

DAFTAR PUSTAKA

- [1] InfoDATIN, "Infodatin-Osteoporosis.Pdf." 2015.
- [2] L. L. Hench and J. Wilson, *An Introduction to Bioceramics*. 2012.
- [3] H. Liu, M. Niinomi, M. Nakai, J. Hieda, and K. Cho, "Deformation-induced changeable Young ' s modulus with high strength in β -type Ti – Cr – O alloys for spinal fi xture," *J. Mech. Behav. Biomed. Mater.*, vol. 30, pp. 205–213, 2014.
- [4] M. Geetha, A. K. Singh, R. Asokamani, and A. K. Gogia, "Ti based biomaterials , the ultimate choice for orthopaedic implants – A review," *Prog. Mater. Sci.*, vol. 54, no. 3, pp. 397–425, 2009.
- [5] G. He and M. Hagiwara, "Ti alloy design strategy for biomedical applications B," vol. 26, pp. 14–19, 2006.
- [6] S. R. Paital and N. B. Dahotre, "Calcium phosphate coatings for bio-implant applications : Materials , performance factors , and methodologies," vol. 66, pp. 1–70, 2009.
- [7] M. Farrokhi-rad, S. K. Loghmani, T. Shahrabi, and S. Khanmohammadi, "Electrophoretic deposition of hydroxyapatite nanostructured coatings with controlled porosity," *J. Eur. Ceram. Soc.*, vol. 34, no. 1, pp. 97–106, 2014.
- [8] M. Akram and R. Ahmed, "Extracting hydroxyapatite and its precursors from natural resources," pp. 1461–1475, 2014.
- [9] F. Ramadhan, "PELAPISAN HIDROKSIAPATIT TULANG SAPI PADA TITANIUM PADUAN TNTZ MENGGUNAKAN METODA ELECTROPHORETIC DEPOSITION (EPD) SEBAGAI MATERIAL IMPLAN SENDI," Universitas Andalas, 2018.
- [10] W. Weng and J. L. Baptista, "Preparation and Characterization of Hydroxyapatite Coatings on Ti6Al4V Alloy by a Sol – Gel Method," vol. 32, pp. 27–32, 1999.
- [11] D. Liu, Q. Yang, and T. Troczynski, "Sol – gel hydroxyapatite coatings on stainless steel substrates," vol. 23, no. February 2001, pp. 691–698, 2002.
- [12] C. Y. Yang, C. Wang, and E. Chang, "The influences of plasma spraying characteristics of hydroxyapatite coatings : a quantitative study parameters on the," pp. 249–257, 1995.
- [13] P. Cheang and K. A. Khor, "Addressing processing problems associated with plasma spraying of hydroxyapatite coatings," *Biomaterials*, vol. 17, no. 5, pp. 537–544, 1996.
- [14] T. G. Nieh, A. F. Jankowski, and J. Koike, "Processing and characterization of hydroxyapatite coatings on titanium produced by magnetron sputtering," *J. Mater. Res.*, vol. 16, no. 11, pp. 3238–3245, 2001.

- [15] J. L. Ong, L. C. Lucas, W. R. Lacefield, and E. D. Rigney, "Structure, solubility and bond strength of thin calcium phosphate coatings produced by ion beam sputter deposition.," *Biomaterials*, vol. 13, no. 4, pp. 249–54, 1992.
- [16] P. Habibovic, F. Barrère, C. A. Blitterswijk, K. Groot, and P. Layrolle, "Biomimetic Hydroxyapatite Coating on Metal Implants," *J. Am. Ceram. Soc.*, vol. 85, no. 3, pp. 517–522, 2010.
- [17] M. Farrokhi-Rad and T. Shahrabi, "Effect of triethanolamine on the electrophoretic deposition of hydroxyapatite nanoparticles in isopropanol," *Ceram. Int.*, vol. 39, no. 6, pp. 7007–7013, 2013.
- [18] L. YAO, C. CHEN, D. WANG, Q. BAO, and J. MA, "Advancement in Preparation of Hydroxyapatite/Bioglass Graded Coatings By Electrophoretic Deposition," *Surf. Rev. Lett.*, vol. 12, no. 05n06, pp. 773–779, 2006.
- [19] A. Rachmat Hidayat, "Aplikasi hidroksiapatit partikel mikro sebagai pelapis titanium Ti-12 Cr untuk implan tulang spinal dengan metoda deposisi elektroforesis (EPD)," Universitas Andalas, 2018.
- [20] T. Putra, "Pengaruh Ukuran Partikel Hidroksiapatit Tulang Sapi terhadap Kualitas Pelapisan pada Permukaan CPTi Menggunakan Metode EPD untuk Material Implan Pada Akar Gigi," Universitas Andalas, 2018.
- [21] M. Niinomi, Y. Liu, M. Nakai, H. Liu, and H. Li, "Biomedical titanium alloys with Young's moduli close to that of cortical bone," *Regen. Biomater.*, vol. 3, no. 3, pp. 173–185, 2016.
- [22] M. Nakai, "Self Adjustment of Young's Modulus in Biomedical Titanium Alloys During Orthopaedic Operation, *Mater. Lett.* 65," pp. 688–690, 2011.
- [23] M. Niinomi, "Recent research and development in titanium alloys for biomedical applications and healthcare goods," *Sci. Technol. Adv. Mater.*, vol. 4, no. 5, pp. 445–454, 2003.
- [24] D. Rho, J. Y., "Elastic Properties of Human Cortical and Trabecular Lamellar Bone Measured by Nanoindentation, *Biomaterials* 18," pp. 1325–1330, 1997.
- [25] N. Sumitomo *et al.*, "Experiment study on fracture fixation with low rigidity titanium alloy: Plate fixation of tibia fracture model in rabbit," *J. Mater. Sci. Mater. Med.*, vol. 19, no. 4, pp. 1581–1586, 2008.
- [26] G. Buła, W. Truchanowski, and J. Gawrychowski, "[Riedel's goitre - rare and difficult to diagnose reason for surgical treatment of goiters].," *Endokrynol. Pol.*, vol. 60, no. 6, pp. 488–91, 1998.
- [27] M. Es-Souni, M. Es-Souni, and H. Fischer-Brandies, "Assessing the biocompatibility of NiTi shape memory alloys used for medical applications," *Anal. Bioanal. Chem.*, vol. 381, no. 3, pp. 557–567, 2005.
- [28] J. A. Matthews, "Mineralisation," *Encycl. Environ. Chang.*, pp. 502–508,

