

Publications 2021

Publications in indexed journals

1. **Abeyasinghe, D.T., Alwis, D.D.D.H.,** Kumara, K.A.H., & Chandrika, U.G. (2021). Nutritive Importance and Therapeutics Uses of Three Different Varieties (*Murrayakoenigii*, *Micromelum minutum*, and *Clausena indica*) of Curry Leaves: An Updated Review. *Evidence-Based Complementary and Alternative Medicine*, 2021. <https://doi.org/10.1155/2021/5523252>
2. **Abeyasinghe, D.T.,** Kumara, K.A.H., Kaushalya, K.A.D., Chandrika, U.G., & **Alwis, D.D.D.H.** (2021). Phytochemical screening, total polyphenol, flavonoid content, in vitro antioxidant and antibacterial activities of Sri Lankan varieties of *Murrayakoenigii* and *Micromelum minutum* leaves. *Heliyon*, 7(7), e07449. <https://doi.org/10.1016/j.heliyon.2021.e07449>
3. **Bandaranayaka, K.O.,** Rajapakse, R.P.V.J., Kularatne, S.A.M., Abeyundara, U.B., Rajapaksha, E.M.M.A. and Rajakaruna, R.S. (2021). Human Otoacariasis in Two Climatically Different Districts, in Sri Lanka: Seasonality, Risk Factors and Case Notes, *Acta Parasitologica*, 66, 1326-1340. <https://doi.org/10.1007/s11686-021-00372-w>
4. Dissanayake, M.A.K.L., Jaseetharan, T., **Senadeera, G.K.R.,** Mellander, B.E., Albinsson, I., Furlani, M., Kumari, J.M.K.W. (2021). Solid-state solar cells co-sensitized with PbS/CdS quantum dots and N719 dye and based on solid polymer electrolyte with binary cations and nanofillers. *Journal of Photochemistry and Photobiology A: Chemistry*, 405. <https://doi.org/10.1016/j.jphotochem.2020.112915>
5. Dissanayake, M.A.K.L., Kumari, J.M.K.W., **Senadeera, G.K.R.,** and Anwar, H. (2021). Low cost, platinum free counter electrode with reduced graphene oxide and polyaniline embedded SnO₂ for efficient dye sensitized solar cells. *Solar Energy*, 230, 151-165. <https://doi.org/10.1016/j.solener.2021.10.022>
6. Kumari, K.W., **Senadeera, G.K.R.,** Weerasinghe, J. and Totawatthage C.A. (2021). Effect of polyaniline (PANI) on efficiency enhancement of dye-sensitized solar cells fabricated with poly(ethylene oxide)-based gel polymer electrolytes, *Journal of Solid State Electrochemistry*, 25(12), 1-11. DOI: [10.1007/s10008-020-04841-6](https://doi.org/10.1007/s10008-020-04841-6)
7. Dissanayake, M.A.K.L., Kumari, J.M.K.W., **Senadeera, G.K.R.,** Jaseetharan, T., Weerasinghe, A.M.J.S., and Anwar, H. (2021). A low-cost, vein graphite/tin oxide nanoparticles based composite counter electrode for efficient dye-sensitized solar cells. *Materials Science and Engineering B*, 273, 1-12. <https://doi.org/10.1016/j.mseb.2021.115440>
8. Dissanayake, M.A.K.L., Umair, K., **Senadeera, G.K.R.,** and Kumari, J.M.K.W. (2021). Effect of electrolyte conductivity, co-additives, and mixed cation iodide salts on efficiency enhancement in dye sensitized solar cells with acetonitrile-free electrolyte. *Journal of Photochemistry & Photobiology A: Chemistry*, 415, 1-12. <https://doi.org/10.1016/j.jphotochem.2021.113308>

