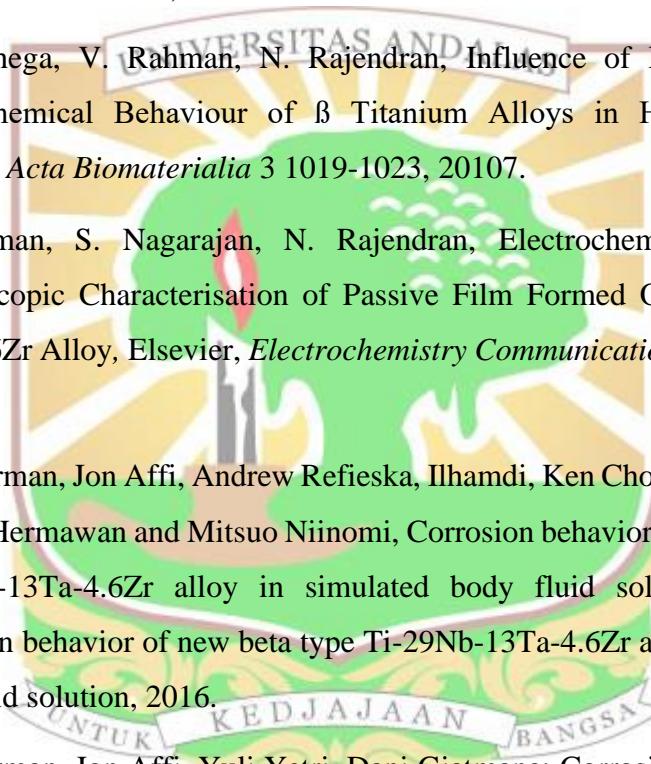


DAFTAR PUSTAKA

- [1]. Umardhani, Y., & Suprihanto, A, “Pengembangan Metode Peningkatan Kekerasan Baja Tahan Karat Aisi 316L Lewat Proses Nitridasi Gas Temperatur Tinggi”, Rotasi, 2013, 15(1), 7–10.
- [2] Hafizi, I., Widjijono, W., & Soesatyo, M. H. N. E, “Penentuan konsentrasi stainless steel 316L dan kobalt kromium remanium GM-800 pada uji GPMT”, Majalah Kedokteran Gigi Indonesia, 2016, 2(3), 121.
- [3] Rokhmanto, F., Senopati, G., Sutowo, C., Astawa, I. N. G. P., Darsono, N., & Kartika, I, “Perlakuan Termomekanikal Ingot Paduan Co-26Cr-6Mo-0,18N”, Prosiding Seminar Nasional Sains Dan Teknologi, November 2016, 1–6.
- [4] Macfudzoh P.A., Amin M.N., Putri L.S.D, “Efektivitas Ekstrak Daun Belimbing Wuluh sebagai Bahan Inhibitor Korosi pada Kawat Ortodontis Berbahan Dasar Nikel-Titanium”, Jurnal Fakultas Kedokteran Gigi, Universitas Jember, Jember, 2014.
- [5] Sfondini, Cacciafesta, V Maffia, Massironi, Scribante, Alberti G, Bie Klersy, “Chromium Release from New Stainless Steel, Recycled and Nickel Free Orthodontic Bracket”, *Angle Orthodontist*, 2009, vol 79, No. 2, 361-376.
- [6] A. Ajiz, Gunawarman, Affi J, “The Effects of Short-Time Solution Treatment and Short-Time Aging on Mechanical Properties of Ti-6Al-4V for Orthopaedic Applications”, *International Journal on Advanced Science and Engineering Information Technology*, 2015 Vol. 5 No. 4, pp. 329-334.
- [7] Gunawarman, Niinomi, M., Eylon, D., Fujishiro, S., Ouchi C,” Effect of β Phase Stability at Room Temperature on Mechanical Properties in β Rich $\alpha+\beta$ Type Ti–4.5Al–3V–2Mo–2Fe Alloy”, *ISIJ International*, 2002, Vol. 42, No. 2, pp. 191-199.
- [8] Niinomi, Mitsuo, Biologically and Mechanically Biocompatible Titanium Alloys, Special Issue on Advanced Light Metals and Processing in Asia, The Japan Institute of Light Metals, *Materials Transactions*, Vol. 49, No. 10 pp. 2170 to 2178, 2008.

