Investigation distribution of heavy metals contamination (As ,Co,Ni,Pb) in sediments in Dohezarriver (Iran- Tonekabon) and interpolation pollution using kriging model in GIS

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Abstract

In this study, concentrations of heavy metals arsenic, cobalt, nickel and lead in samples of sediment in the river dohezar tonekabonhas been paid. concentration changes as follows: Arsenic: 4 / 10_66 / 70, Cobalt: 5 / 40_29 / 80, nickel: 12_80 and lead: 9 / 10_66 / 40 (ppm).
The distribution of these four elements other than arsenic that the significant increase in surface sediments show a similar distribution to the rest of the elements.GIS software interpolation to estimate the male and Pollution discussed.

Keywords: arsenic , cobalt ,nikel, lead , enrichment factor,kriging

Introduction

More than 70 percent of Earth is covered with water as the most accessible and most abundant substance on earth is considered.But the bitter truth we are faced with the problem of water distribution is not uniform, On the other hand, fresh and clean water for nearly 70% of people in the third world is inaccessible [2]

Sediment contamination in surface waters by a variety of threats such as heavy metals are This phenomenon can be caused by natural factors such as rock erosion, runoff, and regional geology and human factors such as or municipal and industrial wastewater discharges, land use change and ... Be. Accumulation of these metals in the human food chain, causing adverse effects on their health in the long term.[5]

Sediment quality can be considered as an important indicator of water pollution because sediments as a major gathering place for a variety of contaminants such as heavy metals .sediment as a gathering place pollutants such as heavy metals in a district are considered as pollution history.Heavy metals accumulate in sediments as a result of changes in the slope changes the topography of the area and turbulence in river sediment disrupts the stability conditions .And the metals released in the aquatic environment, causing pollution of surface waters So, sediments are so local accumulate heavy metals, and also as a source of pollution to surface waters are considered. [3]