



Haze and clouds properties and distribution on Titan with VIMS instrument

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The VIMS instrument onboard Cassini observed the north polar region the 28th december 2006, and detected a vast polar cloud. Aside from this cloud, the observation also gives information about the haze layer in this region. The data that we use do not allow to probe down to the surface. In this work, we characterized the stratosphere haze layer, the troposphere scatterers and the polar cloud. We give new constraints about the optical constant of the aerosol material around $2.8 \mu\text{m}$, and we are able to draw a new spectral behaviour for the haze refractive index between about 0.4 and $4.0 \mu\text{m}$ from various sources. We also indentify the origin of spectral features in the $2.8 \mu\text{m}$ methane window, which are mainly due to CH_3D .