- 
- [9] Mohammed, Mohsin Talib, Zahid A. Khan, dan Arshad N. Siddiquee." Beta Titanium Alloys: The Lowest Elastic Modulus for Biomedical Applications: A Review". *World Academy of Science, Engineering and Technology International Journal of Chemical, Nuclear, Metallurgical and Materials Engineering* 8, No. 8, 2014.
- [10] Niinomi, Mitsuo, Tomokazu Hattori, Keizo Morikawa, Toshihiro Kasuga, Akihiro Suzuki, Hisao Fukui, dan Sigeo Niwa, Development of Low Rigidity β -type Titanium Alloy for Biomedical Applications, *Material Transactions* 43, no. 12: 2970-2977, 2002.
- [11] M. Karthega, V. Rahman, N. Rajendran, Influence of Potential on the Electrochemical Behaviour of β Titanium Alloys in Hank's Solution, Elsevier, *Acta Biomaterialia* 3 1019-1023, 20107.
- [12] V. Rahman, S. Nagarajan, N. Rajendran, Electrochemical Impedance Spectroscopic Characterisation of Passive Film Formed Over β Ti-29Nb-13Ta-4.6Zr Alloy, Elsevier, *Electrochemistry Communications* 8 1309-1314, 2006.
- [13] Gunawarman, Jon Affi, Andrew Refieska, Ilhamdi, Ken Cho, Maasaki Nakai, Hendra Hermawan and Mitsuo Niinomi, Corrosion behavior of new beta type Ti-29Nb-13Ta-4.6Zr alloy in simulated body fluid solution, *Frontiers in Materials* 4 1-10, 2016.
- [14] Gunawarman, Jon Affi, Yuli Yetri, Dani Giatmana: Corrosion Resistance of New Beta Type Titanium Alloy, Ti-29Nb-13Ta-4.6Zr (TNTZ) in Artificial Saliva Solution. *International Journal on Advanced Science, Engineering, and Informational Technology*, 2018.
- [15] Hidayatul fajri, Gunawarman, Nurbaeti, Jon Affi, Mitsuo Niinomi, Hadi Nur, Corrosion Behaviour of Titanium β Type Ti-12Cr in 3 % NaCl Solution, *International Journal on Advanced Science, Engineering, and Informational Technology*, Vol 8 No. 5, 2019.

- [16] Hamid Reza, Asgari Bidhendi, Majid Pouranvari, Corrosion Study of Metallic Biomaterials in Simulated Body Fluid, *Association of Metallurgical Engineers of Serbia Ames*, UDC: 669.295.5'71'292.018.8, 2011.
- [17] Davide Prando, Davide Nicolis, MariaPia Pederferri, Marco Ormellese, Pitting corrosion on anodized titanium: Effect of halides, *Materials and Corrosion*. WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 1–6, 2018.
- [18] Akahori T, Niinomi, M.; Fukui, H. and Suzuki, A. Fatigue, fretting fatigue and corrosion characteristics of biocompatible beta type titanium alloy conducted with various thermo-mechanical treatments. *Materials Transactions*, 45(5), 1540-1548, 2004.
- [19] Donachie, Matthew, J. *Titanium: A Technical Guide*. 2nd Edition, ISBN-13: 978-0871706867, 2000.
- [20] T. Hanawa, Metal ion release from metal implants, *Materials Science and Engineering C* 24, 745 – 752, 2004.
- [21] Widayastuti, Synthesis and Characterization of Carbonated Hydroxyapatite as Bioceramic Material, Thesis, *School of Materials and Mineral Resources Engineering Universiti Sains Malaysia*, Penang, 1-2, 2009.
- [22] Larsson, T. F., Martinez, J. M. M., and Valles, J. L, Biomaterials for Healthcare a Decade of Eu-Funded Research. *Directorate-General for Research, Industrial technologies Unit G3 ‘Value – Added Materials*. EUR 22817, 2007.
- [23] Navarro, M. A. Michiardi, O. Castano and J. A. Planell. “Review: Biomaterials in orthopedics”. *J. R. Soc. Interface* 5, (2008): 1137–1158.
- [24] ASTM Handbook. *Standard Specification for Wrought 18Chromium-14Nickel-2.5Molybdenum Stainless Steel Bar and Wire for Surgical Implants* (UNS S31673). Ohio: ASTM International Vol. 3: 103-115, 2011.
- [25] S. Gnanavel, S. Ponnusamy, L. Mohan, C. Muthamizhchelvan, In Vitro Corrosion Behaviour of Ti-6Al-4V and 316L Stainless Steel for Biomedical Implant Applications, *J Bio Tribot Corros*, s40735-017-0118-8, 2018.

