

Oxygen torus in the inner magnetosphere of Saturn observed by Hisaki

Hiroyasu Tadokoro[1]; Fuminori Tsuchiya[2]; Tomoki Kimura[3]; Chihiro Tao[4]; Atsushi Yamazaki[5]; Go Murakami[6]; Kazuo Yoshioka[7]; Ichiro Yoshikawa[8]

[1] none; [2] Planet. Plasma Atmos. Res. Cent., Tohoku Univ.; [3] RIKEN; [4] LPP, Ecole Polytechnique; [5] ISAS/JAXA; [6] ISAS/JAXA; [7] Rikkyo Univ.; [8] EPS, Univ. of Tokyo

The water group neutrals are dominated by Saturn's magnetosphere. In this study, we focus on oxygen dynamics in the inner magnetosphere of Saturn. Understanding of the temporal and spatial distributions of oxygen is required to understand the water group neutral dynamics in Saturn. The atomic oxygen was discovered by UVIS onboard Cassini [Esposito et al., 2005]. The spatial and temporal with time scale of several days – several tens of days distributions of oxygen are revealed by Melin et al., [2009]. "Hisaki" has been launched in September 2013. Using the EUV spectra by the EXCEED onboard Hisaki, we show the daily variation and spatial distribution of oxygen.