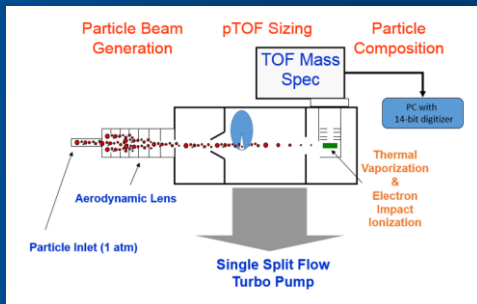




## Mini-AMS System Filter Inlet for Gas and Aerosols

Measure real-time, non-refractory aerosol particle mass and chemical composition.



### APPLICATIONS

- Continuous on-line measurement of ambient aerosol mass concentrations.
- Size resolved composition analysis for particulate ammonium, nitrate, sulfate, chloride, and organic species.
- Field measurements of aerosol chemical composition from high-pollution at urban sites to pristine background at remote locations.
- Routine air quality monitoring.
- Aerosol chamber studies.
- Source characterization.
- Optical/CCN closure.
- Industrial process monitoring.

### ADVANTAGES

- Aerodynamic particle lens for efficient gas-particle separation.
- Linear universal detection through two-step thermal vaporization (~600 C) and electron impact ionization process.
- Mass spectrometric analysis (0-400 amu).
- ePTOF sizing module.
- Compact vacuum system, minimal maintenance.
- Remote control ready.
- Separation and quantification of organic aerosol species including HOA (hydrocarbon-like organic aerosol, linked to primary combustion sources) and OOA (oxygenated organic aerosol, linked to secondary aerosol sources).

# Mini-AMS System

## SPECIFICATIONS:

### Sensitivity

(ng m<sup>-3</sup>, 10 minute, 3σ):

Organic LOD:	50
Sulfate LOD:	2
Nitrate:	7
Ammonium:	60
Chloride:	3
Resolution:	(M/ΔM) 900

### Size Range:

40 -1000 nm aerodynamic diameter standard or PM 2.5 option

Adjustable, 10 minutes is typical

### Sample Flow:

85 cc min<sup>-1</sup> (volumetric flow)

### Operating Pressure:

Ambient

### DAQ Control:

Hi-speed USB 14 bit acquisition card, PC embedded in instrument rack.

### Size/Weight:

Bench top, 25.6" x 20.1" x 23.6", 165 lbs  
[65 cm x 51 cm x 60 cm , 75 kg]

### Electric Power:

600 W Max; 350 W typical, 90-260 VAC, 50-60 Hz

### Software:

Custom acquisition and analysis routines. Specialized routines for PMF analysis of the organic fraction.

### Available Options:

Sample flow line controller, aerosol dryer, PM 2.5 lens, efficient particle time-of-flight (ePTOF)