DAFTAR PUSTAKA

Abdullah, Z.S., (2015) The effect of addition of hydroxyapatite microscopic fillers on surface roughness and some mechanical properties of heat-cured acrylic resin. *JBCD*. 27(3):50–54.

Abduljabbar, A. A., Kati, F. A., Haddad, A. I., dan Rehman, I., (2023) Evaluation of the Effect of Nano and Micro Hydroxyapatite Particles on the Impact Strength of Acrylic Resin: In Vitro Study. *Journal of Techniques*. 5(3): 213-217.

Afrizal dan Gunawarman., (2016) Analisa struktur mikro material substitusi hidroksiapatit cangkang kerang darah dan resin akrilik polimerisasi panas. bahan pembuat gigi untuk aplikasi gigi tiruan. *Jurnal Surya Tek*. 2(04): 1–9.

Agha, B. H., Hamasaeed, N. H., dan Hussain, F. H. S., (2023) Novel Incorporation of Charged Hydroxyapatite Nanoparticles into Resin Adhesive. *CMB*. 69(11): 149-154.

Agustini, T. W., Fahmi A. S., Widowati I., Sarwono A., (2011) Pemanfaatan limbah cangkang kerrang simping (*Amusium Pleuronectes*) dalam pembuatan cookies kaya kalsium. *JPHPI*. (19)1: 8-13.

Akbar A. F., Cahyaningrum S. E., (2022) Characterization and anti-bacterial activity testing of nano hydroxyapatite clove (*Eugenia cariyophyllus*) against Streptococcus mutans bacteria. *Indo. J. Chem*. (11)11: 1-8.

Al-Bahar, Z.J.H., (2014) Evaluation of the effect of incorporated hydroxyapatite prepared from dried egg shell on some properties of relined denture base. *IJBASR* . 5:1–90.

Alghamdy dan Jaman, S., (2016) *A Preliminary Study On The Interfacial Strength Of Red Abalone*. Graduate College Dissertations and Theses. pp: 633.

Alhotan A, Yates J, Zidan S, Haider J, Jurado CA, Silikas N. (2021) Behaviour of PMMA Resin Composites Incorporated with Nanoparticles or Fibre following Prolonged Water Storage. *Nanomaterials*11(12):3453.

Alquaaibi, A. Y., Baik. A., Almuzaini, S. A., Farghal, A. E.,(2023) Polymeric Denture Base Materials: A Review. *Polymers*. 5(1): 3258.

Alzayyat, S. T., Almutiri, G., Aljadan, J. K., Algarzai, R. M., Khan, S. O., Akhtar, S., Ateeq, L. S., dan Gad, M. M., (2021) Effect of SiO2 Incorporation on the Flexural Properties of A Denture Base Resin: An In Vitro Study. *EJD*. 16(1): 188-194.

Ana, ID., (2022) *Tinjauan Biomedis: Biokeramik dan Rekayasa Jaringan.* Cetakan pertama. Yogyakarta: Gadjah Mada University Press.

Anusavice, K.J., Shen, C., and Rawls, H.R., (2013) *Phillips' Science of Dental Materials. 12th Ed*. The Netherlands: Elsevier Health Sciences.

Aryani, H.S., Yudhit, A., and Chintya, A.F., (2021) Pengaruh serat batang pisang barang terhadap penyerapan air resin akrilik heat cured. *JMKG*. 10(2): 73–78.

Aulia, R. K., (2022) Biocompatibility of Dental Resin Composites, *JDS.* 7(2): 63-68.

Badan Kebijakan Pembangunan Kesehatan, (2023) *Survei Kesehatan Indonesia 2023*. Jakarta: Kementerian Kesehatan Republik Indonesia.

Balhuc, S., Campian, R., Labunet, A., Negucioiu, M., Buduru, S., & Kui, A. (2021) Dental Applications of Systems Based on Hydroxyapatite Nanoparticles: An Evidence-Based Update. *Crystals*, *11*(6), 674.

Barunawati, S.B., Artama, W. T., Saleh, S., Sunarintyas, S., dan Murti, Y. B., (2020) Effects of Manufacturing Methods of Abalone Gel as a Desensitisatuon materials on The Closing of Dentinal Tubules. *JKG*. 53(2)L 99-106.

