

DAFTAR PUSTAKA

- Alanagreh, L., Alzoughool, F., & Atoum, M. (2020) The Human Coronavirus Disease COVID-19 : Its Origin , Characteristics , and Insights into Potential Drugs and Its Mechanisms. *Pathogens*. **9**, 331.
- Azzi, L., Carcano, G., Gianfagna, F., Grossi, P., Dalla, D., Genoni, A., Fasano, M., Sessa, F., Tagliabue, A., & Baj, A. (2020) Saliva is a reliable tool to detect SARS-CoV-2. *Journal of Infection*. **81**(1), e45–e50.
- Azzi, L., Maurino, V., Baj, A., Dani, M., d' Aiuto, A., Fasano, M., Lualdi, M., Sessa, F., & Alberio, T. (2021) Diagnostic Salivary Tests for SARS-CoV-2. *Journal of Dental Research*. **100**(2), 115–123.
- Bahadır, E.B. & Sezgentürk, M.K. (2016) Lateral flow assays: Principles, designs and labels. *TrAC - Trends in Analytical Chemistry*. **82**, 286–306.
- Banerjee, R. & Jaiswal, A. (2018) Recent advances in nanoparticle-based lateral flow immunoassay as a point-of-care diagnostic tool for infectious agents and diseases. *Analyst*. **143**(9), 1970–1996.
- Biosciences, I. (2017) Guide to Lateral Flow Immunoassays. , 1–15. [online]. Available from: <https://fnkprddata.blob.core.windows.net/domestic/> [Accessed September 7, 2021].
- Burbelo, P.D., Riedo, F.X., Morishima, C., Rawlings, S., Smith, D., Das, S., Strich, J.R., Chertow, D.S., Davey, R.T., & Cohen, J.I. (2020) Sensitivity in detection of antibodies to nucleocapsid and spike proteins of severe acute respiratory syndrome coronavirus 2 in patients with coronavirus disease 2019. *Journal of Infectious Diseases*. **222**(Xx Xxxx), 206–213.
- Byzova, N.A., Safenkova, I. V., Slutskaya, E.S., Zherdev, A. V., & Dzantiev, B.B. (2017) Less is More: A Comparison of Antibody-Gold Nanoparticle Conjugates of Different Ratios. *Bioconjugate Chemistry*. **28**(11), 2737–2746.
- Byzova, N.A., Zherdev, A. V., Khlebtsov, B.N., Burov, A.M., Khlebtsov, N.G., & Dzantiev, B.B. (2020) Advantages of highly spherical gold nanoparticles as labels for lateral flow immunoassay. *Sensors (Switzerland)*. **20**(12), 1–15.
- Carlson, T.L., Lock, J.Y., & Carrier, R.L. (2018) Engineering the Mucus Barrier. *Annual Review of Biomedical Engineering*. **20**, 197–220.
- CDC (2021) Interim Guidelines for Collecting and Handling of Clinical Specimens for COVID-19 Testing: Updated Feb. 26, 2021. *Centers for Disease Control and Prevention*, 1–6. [online]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/lab/guidelines-clinical-specimens.html> [Accessed October 9, 2021].
- Chiappin, S., Antonelli, G., Gatti, R., & De Palo, E.F. (2007) Saliva specimen: A new laboratory tool for diagnostic and basic investigation. *Clinica Chimica Acta*. **383**(1–2), 30–40.
- Crozier, A., Rajan, S., Buchan, I., & McKee, M. (2021) Put to the test: Use of rapid testing technologies for Covid-19. *The BMJ*. **372**, 1–7.
- Daruich De Souza, C., Ribeiro Nogueira, B., & Rostelato, M.E.C.M. (2019) Review of the methodologies used in the synthesis gold nanoparticles by chemical

- reduction. *Journal of Alloys and Compounds*. **798**, 714–740.
- DCN & Ahlstrom Munksjo (2021) Factors to Consider When Lateral Flow Device Science, Materials, and Expertise.
- Diao, B., Wen, K., Zhang, J., Chen, J., Han, C., Chen, Y., Wang, S., Deng, G., Zhou, H., & Wu, Y. (2020) Accuracy of a nucleocapsid protein antigen rapid test in the diagnosis of SARS-CoV-2 infection. *Clinical Microbiology and Infection*. **27**(January), 289.e1-289.e4.
- Dong, J., Carpinone, P.L., Pyrgiotakis, G., Demokritou, P., & Moudgil, B.M. (2020) Synthesis of precision gold nanoparticles using Turkevich method. *KONA Powder and Particle Journal*. **37**(August), 224–232.
