SubCommittee on Urban Atmospheric Monitoring (SCUAM)

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Urban landscapes and their environments typically exhibit higher concentrations and depositional fluxes of atmospheric chemicals than rural environments. Most atmospheric pollutants originate from the combustion of fossil fuels, industrial emissions, and wear products from vehicles, all of which are associated with cities.
These include nitrogen oxides, sulfur oxides, heavy metals, and numerous organic chemicals. In addition, urban landscapes have unique source-sink relationships of pollutants at various scales, which make it difficult to predict their spatial-temporal depositional and accumulation patterns and thus the potential for human exposure and ecosystem impacts. We formed the ad-hoc Subcommittee on Urban Atmospheric Monitoring (SCUAM) to address the monitoring and assessment of urban atmospheric environments. Our primary goals include 1) assemble a database of people and entities interested in atmospheric monitoring in urban areas, 2) expand the existing NADP network into urban areas, 3) design a "passive" sampler network that augments the expanded networks to quantify the spatial and temporal heterogeneity of urban atmospheric environments, and 4) integrate citizen science participation in the network. We plan also to present recent research findings of urban environmental measurements.

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