

DAFTAR PUSTAKA

- Ali, Sarah H., Al-Zuky, Ali Abid D., Al-Saleh, Anwar H., Mohamad, Haidar J., 2019, Measure liquid viscositu by tracking falling ball automatically depending on image processing algorithm, *Journal of Physics: Conf. Series* 1294 (2019) 022002.
- Alvarenga, E. S., 2011, Characterization dan Properties of Kitosan, *Biotechnology of Biopolymers*, 3(5), pp. 91–108.
- Anusavice, Kenneth J., 2003, *Phillips' Sciene of Dental Material*, 11th Edition, Elsevier Science, St. Louise, Missouri.
- ANSI/ADA, 1984, ANSI / ADA specification no . 57 for endodontic filling materials, in. doi: 10.14219/jada.archive.1984.0208.
- Ashraf, H. *et al.*, 2017, Physical Properties dan Chemical Characterization of Two Experimental Epoxy Resin Root Canal Sealers, *Iranian Endodontic Journal* 2017;12(2):, 26(2), pp. 149–156.
- Azadi, N., Fallahdoost, A., Mehrvarzfar, P., Rakhsan, H., Rakhsan, V., 2012, A four-week solubility assesment of AH-26 and four new root canal sealers, *Dent Res J (Isfahan)*, 9(1):31-35
- Badwan, Adnan A., Rashid, Iyad, Al Omari, Mahmoud M.H., Darras, Fouad H., 2015, Chitin dan Kitosan as Direct Compression Excipients in Pharmaceutical Applications, *Mar. Drugs* (13): 1519-1547
- Balasubramani, P.K., Iroh, J.O., 2016, Mechanism and Kinetics of Curing of Diglycidyl Ether of Bisphenol A (DGEBA) Resin by Chitosan, *Polymer Engineering and Science*, 1-10.
- Bernades, R.A., Campelo, A.A., Junior, Dario S.S., Duarte, Marco A.H., Moraes, Ivaldo G., Bramante, Clovis M., 2010, Evaluation of the flow rate of 3 endodontic sealers: Sealer 26, AH Plus, dan MTA Obtura, *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*, 2010;109:e47-e49
- Cañadas, P. S. *et al.*, 2014, Physicochemical Properties dan Interfacial Adaptation of Root Canal Sealers', *Brazilian Dental Journal*, 25, pp. 435–441.
- Carvalho-junior, J. *et al.*, 2003, Evaluation of Solubility , Disintegration , dan Dimensional Alterations of a Glass Ionomer Root Canal Sealer, *Brazillian Dental Journal*, 14(2), pp. 114–118.
- Chandra, S. dan Krishna, G., 2010, *Grossman's Endodontic Practise*. 12th edn. Gurgaon, Haryana (India): Wolters Kluwer Health.
- Chang, S. W. *et al.*, 2015, Comparison of the rheological properties of four root canal sealers, *International Journal of Oral Science*, 7(1), pp. 56–61.

- Chawla, S. P. *et al.*, 2014, *Kitosan*, Springer International Publishing Switzerldan 2014, 13(1), pp. 1–24.
- Colombo, M. *et al.*, 2018, Biological dan physico-chemical properties of new root canal sealers, *J Clin Exp Dent*, 10(2), pp. 120–126.
- Damarsasi D., 2017, Pengaruh Penambahan Kitosan Nanopartikel Pada Siler Resin Epoksi Terhadap Kekuatan Pelekatan Push-Out Bahan Obturasi Saluran Akar, *Tesis*, Program Studi Konservasi Gigi Universitas Gadjah Mada, Yogyakarta
- Dash, AK., 2020, Comparative evaluation of flow rate of four different endodontic sealers: An in vitro study, *Endodontology*, Vol. 32 (2), p. 96-99
- De-deus, G. *et al.*, 2017, Epoxy Resin-Based Root Canal Sealer Penetration into Dentin Tubules Does not Improve Root Filling Dislodgement Resistance, *European Dental Journal*, 2(7), pp 1-5
- Desouky, A. A., Negm, M. M. dan Ali, M. M., 2019, Sealability of Different Root Canal Nanosealers: Nano Calcium Hydroxide dan Nano Bioactive Glass, *The Open Dentistry Journal*, 13, pp. 308–315.
- Enggardipta, R. A. *et al.*, 2019, Apikal sealing ability of kitosan nanoparticles in epoxy-resin-based endodontic sealer, *Majalah Kedokteran Gigi Indonesia*, 5(2), pp. 69–74.
- de Faria Jr., N. B. *et al.*, 2010, Comparative assessment of the flow rate of root canal sealers Estudo comparativo do escoamento de cimentos, *Rev. odonto ciênc.*, 25(2), pp. 170–173.
- Ferracane, J. L., 1995, Current trends in dental composites, *Crit Rev Oral Biol Med*, 6(4), pp. 302–318.
- Garg, N. dan Garg, A., 2007, *Textbook of ENDODONTICS*. Faridabad, Haryana (India): Jaypee Brothers Medical Publishers (P) Ltd.
- Hargreaves, K. M. dan Berman, L. H., 2016, *Cohen's Pathways of the Pulp*. 11th edn. Edited by K. M. Hargreaves, L. H. Berman, dan I. Rotstein. St. Louis Missouri: Elsevier Inc.
- Ingle, J. I., Bakldan, L. K. dan Baumgartner, J. C., 2008, *Ingle's Endodontics 6*. Edited by P. Bindner. Ontario: BC Decker Inc.
- Javidi, M. *et al.*, 2017, In Vitro Cytotoxicity of a New Nano Root Canal Sealer on Human Gingival Fibroblasts, *Iranian Endodontic Journal*, 12(2), pp. 220–225.
- Jiang, Xin., Rosentrater, K.A., 2015, Factors Influencing Feed Ingredients Flowability, *An ASABE Meeting Presentation*, July 26 – 29, 2015

