

## DAFTAR PUSTAKA

- Abbasi, N., Hamlet, S., Love, R. M. and Nguyen, N. T. (2020) ‘Porous scaffolds for bone regeneration’, *Journal of Science: Advanced Materials and Devices*. Elsevier Ltd, 5(1), pp. 1–9. DOI: 10.1016/j.jsamd.2020.01.007.
- Agustina, N., Hasbullah, I. D. and Panjaitan, F. U. A. (2018) ‘The Effect of Hydroxyapatite Xenograft of Haruan Fish (*Channa striata*) Bone on the Number of Osteoblast and Osteoclast’, III(1), pp. 116–121
- Ahmed, S., Annu, Ali, A. and Sheikh, J. (2018) ‘A review on chitosan centred scaffolds and their applications in tissue engineering’, *International Journal of Biological Macromolecules*. Elsevier B.V, 116(2017), pp. 849–862. DOI: 10.1016/j.ijbiomac.2018.04.176.
- Akbarzadeh, R. and Yousefi, A. M. (2014) ‘Effects of processing parameters in thermally induced phase separation technique on porous architecture of scaffolds for bone tissue engineering’, *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, 102(6), pp. 1304–1315. DOI: 10.1002/jbm.b.33101.
- Ambore, S., Sangameshwar, K., Mukesh, G., Chandrakant, R., Avinash, D., Ambore, M. and Pharm, M. (2014) ‘A brief overview on chitosan applications’, *Indo American Journal of Pharmaceutical Research*, 3(12), pp. 2231–6876
- Anwar, S. A., Solechan and Raharjo, S. (2014) ‘Scaffold rekonstruksi mandibula dari material bhipasis calssium phosphate dengan penguat cangkang kerang srimping menggunakan metode functionally graded material’, *Traksi*, 14(1), pp. 1–19
- Ariani, M. D., Matsuura, A., Hirata, I., Kubo, T., Kato, K. and Akagawa, Y. (2013) ‘New development of carbonate apatite-chitosan scaffold based on lyophilization technique for bone tissue engineering’, *Dental Materials Journal*, 32(2), pp. 317–325. DOI: 10.4012/dmj.2012-257.
- Ayu, M., Margareta, H., Fuad, A. and Ilmiawati, S. A. (2015) ‘Berbasis batu kapur’, 5(1), pp. 15–20
- Bariyah, N., Pascawinata, A. and Firdaus (2016) ‘Gambaran karakteristik scaffold hidroksipatit gigi manusia dengan metode planetary ball mill menggunakan uji Scanning Electron Microscope (SEM)’, pp. 131–138
- Bertoldi, S., Farè, S. and Tanzi, M. C. (2011) ‘Assessment of scaffold porosity: The new route of micro-CT’, *Journal of Applied Biomaterials and Biomechanics*, 9(3), pp. 165–175. DOI: 10.5301/JABB.2011.8863.
- Brun, V., Guillaume, C., Mechiche Alami, S., Josse, J., Jing, J., Draux, F., Bouthors, S., Laurent-Maquin, D., Gangloff, S. C., Kerdjoudj, H. and Velard, F. (2014) ‘Chitosan/hydroxyapatite hybrid scaffold for bone tissue engineering’, *Bio-medical materials and engineering*, 24(1), pp. 63–73. DOI: 10.3233/BME-140975.

- Carletti, E., Motta, A. and Migliaresi, C. (2011) ‘Scaffolds for Tissue Engineering and 3D Cell Culture’, *3D Cell Culture: Methods and Protocols, Methods in Molecular Biology*, 695(2), pp. 1–15. DOI: 10.1007/978-1-60761-984-0.
- Chocholata, P., Kulda, V. and Babuska, V. (2019) ‘Fabrication of scaffolds for bone-tissue regeneration’, *Materials*, 12(4). DOI: 10.3390/ma12040568.
- Christy, P. N., Basha, S. K., Kumari, V. S., Bashir, A. K. H., Maaza, M., Kaviyarasu, K., Arasu, M. V., Al-Dhabi, N. A. and Ignacimuthu, S. (2020) ‘Biopolymeric nanocomposite scaffolds for bone tissue engineering applications – A review’, *Journal of Drug Delivery Science and Technology*. Elsevier, 55(November 2019), p. 101452. DOI: 10.1016/j.jddst.2019.101452.
