

Horizontal structures of Helium ion in the upper ionosphere observed by ISS-IMAP/EUVI

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Horizontal structures of ionised Helium in the upper ionosphere of dusk side were obtained from observation of resonant scattering light. The Extreme Ultra Violet Imager (EUVI) of the ISS-IMAP (Ionosphere, Mesosphere, upper Atmosphere and Plasmasphere mapping) mission has taken image of HeII radiation (30.4 nm) from the International Space Station (ISS) since October 2012. North-south asymmetry and longitudinal structure of ionised Helium were found. North-south asymmetry in solstice seasons is well consistent with the previous in-situ measurement and numerical simulation. However, the longitudinal structure is not reported before and cannot be explained by numerical simulation with SAMI2-model. The longitudinal difference of meridional wind is a candidate of the Helium ion structure.

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