

Decolourisation of sewage using commercial tannin-based coagulant

ABSTRACT

In this work, the effectiveness of removing colour and total suspended solid (TSS) from complex organic particulate artificial sewage (COPAS) via the coagulation process was studied. Organo-floc (OF), a tannin-based coagulant derived from the plant was used as a coagulant. OF was applied in a jar test experiment at the various dosages at 57 rpm for 5 min, and 30 min sedimentation time to find out the optimum dosage for colour and TSS removal. Zeta potential, pH and conductivity were also analysed. Experiment with tannin dosage of 125 ppm resulted in the highest colour and TSS removal of 94% and 79%, respectively. Organo-floc showed promising results in decolourisation and TSS removal from artificial sewage.