

ENHANCING BIOLOGICAL TREATMENT OF TEXTILE WASTEWATER USING POWDERED ACTIVATED CARBON

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ABSTRACT

This study aimed at investigating the enhancement of biological treatment of textile wastewater using powdered activated carbon (PACT system). Laboratory pilot plant model was used, along with textile wastewater under continuous conditions. Batch process simulating combined chemical and biological treatment of textile wastewater was also investigated. The study showed that high removal efficiency in terms of COD, BOD₅, and metals could be obtained from the PACT system; resulting in further removal of persistent organics. Experimental results also showed that the PACT system can be operated with low mixed liquor suspended solids content.