J Environ Anal Toxicol 2018, Volume 8 DOI: 10.4172/2161-0525-C1-012

## conferenceseries.com

**World Congress on** 

## Environmental Toxicology and Health

July 11-12, 2018 Sydney, Australia

Pollution level and health risk assessment of airborne heavy metals present in dustfall samples collected from Kharagpur town, India

Neha Rani, B S Sastry and Kaushik Dey Indian Institute of Technology Kharagpur, India

Dustfall samples collected from Kharagpur, India are analyzed for 12 heavy metals by using High Resolution Inductively Coupled Mass Spectrometer (HR-ICP-MS) technique, and the contamination level of heavy metals is assessed using Enrichment Factor (EF). The results show that significant level of enrichment (EF=5-20) is observed for Pb and Cr. The probable sources for the metallic contaminants are identified by the method of Principal Component Analysis (PCA). The US EPA health risk assessment model is applied to determine the hazard index and hazard quotient values. It is found that in the context of non-cancer risk of heavy metals as determined by the Hazard Index (HI) and Hazard Quotient (HQ) values, ingestion is the main source of exposure to dust in children and adults followed by dermal contact.

guptaneha63@gmail.com