- [26] ASTM Handbook. *Standard Specification for Wrought Titanium-6Aluminum-4Vanadium ELI (Extra Low Interstitial) Alloy for Surgical Implant Applications* (UNS R56401). Ohio: ASTM International Vol. 2: 67-89, 2011.
- [27] Mohammad Nabhani, Reza Shoja Razavi, Masoud Barekat, Corrosion Study of Laser Cladded Ti-6Al-4V alloy in Different Corrosive Environments, Elsevier, *Engineering Failure Analysis* 97, 234-241, 2019.
- [28] Nan Hu, Tao Hu, Ang Gao, Nong Gao, Marco J. Starink, Ying Chen, Wanting Sun, Qing Liao, Liping Tong, Xiaochang Xu, Paul K. Chu, and Huaiyu Wang, Homogeneous Anodic TiO_2 Nanotube Layers on Ti-6Al-4V Alloy with Improved Adhesion Strength and Corrosion Resistance, *Advanced Materials Interface*, 1801964, 2019.
- [29] Jinwen Lu, Wei Zhang, Wangtu Huo, Yongqing Zhao, Wenfang Cui and Yusheng Zhang, Electrochemical Corrosion Behaviour and Mechanical Properties of Nanocrystalline Ti-6Al-4V Alloy Induced by Sliding Friction Treatment, *MDPI Journal Materials*, 12050760, 2019.
- [30] Yong Xu, Zhipeng Li, Gangqiang Zhang, Gang Wang, ZhiXiang Zeng, ChunTing Wang, Chenchen Wang, Shichang Zhao, Yadong Zhang, Tianhui Ren, Electrochemical Corrosion and Anisotropic Tribological Properties of Bioinspired Hierarchical Morphologies on Ti-6Al-4V fabricated by Laser Texturing, *Journal Tribology International*, 01.040, 2019.
- [31] Guilherme Arthur Longhitano, Maria Angeles Arenas, Ana Conde, Maria Aparecida Larosa, Andre Luiz Jardini, Cercilia Amelia de Carvalho Zavaglia, Juan Jose Damborenea, Heat Treatments Effects on Functionalization and Corrosion Behaviour of Ti-6Al-4V ELI Alloy made by Additive Manufacturing, *Journal of Alloys and Compounds*, 06.319, 2018
- [32] Bose Sivakumar, Lokesh Chandra Pathak, Raghuvir Singh, Response of Boride Coating on the Ti-6Al-4V Alloy to Corrosion and Fretting Corrosion Behaviour in Ringer's Solution for Bio-Implant Application, *Applied Surface Science*, 09.223, 2017

