Aerosol Study Using Energy Dispersive X-Ray Fluorescence Analysis

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Abstract
An Energy Dispersive X-ray Fluorescence Analysis (EDXRFA) system for quantification of thin aerosol samples is described. The detection limit is in the range of 10μ/sq. cm for thin samples and the precision is in the range of 1 to 8%. The spectrometer was used to study thin aerosol samples collected along the road site to assess pollution contribution due to exhaust and dust particles. The results are in good agreement with other techniques namely Particle Induced X-Ray Emission (PIXE), Neutron Activation Analysis (NAA) and Atomic Absorption Spectroscopy (AAS).