Budiharjo, A., Wahyuningtyas, E., and Sugiatno, E., (2014) Pengaruh lama pemanasan pasca polimerisasi dengan microwave terhadap monomer sisa dan kekuatan transversa pada reparasi plat gigi tiruan. *JKG*. 5(2): 1–13.

Clarke-Farr, P.C. dan Latief, A. (2022) Factors affecting sorption and solubility of denture base acrylic materials: a review. *Ann Dent UM*, 29: 1-8.

Combe, E.C. (1992) *Sari Dental Material.* Jakarta: Balai Pustaka. pp: 270–276.

Cook, P. A., (2023) Introduction, taxonomy, and general biology of abalone, *Developments in Aquaculture and Fisheries Science*, 42(2023): 1-8,

Escudero, A., Espanol, M., Ginebra, M. P., (2023) High-aspect-ratio nanostructured hydroxyapatite: towards new functionalities for a classical material. *Chem Sci*. Dec 1;15(1):55-76.

Forero-Sossa, O. A., Salazar-Martinez, J. D., Giraldo-Betancur, A. K., Segura-Giraldo, B., dan Restrepo-Parra, E., (2021) Temperature Effect in Physichocemical and Bioactive Behaviour of Biogenic Hydroxyapatite Obtained from Porcine Bones. *Scientific Reports*. 11(2021): 11069.

Gad, M. M., Alshehri, S. Z., Alhamid, S. A., Albarrak, A., Khan, S. Q., Alshahrani, F. A., & Alqarawi, F. K. (2022) Water Sorption, Solubility, and Translucency of 3D-Printed Denture Base Resins. *Dentistry Journal*, *10*(3): 42.

Gibson, I. R., (2020) *Biomaterials Sciences:An Introduction to Materials in Medicine*. Aberdeen: Academic Press. Pp. 307-317.

Gintu A. R., Kristiani E. B. E., Martono Y., (2022) Uji antibakteri dan modifikasi hidroksiapatit limbah kerabang telur bebek *(A. platyrhynchos javanica*). *Seminar Nasional Biologi*. Volume 18.

Goldstein J I, Dale E. Newbury, Joseph R. Michael, Nicholas W.M. Ritchie, John Henry J. Scott, David C. Joy, (2018) *Scanning Electron Microscopy and X-Ray Microanalysis 4th Edition,* New Yorkk: Springer. pp. 550.

Greiner R., (2009) Current and projected of nanotechnology in the food sector. *SBAN*. 34(1): 243-260.

Hassan, Z., Hatim, N., and Taqa, A., (2011) Study the FTIR of hydroxyapatite additive to heat cured acrylic resin. *RDJ*. 14(1): 32–36.

Harahap, K.I., Rusfian, and Oktriani, R., (2016) Impact strength and surface roughness of acrylic resin heat-cured after immersed in tuak beverage, *Bali Dental Science Exhibitions: Proceeding on the Challenges of Dentistry Together Towards Tomorrow*. 320–329.

Hemmati MA, Vafaee F, Allahbakhshi H. (2015) Water Sorption and Flexural Strength of Thermoplastic and Conventional Heat-Polymerized Acrylic Resins. *J Dent*. 12(7):478-84.

Huang, H., Mingzu, D., Jingdi, C., Shengnan, Z. and Jianhua, W., (2020) Preparation and characterization of abalon shells derived biological mesoporous hydroxyapatite microspheres for drug delivery. *Materials Science and Engineering.* 113: 110969.

International Organization for Standardization (2020) ISO International Organization for Standardization

Izzetti, R., Gennai, S., Nisi, M., Gulia, F., Miceli, M., & Giuca, M. R. (2022) Clinical Applications of Nano-Hydroxyapatite in Dentistry. *Applied Sciences*. 12(21): 10762

Jang, D.E., Lee, J.Y., Jang, H.S., Lee, J.J. and Son, M.K., (2015) Color stability, water sorption, and cytotoxicity of thermoplastic acrylic resin for non-metal clasp denture. *JAP*. 7(4): 278–287.

