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Wastewater Treatment Using Microalgae

Authors : Chigbo Ikechukwu Emmanuel

Abstract : Microalgae can be used for tertiary treatment of wastewater due to their capacity to assimilate nutrients. The pH increase which is mediated by the growing algae also induces phosphorus precipitation and ammonia stripping to the air, and may in addition act disinfecting on the wastewater. Domestic wastewater is ideal for algal growth since it contains high concentrations of all necessary nutrients. The growth limiting factor is rather light, especially at higher latitudes. The most important operational factors for successful wastewater treatment with microalgae are depth, turbulence and hydraulic retention time.

Keywords : microalgae, wastewater treatment, phosphorus, nitrogen, light, operation, ponds, growth
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