- Dutta, N.K., Mazumdar, K., & Gordy, J.T. (2020) The Nucleocapsid Protein of SARS-CoV-2: a Target for Vaccine Development. *Journal of Virology*. **94**(13), 1–2.
- Englebienne, P., Van Hoonacker, A., & Verhas, M. (2003) Surface plasmon resonance: Principles, methods and applications in biomedical sciences. *Spectroscopy*. **17**(2–3), 255–273.
- Farrell, B.O. (2009) Evolution in Lateral Flow-Based Immunoassay Systems. In R. Wong & H. Tse, eds. *Lateral Flow Immunoassay*. New York: Humana Press, pp. 1–33.
- Frenkel, E.S. & Ribbeck, K. (2015) Salivary mucins in host defense and disease prevention. *Journal of Oral Microbiology*. **7**(1), 29759.
- Grant, B.D., Anderson, C.E., Alonzo, L.F., Garing, S.H., Williford, J.R., Baughman, T.A., Rivera, R., Glukhova, V.A., Boyle, D.S., Dewan, P.K., Weigl, B.H., & Nichols, K.P. (2021) A SARS-CoV-2 coronavirus nucleocapsid protein antigen-detecting lateral flow assay. *Plos One*. **16**(11), e0258819.
- Hearty, S., Leonard, P., Ma, H., & O’Kennedy, R. (2018) Measuring Antibody-Antigen Binding Kinetics Using Surface Plasmon Resonance. *Methods and Protocols, Methods in Molecular Biology*. **1827**, 421–455.
- Hermanson, G.T. (2008) *Bioconjugate Techniques*. 2nd ed. London: Academic Press is an imprint of Elsevier.
- Humphrey, S.P. & Williamson, R.T. (2001) A review of saliva Normal composition, flow, and function. Humphrey, Williamson. 2001. Journal of Prosthetic Dentistry.pdf. *The Journal of Prosthetic Dentistry*. **85**(2), 162–169.
- Jarvis, M.C. (2020) Aerosol Transmission of SARS-CoV-2: Physical Principles and Implications. *Frontiers in Public Health*. **8**(November), 1–8.
- Jazayeri, M.H., Amani, H., Pourfatollah, A.A., Pazoki-Toroudi, H., & Sedighimoghaddam, B. (2016) Various methods of gold nanoparticles (GNPs) conjugation to antibodies. *Sensing and Bio-Sensing Research*. **9**, 17–22.
- Kaul, D. (2020) Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company’s public news and information. **10**(January), 54–64.
- Keputusan Menteri Kesehatan Republik Indonesia (2021) Keputusan menteri kesehatan republik indonesia nomor hk.01.07/menkes/446/2021 tentang penggunaan. *Journal of Chemical Information and Modeling*. **2019**(9), 1689–

1699.

- Khlebtsov, B.N., Tumskiy, R.S., Burov, A.M., Pylaev, T.E., & Khlebtsov, N.G. (2019) Quantifying the Numbers of Gold Nanoparticles in the Test Zone of Lateral Flow Immunoassay Strips. *ACS Applied Nano Materials*. **2**(8), 5020–5028.
- Khurshid, Z., Asiri, F.Y.I., & Al Wadaani, H. (2020) Human saliva: Non-invasive fluid for detecting novel coronavirus (2019-nCoV). *International Journal of Environmental Research and Public Health*. **17**(7), 17–20.
- Khurshid, Z., Zohaib, S., Najeeb, S., Zafar, M.S., Slowey, P.D., & Almas, K. (2016) Human saliva collection devices for proteomics: An update. *International Journal of Molecular Sciences*. **17**(6).
- Koczula, K.M. & Gallotta, A. (2016) Lateral flow assays. *Essays in Biochemistry*. **60**(1), 111–120.
- Kosack, C.S., Page, A.L., & Klatser, P.R. (2017) A guide to aid the selection of diagnostic tests. *Bulletin of the World Health Organization*. **95**(9), 639–645.
- Lu, H., Stratton, C.W., & Tang, Y.W. (2020) Outbreak of pneumonia of unknown etiology in Wuhan, China: The mystery and the miracle. *Journal of Medical Virology*. **92**(4), 401–402.
