DAFTAR PUSTAKA

Adriano, D. C., 2001, *Trace Elements in the Terrestrial Environments: Biogeochemistry, Bioavailability, and Risks of Metals*, 2nd ed, Springer, New York.

Alizadeh, A., Khodaei, M., Karami, C., Workentin, M., Shamsipur, M., dan Sadeghi, M., 2010, Rapid and selective lead (II) colorimetric sensor based on azacrownether-functionalized gold nanoparticles, *Nanotech*., 21, 315503.

Ambarwati, R., dan Rustiani, E., 2022, Formulasi dan Evaluasi Nanopartikel Ekstrak Biji Alpukat (Persea Americana Mill) dengan Polimer PLGA, *Majalah Farmasetika*, *7*(4).

Annur, S., Santosa, S.J., Aprilita, N. H., Phuong, N. T., dan Phuocs, N. V., 2017, A Preliminary Research for Selective Detection of Cr(III) in Water Sample, *Asian J. Env. Tech.*, 1, 2.

Annur, S., Santosa, S. J., dan Aprilita, N. H., 2019, Sintesis Nanopartikel Emas dengan Reduktor Asam L-Askorbat dan Penudung Asam p-Aminobenzoat serta Aplikasinya sebagai Pendeteksi Cr(III) dan Cr(VI) secara Kolorimetri dalam Sampel Air, *Disertasi*, Departemen Kimia FMIPA UGM, Yogyakarta.

Anonim, 2012, *Flame Atomic Absorption Spectrometry: Analytical Methods*, Agilent Technologies, Victoria, Australia.

Atkins, P. dan Jones, L., 2005, *Chemical Principles : The Quest for Insight*, Edisi ke 3, Freeman and Company, New York.

Bindhu, M. R. dan Umadevi, M., 2014, Silver and Gold Nanoparticles for Sensor and Antibacterial Applications, *Spectrochim. Acta. A.*, 128, 37–45.

Chagnes, A. dan Cote, G., 2018, Chemical Degradation of a Mixture of tri-n-Octylamine and 1-Tridecanol in the Presence of Chromium(VI) in Acidic Sulfate Media, *Metals*, 8(57).

Chen, H., Zhou, K., dan Zhao, G., 2018, Gold nanoparticles: From synthesis, properties to their potential application as colorimetric sensors in food safety screening, *Trends Food Sci. Technol.*, *78*, 83-94.

Chen, W., Cao, F., Zheng, W., Tian, Y., Xianyu, Y., Xu, P. dan Jiang, X., 2015, Detection of The Nanomolar Level of Total Cr[(III) and (VI)] by Functionalized Gold Nanoparticles and A Smartphone with The Assistance of Theoretical Calculation Models, *Nanoscale*, 7(5), 2042–2049.

Dai, Y., Yu, P., Zhang, X., dan Zhuo, R., 2016, Gold Nanoparticles Stabilized by Amphiphilic Hyperbranched Polymers for Catalytic Reduction of 4-Nitrophenol, *J. Catal*., 337, 65–71.

Dipahayu, D., dan Kusumo, G. G., 2021, Formulasi dan Evaluasi Nano Partikel Ekstrak Etanol Daun Ubi Jalar Ungu (Ipomoea batatas L.) Varietas Antin-3: Formulation and Evaluation of Nano Particles Ethanol Extract of Purple Sweet Potato Leaves (Ipomoea batatas L.) Antin-3 Varieties, *J. Sains Kes.*, *3*(6), 781-785.

Dutta, T., Ghosh, N. N., Das, M., Adhikary, R., Mandal, V., dan Chattopadhyay, A. P., 2020, Green synthesis of antibacterial and antifungal silver nanoparticles using Citrus limetta peel extract: Experimental and theoretical studies, *J. Environ. Chem. Eng.*, *8*(4), 104019.

Dyaninggar, P. S., 2017, Analisis Kromium(III) Berbasis Proses Gambar Digital Menggunakan Nanopartikel Emas sebagai Sensor Kolorimetri, *Tesis*, Departemen Kimia FMIPA UGM, Yogyakarta.

Fan, Y., Li, J., Guo, Y., Xie, L., dan Zhang, G., 2021, Digital image colorimetry on smartphone for chemical analysis: a review, *Meas. Sci. Rev*., 171, 1-10.

