



CAPS Multi- λ PM_{ex} Monitor

*Accurate and Precise
Continuous Monitoring of
Particle Optical Extinction.*



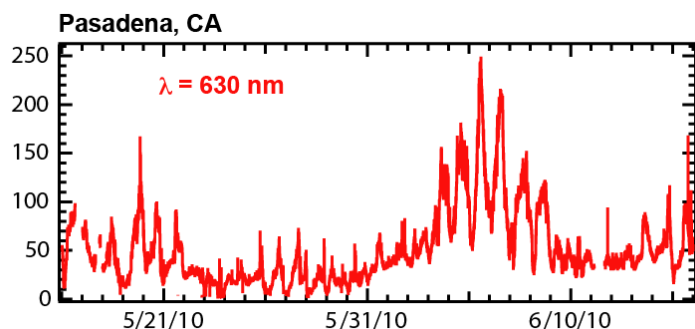
APPLICATIONS

- Visible to Near-IR measurement of particle optical extinction using patented Cavity Attenuated Phase Shift technology.
- Measurement of ambient optical extinctions at the 1 Mm⁻¹ level.
- Climate Change Research Optical Properties Closure.
- Roadside Monitoring.
- Combustion Plume Analysis.
- Aircraft Engine Exhaust Monitoring.

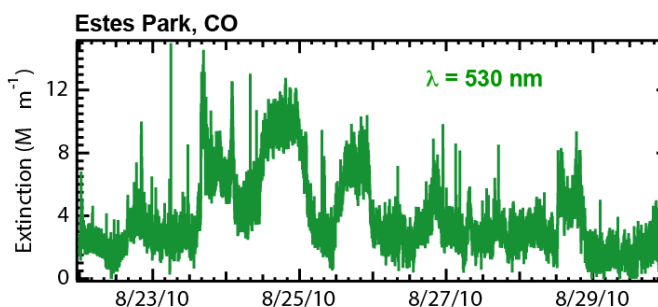
ADVANTAGES

- Choice of up to 4 of 6 Wavelengths:

Far Blue	(405 nm)
Blue	(450 nm)
Green	(525 nm)
Red	(630 nm)
Far Red	(660 nm)
Near IR	(780 nm)
- No calibration required.
- Autonomous Operation:
No Zero Air.
Automated Background Subtraction.
- Linear Response (0 - 4000 Mm⁻¹).
- Maintenance-Free.



Measured particle extinction at 630 nm in Pasadena, CA during the CalNex campaign shown as 1 hour average values. Note the diurnal variation in extinction levels.



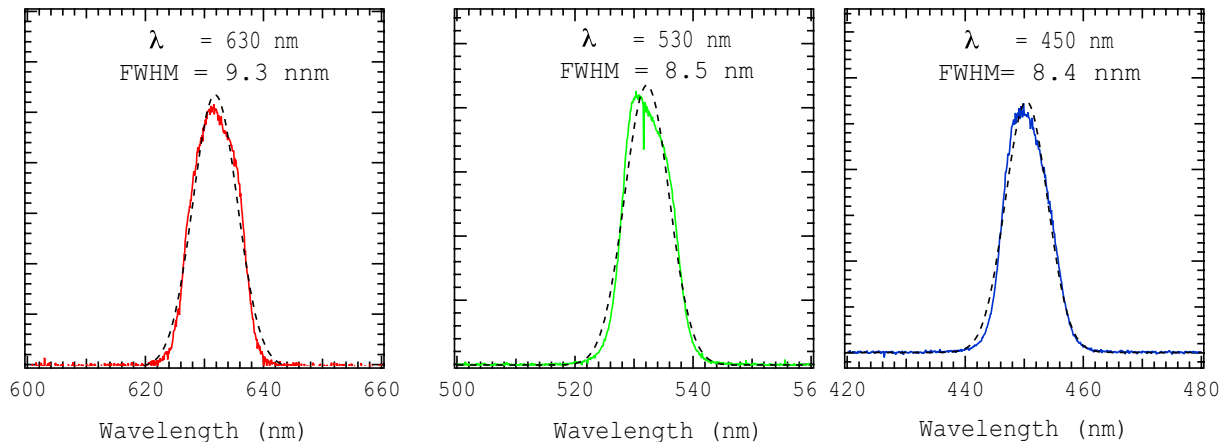
Measured particle extinction at 532 nm outside of Estes Park, CO shown as 1 minute averages. Note the low levels of ambient particle extinction. The spikes are particulate emissions from passing vehicles.



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SPECIFICATIONS:

Sensitivity (S/N =3):	2.5 Mm ⁻¹ (1 s), 0.25 Mm ⁻¹ (60 s) all channels
Response Time (10-90%):	< 2 s
Sample Flow:	0.85 l min ⁻¹ (volumetric flow) per measurement cell
Operating Pressure:	Ambient
Materials Exposed to Sample:	Conductive Urethane, Stainless Steel, Conductive Silicone, and Aluminum
Data Output:	RS-232, USB, Ethernet (Data Acquisition Program Included) On-board Data Storage (10 yrs) Front Panel Display
Size/Weight:	Rack mount, 19" x 24" x 12.25", 30 lbs. [61 cm x 43 cm x 31 cm, 15 kg]
Electric Power:	<100W; 100-250 VAC (50-60 Hz)



REFERENCES

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