Oceanography/Vol.6/No.22/Summer 2015/1/11-11

Study of Some Heavy Metal Pollutions in the Hormuz Islands Coastal Sediments and Their Origin

Gholam Dokht Bandari, Mahdi[1*]; Rezaie, Peiman[2]

1- M.SC. of Sedimentology and Sedimentary Rocks, Geology Department, Hormozgan University. Email: Gholamdokht.bandari@yahoo.com
2- Assistant Professor, Geology Department, Hormozgan university. Email: peiman_rezaie@yahoo.com

Received Date: July 6, 2014 **Corresponding Author* *Accepted Date: May 31, 2015*

Abstract

Distribution study of heavy metals in different sediments is an important and new method in environmental sedimentology. And the environmental pollutions which are made by them are very important. For identification of environmental pollutions from heavy metals in coastal sediments of Hormuz Island, 9 samples from these sediments examined by XRF methods. The results showed that (SD/SE) of Pb, Zn, Cu, Ni, As, V and Cr were14/44, 27/77, 6/44, 37/11, 12/44, 31/33 and 163/88 (measured in ppm) in sediments, respectively. The calculation results of the Molar index (Igeo), enriched factor (EF), contamination factor (CF), contamination factor (Cd), and the degree of contamination correction (mCd); and comparison of the amount of the elements to the average value of shale showed that the shoreline of Hormuz Island is not contaminated by nickel, zinc and copper, while there was pollution by lead, arsenic and chromium. The correlation coefficient and cluster analysis showed that the origin of these elements are erosion of existence rocks and human activities.

Keywords: *Pollutant, Heavy metals, Coastal sediments, Hormuz Island.*