

S-520-23号機観測ロケットによる電離圏中のDC電場観測

石坂 圭吾 [1]; 三宅 壮聡 [2]; 岡田 敏美 [3]; 渡部 重十 [4]; 阿部 琢美 [5]; 小野 高幸 [6]; 中村 正人 [7]

[1] 富山県大; [2] 富山県立大学; [3] 富山県大・工・電子情報; [4] 北大・理・宇宙理学; [5] 宇宙航空研究開発機構宇宙科学研究本部

; [6] 東北大・理; [7] 宇宙航空研究開発機構宇宙科学研究本部

Measurement of DC electric field in the ionosphere by S-520-23 sounding rocket

Keigo Ishisaka[1]; Taketoshi Miyake[2]; Toshimi Okada[3]; Shigeto Watanabe[4]; Takumi Abe[5]; Takayuki Ono[6]; Masato Nakamura[7]

[1] Toyama Pref. Univ.; [2] Toyama Pref. Univ.; [3] Electronics and Infomatics, Toyama Pref Univ; [4] Dep. of Cosmosciences, Hokkaido Univ; [5] ISAS/JAXA; [6] Department of Astronomy and Geophysics, Tohoku Univ.; [7] ISAS/JAXA

S-520-23 sounding rocket experiments are carried out at Uchinoura Space Center (USC) in Japan at 19:20 LT on 2 September, 2007. The purpose of this experiment is the investigation of the process of momentum transportation between the atmospheres and the plasma in the thermosphere during the summer evening time at mid latitudes. The Electric field and VLF/MF band Receiver (EVMR) is loaded on this sounding rocket. The EVMR measures the two components of DC electric field and plasma waves less than 40Hz by using 2 pair of probe antenna in order to obtain a dynamics of plasma particle in the ionosphere.

In presentation, we will show the results of electric fields measurements less than 40Hz at the altitude from 80km to 280km and discuss about the DC electric field during the MSTID in the ionosphere. Then we will show the spectrum and three components of electric field less than 40Hz when the lithium was emitted during the rocket descent.