Distribution and Probable Origin of Heavy Metals in Sediments of Bakhtegan Lake, Fars province, Iran

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The concentrations of heavy metals in different ecological environments, particularly in water and sediments of lakes are considered to be the major factor in environmental pollutions. The aim of this study is to determine the concentrations and the sources of heavy metals in the Bakhtegan Lake NW of Nyrize city.

Some sample sediments were collected from eleven sampling stations in northern margin of the Lake. After sample preparation, the proportions of heavy metals such as: Cd, Cu, Zn, Pb, Fe, Ni, Cr and Co were determined by Atomic Absorption.

Statistical analysis and the geology of the Bakhtegan lake area, demonstrate high contents of heavy metals in the Lake, due to destruction and erosion of adjacent lithologic units. These units are consist of mafic and ultramafic (e.s Ophiolites) and radiolarites.

Industrial and anthropogenic pollutants not have played major role in these distributions. One of the most important factors in this pollution is mining of chromite and decorative stones in northern margin of the lake.

References

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