

عنوان مقاله:

Phytoremediation of Heavy Metals (Pb, Cd) by Tamarix along the Temby (karon) River, Iran

محل انتشار:

مجله آرشيو علوم بهداشتی, دوره 6, شماره 2 (سال: 1396)

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خلاصه مقاله:

Background & Aims of the Study: Heavy metals contaminate drinking water, air and soils. Itis very harmful for humans and other live organisms. Phytoremediation is one of the direct bioremediationmethods for heavy metal removal from polluted water and soils. This method isaccepted environmentally, economically and aesthetically. The purpose of this study was toassess Tamarix hispida capacity for heavy metals (lead and Cadmium) removal from Temby(Karon) river of Ahvaz, Iran.Materials and Methods: This study was performed in summer season. Water samples tookfrom upstream (before municipal wastewater discharge point) and downstream (after municipalwastewater discharge point). Samples of Tamarix hispida tree leaf took from those grown indownstream (after municipal sewage discharge place). In this study, inductively coupled plasmamass spectrometry (ICPMS) was used for analysis.Results: Results of this study showed that lead and cadmium mean in summer were 0.5 and0.077 mg/l in upstream; and they were 0.66 and 0.12 in downstream, respectively. According tothe result, absorption rate of lead and cadmium by Tamarix hispida was 0.03 and 0.013 mg/l,respectively.Conclusion: Results showed that Temby river water was polluted with Lead and Cadmium.Also,Tamarix hispida tree was effective for lead and cadmium removal. Lead was more uptakethan .Cadmium

کلمات کلیدی: PhytoremediationHeavy MetalsLeadCadmiumTembyKaronIran

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