vol, 14 No. 5.p. 329-333.
- Hansen, P., Svensson, R.B., Hassenkam, T., Aagaard, P., Trappe, T., Haraldsson, B.T., Kjaer, M., Magnusson, P., 2009. Glutaraldehyde cross-linking of tendon-mechanical effect at the level of the tendon fascicle and fibril., *Informa healthcare*, Vol 50.p. 211-222.
- Hardingham, T.E., Tew, S.R., Murdoch, A.D., 2007. Cartilage tissue regeneration. *Supplement B*, Vol. 15.p.B1-B2.
- Haq, M. 2015. Material Berpendar (*Luminesence*) Berbasis Khitosan Asetat, Glutaraldehida, Dan Polivinil Alkohol [Skripsi]. Bogor : Institut Pertanian Bogor.

- Hassanali, S.H., Oyoo G.O., 2011. Osteoarthritis: a look at pathophysiology and approach to new treatments: a review. *East African Orthopaedic Journal*, Vol. 5 No . 5. p. 51-57.
- Hau, R.R.H., Masturi., Yulianti, I., Hau, S.K., Talu, S.D., 2016. Modulus Elastisitas Bambu Betung dengan Variabel Panjang. *Seminar Nasional Fisika*, Vol. 5.p. 37-41.
- Herma, P.D., 2007. Optimasi komposisi polietilen glikol 400 dan gliserol sebagai *humectant* dalam formula krim anti *hair loss* ekstrak saw palmetto : aplikasi desain faktorial [Skripsi]. Yogyakarta : Universitas Sanata Dharma.
- Hugate, R.R., Holland R.D., 2012. Hip and knee replacement.p. 192.
- Hong, H., Liu, C., Wu, W., 2009. Preparation and characterization of chitosan/peg/gelatin composites for tissue engineering. *Journal of Applied Polymer Science*. Vol. 114 .p. 1220-1225.
- Hori, R. Y., and L. F. Mockros. 1976. Indentation tests of human articular cartilage. *J. Biomech.*9:259–268.
- Iannone, F., Lapadula, G., 2003. The Pathophysiology of Osteoarthritis. *Aging Clinical and Experimental Research*. Vol, 15.p. 364-372
- Imananta, F., Sulistiyarningsih. (2018). Artikel tinjauan : Penggunaan NSAIDs menginduksi peningkatan tekanan darah pada pasien arthritis. *Farmaka*, Vol. 16 No. 1.p. 72-79.
- Jang, M.K., Kong, B.G., Jeong, Y., Lee., C.K., Nah, J.W. Physicochemical characterization of α -chitin, β -chitin, and γ -chitin separated from natural resources. *Journal of polymer science part A: Polymer chemistry*, Vol 42 No. 14.p. 3423-3432.
- Kim, H.S., Shin, J.S., Lee, J., Lee, Y.J., Kim, M., Bae, Y.H., Park, K.B., Lee, E.J., Kim, J.H., Ha, I.H. 2016. Plos one, Vol. 11 No. 10.
- Kim, C., Shores, L., Guo Q., Aly, A., Jeon O.H., Kim, D.H., Bernstein, N., Bhattacharya, R., Chae, J.J., Yarema, K.J., Elisseeff, J.H., 2016. Electrospun Microfiber Scaffolds with Anti-Inflammatory Tributanoylated N-Acetyl-D-Glucosamine Promote Cartilage Regeneration. *Tissue Engineering Part A*, Vol. 22 No. 7-8

