

Selection and Identification of Compound Microbial Flocculant

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Abstract: In this study, bacterias which can produce microbial flocculant were screened from activated sludge which was used to treat tannery waste water by conventional methods. Twenty-seven strains were obtained after a series of screening tests by supernatant liquid of kaolin clay suspension. Four of them named as CS I, CS, CS III and CS IV, which have higher flocculating effect, were reselected. It was discovered that CS II belongs to Paecilomyces and the others belong to Aspergillus. By compounding the four strains separately, two multiple microorganisms were obtained which have higher flocculating rate. Using them to treat tannery dyeing wastewater, there was a clear effect in decoloration rate; to treat chrome tanning wastewater, turbid and COD were decreased significantly.

Key words: microbial; flocculant; tannery waste water