



Determination of Poly Aromatic Hydrocarbons (PAHs) Amounts in Anzali Lagoon (Iran) and Assessment of Their Origin

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ABSTRACT

Biological monitoring of Bandar Anzali lagoon received much attention regarding to its international emphasis and ecosystem condition of aquatic growing and upbringing in south of the Caspian Sea. This research focused on the concentration specification and source of oil pollutants, poly aromatic hydrocarbons (PAHs), in the surface sediments of the aforementioned lagoon. Sampling carried out in two different time periods of June and September in two main stations of Selke and Mahruzeh. Accordingly based on the GC-Mass analyses, PAHs had the mean value of 34.839 ng dg⁻¹ and 61.439 ng dg⁻¹ for Mahruzeh station in June and September, respectively. While represented a mean value of 80.432 ng dg⁻¹ and 45.439 ng dg⁻¹ in Selke station for warm and cold seasons, respectively. In contrast with the other countries in the Caspian Sea border, foregoing stations had the least value of contaminations at their maximum value. In addition it was found that exact source of this kind of oil pollution is not clear regarding to the observation of both pyrogenic and petrogenic origin. What's more based on the statistical analyses, P-value>0.05, there isn't any significant difference between these two objective stations.

Keywords: Bandar Anzali lagoon, Mass Chromatography Gas, PAHs, Sediment.
