

Lidar for equatorial atmosphere measurements

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We have constructed the lidar facility for survey of atmospheric structure over troposphere, stratosphere, mesosphere and low thermosphere over Kototabang (100.3E, 0.2S), Indonesia in the equatorial region. The lidar system consists of the Mie and Raman lidars for tropospheric aerosol, water vapor and cirrus cloud measurements, the Rayleigh lidar for stratospheric and mesospheric temperature measurements and the Resonance lidar for metallic species such as Na, Fe, Ca ion measurements and temperature measurements in the mesopause region. The most parts of this lidar system have been remotely controlled via the internet from Japan.

Recently, we are preparing DIAL (differential absorption lidar) system for ozone measurements in the tropopause region over Kototabang.

Keywords: lidar, equatorial region, cloud, aerosol, metallic layer