DETERMINATION OF COLOUR REMOVAL IN SYNTHETIC DYE WASTE CONTAINING MEGAPERSE YELLOW YNA USING INORGANIC COAGULANTS

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ABSTRACT

In this study, chemical coagulation process was chosen as a mean of removing colour from synthetic dye waste of Megaperse Yellow YNA. Coagulants used were $MgCl_2$ and $FeCl_3$ and combination of both in which the effectiveness was studied in three parameters: pH, coagulant dosage and contact time. Dye waste treatment with $MgCl_2$ alone yielded unsatisfactory results with the maximum colour removal of only 39.94%. When treated with $FeCl_3$ under the most optimum conditions, a high efficiency of colour reduction 0f 90.24% was obtained. In the combination of both *coagulants, a slightly increased percentage was achieved (91.20%) at optimum conditions of pH 8, 8 g/L of 1:1 ratio (w/w) and 180 minutes time settling.*