- Majorek, K.A., Porebski, P.J., Chruszcz, M., Almo, S.C., & Minor, W. (2012) Crystal structure of Bovine Serum Albumin. *Crystal structure of Bovine Serum Albumin 3VO3*. (January). [online]. Available from: <https://www.rcsb.org/structure/3VO3> [Accessed December 19, 2021].
- Masters, P.S. (2006) The Molecular Biology of Coronaviruses. *Advances in Virus Research*. **65**(06), 193–292.
- Merck (2021) IVD Lateral Flow – Sample , Conjugate and Absorbent Pad Basics. [online]. Available from: <https://www.sigmaaldrich.com/ID/en/technical-documents/technical-article/clinical-testing-and-diagnostics-manufacturing/ivd-manufacturing/pads-chemistries-selections-specifications-and-conjugates> [Accessed October 10, 2021].
- Millipore, M. (2013) Rapid Lateral Flow Test Strips - Considerations for Product Development Table of Contents. , 1–31. [online]. Available from: https://www.merckmillipore.com/INTERSHOP/web/WFS/Merck-RU-Site/ru_RU/-/USD/ShowDocument-Pronet?id=201306.15671 [Accessed June 8, 2021].
- Mina, M.J. & Andersen, K.G. (2021) COVID-19 testing: One size does not fit all. *Science*. **371**(6525), 126–128.
- Mina, M.J., Peto, T.E., García-Fiñana, M., Semple, M.G., & Buchan, I.E. (2021) Clarifying the evidence on SARS-CoV-2 antigen rapid tests in public health responses to COVID-19. *The Lancet*. **397**(10283), 1425–1427.
- Miyazaki, C.M., Shimizu, F.M., & Ferreira, M. (2017) *Surface Plasmon Resonance (SPR) for Sensors and Biosensors*. Elsevier Inc.
- Nanocomposix (2021) Sample and Absorbent Pad Selection for Lateral Flow Assays. [online]. Available from: <https://nanocomposix.eu/pages/sample-and-absorbent-pad-selection-for-lateral-flow-assays#target> [Accessed October 10, 2021].
- Naqvi, A.A.T., Fatima, K., Mohammad, T., Fatima, U., Singh, I.K., Singh, A., Atif,

- S.M., Hariprasad, G., Hasan, G.M., & Hassan, M.I. (2020) Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID- 19 . The COVID-19 resource centre is hosted on Elsevier Connect , the company ' s public news and information. *BBA - Molecular Basis of Disease*. (January), 1–17.
- National Center for Biotechnology Information (2021) PubChem CID 73995022 Structure. *PubChem Compound Summary for CID 73995022, Casein*. [online]. Available from: <https://pubchem.ncbi.nlm.nih.gov/compound/Casein>. [Accessed December 19, 2021].
- Oliver, C. (2010) Conjugation of Colloidal Gold to Proteins. In C. Olive & M. C. Jamur, eds. *Immunocytochemical Methods and Protocols*. Brazil: Humana Press, pp. 369–373.
- Panfilova, E. (2021) Development of a prototype lateral flow immunoassay of cortisol in saliva for daily monitoring of stress. *Biosensors*. **11**(5).
- Parolo, C., Sena-Torralba, A., Bergua, J.F., Calucho, E., Fuentes-Chust, C., Hu, L., Rivas, L., Álvarez-Diduk, R., Nguyen, E.P., Cinti, S., Quesada-González, D., & Merkoçi, A. (2020) Tutorial: design and fabrication of nanoparticle-based lateral-flow immunoassays. *Nature Protocols*. **15**(12), 3788–3816.
- Pfaffe, T., Cooper-White, J., Beyerlein, P., Kostner, K., & Punyadeera, C. (2011) Diagnostic potential of saliva: Current state and future applications. *Clinical Chemistry*. **57**(5), 675–687.
- de Puig, H., Bosch, I., Gehrke, L., & Hamad-Schifferli, K. (2017) Challenges of the Nano–Bio Interface in Lateral Flow and Dipstick Immunoassays. *Trends in Biotechnology*. **35**(12), 1169–1180.
- Oriouet, Z., Cherrah, Y., Sefrioui, H., & Qmichou, Z. (2021) Monoclonal antibodies application in lateral flow immunochromatographic assays for drugs of abuse detection. *Molecules*. **26**(4).
- Ruiz, G., Tripathi, K., Okyem, S., & Driskell, J.D. (2019) PH Impacts the Orientation of Antibody Adsorbed onto Gold Nanoparticles. *Bioconjugate Chemistry*. **30**(4), 1182–1191.
