

地球超高層大気イメージャによる観測計画

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Upper atmosphere and Plasma Imager on SELENE

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The Upper Atmosphere and Plasma Imager (UPI) is launched in 2007, and goes to the moon. From the lunar orbit, two telescopes direct toward the Earth. The moon has no atmosphere, which leads no active emission near the spacecraft, thus we will have a high quality image of the near-Earth environment. Moreover the moon orbits the Earth once a month and the Earth will be observed from many different directions. This is called a "science from the Moon". The two telescopes are mounted on 2-axis gimbal system, Telescope of Extreme ultraviolet (TEX) and Telescope of Visible light (TVIS). TEX detects the O II (83.4nm) and He II (30.4nm) emissions scattered by ionized oxygen and helium, respectively. The targets of EUV imaging are the polar ionosphere, the polar wind, and the plasmasphere and the inner magnetosphere. The maximum spatial and time resolutions are 0.09 Re and 1 minute, respectively.

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