

Highlights of Scientific Results obtained by KAGUYA -Space Plasma Physics -

Yoshifumi Saito[1]; Hideo Tsunakawa[2]; Takayuki Ono[3]; Atsushi Kumamoto[4]; Yoshiya Kasahara[5]; Ichiro Yoshikawa[6]; Makoto Taguchi[7]; Takeshi Takashima[8]; Yoshifumi Saito KAGUYA MAP-PACE Team[9]; TSUNAKAWA, Hideo KAGUYA MAP-LMAG Team[9]; Ichiro Yoshikawa SELENE UPI Team[9]; Takeshi Takashima KAGUYA CPS Team[9]

[1] ISAS; [2] Dept. Earth Planet. Sci., Tokyo TECH; [3] Department of Astronomy and Geophysics, Tohoku Univ.; [4] Tohoku Univ.; [5] Kanazawa Univ.; [6] Univ. of Tokyo; [7] NIPR; [8] ISAS/JAXA; [9] -

In-situ measurement of the plasma around the Moon was made by Moon orbiting satellites in 1960s and 1970s. Though there were some satellites that explored the Moon afterwards, most of them were dedicated to the global imaging of the lunar surface. Except the magnetic field and low energy electron data measured by Lunar Prospector and the lunar wake plasma data obtained by the WIND satellite during its Moon fly-by, there has been almost no new in-situ plasma data around the Moon. Several science instruments are onboard KAGUYA for measuring plasma environment around the Moon and/or the Earth. These instruments are : LRS (Lunar Rader Sounder), UPI (Upper-atmosphere and Plasma Imager), CPS (Charged Particle Spectrometer), MAP (MAGneticfield and Plasma experiment)-LMAG (Lunar MAGnetometer) and MAP-PACE (Plasma energy Angle and Composition Experiment). Though some of these instruments also observe the solid Moon, this paper mainly deals with the scientific results concerning the plasma environment around the Moon and/or the Earth.