

Study of Role Organic Matter in Changes Concentrations Nickel, Mercury and Cadmium in Sediment and Leaf *Avicennia Marina* in the Bandar Imam Khomeini

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Abstract

In this study, the relationship was study between the uptake of heavy metals by sediment and *Avicennia marina* leaves with organic matter in the coastal area of the Bandar Imam Khomeini. The ranges of concentrations in sediments were the following Ni ($60.81 \pm 0.00\text{mg/kg}$), Cd ($0.79 \pm 0.13 \text{ mg / kg}$), Hg ($0.027 \pm 0.00\text{mg/kg}$) and Ni ($1.47 \pm 0.35\text{mg/kg}$), Hg ($0.01 \pm 0.00\text{mg/kg}$), Cd ($0.13 \pm 0.03 \text{ mg / kg}$) for leaf and percentages (9.57 ± 0.56 , 11.64 ± 0.13 , 9.16 ± 1.97) for the organic matter in A, B,C sites respectively. Regression results indicate a significant relationship ($P < 0.05$) between organic matters and metals concentrations in sediment and leaves. Nickel and Cadmium concentrations in the sites unlike mercury showed higher levels of organic matter in higher level of metals in sediments and leaf.

Keywords: Heavy metal storage, Concentration heavy metals, Absorption heavy metal

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