ABSTRACT

This work presented a comparative study of the effectiveness of natural coagulant (Moringao leifera and strychnos potatorum) extracts(powder) and artificial coagulant (aluminium sulphate and ferrous sulphate) as primary coagulants for tannery waste water treatment. Tannery waste water severely effects the quality of water bodies into which it is discharged. Tanning effluent contains organic matter, and solid waste such as fleshing, trimmings, shavings and buffing dust. In this research work, tannery waste is processed by the pre-treatment step using a filter media followed by post treatment coagulation process. The later step is analyzed using aluminum sulphate and ferrous sulphate as a coagulant by varying chemical dose and settling time. It was observed that by using 100 mg/L coagulant dose with 1 hours settling time. The hybrid treatment process, investigated experimentally, can be employed commercially as a pre-treatment step for tannery wastewater.