



PHARMACEUTICAL INDUSTRY WASTEWATER TREATMENT USING ATMOSPHERIC AIR AND PURE OXYGEN

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ABSTRACT

This research focus is to reduce the reduction of BOD, COD, nitrogen and phosphorous level in the pharmaceutical effluent. There is 79.3% reduction in the BOD and 72.6% reduction in the COD using atmospheric oxygen. In the case of pure oxygen. There is 89.6% in the BOD reduction and 90.5% in the COD reduction. The pH, dissolved oxygen, conductivity, total suspended solids, mixed liquor suspended solids. Activated sludge process is an efficient method to treat the industrial effluent. Based on the comparison study on the treatment of atmospheric oxygen and pure oxygen, the pure oxygen is proved efficient. There is 79.3% reduction in the BOD and 72.6% reduction in the COD using atmospheric oxygen. Whereas in the case of pure oxygen. There is 89.6% in the BOD reduction and 90.5% in the COD reduction. Regarding the electricity cost for the atmospheric oxygen and pure oxygen, atmospheric oxygen treatment is found to be very economical compared to pure oxygen.

KEYWORDS: Waste Water, Oxygen Demand, pH, Nitrogen, Phosphorus

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