

عنوان مقاله:

Phytoremediation potential of aquatic plant, Nasturtium Officinale, in degradation of organic dye, Malachite Green

محل انتشار:

دومین کنفرانس بین المللی پژوهش در علوم و مهندسی (سال: 1395)

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خلاصه مقاله:

The aim of this study was to investigate the potential of aquatic plant (Nasturtium Officinale) for degradation of the organic dye Malachite Green (MG). The effect of operational parameters such as initial dye concentration, reaction time, amount of plant and pH on the efficiency of biological decolorization process was determined. The reusability of Nasturtium Officinale in long term repetitive operations was also examined. The results showed that the biological decolorization efficiency decreased with increasing initial MG concentration and also this bioremediation increased as the reaction time, pH and amount of plant increasing. The batch experiments results revealed the ability of aquatic plant in biological degradation of the dye under the optimized experimental conditions. Finally Malachite Green was removed up to 97% from water waste by Nasturtium Officinale.

کلمات کلیدی:

Phytoremediation, Bioremoval, Malachite Green, wastewater treatment, Nasturtium Officinale

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