- Danilchenko, S. N., Kalinkevich, O. V., Pogorelov, M. V., Kalinkevich, A. N., Sklyar, A. M., Kalinichenko, T. G., Ilyashenko, V. Y., Starikov, V. V., Bumeyster, V. I., Sikora, V. Z. and Sukhodub, L. F. (2011) ‘Characterization and *in vivo* evaluation of chitosan-hydroxyapatite bone scaffolds made by one step coprecipitation method’, *Journal of Biomedical Materials Research - Part A*, 96 A(4), pp. 639–647. DOI: 10.1002/jbm.a.33017.
- Deepthi, S., Venkatesan, J., Kim, S. K., Bumgardner, J. D. and Jayakumar, R. (2016) ‘An overview of chitin or chitosan/nano ceramic composite scaffolds for bone tissue engineering’, *International Journal of Biological Macromolecules*. Elsevier B.V., 93, pp. 1338–1353. DOI: 10.1016/j.ijbiomac.2016.03.041.
- Dhandayuthapani, B., Yoshida, Y., Maekawa, T. and Kumar, D. S. (2011) ‘Polymeric scaffolds in tissue engineering application: A review’, *International Journal of Polymer Science*, 2011(ii). DOI: 10.1155/2011/290602.
- Dutta, R. C., Dey, M., Dutta, A. K. and Basu, B. (2017) ‘Competent processing techniques for scaffolds in tissue engineering’, *Biotechnology Advances*. Elsevier Inc, 35(2), pp. 240–250. DOI: 10.1016/j.biotechadv.2017.01.001.
- Escobar-Sierra, D. M., Martins, J. and Ossa-Orozco, C. P. (2015) ‘Chitosan/hydroxyapatite scaffolds for tissue engineering manufacturing method effect comparison’, *Revista Facultad de Ingeniería*, 1(75), pp. 24–35. DOI: 10.17533/udea.redin.n75a04.
- Henggu, K. U., Ibrahim, B. and Suptijah, P. (2019) ‘Hidroksiapatit dari cangkang sotong sebagai sediaan biomaterial perancah tulang’, 22, pp. 1–13
- Hengky, A. (2011) ‘Peran hidroksiapatit sebagai bone graft dalam proses penyembuhan tulang’, *stomatognatik Jurnal Kedokteran Gigi*, 8(2), pp. 6–9
- Herda, E. and Puspitasari, D. (2016) ‘Tinjauan peran dan sifat material yang digunakan sebagai scaffold dalam rekayasa jaringan’, *Jurnal material*

- kedokteran gigi*, 1(5), pp. 56–63
- Islam, M. M., Shahruzzaman, M., Biswas, S., Nurus Sakib, M. and Rashid, T. U. (2020) ‘Chitosan based bioactive materials in tissue engineering applications-A review’, *Bioactive Materials*. Elsevier, 5(1), pp. 164–183. DOI: 10.1016/j.bioactmat.2020.01.012.
- Kamadjaja, M. J. K., Abraham, J. F. and Laksono, H. (2019) ‘Biocompatibility of portunus pelagicus hydroxyapatite graft on human gingival fibroblast cell culture’, *Medical archives (Sarajevo, Bosnia and Herzegovina)*, 73(6), pp. 378–381. DOI: 10.5455/medarh.2019.73.378-381.
- Kramschuster, A. and Turng, L. S. (2013) ‘Fabrication of tissue engineering scaffolds, handbook of biopolymers and biodegradable plastics: properties, processing and applications’, Elsevier. DOI: 10.1016/B978-1-4557-2834-3.00017-3.
- Loh, Q. L. and Choong, C. (2013) ‘Three-dimensional scaffolds for tissue engineering applications: Role of porosity and pore size’, *Tissue Engineering - Part B: Reviews*, 19(6), pp. 485–502. DOI: 10.1089/ten.teb.2012.0437.