- Kangarlou, A., Neshendar, R., Matini, N., Dianat, O., 2016, Antibacterial efficacy of AH Plus dan AH26 sealers mixed with amoxicillin, triple antibiotic paste dan nanosilver, *Journal of Dental Research, Dental Clinics, Dental Prospects*, 10(4):220-225
- Kesim, B. dan Delikan, E., 2018, Effect of kitosan on sealer penetration into the dentinal tubules, *Nigerian Journal of Clinical Practice*, 21(10).
- Kishen, Anil, 2013, Multi-functional micro dan nanoparticles for use in root canal therapy, *Canadian Intellectual Property Office*, 191 <http://opic.gc.ca>
- Lee, J. K. *et al.*, 2017, Physicochemical Properties of Epoxy Resin-Based dan Bioceramic-Based Root Canal Sealers, *Bioinorganic Chemistry dan Applications Tabel*, (1), pp. 1–9.
- Lopez-Leon, T., Carvalho, E.L.S., Seijo, B., Ortega-Vinuesa, J.L., Bastos-Gonzales, D., 2004, Physicochemical characterization of kitosan nanoparticles: electrokinetic dan stability behavior, *Journal of Colloid dan Interface Science*. 283 (2005) 344–351
- Loyola-Rodriguez, J.P., Torres-Mendez, F., Espinosa-Cristobal, L.F., Garcia-Cortes, J.O., Loyola-Levy, A., Gonzalez, F.J., Soto-Barreras, U., Nieto-Aguilar, R., Contreras-Palma, G., 2019, Antimicrobial activity of endodontic sealers dan medications containing kitosan dan silver nanoparticles against *Enterococcus faecalis*, *Journal of Applied Biomaterials & Functional Materials*, July-September: 1-9
- Marín-bauza, G. A. *et al.*, 2011, Physicochemical properties of endodontic sealers of different bases, *J Appl Oral Sci.*, pp. 455–461.
- Maxey, Jason, 2011, Viscosity dan Gel Structure: The Unseen Results of Their Manipulation, *American Association of Drilling Engineers*, April : 1-10
- Mendes, A. T., da Silva P. B., Barcelos-So, B., Hashizume, N., Vivan, R.R., da Rosa, R. A., Duarte, M.A.H., Reis-So, M.V., 2018, Evaluation of Phyicochemical Properties of New Calcium Silicate-Based Sealer, *Brazilian Dental Journal*, 29(6): 536-540
- Mulyawati, E. *et al.*, 2013, Sifat fisik hidroksiapatit sintesis kalsit sebagai bahan pengisi pada sealer saluran akar resin epoxy, *Dent. J. (Majalah Kedokteran Gigi)*, 46(4), pp. 207–212.
- Nair, N. *et al.*, 2020, Comparative Evaluation of Antibiofilm Efficacy of Kitosan Nanoparticle - dan Zinc Oxide Nanoparticle - Incorporated Calcium Hydroxide - Based Sealer : An In vitro Study, *Contemporary Clinical Dentistry*, 9(3), pp. 434–439.
- Ou, A., Bo, Isiuku, 2017, Chitosan Hydrogels and their Glutaraldehyde-Crosslinked Counterparts as Potential Drug Release and Tissue Engineering Systems - Synthesis, Characterization, Swelling Kinetics and Mechanism, *Journal of*

