

DAFTAR PUSTAKA

- Adiana, I.D., Syafiar, L., 2014, Penggunaan Kitosan sebagai Biomaterial di Kedokteran Gigi, *Dent. J.*, 18(2): 190–193.
- Aiedeh, K., Taha, M.O., 2001, Synthesis of iron-crosslinked chitosan succinate and iron- crosslinked hydroxamated chitosan succinate and their in vitro evaluation as potential matrix materials for oral theophylline sustained-release beads, *European Journal of Pharmaceutical Sciences*, 13, 159–168
- Alam, M.K., 2012, *A to Z F Orthodontics*, vol. 13, PPSP Publication, Kelatan.
- Aliasghari, A., Khorasgani, M. R., Vaezifar, S., Rahimi, F., Younesi, H., dan Khoroushi, M., 2016, Evaluation of antibacterial efficiency of chitosan and chitosan nanoparticles on cariogenic streptococci: An in vitro study, *Iranian Journal of Microbiology*, 8(2): 93–100.
- Arancibia, R., Maturana, C., Silva, D., Tobar, N., Tapia, C., Salazar, J.C., Martinez, J., dan Smith, P.C., 2013, Effects of chitosan particles in periodontal pathogens and gingival fibroblasts, *J. Dent. Res.*, 92(8): 740-745.
- Bagga S.K., 2010, Adult orthodontics versus adolescent orthodontic: an overview, *Journal of Oral Health and Community Dentistry*, 4(2): 42-47.
- Batista, C.A.S., Larson, R.G., Kotov, N.A., 2015, Nonadditivity of nanoparticle interactions, *Science*, 8(6257): 176.
- Brooks, G., Carroll, K. C., Butel, J., Morse, S., Mietzner, T., 2010, *Jawetz, Melnick, & Adelberg's Medical Microbiology*, 25th ed., Mc-Graw Hill Companies, USA, h. 163-165.
- Carranza, F.A., Newman, M.G., Takel, H.H., Klokkevold, P.R., 2015, Carranza's Clinical Periodontology, 12th ed., Elsevier, Canada, h. 126.
- Chung, Y.C., Su, Y.P., Chen, C.C., Jia, G., Wang, H.L., Wu, J.C.G., Lin, J.G., 2004, Relationship between antibacterial activity of chitosans and surface characteristics of cell wall, *Acta Pharmacologica Sinica*, 25, 932–936
- Cobourne, M.T., DiBiase, A.T., 2016, *Handbook of Orthodontics*, 2nd ed., Elsevier Ltd., Philadelphia, h. 299.
- Coma, V., Martial-Gros, A., Garreau, S., Copinet, A., Salin, F. & Deschamps, A., 2002, - *J. Food Sci.*, 67, 1162-1169.
- Costa, E.M., Silva, S., Vicente, S., Neto, C., Castro, P.M., Veiga, M., Madureira, R., Tavarina, F., Pintado, M.M., 2017, Chitosan nanoparticles as alternative anti-staphylococci agents: Bactericidal, antibiofilm and antiadhesive effects, *Mater. Sci. Eng.C.*, 79, 221–226.
- Dilistiani, M., 2016, Hubungan Tingkat Perawatan Ortodonti dan Persepsi Kebutuhan Perawatan Ortodonti Siswa SMP N 1 Yogyakarta, *Skripsi*, Fakultas Kedokteran Gigi Universitas Gadjah Mada, Yogyakarta.

- Dutta, J., 2013, *Multifaceted Development and Application of Biopolymers for Biology, Biomedicine, and Nanotechnology*, Springer, Berlin, h. 100-102.
- Dzung, N.A., dkk., 2011, Chitosan Nanoparticle as a Novel Delivery System for A/H1N1 Influenza Vaccine: Safe Property and Immunogenicity in Mice, *World Academy of Science, Engineering, and Technology*, 60: 1839-1846.
- Goy, R.C., Britto, D. de, Assis, O.B.G., 2009. A review of the antimicrobial activity of chitosan. *Polímeros* 19(3): 241–247
- Graber, L.W., Vanarsdall, R.L., Vig, K.W.L., 2012. *Orthodontics: Current Principles and Techniques, Fifth Edition, 5th ed.*, Elsevier Mosby, Philadelphia.
- Guo, Y., He, S., Gu, T., Liu, Y., dan Chen, S., 2016, Genetic and clinical risk factors of root resorption associated with orthodontic treatment, *American Journal of Orthodontics and Dentofacial Orthopedics*. American Association of Orthodontists, 150(2): 283–289
- Handajani, J., 2012, Efek Antimikroba Pasta Gigi Kandungan Ekstrak Daun Teh 2% (*Camellia sinensis*) terhadap *A. actinomycetemcomitans*, *Maj. Ked. Gi.*, 19(1): 9-12.
- Helander I.M., Nurmiaho-Lassila E.-L., Ahvenainen R., Rhoades J., Roller S., 2001, Chitosan disrupts the barrier properties of the outer membrane of Gram-negative bacteria, *Int J Food Microbiol.*, 71:235–244.
- Jawetz, E., Melnick, J. L., dan Adelburg, E. A., 2001, *Mikrobiologi Kedokteran* (terj.), Penerbit Salemba Medika, Jakarta, h. 209.
- Jeon, Y.J., Park P. J., Kim, S. K., 2001, Antimicrobial effect of chitooligosaccharides produced by bioreactor, *Carbohydr Polym*, 44:71–76.
- Kesic, L., Petrovic, M., Obradovic, R., dan Pejeic, A., 2009 The Importance of *Aggregatibacter actinomycetemcomitans* Etiology of Periodontal Disease, *Acta Medica Medianae*, 48(3): 35-37.
- Kong, M., Chen, X.G., Liu, C.S., Liu, C.G., Meng, X.H., Yu, L.J., 2008, Antibacterial mechanism of chitosan microspheres in a solid dispersing system against *E. coli*. *Colloids and Surfaces, B, Biointerfaces*, 65, 197–202.
- Kong, M., Chen, X.G., Xing, K., Park, H.J., 2010, Antimicrobial properties of chitosan and mode of action: A state of the art review, *Int. J. Food Microbiol.*, 144(1): 51–63.
- Kusmayanti, dan Agustini, N. W. R., 2007, Uji Aktivitas Senyawa Antibakteri dari Mikroalga (*Porphyridium cumentum*), *Biodiversitas*, 8(1): 48-53.
- Lee S.M., Yoo S.Y., Kim H.S., dkk, 2005, Prevalence of putative periodontopathogens in subgingival dental plaques from gingivitis lesions in Korean orthodontics patients, *J. Microbiol*, 43: 260-265.
- Levin L., Einy S., Zigdon H., Aizenbud D., dan Machtei E.E., 2012, Guidelines

