

DAFTAR PUSTAKA

1. Qualtrough AJE, Satterthwaite JD, Morrow LA, Brunton PA. *Principle of operative dentistry*. Munksgaard: Blackwell; 2005.
2. Roberson TM, Heymann HO, Swift EJ. *Sturdevant's art & science of operative dentistry*. 4th ed. USA: Mosby; 2002.
3. Sakaguchi RL, Powers JM. *Craig's restorative dental materials*. 13th ed. Philadelphia: Elsevier Mosby; 2012.
4. ADA Council on Scientific Affairs. Direct and indirect restorative materials. *JADA*; 2003; 134: 463-472.
5. J.F. McCabe, A.W.G. Walls. *Applied dental materials*. 9th ed. Oxford: Blackwell Publishing Ltd; 2008.
6. Leinfelder KF. Porcelain esthetics for the 21st century. *JADA*; 2000.
7. Powers JM, Wataha JC. *Dental Materials: Foundations and Applications*. 11th ed. St. Missouri: Elsevier; 2017.
8. Anusavice, KJ. *Phillip's science of dental materials*. 11th ed. St. Louis: Elsevier Science; 2003.
9. Manapallil J. *Basic dental material*. 2nd ed. New Delhi: Jaypee Brothers Medical Publishers (P) LTD; 2003.
10. J. Peter. *Restorative dental materials: an integrated approach*. 2nd ed. Oxford: Blackwell Publishing Ltd; 2008.
11. Özkurt Z, Iseri U, Kazazoglu E. Zirconia ceramic post system: a literature review and a case report. *Dental Materials Journal*; 2010; 29(3): 233-245.
12. Permatasari T, W Haris B, Zaini AR, Aufan MR, Purwasasmita BS. Synthesis of metakaolin-zirconiaapatite nanocomposite for the application of direct teeth restoration. *Solids and Structures (SAS)*; Volume 1 Issue; 2012.
13. Morsy F, El-Sheikh SM, Barhoum A. nano-silica and SiO₂/CaCO₃ nanocomposite prepared from semi-burned rice straw ash as modified papermaking fillers. *Arabian Journal of Chemistry*; 2014.

14. Sharma RK, Sharma S, Dutta S, Zbroril R, Gawande MB. Silica-nanosphere-based organic-inorganic hybrid nanomaterials: synthesis, functionalization and application in catalysis. *The Royal Society of Chemistry*; 2015.
15. Conradi M. Nanosilica-reinforced polymer composite. *Material and technology*; 2013; 47 (3): 285-293.
16. Rahim TNAT, Mohamad D, Ismail AR, Akil HM. Synthesis of nanosilica fillers for experimental dental nanocomposites and their characterisations. *Penerbit Universiti Sains Malaysia*; 2011; 22(1): 93-105.
17. Živica V, Palou MT, Križma M. Geopolymer cements and their properties: a review. *Building Research Journal*; 2014; 61(2): 85-100.
18. Hamidi RM, Man Z, Azizli KA. Concentration of NaOH and the effect on the properties of fly ash based geopolymer. *Procedia Engineering*; 2016; 148: 189-193.
19. Ferone C, Colangelo F, Roviello G, Asprone D, Menna C, Balsamo A, et al. Application-oriented chemical optimization for a metakaolin based geopolymer. *Materials*; 2013; 6: 1920-39.
20. Huang X, Yu L, Li DW, Shiau YC, Li S, Liu KX. Preparation and properties of geopolymer from blast furnace slag. *Materials Research Innovations*; 2015; 19(10): 413-419.
21. Lee JH, Kim HW, Seo SJ. Polymer-ceramic bionanocomposites for dental application. *Journal of Nanomaterials*; 2016.
22. Asri L, Septawendar R, Sunendar B. Zirkonia untuk aplikasi material restorasi gigi. *Jurnal Keramik dan Gelas Indonesia*; 2016; Volume 25 no. 2: 79-88.
23. Sasaki K, Hayashi T, Asakura M, Ando M, Kawai T, Ban S. Improving biocompatibility of zirconia surface by incorporating Ca ions. *Dental Materials Journal*; 2015; 34(3): 336-344.
24. Nuruddin MF, Khan SU, Shafiq N, Ayub T. Strength development of high-strength ductile concrete incorporating metakaolin and pva fibers. *The Scientific World Journal*; 2014; Volume 2014: 1-11.
25. Srivastava V, Kumar R, Agarwal VC. Metakaolin inclusion: effect on mechanical properties of concrete. *Journal of Academia and Industrial Research*; 2012; Vol 1(5):251-253.

