



The dust – chemical indicator of environment pollution

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Dust is a general name for minute solid particles with diameters less than 500 micrometers. On Earth, dust occurs in the atmosphere from various sources; soil dust lifted up by wind, volcanic eruptions, and pollution are some examples. Airborne dust is considered an aerosol and can have a strong local radiative forcing on the atmosphere and significant effects on climate. In addition, if enough of the minute particles are dispersed within the air in a given area (such as flour or coal dust), under certain circumstances can be an explosion hazard.

The dust can be an indicator of environment pollution, especially of inside air. This is a heterogeneous mix, composed from organic and inorganic particles and other chemical material. Dust in homes, offices, and other human environments is mainly generated by the inhabitants (especially domesticated pets such as dogs, cats and birds), and mainly from their skin cells that slough off. Some atmospheric dust from the outdoors is also present. On average, approximately 6 mg/m²/day of house dust is formed in private households, depending primarily on the amount of time spent at home.

This study base on negative impact of daily exposure in contact with the chemical compounds of the dust and, also, it refers to the danger represented for the population health.

The research was carried out in Tg-Jiu municipality in three crossroads with different pollution degree of trafic: high, medium and low. It was performed analysis of PM_{2,5} mg/m³ concentration and heavy metals conteneue, at different hourly intervals, both in the street dust and also in the household dust.

It was resulted that Hg with Cr, As and Mn are present in the street dust, althought in househol dust appear just Hg.