9. Dushanan, R., Weerasinghe, S., Dissanayake, D.P., & **Senthilnithy, R.** (2021). An In-Silico Approach to Evaluate the Inhibitory Potency of Selected Hydroxamic Acid Derivatives on Zinc-Dependent Histone Deacetylase Enzyme. *Journal of Computational Biophysics and Chemistry*, 20 (6), 603-618. <https://doi.org/10.1142/S2737416521500356>.
10. Fernando, D.R.M., van der Ent, A., Weerasinghe, A.S., Wijesundera, D.S.A., **Fernando, G.W.A.R.**, Fernando, A.E., Iqbal, M.C.M., Miranda, C.H., Gosse, J. M., **Samithri, Y.A.S.**, & Rajakaruna, N. (2021). Assessment of plant diversity and foliar chemistry on the Sri Lankan ultramafics reveal inconsistencies in the metal hyperaccumulator trait. *Ecological Research*, 1-3. <http://doi.org/10.1111/1440-1703.12282>
11. Gaminda, K.A.P., Thomas, I. B. K., **Abeyasinghe, D.T.**, **Jayasinghe, C.D.**, & **Senthilnithy, R.** (2021), Pathogenic bacterial detection via DNAzyme: An updated Review, *The Ukrainian Biochemical Journal*, In press.
12. Gaminda, K.A.P., Thomas, I.B.K., **Abeyasinghe, D.T.**, **Jayasinghe, C.D.**, & **Senthilnithy, R.** (2021), Deoxyribozymes in detection of Pathogenic bacteria. *Biotechnologia acta*, 14(05), 05-10. <http://doi.org/10.15407/biotech14.05.005>
13. Haniffa, M.A.C.M., Munawar, K., Chee, C.Y., Pramanik, S., Halilu, A., Illias, H.A., Rizwan, M., **Senthilnithy, R.**, Mahanama, K.R.R., Tripathy, A., & Azman, M.F. (2021). Cellulose Supported Magnetic Nanohybrids: Synthesis, Pysicomagnetic Properties and Biomedical Applications-A Review. *Carbohydrate Polymers*, 267: 118136, 1-26. <https://doi.org/10.1016/j.carbpol.2021.118136>
14. Harder, R.A., **Wijenayaka, L.A.**, Phan, H.T., & Haes, A.J. (2021). Tuning gold nanostar morphology for the SERS detection of uranyl. *Journal of Raman Spectroscopy*, 52(2), 497-505. doi:<https://doi.org/10.1002/jrs.5994>
15. **Jayalath K.G.**, Deeyamulla, M.P., & De Silva, R.C.L. (2021). A Comparison of Heavy Metal Deposition in two Metropolitan Areas in Western Province of Sri Lanka Using the Moss Biomonitoring Method. *Research Journal of Chemistry and Environment*, 25 (2), 1-6. https://www.researchgate.net/publication/348733745_A_Comparison_of_Heavy_Metal_Deposition_in_two_Metropolitan_Areas_in_Western_Province_of_Sri_Lanka_Using_the_Moss_Biomonitoring_Method
16. Karunaratne, B.A., Nugera, F.A.E., Dissanayake, M.A.K.L., **Senadeera, G.K.R.**, and Mellander, B.E. (2021). Effect of alumina filler on spherulite growth and ionic conductivity of PEO9(LiClO₄) solid polymer electrolyte. *Current Science*, 120(5), 900-906. doi: 10.18250/cs/v120/i5/900-906
17. **Kurupparachchi, J.**, Sayakkarage, V., & Madurapperuma, B. (2021) Environmental Literacy Level Comparison of Undergraduates in the Conventional and ODLs Universities in Sri Lanka. *Sustainability*, 13(3), 1-16. <https://doi.org/10.3390/su13031056>

18. Madigasekara, I.H.K., Perera, H.C.S., Kumari, J.M.K.W., **Senadeera, G.K.R.**, and Dissanayake, M.A.K.L. (2021). Photoanode modification of dye-sensitized solar cells with Ag/AgBr/TiO₂ nanocomposite for enhanced cell efficiency. *Solar Energy*, 230,59-72. <https://doi.org/10.1016/j.solener.2021.10.015>
19. Meththananda, R.G.U.I., Ganegoda, N.C., Perera, S.S,N, Erandi,K.K.W.H., Jayathunga, Y., **Peiris, H.O.W.** (2021). On timeline of enhancing testing-capacity of COVID-19: A case study via an optimal replacement model, *J Process Control*,105,204-213. DOI: [10.1016/j.procont.2021.08.002](https://doi.org/10.1016/j.procont.2021.08.002)
20. Munasinghe, S., **Somaratne, S., Weerakoon, S.R., Ranasinghe, C.** (2021). Sustainable utilization of *Gyrinopswalla*Gaetner: In vitro production of sesquiterpenes by chemical and biological elicitation. *Journal of Genetic Engineering and Biotechnology*, 19(1), 134. DOI: [10.1186/s43141-021-00187-2](https://doi.org/10.1186/s43141-021-00187-2)
21. Paligaspe, P., Weerasinghe, S., Dissanayake, D. P., &**Senthilnithy, R.** (2021). Impact of Cd(II) on the stability of human uracil DNA glycosylase enzyme; an implication of molecular dynamics trajectories on stability analysis. *Journal of Biomolecular Structure and Dynamics*, 1-8 <https://doi.org/10.1080/07391102.2021.1999329>.
22. Paligaspe, P., Weerasinghe, S., Dissanayake, D. P., &**Senthilnithy, R.** (2021). Identify the effect of As(III) on the structural stability of monomeric PKM2 and its carcinogenicity: A molecular dynamics and QM/MM based approach. *Journal of Molecular Structure*, 1235(3), 1-9 <https://doi.org/10.1016/j.molstruc.2021.130257>.
23. Perera, K. D., Weragoda, G. K., Haputhanthri, R., &**Rodrigo, S. K.** (2021). Study of concentration dependent curcumin interaction with serum biomolecules using ATR-FTIR spectroscopy combined with Principal Component Analysis (PCA) and Partial Least Square Regression (PLS-R). *Vibrational Spectroscopy*, 116, 103288. DOI: [10.1016/j.vibspec.2021.103288](https://doi.org/10.1016/j.vibspec.2021.103288)
24. Perera, N., Galhena, G. &**Ranawaka, G.** (2021). X-chromosomal STR based genetic polymorphisms and demographic history of Sri Lankan ethnicities and their relationship with global populations. *Scientific Reports*, 11:12748. <https://doi.org/10.1038/s41598-021-92314-9>
25. Punchihewa, N. N. (2021). Factors influencing the distribution of Mysids (Crustacea: Mysidacea) in Chilaw Lagoon Sri Lanka. *International journal of Ecology of Environmental Sciences*, 3(4), 73-80. https://www.researchgate.net/publication/356985067_Factors_influencing_the_distribution_of_mysids_Crustacea_Mysidacea_in_Chilaw_lagoon_Sri_Lanka
26. Ranasinghe, K., Gunathilaka, N., Amarasinghe, D., **Rodrigo, W.**, and Udayanga, L. (2021). Diversity of midgut bacteria in larvae and females of *Aedes aegypti* and *Aedes albopictus* from Gampaha District, Sri Lanka. *Parasites Vectors*, 14:433. [Diversity of midgut bacteria in larvae and females of Aedes aegypti and Aedes albopictus from Gampaha District, Sri Lanka | Parasites & Vectors | Full Text \(biomedcentral.com\)](https://doi.org/10.1186/s12875-021-01111-1)

