

## SIZE DISTRIBUTION OF SUSPENDED PARTICULATE MATTER IN THE URBAN AREAS OF TEHRAN

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Tehran has a Population of about 10 million People and a Sprawling area of nearly 800 Km<sup>2</sup>. It is surrounded on the north, northwest, east and southeastern Parts by high to medium height (3800-1000m) mountain ranges. The city of Tehran has a significant air pollution problem and the PM-10 also appear to rank high on the list of pollutants. During the sampling period, the environmental factors of the air temp. wind velocity and pressure were measured. The sampling device is used as a substitute for the respiratory tract as a dust collector or impactor. The fraction of inhaled dust retained in the respiratory system and the site of deposition vary with size, shape, density and all the physical properties of the particles that constitute the aerodynamic dimensions. Statistical size distribution of aerosols is one of the important parameters; Since methods of purification of the air depends on the size of the particulate matter which must be separated. We used impactor ambient sampler which is comprised of six stages that are held together. The range of particle size collected on each stage depends on the jet velocity of the stage and cutoff of the previous stage. The average percentage of particulates in the Tehran's Areas are respectively 76.5 % for 7.2  $\mu\text{m}$  E.C.D; 64 % for 3  $\mu\text{m}$  E.C.D ; 57 % for 1.5  $\mu\text{m}$  E.C.D ; 46.5 % for 0.95  $\mu\text{m}$  E.C.D and 35 % for 0.45  $\mu\text{m}$ .