Fatimah, Ely Nur dan Hidajati, N., 2012, Sintesis dan Karakterisasi Nanopartikel Emas sebagai Material Pendukung Aktivitas Tabir Surya Turunan Sinamat, *Prosiding Seminar Nasional Kimia Unesa*, (ISBN: 978-979028-550-7), 978–979.

Firdaus, M.L., Alwi, W., Trinoveldi, F., Rahayu, I., Rahmidar, L., and Warsito, K., 2014, Determination of chromium and iron using digital image-based colorimetry, *Procedia Environ. Sci.*, 20, 298–304.

Golshaei, R., Guler, Z., Unsal, C. dan Sarac, A. S., 2015, In Situ Spectroscopic and Electrochemical Impedance Study of Gold/Poly (Anthranilic Acid) Core/Shell Nanoparticles, *Eur. Polym. J.*, 502–512.

Gusrizal, 2017, Sintesis Nanopartikel Perak melalui Reduksi Ion Perak dengan Asam 2-,3-, dan 4-Hidroksibenzoat serta Aplikasinya untuk Penentuan Parakuat, *Disertasi S3*, UGM, Yogyakarta.

Haghnazari, N., Alizadeh, A., Karami, C., dan Hamidi, Z., 2013, Simple optical determination of silver ion in aqueous solutions using benzo crown-ether modified gold nanoparticles, *Microchim. Acta.*, 180, 287–294.

Hambali, H., dan Mutalib, A., 2014, Sintesis Nanopartikel Emas Menggunakan Reduktor Trisodium Sitrat, *Prosiding Pertemuan Ilmiah Radioisotop, Radiofarmaka, Siklotron dan Kedokteran Nuklir*, 95-101.

Heitland, D., Blohm, M., Breuer, C., Brinkert, F., Achilles, E.G., Pukite, I., dan Koster, H.D., 2017, Application of ICP-MS and HPLC-ICP-MS for Diagnosis and Therapy of A Severe Intoxication with Hexavalent Chromium and Inorganic Arsenic, *J. Trace. Elem. Med. Bio.*, 41, 36-40.

Herizchi, R., Abbasi, E., Milani, M., dan Akbarzadeh, A., 2016, Current methods for synthesis of gold nanoparticles, *Artif. Cells Nanomed. Biotechnol.*, 44(2), 596-602.

Jain, P., Kumari, A., Manna, A. K., dan De, A., 2020, Plasmonic sensing of Cr(III) and Al (III) ions from aqueous solution by green synthesized gold nanoparticles, *Mater. Today: Proc.*, 1-4.

Jin, W., Huang, P., Chen, Y., Wu, F., dan Wan, Y., 2015, Colorimetric Detection of Cr^{3+} Using Gold Nanoparticles Functionalized with 4-Amino Hippuric Acid, *J. Nanopart. Res.*, 17(9), 358.

Joãoa, A. F., Squissatoa, A. L., Fernandesa, G. M. , Cardosoa, R. M., Batistaa, A. D., dan Muñoza, R. A. A., 2019, Iron (III) determination in bioethanol fuel using a smartphone-based device, *Microchem. J.*, 146, 1134-1139.

Karabacakoğlu, B. dan Savlak, O., 2014, Electrochemical Regeneration of Cr(VI) Saturated Granular and Powder Activated Carbon: Comparison of Regeneration Efficiency, *Ind. Eng. Chem. Res*., 53(33), 13171–13179.

Le Ouay, B., dan Stellacci, F., 2015, Antibacterial activity of silver nanoparticles: A surface science insight, *Nano Today*, *10*(3), 339-354.

Lu, L., Zhang, J. dan Yang, X., 2013, Chemical Simple and Selective Colorimetric Detection of Hypochlorite Based on Anti-Aggregation of Gold Nanoparticles, *Sensor. Actuat .B-Chem*, 184, 189–195.

Maity, D., Gupta, R., Gunupuru, R., Srivastava, D. N., dan Paul, P., 2014, Calix-4arene functionalized gold nanoparticles: application in colorimetric and electrochemical sensing of cobalt ion in organic and aqueous medium, *Sens. Actuators B. Chem.*, 191, 757–764.

Maruyama, T., Fujimoto, Y., dan Maekawa, T., 2015, Synthesis of Gold Nanoparticles Using Various Amino Acids, *J. Colloid Interf. Sci.*, 447, 254–257.

Masawat, P., Harfield, A., dan Namwong, A., 2015, An iPhone-based digital image colorimeter for detecting tetracycline in milk, *Food Chem.*, *184*, 23-29.

