

Ruthairat Noikondee 2008: Tannin Extract from Cassava Leaves for Waste Water Treatment. Master of Science (Environmental Science), Major Field: Environmental Science, College of Environment. Thesis Advisor: Associate Professor Wallop Arirob, Dr.Agr.Sci. 122 pages.

The research of tannin extraction from cassava leaves demonstrate that tannin extract would be extracted very well about 8.829 milligram per liter by using acetone 80% at 5 hours of time. The runner up of acetone 80% are acetone 60% , 90% and 70% which can produce tannin extraction 8.822, 8.820 and 8.815 milligram per liter in sequence in the same period of time. Also, tannin extraction could be extracted at the same amount both ethyl alcohol 80% and acetone 60% in 5 hours. In addition, water could be employed to extract tannin extraction as well, but in 5 hours water could produce only 1.111 milligram per liter of tannin extraction.

Furthermore, the study of efficiency of waste water treatment shows that tannin extraction is able to treat turbidity of water, electrical conductivity, dissolved the oxygen (DO) and biochemical or biological oxygen demand (BOD). Considering the Least Significant Difference (LSD) by using IRRISTAT 4.3 statistically program at probability 95% indicate that the average of 4 indexes has variance at very high significant but temperature and pH has no difference.

In conclusion, the most efficient to extract tannin extraction from cassava leaves is acetone 80% which can be perfectly applied to treat waste water, turbidity of water, electrical conductivity, dissolved the oxygen (DO) and biochemical or biological oxygen demand (BOD).

Student's signature

Thesis Advisor's signature

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