- [33] Nianwei Dai Lai-Chang Zhang Junxi Zhang Xin Zhang Qingzhao Ni Yang Chen Maoliang Wu Chao Yang, Distinction in Corrosion Resistance of Selective Laser Melted Ti-6Al-4V Alloy on Different Planes, *Corrosion Science*, 06.009, 2016.
- [34] Yun Bai, Xin Gai, Shujun Li, Lai-Chang Zhang, Yujing Liu, Yulin Hao, Xing Zhang, Rui Yang, Yongbo Gao, Improved Corrosion Behaviour of Electron Beam Melted Ti-6Al-4V Alloy in Phosphate Buffered Saline, *Journal Corrosion Science*, 05.003, 2017.
- [35] Mohamed Abdel-Hady Gepreel, Mitsuo Niinomi, Biocompatibility of Ti-alloys for long-term implantation, Elsevier, *Journal of The Mechanical Behavior of Biomedicals* 20, 407-415, 2013.
- [36] O. Comakli, M. Yazici, T. Yetim, A.F. Yetim, A. Celik, Effect of Ti Amount on Wear and Corrosion Properties of Ti-dopped Al₂O₃ Nanocomposite Ceramic Coated CP Titanium Implant Material, Elsevier, *Ceramic International*, 01.046, 2018.
- [37] Nikita Zaveri, Gerald D. McEwen, Ramji Karpagavalli, Anhong Zhou, *Biocorrosion studies of TiO₂ nanoparticle-coated Ti–6Al–4V implant in simulated biofluids*, J. Nanopart Res 12:1609-1623, 2010.
- [38] Robert Wen-Wei Hsu, Chun-Chen Yang, Ching-An Huang, Yi-Sui Chen, Electrochemical corrosion properties of Ti–6Al–4V implant alloy in the biological environment, *Materials Science and Engineering A* 380, 100–109, 2004.
- [39] Leonardo Contri Campanelli, Carolina Catania Bortolan, Paulo Srgio Carvalho Perera da Silva, Claudemiro Bolfarini, Nilson Tadeu Camarinho Oliveira, Effect of an Amorphous Titania Nanotubes Coating on the Fatgue and Corrosion Behaviours of the Biomedical Ti-6Al-4V and Ti-6Al-7Nb Alloys, *Journal of the Mechanical Behaviour of Biomedical Materials*, 09.015, 2016
- [40] ASM International. *Introduction to Selection of Titanium Alloys*. A Technical Guide 2nd Edition. 2000.

- [41] Boyer, R., G. Welsch, and E.W. Collings. *Materials Properties Handbook: Titanium Alloys*. ASM International, 1994: 65–74.
- [42] Venkateswarlu K, Rameshbabu N, Sreekanth D, Bose A.C, Muthupandi V, Babu N.k, Subramanian S, Role of Electrolyte Additives on In-vitro Electrochemical Behaviour Micro Arc of Oxidized Titania Films on Cp-Ti, Elsevier, *Applied Surface Science*, 6853-6863, 2012.
- [43] Venkateswarlu Kotharu, Rameshbabu N, Candra Bose Arumugam, Muthupandi V, Subramanian S, Mubarak Ali Davoodbasha, Thajuddin Nooruddin, Fabrication of Corrosion Resistant, Bioactive and Antibacterial Silver Substituted Hydroxyapatite / Titania Composite Coating on Cp-Ti, Elsevier, *Ceramics International*, 731-740, 2012
- [44] Valentim A.R. Barao, Antonio P. Ricomini-Filho, Leonardo P, Faverani, Altair A. Del Bel Cury, Cortino Sukotjo, Douglas R. Monteiro, Judy Chia-Chun Yuan, Mathew T. Mathew, Regiane C. do Amaral, Marcelo F. Mesquita, Winder J. da Silva, Wirley G. Assuncao, The Role of Nicotine and Caffeine on the Electrochemical Behaviour and Bacterial Colonization to Cp-Ti, Elsevier, *Material Science and Engineering C*, 114-124, 2015.
- [45] S. Lederer, S. Sankaran, T. Smith, W. Furbeth, Formation of Bioactive Hydroxyapatite-Containing Titania Coatings on Cp-Ti 4+ Alloy Generated by Plasma Electrolytic Oxidation, *Journal Surface & Coating Technology*, 02.030, 2019.
- [46] Suman Kumari, Hanuma Reddy Tiyyagura, Timothy E.L. Douglas, Elbeshary A.A. Mohammed, Annemie Adriaens, Regina Fuchs-Godec, M.K. Mohan, Andre Skiratch, *Journal Materials Design*, 07.005, 2018
- [47] S. Gowtham, S. Hariprasad, T. Arunnellaippalan, N. Rameshbabu, An Investigation on ZrO₂ nano-particle Incorporation, Surface Properties and Electrochemical Corrosion Behaviour of PEO Coating Formed on Cp-Ti, *Journal Surface & Coatings Technology*, 01.105, 2017

