

Vertical Distribution of Jovian Ammonia Mixing Ratio

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Galileo atmospheric probe entered into Jovian atmosphere and observed vertical structure of its atmospheric composition. The probe entry point is, however, local dry area, so that the probe results doesn't represent the planetary average composition. Ammonia mixing ratio retrieved from ground based radio observations are subsolar value in the upper troposphere, while the probe radio signal attenuation data reveal much smaller abundance. We made a radiative transfer model which is taken account of the ammonia cloud formation. Using the model, we will discuss difference between belts and zones in terms of circulation of condensable gas, ammonia by comparing the vertical structure of ammonia from high-resolution radio observations and the cloud structure obtained by optical observations.

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