

Comparison of PM_{2.5} Speciation by ICP-MS with XRF

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Abstract:

Declining trends of maximum annual geometric means for PM_{2.5} support the need for analysis techniques capable of quantifying at ever-decreasing levels. In response, an Inductively Coupled Plasma Mass Spectrometer (ICP-MS), an instrument known for low elemental detection capabilities, was used to analyze PM_{2.5} and Dichotomous PM₁₀ samples previously analyzed by X-Ray Fluorescence (XRF). Ambient concentrations and detection limits for thirty elements were compared.