- Laren, J.S.M., White, L.J., Cox, H.C., Ashraf, W., Rahman, C.V., Blunn, G.W., Goodship, A.E., Quirk, R.A., Shakesheff, K.M., Bayston, R., Scammell, B.E., 2014. A biodegradable antibiotic-impregnated scaffold to prevent osteomyelitis in a contaminated in vivo bone defect model. *European Cells and Materials*, Vol. 27.p. 332-349
- Maharani, E.P., 2007. *Faktor-faktor risiko osteoarthritis lutut*. Semarang: Universitas Diponegoro.
- Mao, J., Zhao, L., *et al.* 2003. Study of novel chitosan gelatin artificial skin in vitro. *Journal of biomedical material research*, Vol 64A No 2.p. 301-308.
- Mao, J.S., Zhao, L.G., Yin, Y.J., Yao, K.D. 2003. Structure and properties of bilayer chitosan-gelatin scaffolds. *Biomaterials*, Vol. 24 No. 6.p. 1067-1074.
- Maulina, M., 2017. Kerusakan Proteoglikan Pada Osteoarthritis. *Lentera*, Vol. 1 No. 1. P. 61-67.
- Melinda, A., 2007. *Pengaruh Kadar Polietilen Glikol dan Propilen Glikol Sebagai Plasticizer Pada Pembuatan Film Khitosan*. Padang : Universitas Andalas.Malang.
- Meyers., 1997. In vivo testing of a bone graft containing chitosan, calcium sulfate and osteoblasts in a paste form in a critical size defect model in rats. *Journal of Biomedical Science and Engineering*. Vol. 2 No. 1.
- Monfort, J., Garcia, G.N., Lopez, A.M.J., Monilau, J.C., Bonilla, A., Benito, P., Blanco, F.J., 2006. Decreased metalloproteinase production as a response to mechanical pressure in human cartilage: a mechanism for homeostatic regulation. *Arthritis Res Ther*, Vol. 8 No. 5.p. 1-11.
- Mudmainah, S. 2017. *Sintesis selulosa-poli etilen glikol (PEG) dan aplikasinya dalam sistem pelepasan obat ibuprofen*. Lampung : Universitas Lampung.
- Murray, C.J.L., 1996. The Global Burden of Disease. *World Health Organisation* 1996.

- Muzzarelli, R.A.A., Mehtedi, M.E., Bottegoni, C., Aquili, A., Gigante, A., 2015. Genipin-Crosslinked Chitosan Gels and Scaffolds for Tissue Engineering and Regeneration of Cartilage and Bone. *Marine Drugs*, Vol. 13 No. 12.p. 7314-7338
- Neal, M.J. (2006). *At a Glance Farmakologi Medis*. Edisi V. Jakarta : Erlangga Medical Series (EMS).
- Nikkola, L., Seppala, J., Harlin, A., Ndreu, A., Ashammakhi, N. 2006. Electrospun multifunctional diclofenac sodium releasing nanoscaffold. *J Nanosci Nanotechnol*, Vol. 6 No. 9-10.p. 3290-3295.
- Pianigiani, E., Andreassi, A., Taddeucci, P., Alessandrini, C., Fimiani, M. & Andreassi, L. 1999 A new model for studying differentiation and growth of epidermal cultures on hyaluronan-based carrier. *Biomaterials*, Vol. 20.p. 1689–1694.
- Pratiwi, A.I., 2015. Diagnosis and treatment osteoarthritis, *Medical journal of Lampung University*, Vol. 4 No. 4, p. 576-584.
- Ranade, V. V. and M. A. Hollinger, 2004. *Transdermal Drug Delivery, in: Drug Delivery Systems*. CRC Press LLC, New York, 211-243.
- Riyanto, B., Nurhayati, T., Pujiastuti, A.D., 2013. Karakterisasi glikosaminoglikan dari tulang rawan ikan pari air laut (*neotrygon kuhlii*) dan pari air tawar (*himantura signifer*). *Jurnal pengolahan hasil perikanan indonesia*, Vol. 16 No. 3.p. 224-232.
- Rohaeti, E., Surdia, N.M., 2003. Pengaruh Variasi Berat Molekul Polietilen Glikol terhadap Sifat Mekanik Poliuretan. *Jurnal Matematika dan Sains*, Vol. 8 No. 2.p. 63-66.
- Amirault S B. Ductile and Brittle Material., diakses dari <https://sbainvent.com/strength-of-materials/hooks-law/ductile-brittle-material/print/>, pada tanggal 22 juni 2018.
- Sweetman, S. C., (ED). (2007). *Martindale, The Complete Drug Reference*, 35 th Ed. Phamaceutical Press. London, Chicago: 399-400
- Steinert, A.F., Ulrich, N., Tuan, R.S., 2008. Concepts in gene therapy for cartilage repair. *Care Injuri*. Vol, 3951.p. 97-113.

Sloane, E., 2004. *Anatomi dan fisiologi*. Jakarta : EGC

Snell, R. S. 2012. *Anatomi Klinis Berdasarkan Sistem*. Dialih bahasakan oleh Sugarto L. Jakarta:EGC.