Mohammadpour, D. N., Eskandari, R., Avadi, M. R., Zolfagharian, H., Mir Mohammad, S. A., dan Rezayat, M., 2012, Preparation and in vitro characterization of chitosan nanoparticles containing Mesobuthus eupeus scorpion venom as an antigen delivery system, *J. Venom. Anim. Toxins Incl. Trop. Dis*., 18, 44-52.

Moonrungsee, N., Pencharee, S., dan Jakmunee, J., 2015, Colorimetric analyzer based on mobile phone camera for determination of available phosphorus in soil, *Talanta*, 136, 204-209.

Motaghedifard, M., Ghoreishi, S. M., Behpour, M., Moghadam, Z., dan Salavati-Niasari, M., 2012, Electrochemical study of new self-assembled monolayer of 2-hydroxy-N′ 1-[(E)-1-(3-methyl-2-thienyl) methylidene] benzohydrazide on gold electrode as an epinephrine sensor element, *J. Electroanal. Chem.*, *682*, 14-22.

Origin(Pro), Version *2022b*, OriginLab Corporation, Northampton, MA, USA.

Pratiwi, D. T., Prasetya, A. T., dan Sumarni, W., 2013, Penentuan Kadar Kromium dalam Limbah Industri dengan Metode Kopresipitasi Menggunakan Cu-Pirolidin Ditiokarbamat, *Indones. J. Chem.*, *2*(3).

Priyadarshini, E., dan Pradhan, N., 2017, Gold nanoparticles as efficient sensors in colorimetric detection of toxic metal ions: a review, *Sens. Actuators B Chem.*, 238, 888-902.

Rohman, A., 2016, *Validasi dan Penjaminan Mutu Metode Analisis Kimia*, UGM Press, Yogyakarta.

Setiawan, H., Pujiyanto, A., Lubis, H., Ritawidya, R., Mujinah, M., Kurniasih, D., Witarti, W., Hambali, H., dan Mutalib, A., 2014, Sintesis Nanopartikel Emas Menggunakan Reduktor Trisodium Sitrat, *Prosiding Pertemuan Ilmiah Radioisotop, Radiofarmaka, Siklotron dan Kedokteran Nuklir*, 95-101.

Shekhawat, K., Chatterjee, S. dan Joshi, B., 2015, Chromium toxicity and its health hazards, *Int. J. Adv. Res*., 3(7), 167-172.

Sugihartono, S, 2016, Pemisahan Krom pada Limbah Cair Industri Penyamakan Kulit Menggunakan Gelatin dan Flokulan Anorganik, *Majalah Kulit, Karet, dan Plastik*, 32(1), 21-30.

Willian, N. dan Pardi, H., 2021, Tinjauan biofabrikasi nanopartikel perak dan emas dengan menggunakan ektrak tanaman, *Jurnal Zarah*, 9(1), 42-53.

Yeshchenko, O.A., Bondarchuk, I.S., Gurin, V.S., Dmitruk, I.M., dan Kotko, A.V., 2013, Temperature Dependence of The Surface Plasmon Resonance in Gold Nanoparticles, *Surf. Sci.*, 608, 275–281.

Yesudasu, V., Pradhan, H. S., dan Pandya, R. J., 2021, Recent progress in surface plasmon resonance-based sensors: A comprehensive review, *Heliyon.*, (7)113.

Yin, T. dan Qin, W., 2013, Applications of Nanomaterials in Potentiometric Sensors, *TrAC - Trend. Anal. Chem.*, 51, 79–86.

Zayed, M.F., Mahfoze, R.A., El-kousy, S.M., dan Al-Ashkar, E.A., 2019, In-vitro antioxidant and antimicrobial activities of metal nanoparticles biosynthesized

using optimized Pimpinella anisum extract, *Colloids Surf. A Physicochem. Eng. Asp*., 124167.

Zhang, Y., McKelvie, I.D., Cattrall, R.W., dan Kolev, S.D., 2016, Colorimetric Detection Based on Localised Surface Plasmon Resonance of Gold Nanoparticles: Merits, Inherent Shortcomings and Future Prospects, *Talanta*, 152, 410–422.

Zhao, P., Li, N., dan Astruc, D., 2013, State of The Art in Gold Nanoparticle Synthesis, *Coord. Chem. Rev.*, 257(3–4), 638–665.