

NIES Mie-scattering Lidar data in MR11-07 leg1 and leg2 cruises

[Operation]

Flash lamp pumped Nd/YAG laser with Q-switching is employed as light source. Pulse repetition is 10 Hz. Diameter of telescope is 20 cm with 1mrad field of view. PMT/APD are employed for light detection and the intensities are digitized with 12bit A/D converters in 6 m range resolution. Data is acquired in every 10 minutes. More details can be found in the Cruise Report of R/V MIRAI MR11-07.

[Data Processing Method]

Attenuated backscatter coefficient is estimated using results of inversion with Fernald's method($S_1=50sr$). Definition of depolarization ratio is S/P. Resolutions are 10 min and 30 m.

[Data format]

netCDF

[Contact points]

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[Remarks]

- 1) Attenuated backscatter coefficients include both of backscatter from molecules and aerosols. They are attenuated by two-way transmittance between the lidar and the target air volume. There is no special treatment above clouds etc.
- 2) It is requested to include at least one person from NIES Lidar team as a co-author in the published work.

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