Physical Chemistry & Biophysics, Vol. 7: 3

- Ou, A. *et al.*, 2018, Biochemistry & Pharmacology : Open Access The Chemistry of Chitin dan Kitosan Justifying their Nanomedical Utilities, *Biochemistry & Pharmacology: Open Access*, 7(1), pp. 1–6.
- Poggio, C. *et al.*, 2010, Solubility of Root Canal Sealers : A Comparative Study Solubility of root canal sealers : A comparative study, *Int J Artif Organs* 2010; 33(9), pp. 676-681.
- Poggio, C. *et al.*, 2017, Solubility dan pH of bioceramic root canal sealers : A comparative study, *J Clin Exp Dent*, 9(10), pp. 1189–1194.
- Razmi, H., Yazdi, K. A., Jabalameli, F., Parvizi, S., 2008, Antimicrobial Effects of AH26 Sealer/Antibiotic Combinations Against *Enterococcus Faecalis*, *Iranian Endodontic Journal*, Vol. 3 (4): 103-108
- Satheesh, B., Tshai, K.Y., Warrior, N.A., 2014, Effect of Kitosan Loading in the Morphological, Thermal, dan Mechanical Properties of Diglycidyl Ether of Bisphenol A/ Hexamethylenediamine Epoxy Resin, *Journal of Composite*, Volume 14: 1-9
- Shakya, V. K. *et al.*, 2016, An Invitro Evaluation of Antimicrobial Efficacy dan Flow Characteristics for AH Plus , MTA Fillapex , CRCS dan Gutta Flow 2 Root Canal Sealer, *Journal of Clinical dan Diagnostic Research*, 10(8), pp. 104–108.
- Shourgashti, Z., Keshvari, H., Torabzadeh, H., Rostami, M., Bonakdar, S., Asgary S., 2018, Physical Properties, Cytocompatibility and Sealability of Healpex (a Novel Premixed Biosealer), *Iranian Endodontic Journal*, 13(3): 299-304
- Selvam, V., Vadivel, M., Kumar, M. Suresh Chdanra, 2013. Mechanical Properties of Epoxy/ Kitosan Biocomposites, *Int. J. Chem. Sci*, 11(2): 1103-1109
- Simsek, N. *et al.*, 2014, Comparison of different retreatment techniques dan root canal sealers : a scanning electron microscopic study, 28(1), pp. 1–7.
- Singh, H. *et al.*, 2015, “ Endodontic Sealers ”: Current Concepts dan Comparative Analysis, *Dentistry Open Journal*, 2(1), pp. 32–37.
- Siva sankari, S., Murugan, N., Sivaraj, S., 2014, Effect of Filler Materials in the Mechanical dan Thermal Properties of Epoxy Resin, *Applied Mechanics dan Materials*, Vols. 592-594, p. 206-210
- Sogias, I. A., Khutoryanskiy, V. V., & Williams, A. C. (2010). Exploring the Factors Affecting the Solubility of Chitosan in Water. *Macromolecular Chemistry and Physics*, 211(4), 426–433.
- Sum, C. P., Tree, S. dan Dental, I., 2004, Guidelines for root canal treatment, *Singapore Dental Journal*, 26(1), pp. 60–62.

- Tanomaru-filho, M. *et al.*, 2013, Radiopacity dan flow of different endodontic sealers, *Acta Odontol. Latinoam*, 26(2), pp. 121–125.
- Tian, N., Ning, R., Kong, J., 2016, Self-toughening of Epoxy Resin Through Controlling Topology cross-linked networks, *Polymer*, 99 (2016) 376-385
- Torabinejad, M. dan Walton, R. E., 2009, *Endodontics Principles dan Practice*. 4th edn. St. Louis Missouri: Saunders Elsevier.
- Tummala, M., Chdanrasekhar, V., Rashmi, A. Sashi., Kundabala, M., Ballal, Vasudev, 2012, Assesment of the wetting behaviour of three different root canal sealers on root canal dentin, *J Conserv Dent*, Apr-Jun, 15(2): 109-112
- Van Noort, Richard., 2013, *Introduction to Dental Material*, 4th edition, Mosby Elsevier ltd: Edinbrough
- Versiani, M. dan Guedes, D., 2011, Evaluation of physicochemical properties of four root canal sealers Evaluation of physicochemical properties of four root canal sealers, *International Endodontic Journal*, 10, pp. 1–10.
- Wang, Nan., Ji, Yanjing., Wu, Xinyi., Mei, Li., Zhang, H., Deng, Jing., Wang, S., 2020, Antibacterial effect of kitosan dan its derivat on *Enterococcus faecalis* associated with endodontic infection, *Experimental dan therapeutic medicine*, 19: 3805-3813
- Xi Lu, Jue., Tupper, Connor., Murray, John., 2020. Biochemistry, Dissolution and Solubility, *StatPearls Publishing*, Jan-2020
- Yigit, D.H., Gencoglu, N., 2012, EVALUATION OF RESIN/ SILICON BASED ROOT CANAL SEALERS, PART I: PHYSICAL PROPERTIES, *Digest Journal of Nanomaterials and Biostructures*, Vol.7, No. 1(107-115)
- Zengeni, B. T., 2016, *BINGHAM YIELD STRESS AND BINGHAM PLASTIC VISCOSITY OF HOMOGENOUS NON-NEWTONIAN SLURRIES (a Dissertation)*, Master of Technology Mechanical Engineering, Cape Peninsula University of Technology.
- Zhou, H. *et al.*, 2013, Physical Properties of 5 Root Canal Sealers, *Journal of Endodontics*. Elsevier Ltd, 39(10), pp. 1281–1286.