

Patents List (2011-2025)

1. **R.C.L. De Silva, A. SooriyaArachchi, A.M.K.L. Abeykoon, D.S. Samarawickrama, Sooriyaarachchilage K.S., KathriArachchige L.G.L., I.R.M. Kottegoda**, An apparatus and a method to convert low grade graphite below 80% carbon in to high purity graphite above 99.9% in mass scale using non-chemical method, *Sri Lanka Patent No. 22282 (2025)*
2. **D.S. Samarawickrama, A.M.K.L. Abeykoon, and I.R.M. Kottegoda**, (Industrial Technology Institute). Method of purifying low grade graphite in mass scale using floatation technique, *Sri Lanka Patent No.22170(2025)*
3. **I.R.M. Kottegoda, M.T.V.P. Jayaweera, W.N.D. Bandara** (Industrial Technology Institute) Method of preparation of a gas sensor based on reduced graphene oxide/tin oxide nanocomposite, *Sri Lanka Patent No.18615 (2024)*.
4. **I.R.M. Kottegoda R.C.W. Arachchi and H.B.T. Perera** (Industrial Technology Institute). Method of clay modification and optimized mineral composition for removal of hardness and other contaminants from water. *Sri Lanka Patent No. 20669 (2024)*.
5. **I.R.M. Kottegoda A.M.K.L. Abeykoon, H. M. B. I. Gunathilaka, H.C.D.P. Colombage**. An apparatus and process to convert low purity graphite into high purity graphite by low cost ecofriendly physical technique. *Sri Lanka Patent No. 20921 (2023)*.
6. **I. R. M. Kottegoda, L. D. C. Nayanajith, R. C. L. De Silva, M. D. Y. Milani, D. S. Samarawickrama** – Heat Conducting Wear Resistant Rubber/Graphite Composite and Preparation Method. (*Patent No: 20614 / 2023*)
7. **K. S. P. Karunadasa, C. H. Manoratne** – A Stable Composite Electrode Based on Graphite and Clay for High-Temperature and General Electrochemical Applications. (*Patent No: 20844 / 2023*)
8. **I. R. M. Kottegoda, D. S. M. Perera, H. C. D. P. Colombage, R. C. L. De Silva, L. D. C. Nayanajith** – Cofea-Arabica Graphene Nanocomposite with Effective Antioxidant and Anti-Inflammatory Properties for Biomedical Applications. (*Patent No: 22011 / 2023*)
9. **I. R. M. Kottegoda, A. M. K. L. Abeykoon, H. M. B. I. Gunathilaka, H. C. D. P. Colombage** – Apparatus and Process to Convert Low Purity Graphite into High Purity Graphite by Low-Cost, Eco-Friendly Physical Technique. (*Patent No: 20921 / 2023*)
10. **I. R. M. Kottegoda, R. C. W. Arachchi** – Serial Pot Filter System for Removal of Hardness, Fluoride, and Heavy Metal Ions from Water. (*Patent No: 20234 / 05.07.2021*)
11. **M. D. Y. Milani, R. C. W. Arachchige, A. Sooriarachchi, R. C. L. De Silva, S. K. Sandaruwan** – A Domestic Apparatus for Converting Biodegradable Food Waste into Compost Within 24 Hours and Method of Converting Thereof. (*Patent No: 20948 / 2020*)
12. **I. R. M. Kottegoda, R. C. W. Arachchi** – Method of Clay Modification and Optimized Mineral Composition for Removal of Hardness and Other Contaminants from Water. (*Patent Application No: 20669 / 2019*)
13. **Nisala Gunesekara, Shanthi Wilson, Ilmi Hewajulige, Shiranthi Perera** – Processing Technology of Natural Anti-Senescence & Antimicrobial Agents Incorporated Edible Wax Formulation for Postharvest Preservation of Perishable Fruits. (*Patent No: 18030 / 20.03.2018*)
14. **Neville Amunugoda, Sudeepama Walliwala, Sachini Jayawardane, Ushan Niranjan** – Manufacture of Ready-to-Serve Curry Leaf Beverage. (*Patent No: 18319 / 19.03.2018*)
15. **R. M. Dharmadasa, C. Manoratne** – Environmentally Friendly, Controlled Release Fruit and Melon Fly Attractive Products Based on Ocimum Extracts and Natural Nano-Composite Substrate. (*Patent No: 18249 / 30.10.2018*)
16. **K. S. P. Karunadasa, D. D. P. Gunasekara, H. M. I. T. Hettiarachchi, W. R. L. Wijesekara, I. R. M. Kottegoda** – Fabrication of Photo-Catalytic Continuous Flow Reactor Using Plastic Pipes for Decontamination of Organic Waste. (*Patent No: 18851 / 14.11.2018*)

