

INVESTIGATION OF A METHOD TO REDUCE  
CHEMICAL OXYGEN DEMAND (COD) OF  
LAUNDRY EFFLUENTS.

BY

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## ABSTRACT

Water is essential to all forms of life which are dependent on water for existence. Pollution of surface water is a serious concern, because most of these waters are used for drinking, washing and irrigation. Pollution is mainly caused by the industrial sector which discharges the water used for production activities into near by rivers, lakes or streams. The level of pollution or contamination by organic matter can be measured by the amount of oxygen that is needed for chemical oxidation of organic matter present in the contaminated water sample, which is called chemical oxygen demand (COD). The COD value can also be used to measure how effective a water treatment system i.e. by determining the COD value of the treated and untreated polluted water.

The main objective of this study was to find a method to reduce the chemical oxygen demand of laundry waters of which the main constituent is detergent. The study involves the use of lime and potassium permanganate together, lime alone and dolomite. The treatment with lime alone gave a reduction percentage in the range 85% - 95% for all the detergents whereas with lime and potassium permanganate together and with dolomite the reduction percentage was lower for some of the detergents.