Chemical precipitation of aerobically treated olive mill wastewater

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\begin{abstract}

The major water pollution problem facing the Mediterranean region is because of the olive mill wastewater (OMW), produced after the extraction of olive oil. Laboratory scale experiments were performed to determine the effectiveness of chemical treatment by the use of cationic polyacrylamide flocculant on raw olive mill effluent, coagulant aluminium sulphate (alum), precipitant calcium hydroxide (lime) blended with cationic polyacrylamide on aerobically treated whey or pig slurry coalesced with OMW. The results show that the chemical treatment is useful for colour reduction by 31.6–74.1%, COD reduction by 15.5–45%, total solids by 6–42%, phenolic compounds by 52.3% and lipids by 69.9%.

\textbf{Keywords}: Olive mill waste water; Cationic polyacrylamide; Coagulants; Precipitants

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