17. **R. S. W. Wijerathnam, M. D. Y. Milani, D. S. Samarawickrama** – Processing Technology of Banana Fiber-Polymer Composite Board for Slow-Releasing Applications of Trapped Active Compounds. (*Patent No: 18029 / 11.12.2018*)
18. **M. D. Y. Milani, D. S. Samarawickrama, B. U. Hettiarachchi** – Processing Technology of Banana Fibers as an Absorbent Material Suitable for Use in Personal Care Products. (*Patent No: 16653 / 03.03.2017*)
19. **R. S. W. Wijerathnam, M. D. Y. Milani, D. S. Samarawickrama, G. P. C. A. Dharmasiri** – Processing Technology of Paper/Boards from Banana Fiber for Sorption and Slow Release Applications. (*Patent No: 17575 / 03.03.2017*)
20. **I. R. M. Kottegoda, L. D. C. Nayanajith, C. H. Manoratne, M. T. V. P. Jayaweera** – Preparation of Graphene Oxide and Few-Layer Graphene as a Value Addition to Local Graphite. (*Patent No: 18157 / 12.12.2017*)
21. **I. R. M. Kottegoda, J. T. S. T. Jayawardane, H. C. D. P. Colombage, M. T. V. P. Jayaweera** – Purification of Natural Graphite for Preparation of High-Quality Graphite Oxide as a Value Addition. (*Patent No: 18248 / 12.12.2017*)
22. **I. R. M. Kottegoda, M. T. V. P. Jayaweera** – Preparation of Highly Oxidized Graphite Oxide Suitable for Synthesis of High-Quality Graphene and Composites. (*Patent No: 18301 / 12.12.2017*)
23. **I. R. M. Kottegoda, I. P. L. Jayarathna, J. T. S. T. Jayawardane, R. C. W. Arachchi, H. A. M. I. T. Hettiarachchi** – Red-Clay Water Filter Body Composition for Removal of Arsenic, Cadmium, and Fluoride from Water. (*Patent No: 19158 / 14.12.2017*)
24. **Nalin Prasanna Liyanawaduge, Anura Sooriya Arachchi** – A Calibration System for Measuring Tapes by Mechanical Comparison. (*Patent No: 17609 / 04.03.2014*)
25. **Iresha Kottegoda, K. S. P. Karunadasa, H. A. M. I. T. Hettiarachchi, H. D. D. P. Gunasekera** – Method of Immobilization of TiO_2 on a Substrate Using Polymer/Binder/Adhesive for Photocatalytic Air/Water Purification. (*Patent No: 17486 / 03.12.2013*)
26. **Industrial Technology Institute** – Street Light Controlling System Using Radio Broadcasting Network. (*Patent No: 16596 / 13.02.2012*)
27. **Industrial Technology Institute** – Low-Cost, High-Accuracy Ear Screening Device. (*Patent No: 16661 / 11.04.2012*)
28. **Iresha Kottegoda, W. H. A. G. Prematilleke, G. P. C. A. Dharmasiri, B. D. Hettiarachchi, R. C. W. Arachchi** – Development of Clay Filter Body with High Fluoride Binding Ability for the Remediation of Fluoride-Contaminated Water. (*Patent No: 16753 / 22.06.2012*)
29. **Iresha Kottegoda, Dineth S. Samarawickrema, H. C. D. P. Colombage** – Low-Cost Continuous Flow Solar Reactor for Purification of Bacterial/Organic Contaminated Water. (*Patent No: 16731 / 06.06.2012*)
30. **I. P. L. Jayarathna, J. T. S. T. Jayawardane, R. C. W. Arachchi, H. A. M. I. T. Hettiarachchi, I. R. M. Kottegoda** – Regeneration Method of Red-Clay Filter for Removal of Fluoride from Water. (*Patent No: 18302*)
31. **G. C. J. De Silva, S. G. Walliwala, N. C. B. Ranaweera, M. J. Gooneratne** – Manufacture of Natural Vinegar Using a Rotating Bed Aerobic Reactor. (*Patent No: 17283*)
32. **A. M. C. U. Binduhewa, P. Ranasinghe, W. K. S. M. Abeysekera, I. G. N. Hewajulige** – Carbonate Herbal Drink with Thebu (*Costus Speciosus*) Extracts. (*Patent No: 18156*)
33. **I. R. M. Kottegoda, R. C. L. De Silva** – Apparatus and Method for Preparation of Graphene and Reduced Graphene Oxide on a Mass Scale. (*Patent No: 20447*)
34. **I. R. M. Kottegoda, M. T. V. P. Jayaweera, W. N. D. Bandara** – Method of Preparation of a Gas Sensor Based on Reduced Graphene Oxide/Tin Oxide Nanocomposite. (*Patent Applied No: 18615 / 2016*)
35. **C. H. Manoratne, J. T. S. Motha, L. D. C. Nayanajith, I. R. M. Kottegoda** – Development of Self-Cleaning Ceramic Tile. (*Patent No: 15302 / 2011*)