

Phytoremediation of vegetable leachate by *Nymphaea Nouchali*

Abstract

Leachate normally contains high concentration of pollutants and regulated under stringent discharge standards. Conventional treatments of leachate are no longer adequate to ensure compliance with the standard. Phytoremediation is a relatively new approach to treat leachate contaminated by organic and inorganic substances. *Nymphaea Nouchali* is an abundant and easy-growing free-floating aquatic plants found in the rice fields, reservoir and polluted ponds. *Nymphaea* and *Nuphar* are the most commonly found species in Malaysia. In the last few decades there has been an increasing interest in the study of phytoremediator plants which can serve as an alternative for leachate treatment. The main objective of this study is to determine the effectiveness of organic removal from vegetable leachate (VL) using *Nymphaea Nouchali*. The results exhibited that after 7 days of phytoremediation, sample Ro.5 shows excellent removal of biological oxygen demand (BOD), chemical oxygen demand (COD), colour and suspended solid (SS) to meet the allowable limit.