3rd INTERNATIONAL WORKSHOP
ADVANCES IN CLEANER PRODUCTION

''CLEANER PRODUCTION INITIATIVES AND CHALLENGES FOR A SUSTAINABLE WORLD''

Applying of Ecological Cost Accounting in a Dye Discoloring Process

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Abstract

This work sought to apply the Accounting of Complete Ecological Costs (ACEC) methodology in a textile segment company through the reutilization of colored wastewater, after treatment by advanced oxidation processes (POA) in reactors using hydrogen peroxide (H_2O_2) in a catalysis activated by ultraviolet light (UV). Facing the worries with the sustainable development and the difficulty in measuring environmental costs through the traditional accounting method, the proposed methodology tries to integrate costs, either internal or external ones, into a single dimension. At reducing the environmental impacts, the company shows a proactive position regarding the sustainability, becoming sustainable itself. The study presented the financial and ecological economy obtained, thus showing this process is efficient and may be used by companies in the textile sector for reutilizing water, reducing the financial and ecological costs, as well as the negative externalities.

Keywords: *advanced oxidation process, UV/H_2O_2, ecologic cost accounting, dye discoloring, sustainability.*