

Summary of Hisaki observation during one-year and the next

YOSHIKAWA, Ichiro^{1*} ; EXCEED, Mission team²

¹University of Tokyo, ²EXCEED Mission team

The Sprint-A satellite with the EUV spectrometer (Extreme Ultraviolet Spectroscope for Exospheric Dynamics: EXCEED) was launched in September 2013 by Epsilon rocket.

Now it is orbiting around the Earth (954.05 km x 1156.87 km orbit, the period is 104 minutes) and has performed a broad and varied observation program for 1-year.

With an effective area of more than 1cm² and well-calibrated sensitivity in space, the EUV spectrometer produces spectral images (520-1480 Å) of the atmospheres/magnetospheres of solar planets (Mercury, Venus, Mars, Jupiter, and Saturn) from the earth-orbit.

Continuous 3-month measurement for Io plasma torus and aurora of Jupiter was conducted with HST to witness the sporadic and sudden brightening events occurring on one or both regions.

For Venus, Fourth Positive system of CO and some yet known emissions of the atmosphere were identified.

Mercury, Saturn, and Mars were also observed. Summary of 1-year observation will be presented.

Keywords: Hisaki, EUV, Planetary airglow, Solar planets