

## Estimation of OH rotational temperature using SATI

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SATI can measure the rotational temperature by observing nightglow emissions of OH and O<sub>2</sub> with a time resolution of about 5 min. SATI has been operated continuously since December, 1997 up to current except a maintenance period from May to middle of August, 1999. However, the estimated rotational temperature seems generally lower than the usually observed values. In the former procedure of SATI, observed spectrum between 833 and 837 nm are fitted to synthetic spectrum, then the rotational temperature is estimated. In this study, we calculated the rotational temperature from the ratio of the intensity of two emission lines of OH(6-2) Q branch. Results show that the average value of calculated rotational temperature is about 15K higher than the former results. Difference between these two estimation techniques may be caused by the difference of techniques as well as theories. Absolute sensitivity should be re-calibrated in order to improve the accuracy of the rotational temperature.