2014.

- [29] J. L. Domingo, "Vanadium and Tungsten Derivatives as Antidiabetic Agents," *Biol. Trace Elem. Res.*, vol. 88, no. 2, pp. 097–112, 2003.
- [30] A. A. Arif, "Perilaku Korosi Titanium Ti-12 Cr dan CPTi dalam Cairan Air Liur Buatan (Artificial Saliva Afnor) Pada Temperatur Terkontrol 37°C, Teknik Mesin, Universitas Andalas," 2016.
- [31] A. K. Shanker, C. Cervantes, H. Loza-Tavera, and S. Avudainayagam, "Chromium toxicity in plants," *Environ. Int.*, vol. 31, no. 5, pp. 739–753, 2005.
- [32] M. . Donachie, "Titanium : a Technical Guide, Second ed. ASM International, Materials Park, Oh," 2000.
- [33] X. Zhao, M. Niinomi, M. Nakai, J. Hieda, T. Ishimoto, and T. Nakano, "Optimization of Cr content of metastable β -type Ti-Cr alloys with changeable Young's modulus for spinal fixation applications," *Acta Biomater.*, vol. 8, no. 6, pp. 2392–2400, 2012.
- [34] X. Zhao, M. Niinomi, M. Nakai, and J. Hieda, "Beta type Ti-Mo alloys with changeable Young's modulus for spinal fixation applications," *Acta Biomater.*, vol. 8, no. 5, pp. 1990–1997, 2012.
- [35] Y. Yu, "Biomedical Materials Tianjin University Press, Tianjin. PP.," pp. 120–122, 2002.
- [36] P. P. N. Pramanik, D. Mishra, I. Banerjee, T.K. Maiti, P. Bhargava, "Int. J. Biomater. 512417, Doi:Http://Dx.DoI.Org/10.1155/2009/512417," 2009.
- [37] L. Besra and M. Liu, "A review on fundamentals and applications of electrophoretic deposition (EPD)," vol. 52, pp. 1–61, 2007.
- [38] G. Mohanty, L. Besra, S. Bhattacharjee, and B. P. Singh, "Optimization of electrophoretic deposition of alumina onto steel substrates from its suspension in iso-propanol using statistical design of experiments," *Mater. Res. Bull.*, vol. 43, no. 7, pp. 1814–1828, 2008.
- [39] Z. W. and W. L. S. Song, "Physical Chemistry. 3rd Edn. Higher Education Press, Beijing," 1993.
- [40] I. Corni, M. P. Ryan, and A. R. Boccaccini, "Electrophoretic deposition: From traditional ceramics to nanotechnology," *J. Eur. Ceram. Soc.*, vol. 28, no. 7, pp. 1353–1367, 2008.
- [41] HARLENDRI, "Pengaruh Temperatur Sintering terhadap Pelapisan Bilayers Hydroxyapatite pada Titanium (Ti-6Al-4V) ELI dengan Metode Electrophoretic Deposition sebagai Implan pada Jaringan Tulang," Universitas Andalas, 2018.
- [42] A. International, "Standard Test Methods for Measuring Adhesion by Tape Test," *Astm*, pp. 1–7, 2013.

- [43] D. Oktaviana and J. T. Mesin, ““ Pelapisan Hydroxiapatite Bilayer pada Titanium Paduan (Ti6Al4V) ELI dengan Metode Electrophoretic Deposition sebagai Implan pada Jaringan Tulang ’ “ Pelapisan Hydroxiapatite Bilayer pada Titanium Paduan (Ti6Al4V) ELI dengan Metode Electrophoretic De,” 2017.
- [44] P. R. Horinka, “Powder particle size : Its effects on coating line performance.”
- [45] R. Drevet, N. Ben Jaber, J. Fauré, A. Tara, A. Ben Cheikh, and H. Benhayoune, “Surface & Coatings Technology Electrophoretic deposition (EPD) of nano-hydroxyapatite coatings with improved mechanical properties on prosthetic Ti6Al4V substrates,” *Surf. Coat. Technol.*, vol. 301, pp. 94–99, 2016.
- [46] W. Xia, L. Fu, and H. Engqvist, “Critical cracking thickness of calcium phosphates biomimetic coating : Veri fi cation via a Singh-Tirumkudulu model,” vol. 43, no. August, pp. 15729–15734, 2017.