Jarboo'A, N.H. and Alsarraf, A.R., (2020) Influence of adding nano/micro hydroxyapatite (HA) particles on tribological characteristics of polymethyl methacrylate (PMMA). *AIP Conference Proceedings*. pp: 2307.

Kantharia, N., Naik, S., Apte, S., Kheur, M., Kheur, S., and Kale, B., (2014) Nano-hydroxyapatite and its contemporary applications. *IADRSD*. 1:15–19.

Karadi, H.R. dan Hussein, B.M.A., (2017) Effect of modified nanohydroxyapatite fillers addition on some properties of heat-cured acrylic denture base materials. *JBCD*. 29(2): 49–54.

Kareem, R.O., Bulut, N., and Kaygili, O., (2024) Hydroxyapatite Biomaterials: A Comprehensive Review of their Properties, Structures, Medical Applications, and Fabrication Methods. *J. Chem. Rev*. 6(1): 1–26.

Khasawneh, S.F. & Arab, J.M., (2003) A clinical study of complete denture fractures at four military hospitals in Jordan. *J Royal Med Serv*. 10(2): 27-31.

Kini, A. U., Shettar, M., Gowrishankar, M. C., dan Sharma, S., (2023) A Technical Review on Epoxy-Nanoclay Nanocomposites: Mechanical, Gyrothermal, and Wear Properties. *Cogent Engineering*. 10(2023): 1-21.

Kusumawardani, C.D.N., Chondro, R.T., Andrian, I. & Sari, R.P., (2020) Pengaruh penambahan hidroksiapatit terhadap porusitas dan compressive strength basis resin akrilik heat-cured. *J Kedokt Gigi Univ Padjadjaran*, 32(2):91.

Latifah, N.R., (2018) Pengaruh penambahan serbuk cangkang kerang simping terhadap kualitas fisis basis gigi tiruan. Skripsi Jurusan Fisika Fakultas Sains dan Teknologi Universitas Islam Negeri Maulana Malik Ibrahim, Malang.

Manappallil, J.J., (2016). *Basic Dental Materials*, 4th ed. New Delhi: Jaypee Brothers Medical Publishers.

Man-Yu Li, Yan-Chao Wu, Li Huang, Pi-Xian Gong, Hui-Jing Li., (2025). Composition, structure and comprehensive utilization of abalone shell: A review. *Sustainable Chemistry and Pharmacy*. 43(2025)

Margareta, M.A.H., Fuad, A., Ilmiawati, S.A. & Wonohardjo, S., (2015) Sintesa Hydroxyapatite (Ca10 (PO4)6 (OH)2) Berbasis Batu Kapur. *JPFA)*, 5(1):15-20.

McCabe, J.F. & Walls, A.W.G., (2013) *Applied Dental Material*, 9th ed. Oxford: Blackwell Publishing, :6, 110, 114-116.

Munadziroh, E., (2004) Cytotoxicity of heat-cured acrylic resin to fibroblast cell. *Dent J.* 37(2):95-98.

Muntamah., (2011) Sintesis dan Karakterisasi Hidroksiapatit dari Limbah Cangkang Kerang Darah (*Anadara granosa* sp). [tesis] Institut Pertanian Bogor, Bogor, Indonesia.

Muntean, F. L., Olariu, I., Marian, D., Olariu, T., Petrescu, E. L., Olariu, T., & Drăghici, G. A. (2024) Hydroxyapatite from Mollusk Shells: Characteristics, Production, and Potential Applications in Dentistry. *Dent J. 12*(12): 409.

Mohamed, S. Z., Ghobashy, M. M., Taymour, N., Abdelwahab, S., Srimaneepong, V., Rokaya, D., (2024) Accuracy of repaired maxillary dentures from two different repairing techniques: In vitro study. *Heliyon*. 10(21)

Mozartha, M., (2015) Hidroksiapatit Dan Aplikasinya Di Bidang Kedokteran Gigi. *Cakradonya Dent J*, 7(2):807-868.

Movasaghi, Z., Shazza, Rehman, Dr. Ihtesham ur Rehman (2008) Fourier Transform Infrared (FTIR) Spectroscopy of Biological Tissues, *ASR*, 43:2: 134-179.

