

Abstract

Dust storm is the main source of atmospheric mineral particles, that frequently occurs in arid and semi-arid areas and was considered as a serious environmental risk. Also street dust is considered as an important indicator for the assessment of urban pollution, due to its direct exposure to non-point and point source pollution sources. One of the major pollutants in street dust is Polycyclic Aromatic Hydrocarbons (PAHs). Polycyclic Aromatic Hydrocarbons are one of the most important environmental pollutants that are produced from various sources and are very stable in water and especially in sediments, and their decomposition occurs slowly, 16 compounds of these pollutants have been identified by the International Environmental Protection Agency (EPA) as a hazardous combination of cancer. In this study, 9 samples were taken from the Zabol city for the control of PAHs contamination. Fortunately, none of the samples showed PAHs. Therefore, since sample 8 was sampled near the Zabol Oil Company, only petroleum compounds were observed in this sample and no other PAHs contamination was observed. This can be concluded that the reason for the absence of compounds with two or three benzene rings is probably the vapor pressure of these compounds and therefore their evaporation. If the ambient temperature during sampling is high (between 35-40), these compounds may evaporate in the sampling stage, The exhaust gases from cars are the main source of PAH compounds that, after entering the air, pollute their surroundings. Therefore, it can be concluded that the volume of traffic and vehicles in this city is not so much that causes pollution.

Key words: Polycyclic Aromatic Hydrocarbons, Dust, Zabol



**University of Zabol
Graduate School
Faculty of Soil and Water
Department of Soil Science**

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Supervisors

**Dr . Ahmad Gholamali Zadeh Ahangar
Dr. Mahmoud Sanchuli**

Advisor

Abolfazl Bameri

By

Habib Khajeh

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