

Project Description

- Identify the spatial trends in the shape and magnitude of urban aerosol size distribution
- Synthesize urban aerosol size distribution database
- Guide future measurements
- Implications on human exposure assessment, health effects, HVAC filtration, and policy decision

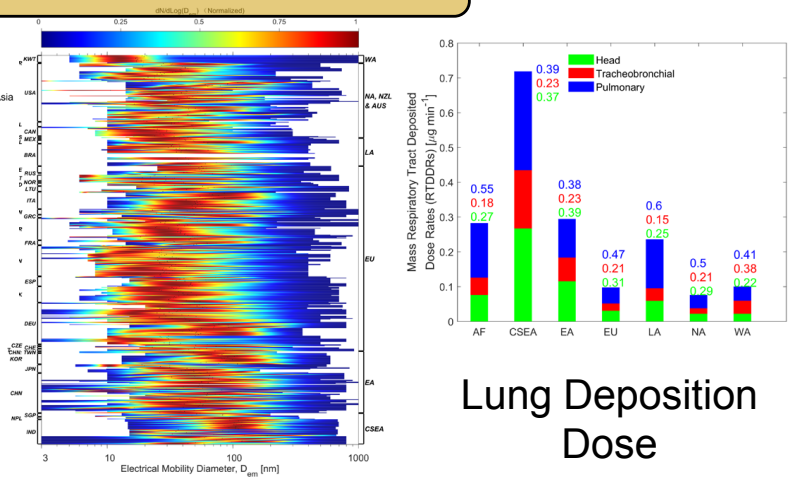
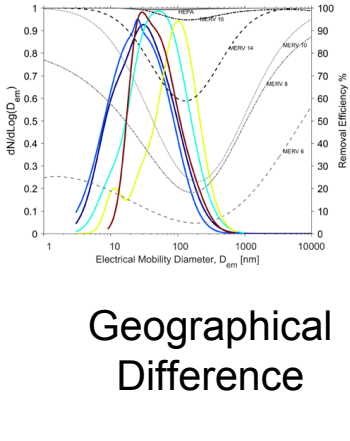
Approach

- Literature review, data extraction
- Synthesize urban aerosol size distribution database
- Group the size distributions by site types (traffic, nob-traffic, country, geographical regions)
- Compare the shape and magnitude of size distributions between different groups
- Identify their implications on human exposure assessment and HVAC filtration

Discussion

- Geographical difference in shape and magnitude
- Reason: emission sources, air pollution level and meteorological conditions
- Influence: HVAC filtration efficiency, lung deposition dose

Results



Geographical difference affects human exposure assessment and filtration efficiency