26. Wiryadi VC. Sintesis dan karakterisasi nanokomposit dengan variasi perbandingan *filler* Ca-PSZ, silika nanorod, dan metakaolin untuk aplikasi gigi artifisial pembelajaran. Skripsi. Fakultas Kedokteran Gigi Universitas Kristen Maranatha Bandung; 2015.
27. Matinlinna JP. *Handbook of oral biomaterials*. Pan Stanford; 2015: 164,165.
28. Ekaputri JJ, Junaedi S, Wijaya. Effect of curing temperature and fiber on metakaolin-based geopolymers. *Porcedia Engineering*; 2017; 171: 572-83.
29. Khaled AN. Physical Properties of Dental Resin Nanocomposites. Introduction. Thesis, Faculty of Medical and Human Sciences, University of Manchester School of Dentistry; 2011: 4-22, 26-28.
30. Khurshid Z, Zafar M, Qasim S, Shahab S, Naseem M, AbuReqaiba A. Advances in nanotechnology for restorative dentistry. *Materials*; 2015: 8: 717-731.
31. Rahman IA, Padavettan V. Synthesis of silica nanoparticles by sol-gel: size-dependent properties, surface modification, and application in silica-polymer nanocomposites-a review. *Journal of Nanomaterials*; 2012.
32. Kazazoglu E, Özkurt Z. Zirconia dental implants: a literature review. *Journal of Oral Implantology*; Volume 37 no.3; 2011: 367-376.
33. Helvey GA. Zirconia and computer-aided design/computer-aided manufracturing (CAD/CAM) dentistry. *DentalAEGIS* [serial online] 2008 April [cited 2018 Januari 24]; 4(4). Available from URL : <https://www.aegisdentalnetwork.com/id/2008/04/clinical-treatment-options-zirconia-and-computer-aided-design-computer-aided-manufacturing-cad-cam-dentistry>.
34. Monaco C. *Zirconia in Dentistry*. Properties of the zirconia. Thesis, Faculty of engineering. Alma Mater Studiorum Universita' Di Bologna: 10-15, 17.
35. Madfa AA, Al-Sanabani FA, Al-Qudami NH, Al-Sanabani JS, Amran AG. Use of zirconia in dentistry: an overview. *The Open Biomaterials Journal*; 2014; (5): 1-9.
36. Selmani S, Sdiri A, Bouaziz S, Joussein E, Rossignol S. Effects of metakaolin addition on geopolymers prepared from natural kaolinitic clay. *Applied Clay Science*; 2017; 146: 457-67.

37. Siddique R, Khan MI. *Supplementary cementing materials*. Berlin: Springer; 2011: 175,176.
38. Dimitriev Y, Ivanova Y, Iordanova R. History of sol-gel science and technology (review). *Journal of the University of Chemical Technology and Metallurgy*; 2008: 181-192.
39. Luther W. 2004. Bottom-up methods for making nanotechnology products. *Future Technologies Division of VDI*. [serial online] 2013 [cited 2018 Februari 12] Available from URL : <https://www.azonano.com/article.aspx?ArticleID=1079>.
40. Permatasari D, Munawarti ND, Wulandari R, Wari WS, Aini Z, Wardhani S. Sintesis Alumina dari limbah anodisasi dengan metode sol-gel. Prosiding Seminar Nasional Kimia; 2015.
41. Stadtlander CTKH. Scanning electron microscopy and transmission electron microscopy of mollicutes: challenges and opportunities. *Modern Research and Educational Topics in Microscopy*; 2007: 122-131.
42. Zhou W, Apkarian RP, Wang ZL, Joy D. Fundametals of scanning electron microscopy.
43. Astuti. Karakterisasi zat padat organik. Universitas Diponegoro Semarang; 2016. [serial online] 2016 [cited 2017 November 28] Available from URL: <http://www.researchgate.net/publication/305703542>.
44. Gasga JR, Koudriavseva O, Becerra RH, Escobosa A. XRD characterization of crystallinity of human tooth enamel under influence of mechanical grinding. *Materials Sciences and Applications*; 2015; (6): 464-472.
45. Bona AD, Benetti P, Borba M, Cecchetti D. Flexural and diametral tensile strength of composite resins. *Restorative Dentistry*; 2008; 22(1): 84-9.
46. Ruth I. Pengaruh selulosa nanokristalin dan silika *nanosphere* hasil swasintesa sebagai bahan pengisi nanokomposit *polymethylmethacrylate* terhadap sifat mekaniknya untuk material restorasi gigi. Skripsi. Fakultas Kedokteran Gigi Universitas Kristen Maranatha Bandung; 2017.
47. Hamonangan Y. Aplikasi *white carbon black* sebagai *filler* nanokomposit untuk pasak gigi. Skripsi. Department of Engineering Physics, Institut Teknologi Bandung; 2013.
48. Swab JJ. Role of oxide additives in stabilizing zirconia for coating applications. *Army Research Laboratory*; 2001.