

Specific Topic Areas

Please note you will be asked to indicate your 1st & 2nd preferences for topic areas listed below. You will also be asked to choose from poster or oral presentation.

A. Measurement Methods

1. Integrated Sampling and Analytical Methods for Inorganic Components
2. Continuous Methods for Particulate Mass - PM_{2.5} & PM_{coarse}: Development, Evaluations, and Comparison to FRM or Proposed FRM
3. Continuous Methods for Chemical Components of Mass: Development and Evaluations
4. Gas Phase Precursor Methods (HNO₃, NH₃, NO, NO₂, CO₂, CO, SO₂, VOC): Development and Evaluations
5. Ultrafine PM: Methods for Mass and Composition
6. Size Distribution Methods (number, size, density)
7. Carbonaceous Aerosols: Sampling and Analytical Methods and Measurements
 - a. Organic and Elemental Carbon
 - b. Organic Speciation
 - c. Primary and Secondary Organic Aerosols
 - d. Anthropogenic vs Biogenic Organic Aerosols
 - e. Semi-Volatile Components
8. Aerosol Water (Methods)
9. Methods for Sampling Clouds and Fogs for Composition
10. Optical and Remote Sensing Methods and Measurements
11. Methods for Toxic Particulate Pollutants
12. Particle Mass Spectrometers

B. Emissions

1. Emissions Estimates: Methods, Measurements, and Modeling Systems
2. Emissions Inventory Verification: Top-down and Bottom-up
3. Ammonia Emissions Estimates and Inventories

C. Deposition

1. Deposition of PM and PM Precursors
2. Dry Deposition Of Total Nitrogen—Next Steps For Improving Quantification

D. Measurements & Characterization

1. PM Mass Closure: Advances and Assumptions
2. Fine and Coarse PM Mass and Composition: Spatial and Temporal Variability
3. Local and Regional Aerosols and Their Influence on Rural and Urban PM Levels (or Local Aerosol Concentrations and Influence of Regional Aerosols)
4. Ultrafine PM: Spatial and Temporal Variability
5. Vertical Distribution of PM and PM Components
6. Size Distribution Measurements and Assumptions (number, size, density)
7. Aerosol Water (Measurements)
8. Comparison of Data Among National Monitoring Networks
9. Representativeness of Air Quality and Meteorological Measurements
10. Measurements of Toxic Particulate Pollutants

E. Atmospheric Processes & Chemistry

1. PM Concentrations – Influence of Precursors (NO_x, SO₂, NH₃, VOC, & SVOC)
2. Role of Oxidants in Aerosol Formation
3. Role of Atmospheric Aerosol Acidity in Aerosol Formation
4. Ammonia: Role in Atmospheric Processes for PM Formation
5. Influence of Fogs and Clouds on PM Concentrations
6. Limiting Reagents in the SO₂, NO₂, and NH₃ System (Processes)
7. Influence of Meteorology on Accumulation of PM
8. Conceptual Models of PM By Geographic Regions

F. Source Apportionment

1. Source Apportionment using Advanced Receptor Methods
2. Identifying Diesel Signatures
3. Identifying The Impact Of Fires
4. Application of Single Particle Methods
5. Application of Continuous Methods

G. Models & Modeling

1. Emissions Based Modeling: Performance Evaluation Results and Application
2. Limiting Reagents in the SO₂, NO₂, and NH₃ System (Modeling)
3. Advances in Modeling Semi-Volatile Components in Atmospheric Aerosols
4. Observation Based Modeling Methods and Results
5. Regional Transport and the Influence of Boundary Conditions (Modeling)
6. Meteorological Modeling: State of the Art Advances

H. Policy Implications

1. Relationship of Ozone, PM, and Regional Haze
2. Estimating Uncertainties in Measurements and Modeling Results
3. Approaches to Attaining the PM_{2.5} NAAQS
4. Recommendations for state and local monitoring network design to support SIP development
5. The relationship of short-term peaks to NAAQS attainment and to SIP development
6. Are emissions management strategies providing the expected reductions?
7. PM and Visibility/Regional Haze

I. Related Topics (Plenary Sessions)

1. Health Effects (Daniel Greenbaum, Health Effects Institute)
2. Regulations (John Bachmann, EPA)
3. Global Climate Change (Jeffrey Gaffney, Argonne National Laboratory)