- [48] X.W. Tao, Z.J. Yao, X.X. Luo, Comparison of Tribological and Corrosion Behaviours of Cp-Ti coated with the TiO₂/graphite Coating and Nitrided TiO₂/graphite Coating, *Journal of Alloys and Compounds*, 05.125, 2017.
- [49] H. Fakhr Nabavi, M. Aliofkhazraei, A. Sabour Rouhaghdam, Morphology and Corrosion Resistance of Hybrid Plasma Electrolytic Oxidation on Cp-Ti, *Journal Surface & Coating Technology*, 05.035, 2017.
- [50] S. Hariprasad, M. Ashfaq, T. Arunnellaippan, Manu Harilal, N. Rameshbabu, Role of Electrolyte Additives on In-Vitro Corrosion Behaviour of DC Plasma Electrolytic Oxidation Coatings Formed on CP-Ti, *Journal Surface & Coating Technology*, 03.016, 2016.
- [51] S. Tamilselvi, V Raman, N. Rajendran, Corrosion Behaviour of Ti-6Al-7Nb and Ti-6Al-4V ELI Alloys in the Simulated Body Solution by Electrochemical Impedance Spectroscopy, *Electrochimica Acta* 52, 839-846, 2006.
- [52] S. Jelliti, C. Richard, D. Retraint, T. Roland, M. Chemkhi, C. Demangel, Effect of Surface Nanocrystallization on the Corrosion Behaviour of Ti-6Al-4V Titanium Alloy, Elsevier, *Surface & Coating Technology* 224 82-87, 2013.
- [53] Yangzi Xu, Yuan Lu, Jianyu Liang & Richard D. Sisson, Microstructure and Corrosion Behaviour of Additively Manufactured Ti-6Al-4V with Various Post-Heat Treatments, *Materials Science and Technology*, 1542052, 2018.
- [54] M. Saraf, N. L. Sukiman, A. R. Bushroa, B. Nasiri-Tabrizi, A. Dabbagh, N.H. Abu Kasim, W.j. Basirun, In Vitro Bioactivity and Corrosion Resistence Enhancement of Ti-6Al-4V by Highly Ordered TiO₂ nanotube Arrays, *Journal of the Australian Ceramic Society*, s41779-018-0224-1, 2018.
- [55] Bintao Wu, Zengxi Pan, Siyuan Li, Dominic Cuiri, Donghong Ding, Huijun Li, The Anisotropic Corrosion Behaviour of Wire Arc Additive Manufactured Ti-6Al-4V alloy in 3,5% NaCl Solution, Elsevier, *Corrosion Science*, j. corsci.03.047, 2018.

