

Remote sensing technique using a Sodium lidar to measure atmospheric temperature

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We start developing the new Na lidar which is capable of 4W laser output, 1kHz repetition rate, which enable us to acquire only a few minutes equivalent to 1 hour data quality of old Na lidar. Our goal is, in the point of view of environmental measurements, to deploy this lidar at Syowa station and make long-term observation like more than 10 years. Combining balloon data, it enables us to picture the temperature profiles from the ground to 110 km. In this presentation, we show the detail of the new lidar system.