- for Periodontal care and follow up during orthodontic treatment in adolescents and young adults, *Journal of Applied Oral Science*, 20(4): 399-403.
- Mahon, C.R., Lehman, D.C., dan Manuselis, G., 2015, *Textbook of Diagnostic Microbiology*, 5th ed., Elsevier Saunders, Missouri, h. 400.
- Mohadi, R., Kurniawan, C., Yuliasari, N., Hidayati, N., 2014, Karakterisasi Kitosan dari Cangkang Rajungan dan Tulang Cumi dengan Spektrofotometer FT-IR Serta Penentuan Derajat Deasetilasi Dengan Metode Baseline, in: *Seminar Nasional FMIPA UNSRI 2014*.
- Mohammed, M.A., Syeda, J.T.M., Wasan, K.M., dan Wasan, E.K., 2017, An Overview of Chitosan Nanoparticles and Its Application in Non-Parenteral Drug Delivery, *Pharmaceutic*, 9(4).
- Mythireyi, D. dan Krishnababa, M. G., 2012, *Aggregatibacter actinomycetemcomitans* an Aggressive Oral Bacteria - A Review, *Int. J. health Sci. Res.*, 2(5): 105-117.
- Najafi, M. H., Taheri, M., Mokhtari, M. R., Forouzanfar, A., Farazi, F., Mirzaee, M., Ebrahiminik, Z., dan Mehrara, R., 2012, Comparative study of 0,2% and 0,12% digluconate chlorhexidine mouth rinses on the level of dental staining and gingival indices, *Dent Res J(Isfahan)*, 9(3):305-308.
- Nanda, R., 2005, *Biomechanics and Esthetic Strategies in Clinical Orthodontics*, Elsevier Saunders, Missouri.
- Newman, M. G., Takei, H. H., Klokkevold, P. R., dan Carranza, F. A., 2012, *Carranza's Clinical Periodontology*, 11th ed., Elsevier Saunders, Missouri, hal 154.
- Nissen, L., Sgorbati, B., Biavati, B., dan Belibasakis, G. N., 2014, *Lactobacillus salivarius* and *L. Gasseri* Down regulate *Aggregatibacter actinomycetemcomitans* Exotoxins Expression, *Ann Microbol*, 64: 611-617.
- Oktaviani, V., 2015, Perbedaan Indeks Higiene Oral dan pH Plak Kelompok Pemakai dan Bukan Pemakai Pesawat Ortodonti Cekat, *J. Kedokt. Diponegoro*, 5, 9–25.
- Paz, L.E.C. de, Resin, A., Howard, K.A., Sutherland, D.S., Wejse, P.L., 2011, Antimicrobial Effect of Chitosan Nanoparticles on *Streptococcus mutans* Biofilms, *Applied and Environmental Microbiology*, 77(11): 3892–3895.
- Pelczar, M. J., dan Chan, E. C. S., 2010, *Dasar-Dasar Mikrobiologi 1*, (terj.), UI Press, Jakarta.
- Prescott, L. M.; Harley, J. P. & Klein, D. A., 2002, *Microbiology*, McGraw-Hill Co., New York.
- Qi, Lifeng., Xu, Zirong., Jiang, Xia., Hu, Caihong., Zou, Xiangfei., 2004, Preparation and antibacterial activity of chitosan nanoparticles, *Carbohydrate Research*, 339, 2693-2700.

