

Polycyclic Aromatic Hydrocarbons (PAHs) pollution relationship to oil industry in the surface sediments from Persian Gulf

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The concentrations of 16 Polycyclic Aromatic Hydrocarbons (PAHs) were determined in the sediment from the southern Caspian Sea in summer and winter 2016. The sum of 16 PAHs (Σ PAH) concentrations varied from 14.7 ± 1.07 ng g⁻¹ dry weight to 1034.2 ± 1.54 ng g⁻¹ dry weight and 11.6 ± 2.54 ng g⁻¹ dry weight to 138.8 ± 1.87 ng g⁻¹ dry weight in summer and winter, respectively. There was no significant correlation between PAH

and TOC ($P > 0.05$). PAH source identification showed that the PAHs in the sediments come from petroleum and petroleum combustion origin. Based on classification of pollution levels, sediments from southern Caspian Sea could be considered as low to moderately polluted with PAHs..

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