



Physico-Chemical Treatment of Textile Wastewater by Coagulation using Potassium Alum

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Abstract:The objective of this work is to investigate the effectiveness of chemical treatment on removal of color from dye solution. Dyes are coloring compounds being used almost in all textile industries and disposal of dye effluent is a major problem for the industries. Textile wastewater is one of the main environmental pollutants which exist in our society. Textile effluents cause great concern due to the alteration of properties of water bodies such as differences in temperature, organic load, pH, colour and turbidity. Turbidity is one of the most important parameters that should be removed from industrial wastewater because the penetration of ultraviolet (UV) light into the water body can be affected. The physico-chemical treatment has a great potential for dye color removal mechanism. Unfortunately little information is available concerning the influence of chemical nature of dyestuffs on the color removal. In spite of several research efforts like varying parameters, the problem of selectivity of chemical treatment for given dye waste still remains unresolved. A systematic approach to the problem is necessary. To this end, an attempt was made in the present study to investigate the response of various parameters on color removal with alum.

Keywords: Coagulation, Alum, Dosage, Dye concentration, Time, pH, RPM.