- Rahmah, R. Y., Rachmadi, P., dan Widodo, 2014, Perbandingan Efektivitas Pasta Gigi Herbal dengan Pasta Gigi Non Herbal terhadap Penurunan Indeks Plak pada Siswa SDN Angsau 4 Pelaihari, *Jur. Ked. Gigi*, 2(2): 120-124.
- Raja, M., Ummer, F. and Dhivakar, C. P., 2014, Actinomycetemcomitans – A Tooth Killer ?, *Journal of Clinical and Diagnostic Research*, 8(8): 13–17.
- Rakhshan, H., Rakhshan, V., 2015, Effects of the initial stage of active fixed orthodontic treatment and sex on dental plaque accumulation: A preliminary prospective cohort study, *Saudi J. Dent. Res.*, 6(2): 86–90.
- Rismana, E., Kusumaningrum, S., Bunga, O., Nizar., dan Marhamah., 2014, Pengujian aktivitas antiacne nanopartikel kitosan-ekstrak kulit buah manggis (*Garcinia mangostana*), *Media Litbangkes*, 24(1): 19-27.
- Riwayati, I., 2007, Analisa Resiko Pengaruh Partikel Nano terhadap Kesehatan Manusia, *Momentum*, 3(2): 17–20.
- Rose, L. F., Mealey, B. I., Genco, R. J., dan Cohen, D. W., 2004, *Periodontics Medicine, Surgery, and Implants*, Elsevier Mosby, Missouri, h. 108-110.
- Sallum, E. J., Nouer, D.F., Klein, M.I., Goncalves, R.B., Machion, L., Wilson., Sallum, A., 2004, Clinical and microbiologic changes after removal of orthodontic appliances, *American journal of orthodontics and dentofacial orthopedic*, 126(3):363–6.
- Samaranayake, L., 2012, *Essential Microbiology for Dentistry*, 4th ed., Churchill Livingstone Elsevier, London, h. 274-274.
- Shet, U. K., Oh, Hk., Kim, H. J., dkk., 2013, Quantitative analysis of periodontal pathogens present in the saliva of geriatric subjects, *J. Periodontal Implant Sci.*, 43; 183-190.
- Singh, G., 2015, *Textbook of Orthodontics*, 3rd ed., Jaypee Brothers Medical Publishers Ltd., New Delhi, h.423, 454.
- Sriraman P, dkk., 2014, *Aggregatibacter Actinomycetemcomitans* In periodontal disease, *Research Journal of Pharmaceutical, Biological and Chemical Sciences*, 5 (2): 406-419.
- Stranda, S.P., Nordengenb, T., Otgaard, K., 2002, Efficiency of chitosans applied for flocculation of different bacteria, *Water Research*, 36, 4745–4752.
- Sudarshan, N. R.; Hoover, D. G. & Knorr, D, 1992 - *Food Biotechnol.*, 6, p.257-272.
- Sukontapatipark, W., el-Agroudi, M.A., Selliseth, N.J., Thunold, K., Selvig, K.A., 2001, Bacterial colonization associated with fixed orthodontic appliances: A scanning electron microscopy study, *Eur. J. Orthod.*, 23(5): 475–84.
- Suwandi T., 2010, Perawatan awal penutupan diastema gigi goyang pada penderita periodontitis kronis dewasa, *Jurnal PDGI*, 59 (3): 105–9.
- Triawan, A., Pudyani, P.S., Marsetyawan, S., Sismindari, 2015, The effect of nanochitosan hydrogel membrane on absorbtion of nickel, inhibition of

Streptococcus mutans and *Candida albicans*, *Dent. J. (Majalah Kedokt. Gigi)*, 48(6): 26-30.

Tyagi, A., Agarwal, S., Leekha, A., dan Verma, A. K., 2014, Effect of Mass and Aspect Heterogeneity of Chitosan Nanoparticles on Bactericidal Activity, *International Journal of Advanced Research*, 2(8): 357–367.

Vandepitte, J., K. Engbaek, P. Rohner, P. Piot., C.C. Heuck, 2010, *Prosedur Laboratorium Dasar Untuk Bakteriologi Klinis*, Edisi 2, Terjemahan L. Setiawan, *Buku Kedokteran EGC*, Jakarta.

Yanez, V., Iglesias, L. A., Ballesta, M. S., dan Ortiz, A. E., 2015, Short-term effect of removal of fixed orthodontic appliances on gingival health and subgingival microbiota: A prospective cohort study, *Acta Odontologica Scandinavica*, h. 1–7

Yokoyama, T., 2012, *Nanoparticle Technology Handbook*, 2nd ed., Elsevier, Amsterdam, h. 5.

Yudhasmita, S. dan Nugroho, A. P., 2017, Sintesis dan Aplikasi Nanopartikel Kitosan sebagai adsorben Cd dan Antibakteri Koliform, *Biogenesis*, 5(1): 42-48.

Yusman, D.A., 2006, Hubungan Antara Aktivitas Antibakteri Kitosan dan Ciri Permukaan Dinding Sel Bakteri, *Jurnal Penelitian IPB*, Departemen Kimia Fakultas Matematika dan Ilmu Pengetahuan Alam IPB.