Mobile Atmospheric Chemistry Laboratory

NO, NO2, NOy
CO, O3
Meteorology
PTR-MS (VOC / IVOC)
GC-ITMS
Particle size distribution

Heated electropolished
1/8” stainless steel

IVOC Inlet
T0: NOxy : 2 minute averages

June 2010

NOy (ppbv)

NO2 (ppbv)

NO (ppbv)
T0: Ozone and CO: 1 minute averages

- **Ozone (O₃)**: Represented by red dots.
- **CO**: Represented by blue dots.
- **SO₂**: Represented by black dots.

Date range: June 1 to June 29, 2010.

Source: PNNL.
T0: GC-ITMS VOC data (22 species) : 10 min average every hr

- trimethylbenzene isomers
- ethyltoluene isomers
- xylenes & ethylbenzene

JUNE 2010 (PDT)
Thermal desorption PTR-MS data for diesel exhaust organics (IVOCs)

still in progress

Data: June 15-June 29

Diesel fuel mass spectrum
PM organics relation to VOC photoproducts

isoprene (m/z=69)

AMS: Organics

PTR-MS: Formaldehyde

JUNE 2010 (PDT)
T0: PM Organics, NOz and Ox – ½ hour averages

- PM Organics
- Odd Oxygen (NO2 + O3)
- NOz (NOy-NOx)
Org PM relationships to compare with models, T1, G1

- Linear fit (8 AM to 4 PM)
- Intercept: -2.2 ± 0.23
- Slope: 0.10 ± 0.006
- \( r^2 = 0.9708 \)

- Linear fit
- Intercept: 0.61 ± 0.101
- Slope: 0.75 ± 0.054
- \( r^2 = 0.808 \)