Noviyanti, Jasrudin, & Sujiono, H.E., (2015) Karakterisasi Kalsium Karbonat (CaCO3) Dari Baru Kapur Kelurahan Tellu Limpoe Kecamatan Suppa. *JSdPD*, 11(2).

NSW Department of Primary Industries. (2021) *Abalone* (*haliotis rubiginosa). DPI Primefact.* 1(1):1-2.

Obrien, W.J., (2002) *Dental Materials and Their Selection, 3rd ed.*, Michigan: Quintessense Publishing Co. pp 150, 155.

Paul D. R., dan Robenson, L. M., (2008) Polymer Nanotechnologu: Nanocomposites. *Polymer*. 49(15): 3187-3204.

Pantow, F.P.C.C., Siagian, K.V. & Pangemanan, D.H.C., (2015) Perbedaan Kekuatan Transversal Basis Resin Akrilik Polimerisasi Panas Pada Perendaman Munuman Beralkohol Dan Aquades. *E-Gigi*, 3(2).

Panpisut, P., Liawat, S., Zacharaki, E., Xia, W., Petridis, H., dan Young, A. M., (2016) Dental Composites with Calcium/ Strontium Phosphates and Polylysine. *PLOS ONE*. 11(10). 1-19.

Parbaningtyas, R.A.J. M.S., (2015) Karakterisasi hidroksiapatit dari Kalsit sebagai bone graft sintetis menggunakan X-ray diffractometer (XRD) dan Fourier transform infrared (FTIR). Skripsi. Universitas Jember.

Permatasari, H.A., Sari, M., Aminatun, Suciati, T., Dahlan, K., dan Yusuf, Y., (2021) Nano-carbonated hydroxyapatite precipitation from abalone shell (Haliotis asinina) waste as the bioceramics candidate for bone tissue engineering. *Nanomaterials and Nanotechnology*. 11: 1–9.

Puad, N. M., Koshy, P., Abdullah, H. Z., Idris, M. I., dan Lee, T. C., (2019) Syntheses of Hydroxyapatite from Natural Sources. *Heliyon*. 5(5): 1588.

Putranti, D.T. & Angelica, A., (2024) Pengaruh Penambahan Nano Hidroksiapatit Cangkang Kerang Kepah pada Basis Gigi Tiruan Resin Akrilik Polimerisasi Panas terhadap Kekuatan Transversal: Eksperimental Laboratoris. *J Ked GI Univ Padj*, 36(1):28-37.

Powers, J.M. Wataha, J.C., (2017) *Dental Materials Foundation and Applications*, 11th ed. St. Louis, Missouri: Elsevier, pp. 171.

Powers, J.M. & Sakaguchi, R.M., (2018) *Craig's Restorative Dental Materials*, 14th ed. Philadelphia: Elsevier Mosby, pp. 2, 143.

Prorok, B., Zhang, A., Chen, Y., Kristin, F. (2018) The Extended Abstract: The Growth and Mechanical Property of Mesolayer in Abalone. *Experimental and Applied Mechanics*. 4(1): 1-4.

Racquel, Z. L. dan B. Besim. (2014) *Intorduction to synthetic and biologic apatites advance in calcium phosphate biomaterials*. Heidelberg: Springer

Raszewski, Z., Nowakowska, D., Wieckiewicz, W., Nowakowska-Teporowska, A., (2021) Release and Recharge of Fluoride Ions from Acrylic Resin Modified with Bioactive Glass. *Polymers*. 13(1): 1054.

Rujitanapanich, S., Kumpapan, P., dan Wanjanoi, P., (2014) Synthesis of hydroxyapatite from oyster shell via precipitation. *Energy Procedia*. 56: 112–117.

Saleha, dkk., (2015) Sintesis Dan Karakterisasi Hidroksiapatit Dari Nanopartikel Kalsium Oksida (CaO) Cangkang Telur Untuk Aplikasi Dental Implan. *Prosiding Pertemuan Ilmiah XXIXHFI Jateng & DIY*, Yogyakarta.

