



Observation of the Venusian nightside hydrogen corona by SPICAV/VEX

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Atomic hydrogen in the upper atmosphere of Venus is produced by chemical reactions involving hydrogen bearing molecules such as H_2O . Due to its low mass, atomic hydrogen can reach high altitudes and become the dominant species in the Venusian exosphere. In the Venusian upper atmosphere, ions – neutral interactions could produce the non-thermal hydrogen population that has been observed by numerous past missions and confirmed recently by Venus Express missions at dayside. Observations of the nightside Venusian hydrogen corona have been performed in October 2011 by SPICAV-UV on Venus Express. Both disk and limb have been observed. With these observations, we also measured the hydrogen content at nightside by absorption of the interplanetary emission. This second method provides us an absolute measurement of the hydrogen content independent on the absolute calibration of the instrument. Results from both emission and absorption will be presented.