- Sahu, G.K., Upadhyay, S., & Panna, S.M. (2014) Salivary alpha amylase activity in human beings of different age groups subjected to psychological stress. *Indian Journal of Clinical Biochemistry*. **29**(4), 485–490.
- Sapkota, D., Sølund, T.M., Galtung, H.K., Sand, L.P., Giannecchini, S., To, K.K.W., Mendes-Correa, M.C., Giglio, D., Hasséus, B., & Braz-Silva, P.H. (2021) COVID-19 salivary signature: diagnostic and research opportunities. *Journal of Clinical Pathology*. **74**(6), 344–349.
- Shereen, M.A., Khan, S., Kazmi, A., Bashir, N., & Siddique, R. (2020) COVID-19 infection: Origin, transmission, and characteristics of human coronaviruses. *Journal of Advanced Research*. **24**, 91–98.
- Sotnikov, D. V., Safenkova, I. V., Zherdev, A. V., Avdienko, V.G., Kozlova, I. V., Babayan, S.S., Gergert, V.Y., & Dzantiev, B.B. (2020) A mechanism of gold nanoparticle aggregation by immunoglobulin G preparation. *Applied Sciences (Switzerland)*. **10**(2).
- Tang, Y., Zeng, X., & Liang, J. (2010) Surface plasmon resonance: An introduction

- to a surface spectroscopy technique. *Journal of Chemical Education*. **87**(7), 742–746.
- To, K.K.W., Tsang, O.T.Y., Leung, W.S., Tam, A.R., Wu, T.C., Lung, D.C., Yip, C.C.Y., Cai, J.P., Chan, J.M.C., Chik, T.S.H., Lau, D.P.L., Choi, C.Y.C., Chen, L.L., Chan, W.M., Chan, K.H., Ip, J.D., Ng, A.C.K., Poon, R.W.S., Luo, C.T., Cheng, V.C.C., Chan, J.F.W., Hung, I.F.N., Chen, Z., Chen, H., & Yuen, K.Y. (2020) Temporal profiles of viral load in posterior oropharyngeal saliva samples and serum antibody responses during infection by SARS-CoV-2: an observational cohort study. *The Lancet Infectious Diseases*. **20**(5), 565–574.
- To, K.K.W., Tsang, O.T.Y., Yip, C.C.Y., Chan, K.H., Wu, T.C., Chan, J.M.C., Leung, W.S., Chik, T.S.H., Choi, C.Y.C., Kandamby, D.H., Lung, D.C., Tam, A.R., Poon, R.W.S., Fung, A.Y.F., Hung, I.F.N., Cheng, V.C.C., Chan, J.F.W., & Yuen, K.Y. (2020) Consistent detection of 2019 novel coronavirus in saliva. *Clinical Infectious Diseases*. **71**(15), 841–843.
- Tomlinson, A. & Carnali, J. (2007) *A Review of Key Ingredients Used in Past They Facilitate*. Elsevier B.V.
- Vogels, C.B., Watkins, A.E., Harden, C.A., Brackney, D.E., Shafer, J., Wang, J., Caraballo, C., Kalinich, C.C., Ott, I.M., Fauver, J.R., Kudo, E., Lu, P., Venkataraman, A., Tokuyama, M., Moore, A.J., Muenker, M.C., Casanovas-Massana, A., Fournier, J., Bermejo, S., Campbell, M., Datta, R., Nelson, A., Dela Cruz, C.S., Ko, A.I., Iwasaki, A., Krumholz, H.M., Matheus, J.D., Hui, P., Liu, C., Farhadian, S.F., Sikka, R., Wyllie, A.L., Grubaugh, N.D., Anastasio, K., Askenase, M.H., Batsu, M., Bickerton, S., Brower, K., Bucklin, M.L., Cahill, S., Cao, Y., Courchaine, E., DeJuliis, G., Earnest, R., Geng, B., Goldman-Israelow, B., Handoko, R., Khoury-Hanold, W., Kim, D., Knaggs, L., Kuang, M., Lapidus, S., Lim, J., Linehan, M., Lu-Culligan, A., Martin, A., Matos, I., McDonald, D., Minasyan, M., Nakahata, M., Naushad, N., Nouws, J., Obaid, A., Odio, C., Oh, J.E., Omer, S., Park, A., Park, H.J., Peng, X., Petrone, M., Prophet, S., Rice, T., Rose, K.A., Sewanan, L., Sharma, L., Shaw, A.C., Shepard, D., Smolgovsky, M., Sonnert, N., Strong, Y., Todeasa, C., Valdez, J., Velazquez, S., Vijayakumar, P., White, E.B., & Yang, Y. (2020) SalivaDirect: A simplified and flexible platform to enhance SARS-CoV-2 testing capacity. *medRxiv*.
