



Assessment of Industrial Wastewater Treatment Using Advanced Ozonation Systems for Removing Toxic Contaminants

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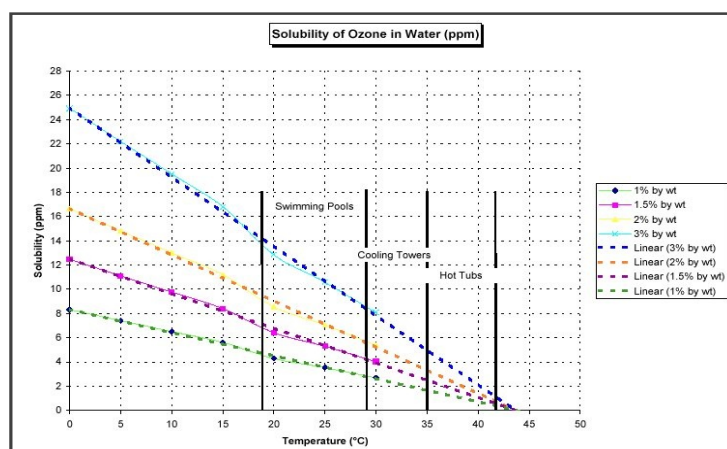
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ABSTRACT

Treatment of an industrial wastewater was experimented in order to remove the value of hazardous contaminants through advanced ozonation methods. Ozonation is one of ecologically clean perspective methods for the treatment of industrial wastewaters, as in this case chemical reagents, such as potassium permanganate, chlorine and so forth which cause the secondary pollution of water, aren't applied. Ozonation can be applied in the different stages of water treatment process. The aim of the work is the application of more efficient methods in wastewater treatment system by which organic matters, suspended solids and other contaminants will be removed from wastewaters produced by industries as well as combination of ozonation and filtration methods in the cleaning process of wastewaters from industries. By this way, the concentration of the contaminants was reduced to the permissible level in water. Furthermore, maximum solubility by the use of minimum ozone dose and determination of the optimal duration and dosage of ozonation is achieved.

Graphical Abstract



Solubility of ozone in water (mg L^{-1})

Keywords: Industrial Wastewater, Ozone Injection, Toxic Contaminants, Treatment.