- Mahanani, E. S. (2013) ‘Perancah hidrogel untuk aplikasi rekayasa jaringan tulang hydrogel scaffold for bone tissue engineering application’, *Insisiva Dental Journal*, 2(2), pp. 51–56
- Maji, K., Dasgupta, S., Kundu, B. and Bissoyi, A. (2015) ‘Development of gelatin-chitosan-hydroxyapatite based bioactive bone scaffold with controlled pore size and mechanical strength’, *Journal of Biomaterials Science, Polymer Edition*, 26(16), pp. 1190–1209. DOI: 10.1080/09205063.2015.1082809.
- Mazumder, S., Nayak, A. K., Ara, T. J. and Hasnain, M. S. (2018) *Hydroxyapatite composites for dentistry, Applications of Nanocomposite Materials in Dentistry*. Elsevier Inc. DOI: 10.1016/B978-0-12-813742-0.00007-9.
- Milla, L. El, Indrani, D. J. and Irawan, B. (2018) ‘Sintesis dan uji porositas scaffold hidroksiapatit/alginat’, *ODONTO : Dental Journal*, 5(1), p. 49. DOI: 10.30659/odj.5.1.49-53.
- Mozartha, M. (2015) ‘Hidroksiapatit dan aplikasinya di bidang kedokteran gigi’, *Journal of Visual Languages & Computing*, 11(3), pp. 287–301
- Muxika, A., Etxabide, A., Uranga, J., Guerrero, P. and de la Caba, K. (2017) ‘Chitosan as a bioactive polymer: Processing, properties and applications’, *International Journal of Biological Macromolecules*. Elsevier B.V., 105, pp. 1358–1368. DOI: 10.1016/j.ijbiomac.2017.07.087.
- Nurhamidah, Ramadhan, E. S., Asmawati and Juni (2016) ‘Hubungan status kesehatan gigi dan mulut dengan prestasi belajar siswa/i sd negri 2 sangga beru kecamatan gunung meriah kabupaten aceh singkil’, *Jurnal Kesehatan Gigi*, 03(2), pp. 35–40
- Palazzo, B., Gallo, A., Nitti, P., Ambrosio, L. I., Piconf, C., Ghimas, S. A., Ricerca,

- C., Mesagne, S. S., Tecchio, P., Ghimas, S. A., Cattolica, U., Cuore, S., Di, D., Ortopediche, S. and San, L. F. (2011) ‘Chitosan-nano-hydroxyapatite scaffold’, 24(I), pp. 73–78
- Preethi Soundarya, S., Haritha Menon, A., Viji Chandran, S. and Selvamurugan, N. (2018) ‘Bone tissue engineering: Scaffold preparation using chitosan and other biomaterials with different design and fabrication techniques’, *International Journal of Biological Macromolecules*. Elsevier B.V, 119, pp. 1228–1239. DOI: 10.1016/j.ijbiomac.2018.08.056.
- Rahmitasari, F. (2018) ‘Scaffold 3D Kitosan dan Kolagen Sebagai Graft pada Kasus Kerusakan Tulang’, *Jurnal Material Kedokteran Gigi*, 5(2), p. 1. DOI: 10.32793/jmkg.v5i2.246.
- Ratmini, N. K. and Arifin (2011) ‘Hubungan kesehatan mulut dengan kualitas hidup lansia’, *Ilmu Gizi*, pp. 139–147
- Riset Kesehatan Dasar (RISKESDAS) (2018) Jakarta: Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan Republik Indonesia.
- Ruixin, L., Cheng, X., Yingjie, L., Hao, L., Caihong, S., Weihua, S., Weining, A., Yinghai, Y., Xiaoli, Q., Yunqiang, X., Xizheng, Z. and Hui, L. (2017) ‘Degradation behavior and compatibility of micro, nanoHA/chitosan scaffolds with interconnected spherical macropores’, *International Journal of Biological Macromolecules*. Elsevier B.V., 103, pp. 385–394. DOI: 10.1016/j.ijbiomac.2017.03.175.
- Salerno, A. and Netti, P. A. (2014) *Introduction to biomedical foams, Biomedical Foams for Tissue Engineering Applications*. Woodhead Publishing Limited. DOI: 10.1533/9780857097033.1.3.