- [56] Jingjing Yang, Huihui Yang, Hanchen Yu, Zemin Wang, and Xiaoyan Zeng, Corrosion Behaviour of Additive Manufactureed Ti-6Al-4V in NaCl Solution, *The Minerals, Metals & Materials Society and ASM International*, s1661-017-4087-9, 2017.
- [57] I.M. Pohrelyuk, V.M. Fedirko, O.V. Tkachuk, R.V. Proskurnyak, Corrosion Resistance of Ti-6Al-4V with Nitride Cotings in Ringer's Solution, Elsevier, *Corrosion Science* 66, 392-398, 2013.
- [58] Tse-Ming Chiu, Mohamad Mahmoudi, Wei Dai, Alaa Elwany, Hong Liang, Homero Castaneda, Corrosion Assesment of Ti-6Al-4V Fabricated using Laser Powder-Bed Fusion Additive Manufacturing, *Electrochimica Acta*, 04.189, 2018
- [59] E.V. Arcieri, S. Bargetti, Corrosion Fatigue Behaviour of Ti-6Al-4V: Chemical and Mechanical Driving Forces, *International Journal of Fatigue*, 02.033, 2018.
- [60] Russel, W. and B. Simon. *Fatigue of Beta Processed and Beta Heat Treated Titanium Alloy*. 2012.
- [61] Daniela E. Romonti, Andrea V. Gomez Sanchez, Ingrid Milosev, Iona demetrescu, Silvia Cere, Effect of Anodization on the Surface Characteristics and Electrochemichal Behaviour of Zirconium in Artficial Saliva, Elsevier, *Materials Science and Engineering C* 62, 458-466, 2016.
- [62] Delphine Veys-Renaux, Zouhir Ait El Haj, Emmanuel Rocca, Corrosion Resistance in Artificial Saliva of Titanium Anodized by Plasma Electrolytic Oxidation in Na₃Po₄, Elsevier, *Surface & Coatings Technology* 285 214-219, 2016.
- [63] Yu li, Jian Xu, Is Niobium more Corrosion-resistant than Commercially Pure Titanium in fluoride-Containing Artificial Saliva, Elsevier, *Electrochimica Acta* 233 151-166, 2017.
- [64] Weimin Jiang, Huimin Cui, and Ye Song, Electrochemical Corrosion Behaviours of Titanium Covered by Various TiO₂ Nanotube Films in

Artificial Saliva, *J Mater Sci, Chemical Routes to Materials*, s10853-018-2706-5, 2018

- [65] Dragana Barjaktarevic, Jelena Bajat, Ivana Cvijovic-Alagic, Ivana Dimic, Anton Hohenwater, Veljko Dokic and Marko Rakin, The Corrosion Resistance in Artificial Saliva of Titanium and Ti-13Nb-13Zr alloy Processed by High Pressure Torsion, Elsevier, *Procedia Structural Integrity* 13 1834-1839, 2018.
- [66] A. Anandan, Susai Rajendran, J. Sathiyabama, and D. Sathiyaraj, Electrochemical Behaviour of Ni-Ti Super Elastic Shape Memory Alloy in artificial Saliva, *International Journal of ChemTech Research*, Vol.11 No.02, 29-34, 2018.
- [67] Mohamed S. Hussein and Amany M. Fekry, Effect of Fumed Silica/Chitosan/Poly(vinylpyrrolidone) Composite Coating on the Electrochemical Corrosion Resistance of Ti-6Al-4V Alloy in Artificial Saliva Solution, *Journal ACS Omega*, 4.73-78, 2019.
- [68] C Baciu, E R Baciu, R Cimpoesu, C G Levente, D G Bosinceanu, M Baciu and C Bejinariu, Microstructural Analysis of Ti-Based Shape Memory Alloys Following the Electrochemical Corrosion in Artificial Saliva, *IOP Materials Science and Engineering*, 209 012033, 2017.
- [69] Pascale Corne, Pascal de March, Fanck Cleymand, Jean Geringer, Fretting-Corrosion Behaviour on Dental Implant Connection in Human Saliva, *Journal of the Mechanical Behaviour of Biomedical*, 02.025, 2019.
- [70] S. L. Assis, S. O. Rogero, R. A. Antunes, A. F. Padilha, I. Costa, Comparative Study of the In Vitro Corrosion Behavior and Cytotoxicity of a Superferritic Stainless Steel, a Ti-13Nb-13Zr Alloy, and an Austenitic Stainless Steel in Hank's Solution, Wiley Periodicals, Inc. *J Biomed Mater Res Part B: Appl Biomater* 73B: 109-116, 2005.
- [71] Zhang, Y.F., and B.L. Wang, Mechanical Properties and Corrosion Behavior of a Beta Titanium Alloy, *Journal Key Engineering Materials* 324: 695-698, 2006.