27. **Senadeera, G.K.R.**, Balasundaram, D., Dissanayake, M.A.K.L., Karunaratne, B.A., Weerasinghe, A.M.J.S., Thotawatthage, C.A., Jaseetharan, T., Kumari, J.M.K.W., and **Jayathilaka, D.L.N.** (2021). Efficiency enhancement in dye-sensitized solar cells with co-sensitized, triple layered photoanode by enhanced light scattering and spectral responses. *Bulletin of Materials Science*, 44, 68 -75. <https://doi.org/10.1007/s12034-021-02365-x>
28. **Senadeera, G.K.R.**, Sandamali, W.I., Dissanayake, M.A.K.L., Jaseetharan, T., **Perera V.P.S., Rajendra J.C.N., Karthikeyan N., and Wijenayaka L.A.** (2021). Influence of citric acid linker molecule on photovoltaic performance of CdS quantum dots-sensitized TiO₂ solar cells. *Bulletin of Materials Science*, 44, 1-11. <https://doi.org/10.1007/s12034-021-02497-0>
29. Thathsarani, N., **Jayasinghe, C. D., Jayawardena, U., & Nilakarawasam, N.** (2021). Effect of oral administration of the fresh juice of Bamboo (*Bambusa vulgaris*) young shoots on enumeration of bone marrow cells, platelets, splenocyte and phagocytic activity of peritoneal macrophages of rats. *Phytomedicine Plus*, 1(3), 100059. <https://doi.org/10.1016/j.phyplu.2021.100059>
30. Thomas, I. B. K., Gaminda, K. A. P., **Jayasinghe, C. D., Abeysinghe, D. T., & Senthilnithy, R.** (2021). DNazymes, Novel Therapeutic Agents in Cancer Therapy: A Review of Concepts to Applications. *Journal of Nucleic Acids*, Article ID 9365081, 1-21, <https://doi.org/10.1155/2021/9365081>.
31. Weerasinghe, A.M.J.S., Suvanker Sen, Kumari, J.M.K.W., Dissanayake, M.A.K.L., **Senadeera, G. K. R.**, Thotawatthage, C.A., Mihiri Ekanayeke, Renwu Zhou, Patrick, J. Chullen, Prashant Sonar, Krasimir Vasilev, and Kostya Ostrikov (2021). Efficiency enhancement of low-cost metal free dye sensitized solar cells via non-thermal atmospheric pressure plasma surface treatment. *Solar Energy*, 215, p.367-374. <https://doi.org/10.1016/j.solener.2020.12.044>
32. Wickramasinghe, D., Weerasinghe, Y., **Fernando, S.** (2021). Spatial ecology of raptors in an urban wetland: A case study from Bolgoda Lake, Sri Lanka. *Ukrainian Journal of Ecology* 11 (7), 174-178. <https://www.ujecology.com/articles/spacial-ecology-of-raptors-in-an-urban-wetland-a-case-study-from-bolgoda-lake-sri-lanka-84270.html>
33. **Wijenayaka, L. A., & Iqbal, S. S.** (2021). Going virtual with practical chemistry amidst the COVID-19 pandemic lockdown: significance, constraints and implications for future. *Asian Association of Open Universities Journal* doi: 10.1108/AAOUJ-09-2021-0102
34. **Wijenayaka, L. A., Wijesena, R. N., Tissera, N. D., Nisansala Bandara, W. R. L., Amaratunga, G. J., & Nalin De Silva, K. M.** (2021). Infrared absorbing nanoparticle impregnated self-heating fabrics for significantly improved moisture management under ambient conditions. *Royal Society Open Science*, 8(5), 202222. doi:10.1098/rsos.202222