



Raman scattering effects and optical properties of atmospheres of giant planets.

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The results of research of giant planet atmospheres are presented in this paper. Efforts are carried out based on high-resolution spectral data obtained for Jupiter, Saturn, Uranus and Neptune in visible wavelength range. To study the optical properties we used Raman light scattering effects by H_2 .

Spectral brightness factors of cloudy surface regions for Jupiter and Saturn and geometric albedos for Uranus and Neptune discs are calculated. Approximate calculations of the reflected intensities of the various frequency-shifted Raman components by observation data are presented. There are obtained their veritable significances after subtract of Raman scattering. There are calculated some parameters describing vertical structure of giant planet atmospheres. Noncomparative analysis of vertical structures of atmospheres for mentioned giant planet are realized.