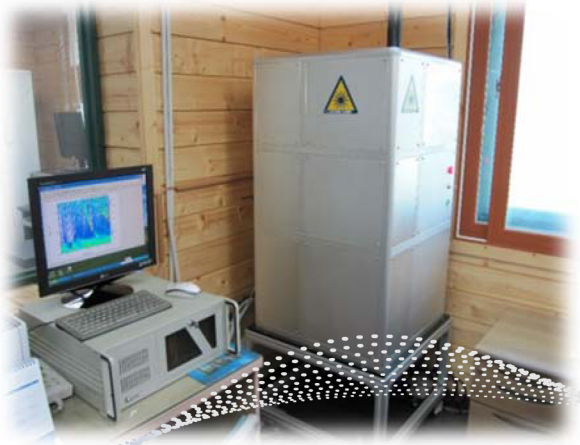
2PL2010

Reliable, stable Pulse Polarization Aerosol Lidar

ELP
Environment Loving People

2PL2010 Aerosol Lidar is to measure the aerosol concentration across the troposphere from 0 to 12km. It is designed and manufactured as a user-centered instrument which requires minimal user expertise for its operation and maintenance. It is controlled by a computer, and simplified as much as possible so that users can escape from frequent breakdown and the complexity of operation.



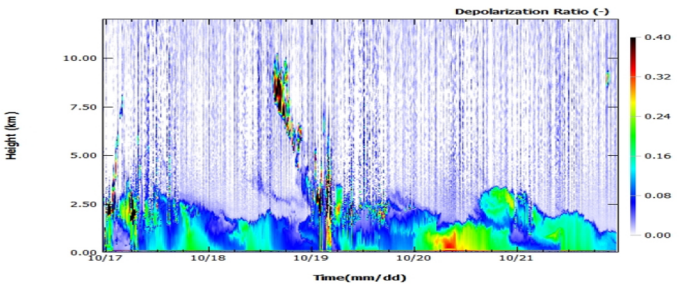
Features

- Coaxial system
- Dust-free design
- Compact
- Depolarization ratio
- Color ratio (1064/532)
- Fully computerized system
- Extremely stabilized configuration
- Turn-key system operation

For the stable measurement under high aerosol number concentration situations, flash lamp pumped Nd:YAG laser, which can produce high-power laser pulse, is used for this aerosol lidar. Pulse energy is 120mJ(@ 532nm) and pulse repetition rate is up to 20Hz(depending on model).
It is operated at the fundamental (1064nm) and the second harmonic (532nm) wavelengths of Nd:YAG laser.
It can be said that the two wavelengths are the standard one for the measurement of tropospheric aerosol.

The user's technical maintenance burden is minimized by integrating transmitter and receiver into one unit in order to maximize the optical stability.

It is used a unique double window system which means that a special window for high power pulse is separately mounted in the center of the window in order to protect the optical window from the high power laser beam emitted into the atmosphere.



Specification

Laser	**Q-Switched Nd:YAG**
Polarization	Linear polarized
Wavelength (nm)	1064, 532
Pulse energy* (mJ)	200
Pulse Repetition	20
Telescope	**Cassegrain type**
Diameter (mm)	200
Focus length (mm)	2000
FOV (mrad)	< 1.5
Detector	**PMT, APD**
Filter(nm)	1.0
DAQ(Digitizer)	**PC compatible board**
Data transfer	PCI
Measurement range	12km
Resolution	> 2.5 m (adjustable)
Data average time	Adjustable
Software	**Hardware control**
	Data processing program
Power	**220VDC**
Consumption	<100W
Environmental	
Temperature	20~30℃
Humidity	0~80%
Weight	**100kg**

Depending on model

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