

Abstract

Phytoremediation, away of complications of using with low energy consumption and with out need to disposal of sludge, is a low costs method in purification of pollutants. In this study cultivation of hydroponic was used to survey and avaluation of function of two species of marsh plants include bamboo and reed in elimination of sulfate and the effects of them on some of the parameters of Sistan's water. In this regard about 90 bamboo and 90 reed in 36 source of 10 liters (in per source 5 plants) were treated. Treatments include of density 50, 600, 1000, 1500 and 3000 ml Na₂ So₄/l and control, only include town water, in three repetition were prepared. Assay's in purpose of investigating action of two plants in view point of elimination sulfate, and the effect of plants on pH, TSS, TDS, hardness and alkalinity factors over 11 day was performed. Results indicated plant bamboo in subject density was 50, 600, 1000, 1500, 3000 and control treatment respectively having 79/28, 68/11, 80/54, 45/40, 58/54 and 66/34 percent efficiency than reed with 78/21, 73/33, 73/42, 45/20, 56/42 and 48/84 percent except in density of 600 ml Na₂ So₄ /l showed better action. best time for include considered 6 day, and both plants cause addition of water's factor's in desirable extent.

Key words: Hydroponic, Lucky Bamboo (*Dracaena sanderiana*), Common Reed (*Pheragmites australis*), Phytoremediation, Sulfate.



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Effect of Lucky Bamboo (*Dracaena sanderiana*) and Common Reed
(*Pheragmites australis*) plants on removal sulfate and some
parameters of the Sistan area water

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