- [72] N. A. Al-Mobarak, A. A. Al-Swayih, F. A. Al-Rashoud, Corrosion Behavior of Ti-6Al-7Nb Alloy in Biological Solution for Dentistry Applications, *Int. J. Electrochem. Sci.*, 6 2031 – 2042, 2011.
- [73] Jones Denny A., *Principles and Prevention of Corrosion*, Kirkpatrick, 2nded, ISBN 0-02-946439-0 (International Edition).
- [74] Motyka, M.J.S. “The influence of initial plastic deformation on microstructure and hot plasticity of $\alpha+\beta$ titanium alloys” 2009.
- [75] Davide Prando, Davide Nicolis, MariaPia Pederferri, Marco Ormellese, Pitting corrosion on anodized titanium: Effect of halides, *Materials and Corrosion*. WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 1–6, 2018.
- [76] P. R. Roberge, Corrosion Engineering Principles and Practice, McGraw-Hill, New York, US. 2008.
- [77] Bard, A. J., Parsons, R., and Jordan, J. (2001). Standard Potentials in Aqueous Solutions (Marcel Dekker, New York)
- [78] Liang YuChen, Hong-YueZhang, ChuanboZheng, Hong YuYang, PengQin, CuihuaZhao, ShengLu, Shun-XingLiang, LinjiangChai, Lai-ChangZhang,” Corrosion behavior and characteristics of passive films of laser powder bed fusion produced Ti-6Al-4V in dynamic Hank’s solution”, Materials & Design 208 (2021) 109907.
- [79] Van Vlack, Lawrence H, “Ilmu dan Teknologi Bahan (Ilmu Logam dan Bukan Logam”, edisi kelima, Alih Bahasa Sriati Djaprié, Jakarta: Erlangga, 1992.
- [80] P. Handzlik, K. Fitzner, Corrosion resistance of Ti and Ti-Pd alloy in phosphate buffered saline solutions with and without H₂O₂ addition, Elsevier, *Trans. Nonferrous Met. Soc. China* 23 866–875, 2013.
- [81] M. Talha, C.K. Behera, O.P. Sinha, Potentiodynamic polarization study of Type 316L and 316LVM stainless steels for surgical implants in simulated body fluids, *J. of Chemical and Pharmaceutical Research*, 2012, 4, 203-208.
- [82] Animesh Choubey, Bikramjit Basu and R. Balasubramaniam, Electrochemical Behavior of Ti-Based Alloys in Simulated Human Body

Fluid Environment, *Trends Biomater. Artif. Organs*, Vol 18 (2), January 2005.