Sarikaya, M., Gunnison, K. E., Yasrebi, M., dkk. (1989) Mechanical Property-Microstructural Relationships in Abalone Shell. *MRS Proc*; 174(1): 1-12.

Sedyono, J., Tontowi, A. E.., (2008) Proses sintesis dan karakterisasi FTIR Hidroksiapatit dari gypsum kulon progo. *Media Mesin*, 9(1):6-12.

Setyono, D.E.D., (2009) *Abalon: Biologi dan Reproduksi*. Jakarta: LIPI Press, p. 92.

Seredin, O., Goloshchapov, d., Buylov, N., Kashkarov, V., Emelyanova, A., Eremeev, K., dan Ippolitov, Y., (2022) Compositional Analysis of the Dental Biomimetic Hybrid Nanomaterials Based on Bioinspired Nonstoichiometric Hydroxyapatite with Small Deviations in the Carbonate Incorporation. *Nanometrials.* 12: 4453.

Shen, C., Rawis, H.R., dan Esquivel-Upshaw, J.F. (2022) *Philips' Science of Dental Material*, 13th ed. New York: Elsevier,:233-242.

Siregar, C.B., dan Dahar, E., (2023) Pengaruh Penambahan Hidroksiapatit Pada Bahan Basis Gigi Tiruan Resin Akrilik Polimerisasi Panas Terhadap Penyerapan Air: Studi Eksperimental Laboratoris. *J Ked G*. 35(3):245–250.

Sormin, L. T. M., Rumampuk, J. F., dan Wowor, V. N. S., (2017) Uji kekuatan transversal resin akrilik polimerisasi panas yang direndam dalam larutan cuka aren. *J eG*, 5(1): 30-34.

Susanto, B., Rusdi, I., Rahmawati, R., (2009) Evaluasi keragaman dan kualitas abalon (*Haliotis squamata*) Asal ALam (F-0) dan turunan pertama (F-1). *Prosiding Forum Inovasi Teknologi Akuakultur.* 1(1):755-764.

Takabayashi, Y., (2010) Characteristics of denture thermoplastic resins for non-metal clasp dentures. *Dent Mater J*, 29(4):353-361.

Techapiroontong, S., Limpuangthip, N. (2024) Oral health-related quality of life and reasons for discontinuing partial removable dental prosthesis usage: a cross-sectional study with one to seven years of follow-up. *BMC Oral Health*. 24(1): 355.

Tim Perikanan WWF Indonesia (2015) Perikanan Kerang: Panduan Penangkapan Dan Penanganan.

Vazquez, C. G., Barba, P. C., dan Mungula, N., (2005) Stoichiometric hydroxyapatite obtained by precipitation and sol gel processes. *Revista Mexicana De Fisicia*, 51(3): 284-293.

Vollath, D., (2023) Agglomeration of Particles Stored in A Box. *FirePhysChem*. 3(3): 275-280.

Wadu, I., Soetjipto H.,, dan Cahyanti. (2017) Karakterisasi dan Uji Aktivitas Antibakteri Hidroksiapatit (HAp) dari Kerabang Telur Ayam Terhadap Bakteri Lactobacillus acidophilus. *JKPK UNS*. 3 (2): 11862.

Wanzura, A., dan Wahyuni, S., (2019) Perbedaan penyerapan air dan stabilitas warna basis gigi tiruan poliamida 6 dan poliamida mikrokristalin setelah perendaman teh. *B-Dent*, 6(1):9–16.

Warastuti, Y., Abbs, B., suryani, N., (2017) Konversi Koral Laut Menjadi Hidroksiapatit dengan metode Sonikasi. *Jurnal Kimia dan Kemasan*, 39(2):79-86.

World Register of Marine Species. (2025) Haliotis squamata reeve 1846. *Mollusca Based*. 1(1).

Yusuf, Y., dkk., (2019) *Hidroksiapatit Berbahan Dasar Biogenik*. Yogyakarta: Gadjah Mada University Press.

Zare, Y., (2016) Study of Nanoparticles Aggregeration/ Agglomeration in Polymer Particulate Nanocomposites by Mechanical Properties. *Composites* .84(2016): 158-164.