

Mapping of Geocorona by UVS onboard NOZOMI

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The ultraviolet imaging spectrometer (UVS) onboard NOZOMI consists of two sensors, an ultraviolet grating spectrometer (UVS-G) and a Lyman alpha photometer (UVS-P) with hydrogen and deuterium absorption cells. After an initial function test, the UVS has observed geocorona, interstellar component of Lyman alpha, and moon albedo. At the perigee on September 20, 1998, UVS was operated with the geocoronal imaging mode, and detected emissions from the geocorona. We have analyzed the data to obtain the spatial distribution of geocorona. In this paper, we will present the results of the geocorona observations and a plan to observe Martian corona.

The PLANET-B (NOZOMI) spacecraft launched at 16:12 UT on July 3, 1998 was inserted into a Mars transfer orbit on December 20, 1998 and is sailing in space until the time of insertion to the Mars orbit at the end of 2003. An ultraviolet imaging spectrometer (UVS) onboard NOZOMI consists of two sensors, an ultraviolet grating spectrometer (UVS-G) and a Lyman alpha photometer (UVS-P) with hydrogen and deuterium absorption cells. After an initial function test, the UVS has observed geocorona, interstellar component of Lyman alpha emission, and moon albedo. At the perigee on September 20, 1998, the UVS took an image of geocorona. We analyzed the data to obtain the spatial distribution of geocorona. In this paper, we will present the results of the geocorona observations and a plan to observe Martian corona.