



## DPAS Aerosol Absorption Monitor

*Real-time and continuous PM detection and quantification with high sensitivity*

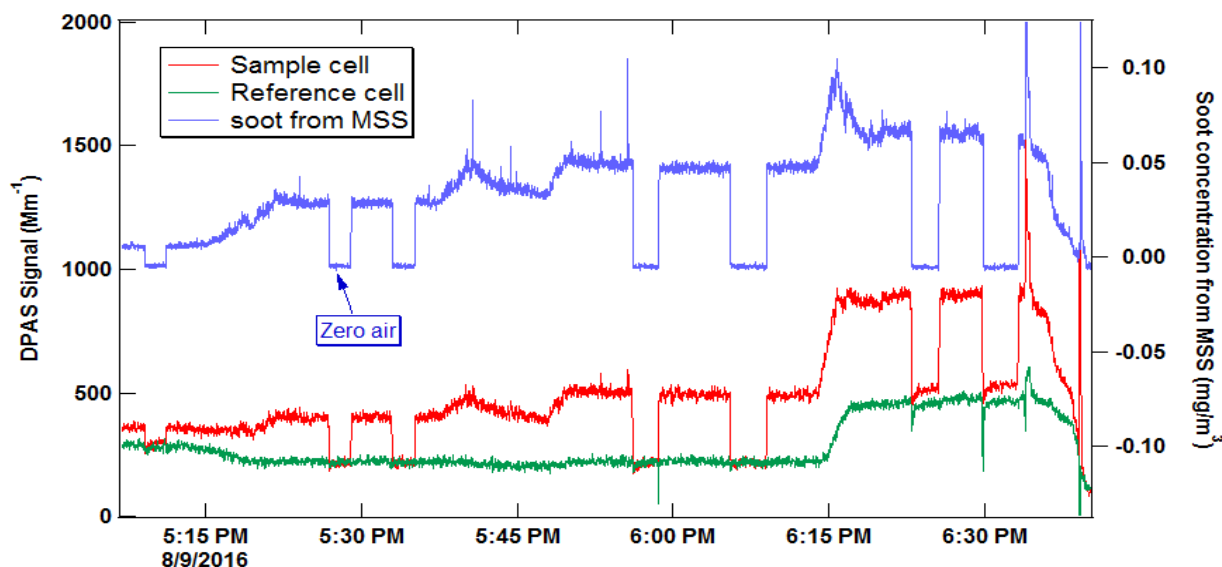


### Applications

- Radiative forcing research
- Long-term outdoor and indoor air quality studies
- Direct ambient PM monitoring
- Monitoring applications involving a wide range of PM sources:
  - Industrial air quality
  - Internal combustion engine emissions
  - Roadside pollution
  - Biomass burning
- Synthetic nanoparticle monitoring

### Advantages

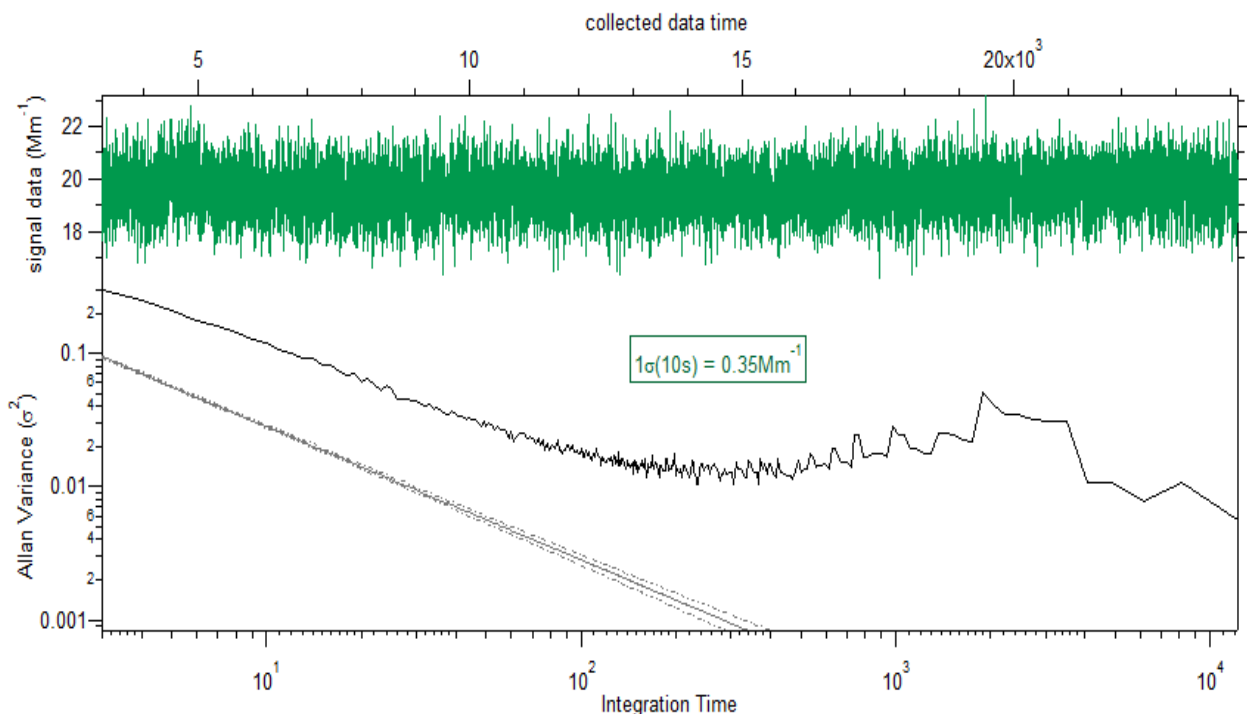
- Real-time measurements of PM light absorption at sub-Mm<sup>-1</sup> level
- Elimination of contribution from gaseous species (e.g. NO<sub>2</sub>)
- Light source flexibility:
  - Wavelengths ranging from UV to IR (350nm-1064nm)
- Intuitive UI and data processing software
- Low maintenance requirements
- No consumables
- Turnkey operation



Comparison of black carbon soot measurement from a gas turbine combustor between an AVL Micro Soot Sensor (MSS) at 880nm and a DPAS monitor at 532nm, under appreciable NO<sub>2</sub> emissions

## Specifications:

Sensitivity:	<b>0.35 Mm<sup>-1</sup> (10s), 0.14 Mm<sup>-1</sup> (100s)</b>
Response Time:	<b>3s</b>
Optimal Flow Rate:	<b>1.0-1.5 lpm</b>
System Pressure:	<b>Ambient or low pressure</b>
Chamber Material:	<b>Aluminum, Stainless Steel</b>
Data Acquisition:	<b>1s</b>
Size/Weight:	<b>25"×17"×10" / 40lb</b>
Available wavelengths (nm):	<b>360, 473, 532, 671, 721, and 1064 nm.</b>



### Allan analysis and detection sensitivity

*Aerodyne specializes in collaboration and custom design. Please contact us if you would like to discuss additional measurement options and applications.*