



Evaluation of Relationships between Meteorological Factors and Concentration of PM₁₀ in Tehran

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Abstract: Meteorological conditions in polluted and industrial cities such as Tehran, have an important influence on the extent and concentration of air pollutants such as particulate matter. In this study, was investigated the effect of meteorological variables such as rainfall, humidity, sunshine, wind speed maximum, average, maximum and minimum air temperature on the concentration of PM₁₀. The results showed that there is a significant negative linear correlation between the concentration of these substances and precipitation and relative humidity. Correlation between concentration particulate matter and relative humidity was intense. Sunshine and wind speed maximum had no significant effect on the amount of this particular. The concentration of PM₁₀ showed strong positive linear correlation to the mean and minimum air temperatures, but there was a significant positive correlation between The concentration of PM₁₀ and average maximum temperature. Based on these findings, the amount of PM₁₀ is higher in summer than winter to Tehran city.

Keywords: *Meteorological variables, PM₁₀, correlation, Tehran, pollution.*

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