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The Examination of an Instrument to Measure the Vibrational Temperature of Molecular Nitrogen in the Laboratory Simulated Plasma

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The performance of an instrument to measure the vibrational temperature, the rotational temperature and the density of atmospheric molecular nitrogen in the lower thermosphere by a sounding rocket has been examined by using the space simulation chamber. In the present work, we report the calibration of the instrument, and the experiment which has been carried out to confirm the elevation of the vibrational temperature in the laboratory simulated plasma of the N2/O2 mixture gas with UV lamp.

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