

Analysis Of Elemental Composition Of Foliar Dust In Mumbai

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ABSTRACT

Dust pollution is one of the very dangerous types of air pollution. In Mumbai, excess of vehicles and continuous construction create a lot of dust pollution adding to major quantity of dust pollutants such as Suspended Particulate Matter (SPM), Heavy Metals, etc. in the city atmosphere. The excess of atmospheric heavy metals can lead to various health issues. The plants have been found to be very effective in monitoring and controlling dust pollution. The leaves too can capture good amounts of dust. In this research work, the foliar dust from *Ficus benjamina* L. var. *nuda* (Miq.) M. F. Barrett. was collected from various locations in the city. The elemental compositions of foliar dust samples were analyzed for their composition. Field Emission Gun-Scanning Electron Microscopes (FEG-SEM) was used to analyze Energy Dispersive Spectroscopy (EDS) at SAIF department in IIT, Powai. Carbon (C), Oxygen (O), Magnesium (Mg), Aluminium (Al), Silicon (Si), Potassium (K), Calcium (Ca), Manganese (Mn), Ferrous (Fe) and Copper (Cu) were discovered in the dust samples obtained from all the sites. Carbon (C) and Oxygen (O) were majorly seen in the dust samples. Similarly, Sodium (Na), Phosphorus (P), Sulphur (S), Titanium (Ti), Zinc (Zn) and Molybdenum (Mo) were found to be less common and if present, were available in traces

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