- Salim, S., Rostiny and Kuntjoro, M. (2015) ‘Efek kombinasi spirulina kitosan untuk preservasi soket terhadap osteoblas’, pp. 225–231
- Samarawickrama, K. G. (2018) ‘A review on bone grafting, bone substitutes and bone tissue engineering’, *ACM International Conference Proceeding Series*, (September), pp. 244–251. DOI: 10.1145/3239438.3239457.
- Shamloo, A., Kamali, A. and Bahrani Fard, M. R. (2019) ‘Microstructure and characteristic properties of gelatin/chitosan scaffold prepared by the freeze-gelation method’, *Materials Research Express*. IOP Publishing, 6(11). DOI: 10.1088/2053-1591/ab43ee.
- Shahnavaazi, M., Ketabi, M., Fekrazad, R., Moztarzadeh, F., Sadeghi, A., Tondnevis, F., Raz, M., Abolhasani, M. M. and Rezaei-Tavirani, M. (2017) ‘Fabrication of chitosan-nano hydroxyapatite scaffold for dental tissue engineering’, *Key Engineering Materials*, 720, pp. 223–227. DOI: 10.4028/www.scientific.net/KEM.720.223.
- Shemshad, S., Kamali, S., Khavandi, A. and Azari, S. (2019) ‘Synthesis, characterization and in-vitro behavior of natural chitosan-hydroxyapatite-diopside nanocomposite scaffold for bone tissue engineering’, *International Journal of Polymeric Materials and Polymeric Biomaterials*. Informa UK

- Limited, trading as Taylor & Francis Group, 68(9), pp. 516–526. DOI: 10.1080/00914037.2018.1466138.
- Subramaniam, V., Poongodi, G. R. and Veena Sindhuja, V. (2008) ‘Textile scaffolds for tissue engineering’, *Journal of the Textile Association*, 69(4), pp. 180–183. DOI: 10.4467/2353737XCT.15.108.4056.
- Sukhodub, L. B., Kumeda, M. O., Gapon, V. I. and Sukhodub, L. F. (2018) ‘Microwave assisted formation of the chitosan/hydroxyapatite scaffold for bone tissue regeneration’, *Proceedings of the 2018 IEEE 8th International Conference on Nanomaterials: Applications and Properties, NAP 2018*. IEEE, pp. 1–4. DOI: 10.1109/NAP.2018.8914971.
- Sun, T., Khan, T. H. and Sultana, N. (2014) ‘Fabrication and *in vitro* evaluation of nanosized hydroxyapatite/chitosan- based tissue engineering scaffolds’, *Journal of Nanomaterials*, 2014. DOI: 10.1155/2014/194680.
- Tamara, J., Anggun, H., Rochmah, Y. S. and Mujayanto, R. (2015) ‘Pengaruh aplikasi virgin coconut oil terhadap peningkatan jumlah fibroblas pada luka pasca pencabutan gigi pada rattus novergicus’, *ODONTO : Dental Journal*, 1(2), p. 29. DOI: 10.30659/odj.1.2.29-34.
- Wubneh, A., Tsekoura, E. K., Ayrancı, C. and Uludağ, H. (2018) ‘Current state of fabrication technologies and materials for bone tissue engineering’, *Acta Biomaterialia*. Acta Materialia Inc., 80, pp. 1–30. DOI: 10.1016/j.actbio.2018.09.031.
- Zhang, J., Nie, J., Zhang, Q., Li, Y., Wang, Z. and Hu, Q. (2014) ‘Preparation and characterization of bionic bone structure chitosan/hydroxyapatite scaffold for bone tissue engineering’, *Journal of Biomaterials Science, Polymer Edition*, 25(1), pp. 61–74. DOI: 10.1080/09205063.2013.836950.
- Zhang, L., Morsi, Y., Wang, Y., Li, Y. and Ramakrishna, S. (2013) ‘Review scaffold design and stem cells for tooth regeneration’, *Japanese Dental Science Review*. Japanese Association for Dental Science, 49(1), pp. 14–26. DOI: 10.1016/j.jdsr.2012.09.001.