- [83] S. Gokul Lakshmia, V. Ramanb, N. Rajendranb, M.A.K. Babic, D. Arivuolid, In vitro corrosion behaviour of plasma nitrided Ti–6Al–7Nb orthopaedic alloy in Hanks solution, *Science and Technology of Advanced Materials* 4 415–418, 2003.
- [84] Egon Wiberg, Nils Wiberg, A F Holleman, Nils Wiberg, Inorganic Chemistry, ISBN 0123526515, 9780123526519, Academic Press, 2001.
- [85] Goenhardt, Sianiwati, Achmad Sjafei, “Breket Titanium”, Jurnal Fakultas Kedokteran Gigi Universitas Airlangga, Surabaya, 2005, Vol 38, No. 3.
- [86] Halimatuddahliana, Pencegahan Korosi dan Scale Pada Proses Produksi Minyak Bumi. Medan: Universitas Sumatera Utara. 4 – 9, 2003.
- [87] Donachie, M.J. 2001. “*Heat Treating Titanium and Its Alloys*”. Heat Treating Progress.
- [88] William D. Callister Jr., David G. Rethwisch, Materials Science and Engineering: An Introduction, 10th Edition, ISBN: 978-1-119-40549-8, 2018.
- [89] Mitsuo Niinomi, Toshikazu Akahorib Shigeki Katsurac Konosuke Yamauchid Michiharu Ogawae, “Mechanical characteristics and microstructure of drawn wire of Ti–29Nb–13Ta–4.6Zr for biomedical applications”, *Materials Science and Engineering: C*, Volume 27, Issue 1, January 2007, Pages 154-161.
- [90] Masaaki Nakai, Mitsuo Niinomi & Takahiro Oneda, Improvement in Fatigue Strength of Biomedical β -type Ti–Nb–Ta–Zr Alloy While Maintaining Low Young’s Modulus Through Optimizing ω -Phase Precipitation, *Metallurgical and Materials Transactions A* volume 43, pages294–302, 2012.
- [91] Pinke, P., Caplovic, L and Kovacs, T. “The Influence of Heat Treatment on The Microstructure of The Casted Ti6Al4V Titanium Alloy”. *Faculty of Materials Science and Technology Trnava*, Slovak University of Technology Bratislava, Paulínska 16, 917 24 Trnava, Slovak Republic, 2011.

- [92] Patrizia Bocchetta, Liang-Yu Chen 2, Juliana Dias Corpa Tardelli, Andréa Cândido dos Reis, Facundo Almeraya-Calderón, Paola Leo (2021). “Passive Layers and Corrosion Resistance of Biomedical Ti-6Al-4V and β -Ti Alloys”, *Coatings MDPI* 2021, 11, 487.
- [93] Vanýsek, Petr (2007). “Electrochemical Series”, in Handbook of Chemistry and Physics: 88th Edition (Chemical Rubber Company).
- [94] Sugiyarto, Kristian H (2012). Dasar-dasar Kimia an Organik Transisi, Edisi Pertama- Yogyakarta; Graha Ilmu, ISBN: 978-979-756-793-4.
- [95] Hafizi, I., Widjijono, W., & Soesatyo, M. H. N. E, “Penentuan konsentrasi stainless steel 316L dan kobalt kromium remanium GM-800 pada uji GPMT”, *Majalah Kedokteran Gigi Indonesia*, 2016, 2(3), 121.
- [96] Rokhmanto, F., Senopati, G., Sutowo, C., Astawa, I. N. G. P., Darsono, N., & Kartika, I, “Perlakuan Termomekanikal Ingot Paduan Co-26Cr-6Mo-0,18N”, Prosiding Seminar Nasional Sains Dan Teknologi, November 2016, 1–6.
- [97] K. Indiraa, U. KamachiMudali b, N. Rajendran (2014). “Applied Surface Science”, In vitro bioactivity and corrosion resistance of Zr incorporated TiO₂ nanotube arrays for orthopaedic applications, Volume 316, 15 October 2014, Pages 264-275.
- [98] Akimitsu Ishihara, Yuko Tamura, Mitsuharu Chisaka, Yoshiro Ohgi, Yuji Kohno, Koichi Matsuzawa, Shigenori Mitsushima and Ken-ichiro Ota, “Titanium-Niobium Oxides as Non-Noble Metal Cathodes for Polymer Electrolyte Fuel Cells” *Catalysts* 2015, 5, 1289-1303, ISSN 2073-4344.
- [99] Jonas Borgel, Michael G. Campbell, and Tobias Ritter (2015). “Transition Metal d-Orbital Splitting Diagrams: An Updated Educational Resource for Square Planar Transition Metal Complexes”, *Journal of Chemical Education*, 27 Oktober 2015, 93, 118–121.
- [100] Mitsuo Niinomia, Toshikazu Akahori, Tsutomu Takeuchi, Shigeki Katsura, Hisao Fukui, Hiroyuki Toda, “Mechanical properties and cyto-toxicity of new

beta type titanium alloy with low melting points for dental applications”,
Materials Science and Engineering C 25 (2005) 417 – 425.

