

Determination the Origin of the Barium Element in the Sediments of Southern Shores of the Caspian Sea (Case Study: Larym and Farahabad Regions)

Davoudi, Azam^{1*}; Lak, Razyeh²; Bahramabadi, Behruz³

1- M.Sc.in Sedimentology, Tarbiat Moallem University, Tehran, Iran. Email: davoudi242@gmail.com

2- Assistant Professor, Research Institute for Earth Sciences, Geological Survey of Iran, Tehran, Iran. Email: lak_ir@yahoo.com

3- M.Sc. in Geomorphology, University of Tehran, Lecturer of Imam Ali University, Tehran, Iran. Email: Bahramabadi.55@gmail.com

Received Date: February 27, 2012

*Corresponding Author

Accepted Date: August 18, 2012

© 2012 Oceanography All rights reserved.

Abstract

Barium is a chemical element which located in Group 2 of the periodic table. This study was performed with the aim of identifying its origin and its relationship with other elements in sediments due to the sudden increase in the concentration of this element in sediment samples taken from the south Caspian Sea in Sari Larym range. Granolometry analysis and ICP were performed and the results were analyzed using statistical parameters such as sorting, skewness, roundness, cluster analysis, correlation coefficient and factor analysis. Heterogeneity of the barium element with geogenic, biogenic elements and clay minerals indicated that the origin of this element can be anthropogenic. The findings suggest that the barium element has increased dramatically in the lagoon facies of studied area. This can be due to entering environmental contaminants of the Caspian Sea water to the lagoons and due to the alkaline conditions and high PH created by the photosynthesis of algae which leads to a favorable condition for preservation of this element.

Keywords: *Environmental, Barium, Caspian Sea, Farah Abad, Larym.*
