Biodegradación de los fenoles presentes en el extracto de guarango (caesalpinia spinosa) y en los colorantes índigo carmín, naranja ii y rojo fenol a través de trametes versicolor y aspergillus niger [

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text (article)

Analítica

This research was done to evaluate phenol biodegradation capacity in Guarango (Caesalpinia spinosa) tannic extract phenols and in indigo carmine, orange II and red phenols, common residues in the textile industry. Two types of fungi were used, white-rot Trametes versicolor fungus and the filamentous Aspergillus niger. Biological treatments were applied in triplicate through the spectrophotometric UV method for 15 days. When applying the Trametes versicolor fungus to the tannic extract, there was 69.45 % degradation, and a 100 % discoloration in the indigo carmine. When applying the Aspergillus niger fungus to the tannic extract and orange II dye, there was a 63,45 % and 32,78 % degradation, respectively. There was a discoloration no greater than 26 % when applying Trametes versicolor and Aspergillus niger to the red phenol. The fungi applied during the biological treatment presented tolerance to both the tannic extract composition as well as the concentration of each dye used, verified through growing kinetics of each fungus
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