- Wen, T., Huang, C., Shi, F.J., Zeng, X.Y., Lu, T., Ding, S.N., & Jiao, Y.J. (2020) Development of a lateral flow immunoassay strip for rapid detection of IgG antibody against SARS-CoV-2 virus. *Analyst*. **145**(15), 5345–5352.
- WHO (2020) Antigen-detection in the diagnosis of SARS-CoV-2 infection using rapid immunoassays Interim guidance, 11 September 2020. *World Health Organization*. (September), 1–9.
- WHO (2022a) COVID-19 weekly epidemiological update. *World Health Organization*. (58), 1–23. [online]. Available from: <https://www.who.int/publications/m/item/covid-19-weekly-epidemiological-update> [Accessed May 16, 2022].
- WHO (2022b) Use of SARS-CoV-2 antigen-detection rapid diagnostic tests for COVID-19 self-testing. . (March), 1–16. [online]. Available from: <https://www.who.int/publications-detail-redirect/WHO-2019-nCoV-Ag->

- RDTs-Self_testing-2022.1 [Accessed March 25, 2022].
- Williams, E., Bond, K., Zhang, B., Putland, M., & Williamson, D.A. (2020) Saliva as a noninvasive specimen for detection of sars-cov-2. *Journal of Clinical Microbiology*. **58**(8).
- Wu, D., Wu, T., Liu, Q., & Yang, Z. (2020) The SARS-CoV-2 outbreak: What we know. *International Journal of Infectious Diseases*. **94**, 44–48.
- Wyllie, A.L., Fournier, J., Casanovas-Massana, A., Campbell, M., Tokuyama, M., Vijayakumar, P., Geng, B., Muenker, M.C., Moore, A.J., Vogels, C.B.F., Petrone, M.E., Ott, I.M., Lu, P., Venkataraman, A., Lu-Culligan, A., Klein, J., Earnest, R., Simonov, M., Datta, R., Handoko, R., Naushad, N., Sewanan, L.R., Valdez, J., White, E.B., Lapidus, S., Kalinich, C.C., Jiang, X., Kim, D.J., Kudo, E., Linehan, M., Mao, T., Moriyama, M., Oh, J.E., Park, A., Silva, J., Song, E., Takahashi, T., Taura, M., Weizman, O. El, Wong, P., Yang, Y., Bermejo, S., Odio, C., Omer, S.B., Dela Cruz, C.S., Farhadian, S., Martinello, R.A., Iwasaki, A., Grubaugh, N.D., & Ko, A.I. (2020) Saliva is more sensitive for SARS-CoV-2 detection in COVID-19 patients than nasopharyngeal swabs. *medRxiv*. (2).
- Xu, Hao, Zhong, L., Deng, J., Peng, J., Dan, H., Zeng, X., Li, T., & Chen, Q. (2020) High expression of ACE2 receptor of 2019-nCoV on the epithelial cells of oral mucosa. *International Journal of Oral Science*. **12**(1).
- Xu, Ruoshi, Cui, B., Duan, X., Zhang, P., Zhou, X., & Yuan, Q. (2020) Saliva: potential diagnostic value and transmission of 2019-nCoV. *International Journal of Oral Science*. **12**(1).
- Zhang, L., Mazouzi, Y., Salmain, M., Liedberg, B., & Boujday, S. (2020) *Antibody-Gold Nanoparticle Bioconjugates for Biosensors: Synthesis, Characterization and Selected Applications*. Elsevier B.V.
- Zheng, S., Fan, J., Yu, F., Feng, B., Lou, B., Zou, Q., Xie, G., Lin, S., Wang, R., Yang, X., Chen, W., Wang, Q., Zhang, D., Liu, Y., Gong, R., Ma, Z., Lu, S., Xiao, Y., Gu, Y., Zhang, J., Yao, H., Xu, K., Lu, X., Wei, G., Zhou, J., Fang, Q., Cai, H., Qiu, Y., Sheng, J., Chen, Y., & Liang, T. (2020) Viral load dynamics and disease severity in patients infected with SARS-CoV-2 in Zhejiang province, China, January-March 2020: Retrospective cohort study. *The BMJ*. **369**(March), 1–8.